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Section 1: Abstracts of oral presentations

OP01.1: The Next 10 Years at the U.S. Office of Research Integrity: Joining the International Research Community March into a New Era.

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In May 2022, the United States Office of Research Integrity (ORI) marked its 30-year anniversary. Our journey has provided many insights, and we've recognized both our strengths and areas for improvement. Despite being known as the “watchdog” for research misconduct, ORI’s efforts are equally dedicated to promoting the responsible conduct of research (RCR) and providing training for institutional research administrators and research integrity officers. Historically, ORI operated within a U.S.-centric framework, emphasizing compliance with the national regulations on handling allegations of Public Health Service (PHS)-funded research misconduct. With the changing global research landscape, we recognize the need to broaden our vision and actively engage with the international research community.

1. ORI at 30: Over the past three decades, ORI navigated the shifting challenges of research integrity. We learned that we could not merely exist as a federal regulatory office; instead, we needed to be integrated as part of the research community. ORI invested heavily in events, training materials, and tools for institutions to promote RCR and to handle allegations of research misconduct.
2. Repositioning in the Global Landscape: While ORI historically concentrated its efforts within the United States, we acknowledge the value in collaborating closely with the broader international research community. Our involvement alone is insufficient; the broad and active participation of U.S. institutions is crucial. As a result, ORI is proactively realigning its programs to empower leaders at numerous U.S. institutions to engage with the international research integrity community.
3. ORI at 40: In the next 10 years, ORI aims to strengthen international partnerships, be an active participant in global discussions on research integrity, and leverage technology more effectively to address emerging and unanticipated issues. Simply put, ORI aims to work with the international community to ensure research is conducted responsibly everywhere – because research has no borders.

ORI’s commitment remains strong: We will work alongside the global research community to promote integrity in every facet of research. This discussion will address several new ORI initiatives, programs, and products that will create resources for the entire research community.

OP01.2: Implementing a national survey on research misconducts: how does data collection lead to standardization of norms?

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The presentation aims to reflect on the process of implementing a national survey to collect data on research misconducts handled by Research Performing Organisations (RPOs). As a case-study, we will present the implementation method - articulating a recent legislative framework with stakeholder consultation - and the impact of this implementation by a national regulatory body on the norms at the practitioners' level.
In 2021, the French Law made mandatory for RPOs to collect data on research misconducts' investigations. As part of its missions, the French Office for Research Integrity (Ofis) is in charge of the survey, including the analysis of countrywide data in a consolidated national report. The first data collection, covering the years 2022-2023, will take place between December 2023 and March 2024. Analyses will be conducted by May 2024.
Prior to the 2021 law, several RPOs - including the country's major ones in terms of size- had appointed Research Integrity Officers to conduct investigations and to collect data using their own nomenclature and methodology. Therefore, implementation of the national survey had to integrate the elements made compulsory by law, with an aim towards standardization, while drawing on existing operational procedures. However, the consultation organized with several different stakeholders showed discrepancies in data processing, i.e.: what is considered an allegation? Which allegations are legitimate and require an investigation? Or what nomenclature of research misconducts is used to characterize investigation reports? Hence, what was initially a matter of data collection necessarily took on a normative and prescriptive character. The final version of the survey includes five categories supplemented by a note for its completion and a glossary. It induces norms about investigation, definitions, measures, and factors that will influence or transform local practices and harmonize them.
The presentation will focus on the process of implementing the survey and how it evolved from its primary objective of facilitating data collection to strengthening the implementation of standards. To illustrate, we will look at several examples and measure their impact on the responses collected, the overall quality of the data, and potential changes in the management of research misconducts in French RPOs.

OP01.3: Equity and Health Research Priority Setting: Developing WHO Guidance

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The preamble to the recently published The Cape Town Statement on Fostering Research Integrity through Fairness and Equity notes that “unfair and inequitable research practices remain prevalent at all stages of research from proposal development to funding application,” and that these “practices can impact the integrity of research in many ways, including skewing research priorities and agendas with research questions that are irrelevant for local needs.” In various places, the recommendations of the Statement implicate unfair practices and power imbalances in problematic international research priority setting. However, many questions remain about how to integrate ethics into research priority setting.

Any time a decision is made about what research will be carried out, value judgments are involved. This is because the resources available for health research—whether those be funds, the time of scientists, or potential participants—are limited. These decisions are therefore allocating a scarce and valuable resource. Effectively, they are deciding which populations stand to benefit from the knowledge generated by the research. This is an ethical issue, not just a scientific one.

The World Health Organization recently started work to develop guidance on ethical health research prioritization. This work aims to clarify the ethical principles that should guide the parties involved in supporting, designing, and carrying out health research. It aims to operationalize equity in research priority setting in terms of (1) processes (including who should be involved in decisions, what equitable inclusion and power-sharing entails, etc.); and (2) substantive criteria (including the goals at which research should aim, avoidance of research waste, equity in the selection of research populations, etc.). This presentation will provide an overview of the main points of the draft guidance. It will explain why ethical research priority setting is a key aspect of research integrity, argue that researchers and funders have ethical obligations to set appropriate priorities, and illustrate how the principles can be put into practice.

OP01.4: Key aspects of implementing parallel-arm cluster randomized trials in low- and middle-income countries: a review of 300 trials published 2017-2022.

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Background: Cluster randomized trials (CRTs) are increasingly used to evaluate interventions in low- and middle-income countries (LMICs), but implementation can be challenging in these settings.

Objective: We aimed to review the reporting of key aspects of implementing CRTs in LMICs including public randomization ceremonies, community engagement, and offers of incentives or post-trial access to study interventions. Our goal is to inform the forthcoming update of international ethics guidelines for the design and conduct of CRTs.

Methods: We selected a random sample of 300 primary reports of parallel-arm CRTs from a systematic review database of 800 CRTs conducted exclusively in LMICs, published between 2017-2022. Data were extracted from each trial by two reviewers independently and discrepancies were resolved through consensus discussion. Results were summarized using descriptive statistics.

Results: 30 (10%) of 300 CRTs reported a public randomization ceremony. Those who were invited or present included: community leaders/representatives (17, 57%); government officials (14, 47%); principal investigators/other research team members (8, 26%); education/health professionals (4, 13%); non-government organization members (3, 10%); trial steering committee members (1, 3%); and other/unclear (5, 17%). Among the 300 trials, 25 (8%) reported community engagement. The purpose of engagement was to develop the intervention (18, 72%); develop study design and methods (6, 24%); improve researchers' understanding of cultural norms (4, 16%); develop or translate study materials (3, 12%); maintain adherence or retention (3, 12%); identify eligible clusters/participants (2, 8%); identify study outcomes (1, 4%); or seek approval for study conduct (1, 4%). The type of engagement activities included: focus groups, interviews, or workshops (13, 52%); community meetings or public forums (5, 20%); consultations (5, 20%); questionnaires (1, 4%); or not reported (4, 16%). Incentives for participation were reported in 17 (6%) CRTs. Whether clusters/participants were offered post-trial access to study interventions was reported in 34 (11%): 19 (56%) reported offers of the full intervention and 15 (44%) partial intervention.

Conclusion: Few CRTs in LMICs report using public randomization ceremonies, community engagement activities, and offers of incentives or post-trial access to study. Further guidance on the role of these activities in CRTs in LMICs is needed.

OP01.5: Stakeholders' attitudes and perceived ethical challenges of returning individual pharmacogenomics research results among people living with HIV (PLHIV)

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Objective
Various stakeholders agree to return individual pharmacogenomic research results to participants in respect of individuals' rights to information, clinical utility and researchers' duty of care. However, the process of returning results encounters several ethical challenges especially in a low-income setting. We explored stakeholders' attitudes and challenges of returning individual pharmacogenomics research results.

Methods
We adopted a qualitative approach that involved 54 stakeholders between September 2021 and February 2022. We held five focus group discussions among 30 Community representatives from five HIV-renowned research institutions, 12 key informant interviews among researchers, and 12 in-depth interviews among ethics committee members. A thematic approach was used to interpret the results.

Results
Four themes merged from this data. These included attitudes towards returning individual pharmacogenomics results to people living with HIV (PLHIV); social and ethical implications of returning results; perceived challenges at participant, researchers, study-specific, institutional and national levels; and proposed recommendations to overcome the challenges. Respondents opined that returning these results respects the principle of reciprocity, solidarity, accountability, responsibility and impartiality, which are key aspects of the African philosophy of Ubuntu. In respect to PLHIV, returning these results is a source of hope, supports ancillary and social care and promotes epistemic justice. However, respondents raised some challenges for example participants' low literacy levels and complex genomic terms with no direct translation in local languages, which might lead to misunderstanding and misinterpretation of genomic research information. Participants might also suffer depression and anxiety if they cannot access or afford the most effective medication tailored to their genetic make-up. Other challenges included stigmatization and discrimination that could result from breach of confidentiality and privacy. Respondents highlighted the need for developing national guidelines for a safe return of these results, community engagement based on mutual respect, transparency, open communication for informed decisions about participants' preferences

Conclusion
Overall, respondents felt it is important to return individual pharmacogenomic research results to vulnerable groups of people such as PLHIV. However, there is need for caution when returning such results whose implications do not only affect an individual but might extend to their families and communities.

OP01.6: Future Proofing Research Integrity Post COVID19 Pandemic

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During the Covid-19 pandemic, research was sped up and scaled up in both the public and private sectors, and in partnerships between them. This resulted in some extraordinary advances, but it also raised a range of issues regarding the ethics, rigour and integrity of scientific research, academic publication and public communication. Much has already been written about these issues, and scholars and practitioners are rightly trying to derive lessons from them.

In this paper, we argue that the Covid-19 pandemic not only revealed strengths and weaknesses in research integrity systems and processes, but also that the fundamental principles underpinning research integrity codes and guidelines might need to be modified or supplemented with other principles. For example, while some sense of objectivity remains an important goal in any kind of research, it is important to be realistic about what objectivity actually means and what degree of objectivity is actually possible in networked research. Similarly, notions of, and commitment to, 'openness' in research might need some re-thinking when research is sped-up and results emerge—and are applied—more quickly than usual.

In addition to reconfiguring existing principles, it might also be necessary to introduce new ones. For example, the virtue of 'intellectual humility' might need to be added to lists of integrity-related principles because, as science speeds up and scales up, it will be increasingly difficult for collaborators, peer reviewers and users of research, to fully understand the work they are facilitating, reviewing or translating into practice.

In suggesting that principles of research integrity might need to be problematised and reconceptualised--not just in pandemics but in science more generally--it is crucial not to lose sight of their value. But equally, simply asserting principles of scientific integrity without due regard to context and change renders them hollow and might itself leave science vulnerable to manipulation or to being dismissed. The method of 'dialectic empiricism', which recognises the iterative nature of theory and conceptual development provides a methodological framework for striking the right balance between conceptual conservatism and change.

OP02.1: The long road from research misconduct to disciplinary sanction. A 30-year review of case law in French higher education

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Objective : The aim of this presentation is to examine what happens after research misconduct has been reported: are people who RIOs find to have committed research misconduct subject to disciplinary procedures in their employing institutions? This presentation examines the disciplinary decisions taken on appeal against academics and students in French higher education institutions. Not all of these disciplinary decisions concern research misconduct. Our analysis reveals the proportion of decisions relating to scientific integrity in the total number of disciplinary cases and enables us to characterise the breaches alleged, the analysis made by the disciplinary court and the disciplinary procedures implemented.

Method: In France, disciplinary decisions taken in the first instance by the various universities are appealed to a single body, the Conseil national de l'enseignement supérieur et de la recherche (CNESER). The authors analysed all the disciplinary decisions handed down by this institution against academics and students (more than 1,600 court decisions) from 1991 to 2023. This material is only partially publicly accessible.

Results: Research has revealed that, with the exception of plagiarism, there are very few cases before the CNESER that explicitly concern research integrity. Other cases do, however, call into question the professional deontology of scientists. A detailed study of these cases provides an understanding of 1. the connections between research integrity and professional deontology; 2. the gap separating the finding of misconduct by the RIO and the declaration of professional misconduct by a disciplinary authority; 3. the difficulties that disciplinary authorities face in distinguishing between breaches of research integrity and other reprehensible behaviour by alleged perpetrators.

Conclusion: the research draws conclusions in three directions: 1. The identification of research misconduct is not legally governed by the same logic as the decision on the existence of a disciplinary violation; 2. The requirements on universities to put in place institutional conditions favourable to research integrity impact on the assessment of disciplinary faults committed by scientists; 3. The various disciplinary authorities in charge of judging research misconduct may have different cultures when it comes to research integrity and, consequently, be the source of unequal treatment of such misconduct.

OP02.2: 25 years of experience with the Ombudssystem and Ombudspersons in Germany – what has been achieved and what still needs to be achieved?

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Since the early 2000s, there have been special contact persons – so called Ombudspersons - at almost all German universities and research institutions for questions on good scientific practice and in cases of suspected scientific misconduct, in accordance with a recommendation in the memorandum "Safeguarding Good Scientific Practice" published in 1998 (revised in 2013) by the German Research Foundation (DFG). In addition, a nationwide ombudsman's office was established at the same time which is available to all researchers in Germany.

The DFG Code of Conduct "Guidelines for Safeguarding Good Research Practice" published in 2019 highlights as before the importance of ombudspersons and the need for their visibility in the respective institution.

The presentation provides an overview of which concrete measures have already been developed and implemented to strengthen and support ombudspersons and how their work can be further improved.

Also the presentation will explain how, in general, the topics of research integrity and prevention of research misconduct can continue to be sustainably supported by ombudspersons and carried into the (German) scientific landscape, and how an early sensitization to these topics can be consistently achieved.

The early development of a Curriculum for courses on good research practice, which has been available to all interested parties from all disciplines since 2009, provides an example. Workshops have also been developed for ombudspersons on their tasks and roles within an institution and on how to deal with specific cases.
In recent years, ombudspersons' offices have been established at universities to support ombudspersons in administrative and counselling tasks. Another key element in strengthening ombudspersons and ombudsman work is networking at national and international level.

These and other examples of the development and implementation of requested and necessary measures will be presented. Moreover, aspects of the ombudsperson system are also addressed that are far from being satisfactorily regulated and require consistent reconsideration and improvement, such as insufficient support from institution’s leadership or a concern about inappropriate consequences of contacting an ombudsperson.

OP02.3: In favour for a responsible and ethical research: the French national research funding agency (ANR) evaluation criterion on sex and/or gender dimension in research content

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The National Research Agency – ANR - funds and promotes the development of basic and targeted research, technological innovation, technology transfer and public-private partnerships. ANR organizes competitive calls for proposals and conducts rigorous selection processes based on peer review, in compliance with research integrity and Gender equality.

One of the main issue about gender equality consists in leading researchers to consider the sex and/or gender dimension in their research content. Researchers should adopt a reflective approach to this issue and anticipate the potential health, social, economic or political consequences of applying the results of their research which may be different for men and women. This is a matter of the social responsibility of science and of an honest and rigorous scientific approach.

To meet these commitments ANR has launched a two-year test phase within its largest call for proposals (2020-2021) by asking coordinators to describe how the sex and/or gender dimension was considered in their research project and if not, to explain why. This test represented not only an opportunity to measure the level of understanding of the scientific communities on the subject but also to identify potential resistances. In addition, ANR wanted to gradually raise communities awareness before introducing this dimension as one of the evaluation criteria in 2022.

The oral presentation will set out the motivations, the methodology used and the results of the analysis carried out over the two years of testing. Even if the introduction of such an evaluation criterion represents a big step forward, the analysis shows that the vast majority of scientists are very far from understanding what it refers to and why it is crucial even in fields where it should be obvious.

The way to go is still long and ANR is reinforcing training and developping educational tools to support researchers.

By sharing this experience, we hope to strengthen a movement of collaborative reflection in order to sustainably include gender as an essential and inseparable criterion of honest and responsible research and to enhance trustworthiness of research.

OP02.4: On the contractual and social legitimacy of research integrity offices in small research ecosystems: experiences and recommendations from the evolution of the Luxembourg Agency for Research Integrity

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Research integrity offices (RIOs) derive their authority to a considerable extent from the legitimacy conferred upon them by key stakeholders from the research ecosystem they are embedded into. The presentation argues that the legitimacy conferred to RIOs emanates to a significant extent from a combination of formal-contractual and informal-social sources, and that differences in legitimacy conferrals affect the de facto authority of RIOs. Drawing on the evolution of the Luxembourg Agency for Research Integrity (LARI), it applies this analytical lens to research integrity governance in Luxembourg and shows that creating social legitimacy in a small research ecosystem requires overcoming distinct challenges that occur in environments characterized by dense social networks.
The presentation starts with a conceptual analysis of the sources of legitimacy of research integrity governance and argues that the conferral of legitimacy to RIOs is based on both the contractual delegation of responsibilities to them and their active endorsement by key stakeholders. While the contractual delegation is crucial to specify the remit of RIO authority, social endorsement is necessary to actively shape research landscapes and foster a culture of research integrity. The presentation expounds hypotheses on how differences in legitimacy conferrals affect the de facto authority of RIOs by mapping their potential effects on preventative, corrective and restorative research integrity policies, and illustrates them with experiences from LARI.
Using the example of Luxembourg, the presentation then shows that efforts to build social legitimacy are particularly important in small research ecosystems where key stakeholders are involved in multiple overlapping networks that tend to amplify both positive and negative reputational effects within and across stakeholder groups. Especially ensuring that cases of alleged research misconduct are investigated independently requires a credibility-enhancing institutional design.
The presentation concludes with recommendations based on lessons-learned during the evolution of LARI from 2018 until the present. In particular, the crucial role of the Commission for Research Integrity, which is composed of renowned international experts, for enhancing and safeguarding the social legitimacy of LARI is emphasized.

OP02.5: Transition to Open Science. Advances in integrity and reproducibility of research in the Spanish university system

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The development of the European Cloud (ESOC), the requirement for FAIR data, and the commitment to research integrity policies by scientists and academic institutions are priorities for The Open Science Policy Platform (OSPP) for developing Open Science.
Objective:
To analyze the progress of the Spanish University System to strengthen the integrity of research. To identify policies and strategy on open science, especially on open access and availability of structures to make FAIR data available, and the attitudes and practices of researchers to publish in OA and share data.
Method:
251 researchers, 18 vice-chancellors and 40 library directors were interviewed or surveyed. In addition, the existence of institutional repositories, ESOC membership, FAIR data policies and codes of good practice were checked for each university.
Results indicate that 47.5% of the universities have not signed the ESOC declaration, and that 62.5% have not implemented a policy for FAIR data. Only 40% of universities report codes of good practice in research that include open science principles.
Researchers have little knowledge about open science, although they value it well. Only 22% of researchers have published with any regularity in open access journals, although 60.6% plan to publish in the future.
The importance given by researchers to the following factors would explain the low publication rate: OA journals are perceived as having low scientific quality, lower prestige, low impact factor, high publication costs, higher risk of plagiarism and the existence of predatory journals among open access journals.
Regarding data sharing (essential to ensure the integrity and reproducibility of research), 57% of researchers share data either through a web page or a repository. Among the arguments for not sharing are: avoidance of use by competitors, risks to personal promotion, the time required, the effort involved in preparing the data, and the confidential nature of the data.
Conclusion:
The barriers and changes necessary for the transition to an improved open science model, which enhances integrity research, are pointed out. These changes include increasing the infrastructure for FAIR data and favoring a cultural change, in the face of reluctance to publish openly and share research data

OP02.6: Creating a Research Integrity Code of Conduct for East and Sub-Saharan Africa - A Scoping Review and Ethical Analysis

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Objective: Over the last decade several research integrity Codes of Conduct (RI CoC) have been developed. However, national and regional guidelines focusing on the African context are limited or even lacking. This study aims to guide the development of a RI CoC for East and Sub-Saharan Africa, based on ethical analysis and a scoping review mapping existing guidance documents related to RI in East and Sub-Saharan Africa. This study is part of the Strengthening Ethics and Responsible conduct of Clinical Trials in East and Sub-Saharan Africa (SERCEA) project.

Methods: For the scoping review, a systematic search strategy in selected databases was conducted for guidelines, checklists, codes, protocols, flowcharts, legal documents, frameworks, policies and procedures related to RI in East and sub-Saharan Africa in the period Oct –Nov 2023. Retrieved documents will be screened for eligibility based on a set of inclusion and exclusion criteria. Those included will be analysed based on country of origin, type of guidance document, national or regional orientation, and RI topics addressed. Additionally, a normative ethical analysis will be performed, using African ethics as a starting point. This analysis will explore regional knowledge on RI that should be included in a context specific RI CoC using the results of the scoping review; and knowledge that could be include from outside the regional context, using the European CoC (e.g. the European Federation of Academies of Sciences and Humanities (ALLEA) CoC) as a basis.

Results: In total, the search strategy of the scoping review yielded 4177 documents to-date. After removing duplicates, 1927 unique documents were found. In Nov 2023, these will be screened. As we expect this study to be completed by January 2024, we are confident at the time of the WCRI 2024, the full findings will be available for sharing.

Conclusions: We expect our study findings to aid in the development of a RI CoC which will form a basis for the development of an East and Sub-Saharan specific RI CoC as part of the SERCEA project. This could, in turn, be used to inform other national and regional RI CoCs in various parts of Africa.

OP03.1: Opportunities and challenges in research misconduct proceedings, an ORI's perspective

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Allegations of research misconduct are diverse, from duplication of bands to less obvious manipulation of the original data. The process of handling research misconduct allegation is just as important as the practice of research integrity itself. The process must overcome the cultural, technical, hierarchical, and financial barriers to achieve a thorough, competent, objective and fair evaluation of an allegation. ORI's regulation describes a methodical approach to institution handling allegations of research misconduct helps in efficient and appropriate addressal of the allegations. This talk will discuss phases of research misconduct proceedings, as described in ORI's regulation, with case examples to highlight challenges and the importance of sequestration of evidence, transparency of the process, and addressing conflict of interest.

OP03.2: Knowledge, attitudes, practice, and environment. Summary of ten years of studies of scientific integrity in Norway

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Objective: To investigate how knowledge, attitudes, and practices related to research integrity change over time and how they are influenced by research environment.

Method: A survey investigating knowledge, attitudes, and practices (KAP) was distributed to first-year PhD candidates during 2010-20 (n=536) was compared to researchers (n = 186) awarded the degree PhD at the Faculty of Medicine at the University of Oslo in 2016 (n=86) and in 2019 (n=94).
94 responded (50.5%). and to those who finished PhDs in 2016 (n=86). KAP results were compared with survey responses on research environment.

Results: 1.1% of the PhD candidates report to have engaged in severe scientific misconduct (FFP) for the years 2010-2020. 0.9% report to have presented results in a misleading way, and 2.3% report that they know of persons at their department who have engaged in FFP the last 12 months. For 2010-2020 1.5% report to have experienced pressure to engage in severe scientific misconduct (FFP). 2.1% report to have experienced pressure to present results in a misleading way. Unethical pressure concerning inclusion or ordering of authors during the last 12 months was experienced by 12.8%. Knowledge about their department's written policies about research integrity was known by only 28.8%. Some attitudes changed slightly over the years, attitudes in general are stable from 2010 to 2020. Compared to when they were PhD-candidates the finished PhDs reported less misconduct, knew of more, and had improved attitudes on some items. More than 25% reported unethical pressure with respect to authorship. Most agreed that their research environment displayed research integrity.

Conclusion: This is one of only a few long-term follow up studies on research integrity. While few PhD-candidates report to engage in severe scientific misconduct, they have some knowledge of poor research integrity, and attitudes generally in line with good research integrity. However, pressure with respect to authorship is relatively common. There is some improvement in research integrity from PhD candidates to recently finished PhDs, but in general research integrity is stable over time. Integrity of the research environment was considered to be good.

OP03.3: Supporting integrity of the scholarly record: Our commitment to curation and selectivity in the Web of Science

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The need for high-quality data from rigorously selected sources is becoming ever more important as the scholarly record becomes increasingly polluted. The responsibility for protecting the integrity of the scholarly record is a collective duty, shared by everyone involved in the creation, delivery, and assessment of academic literature. As we seek to identify trusted journals to be included in the Web of Science index, we take our part in that collective responsibility very seriously.

We apply stringent standards and use transparent selection criteria to select new journals, books, and conference proceedings for inclusion. Less than 15% of journals successfully meet our quality requirements.

Journals evolve their scope, reset their editorial thresholds, refresh their editorial boards, and change ownership; each of these can affect a journal's characteristics and the quality of its published content. We have consistently been responsive to feedback from the scholarly community when prioritizing journals for re-evaluation, and in 2023, we took additional proactive steps to counter the escalating threats to the integrity of the scholarly record by introducing a new AI tool. This technology substantially improved our ability to identify and focus our re-evaluation efforts, resulting in the removal of 81 journals from Web of Science as of October 2023.

In our discussion, we will outline the measures implemented by the Web of Science editorial team to uphold the integrity of the scholarly record, including:

- an examination of criteria and decision-making processes applied by our in-house editorial team to ensure only trusted journals and content are selected for coverage;
- the steps taken to identify and remove journals that no longer meet our quality criteria;
- the new initiatives we are undertaking to provide greater transparency around additions to, and removals from, the Web of Science.

OP03.4: Towards Collaboration in the Investigation of International Cases of Research Misconduct: Issues and Recommendations

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Addressing global challenges requires international collaboration in research as well. The potential for misconduct exists in international projects as in other collaborative projects, but the investigation of such cases is made much more difficult by uncertainty about jurisdiction, different legal situations and investigative procedures in the countries or institutions involved, and less immediate access to people and data related to the case. Existing guidelines articulate common standards for good research practice (e.g., ALLEA Code, 2023), recommendations for ground rules agreements before projects begin (e.g., OECD, 2009; Montreal Statement, 2013), or calls for investigative collaboration and best practice guidelines for such collaborations (e.g., Russell Group, 2018). Practical examples of cooperation to facilitate the investigation of international misconduct cases are lacking in the literature.

Objective

We will establish an international collaboration of research integrity bodies to (1) create a typology of research misconduct investigation issues specific to the international component of cases, and (2) develop implementable agreements or recommendations for participating bodies for each category of the typology.

Method

The members of the research group represent national agencies and institutional RIOs, and extensive experience in handling misconduct cases. Based on a literature review, specific problems in investigating international cases are identified. The analysis of international cases will identify additional problems, and content- and process-related specifics to known factors. This analysis will develop a typology, categorizing issues according to overarching problems and possible content- and process-related variations. A targeted dialogue will identify practical solutions to the problems described in each typology category.

Results and Conclusion

The project will result in a typology of practical issues arising in the investigation of international cases of research misconduct, as well as a list of recommendations on dealing with these issues from the perspective of RIOs. Agreements to be implemented will be specific to the context of the participating agencies. The process is meant to be scaled up to include a larger and more diverse group of agencies – both to test and further improve the typology created and to edge closer to a global agreement on collaboration in the investigation of international misconduct cases.

OP03.5: Professionalizing Ombuds Work in Academia: A Practical Guide for Ombudspersons

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Ombudspersons in academia play a crucial role in safeguarding the integrity of research. However, most ombudspersons at universities and research institutions in Germany take on this role without adequate induction or guidance. They often lack opportunities for meaningful collegial exchange and have to work independently through the complexity of the issues associated with their position.

This is a particular challenge when it comes to advising in conflict situations or conducting mediation sessions. What is more, the confidential nature of their role makes it difficult to acquire the necessary knowledge and skills to address issues related to good research practice or breaches of it. In response to this critical need for support, the “German Network of Research Ombuds Offices” has developed a comprehensive resource - A Practical Guide for Ombudspersons. As the legal framework for the work of ombudspersons differ between academic institutions, the guide is designed as a flexible framework that can be tailored to the specific policies at each institution.

The guide not only provides ombudspersons with orientation in terms of content, but also creates a basis for deepening their understanding of their role. It encourages open discussions about different approaches and strategies and empowers ombudspersons to carry out their tasks professionally. By addressing issues related to conflict counselling, mediation and the promotion of good research practices, the guide aims to improve the quality of ombuds work in academia.

In this presentation, the guide is presented as a step towards professionalizing ombuds work and ensuring good research practices. In particular, it aims to make visible the often implicit knowledge about the work of ombudspersons and the specific approaches they use. The guide displays a concrete approach to proactively equip future ombudspersons with the necessary skills and knowledge from the very beginning.

OP03.6: Validated instruments for measuring responsible conduct of research (RCR): a systematic review

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Objective: Research misconduct and questionable research practices (QRP) affect research integrity and the public trust in science. To maintain high research integrity, and contribute to the quality of research, it is important to have a knowledge of the attitudes, practices, and actions of researchers. To measure these practices, it is crucial to use valid measurement instruments. This systematic review identifies validated instruments available to measure responsible conduct of research (RCR) and QRP among researchers; provides an overview of these validated instruments; and critically assesses the quality of the validation of the instruments.
Method: Protocol is available in Open Science Framework (DOI 10.17605/OSF.IO/97RGM). Searches performed in Medline (Ovid), Embase (Ovid), PsycINFO (OVID), Scopus (Elsevier), Academic Search Premier (Ebsco). Inclusion criteria: Studies that validate RCR or QRP survey instruments (population of researchers including PhD students). All study types and years were included. Exclusion criteria: Application studies; studies that investigate a population of students (apart from PhD students); studies on non-validated instruments.
Results: We ran the searches on April 12th 2023 and identified a total of n=6438 studies (duplicates n=2164). We used Covidence and 4274 studies were screened based on title-abstract, 137 studies were full-text screened. 52 studies remained for inclusion.
Instrument validation in the included studies was evaluated using an adapted version of COSMIN. Data on the studies and the instruments was then extracted.
For studies found to have a sufficiently rigorous instrument validation, instrument data was extracted and summarized qualitatively. An overview of studies with less rigorous instrument validation or lack of validation description will also be presented.
We classified an instrument as sufficiently rigorously validated to be included in data extraction, if it was validated for at least comprehension and relevance by a reasonably large group of experts or quantitatively validated.
Conclusion: The number of well validated instruments is small. An overview of validated instruments available for application in future studies of RCR and QRP will be presented and future directions for the development of more high-quality instruments will be discussed.

OP04.1: An easy-to-use taxonomy for research integrity training

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In this talk, we will present TRIT, the taxonomy for research integrity training.
Trainers often leverage insights from past educational experiences to shape or reshape a program. Despite the multitude of research integrity training initiatives carried out by many stakeholders over the years, knowledge about effective and ineffective elements in these trainings remains fragmented. Recent meta-reviews provide some guidance on beneficial teaching and learning activities, yet they fall short of offering detailed insights that could aid in making informed decisions about course design, particularly in tailoring activities to specific target demographics and learning outcomes.
This talk addresses this deficiency by proposing TRIT, a taxonomy for research integrity training grounded in Kirkpatrick's four-tier evaluation model.
TRIT is a helpful tool for alignment in designing research integrity training. It can foster dialogues and enhance the design of research integrity courses. By elaborating on the Taxonomy for Research Integrity Training (TRIT), and presenting three European projects with their intended training effects, learning outcomes, instructional activities, and assessment tools, this talk offers new insights.
It provides practitioners with reference points to discern didactic connections and impacts and identify gaps in knowledge concerning how to structure or restructure a research integrity course.
The proposed taxonomy is user-friendly and promotes the development of evidence-based designs for research integrity training.

OP04.2: Long term outcome assessment of a training in responsible research practices

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Objective: Responsible research practices (RRPs) aim to increase the trustworthiness, utility and ethical conduct of research. To enable particularly early career researchers to employ such practices, various teaching programs have been designed and implemented. Teaching formats are usually evaluated via surveys that are conducted at the end or shortly after a course. This common practice helps to receive an immediate feedback on the course operation and delivery of content. In our study, we aimed to extend this to actually assess whether courses changed long-term practice in RRPs.
Method: For our assessment, we selected first- or last-authorship publications from former course participants (ECR's) that took part in an international summer school on open and responsible research. As comparator, we selected an equal number of publications that were matched on several factors like career level and journal or last author. We scanned publications for a set of responsible research indicators. These were identified through a four round modified Delphi process with a focus on methodological rigor and reporting. The expert elicitation process included two expert panels and two dissemination phases to national and international experts. To allow high throughput screening, we leveraged recent developments in Large Language Models (LLMs) to query publications for RRPs.
Results: We present the operationalization of the RRPs and the results of the first stage of the research process, the Delphi survey of RRPs that are used for the screening of the publications. We identified 11 RRP indicators. The pilot data show that these indicators can be successfully operationalized with LLMs. As we are currently in the process of data collection, we will present preliminary results regarding the efficiency of the long-term implementation of RRPs.
Conclusion: AI based approaches have a great potential especially in monitoring and extracting important information from studies. With the results of the Delphi survey we develop consensus on the current status of applied RRPs and will help to create a common understanding which aspects are considered to be important in the methodological implementation of the responsible conduct of research. The overall aim is to promote research integrity through standardization, quality control and transparency.

OP04.3: Over Two Decades of RCR Programs: What's changed, and does it resonate within the international context?

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Over the last twenty plus years, there continues to be a philosophical debate over the effectiveness of US government mandated Responsible Conduct of Research (RCR) training. What are we trying to achieve by forcing trainees and faculty to flip through online modules or sit in a room discussing case studies? Are we making any inroads in producing ethically responsible scientists? Fast forward to the pandemic years and the US federal government's targeted efforts to combat what they deem as foreign interference and suddenly RCR core topics have taken on a different nuance. One that is directly related to this increasing area of concern. The NIH, NSF, and other agencies/sponsors have enacted guidance and legislation which directly increases the administrative burden concerning international collaborations. As a result, the list of RCR topics has been expanded and starting in 2024 federally funded researchers will have to certify that they have completed the requisite training on an annual basis. This session will explore the effect on international collaborations and whether there is a measurable positive impact to the responsible conduct of research.

OP04.4: Surveying the provision of research integrity training in Australia, the UK and the USA

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One of the main observations of a meeting of stakeholders from the Australian research community hosted by Nature in 2019 to discuss the state of research integrity was how little we knew about the level of understanding of or training offered to researchers in research integrity. To address this we conducted a series of surveys of researchers in Australia, the UK, and the USA. These took the form of market research surveys, completed by 993 participants in Australia, 1078 in the UK, and 1962 in the US. In all three regions, 68–72% of participants were from a university or higher education institute with a broad spread of disciplines represented.

A substantially lower proportion of participants from the UK (51%) or the US (56%) reported that they had access to Research Integrity Training than those in Australia (68%).

There was a seeming disconnect between institutional leaders and early career researchers on the availability of research integrity training. Institutional leaders and senior researchers were more likely to assert that their institutions provided training in research integrity than early- and mid-career researchers. In the UK, the difference between institutional managers and early-career researchers was 71% to 54%, and in Australia it was 88% to 65%. In contrast, in the US the responses were more aligned, with a difference of just 56% to 53%.

For those who had access to training, respondents from the US (78%) were most likely to report that it was mandatory, those from the UK were least likely (63%), and those from Australia in between (70%).

Conflicts of interest and the need to acknowledge the work of others were most often regarded as extremely or very important to research integrity by respondents from all three regions (more than 92%). Many wanted the training to be more engaging and tailored to their field. 8 of the top 10 topics on which respondents said they would like more training were related to the management and sharing of research data.

Surveys of researchers in India and Japan are underway, which we expect to include in the talk to provide a broader view globally.

OP04.5: Teaching research integrity sustainably - is it possible?

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Our presentation is based on observations we have made frequently in our many years as research integrity trainers at universities and research institutions in Europe and Asia. At some institutions, we have been teaching groups of Master's students or PhD students once or twice a year for almost 15 years.

Over many years, we observe that at the same institution, each new generation of early career researchers who attend our events exhibits more or less the same lack of knowledge when it comes to research integrity. This is particularly striking because each institution requires its academic staff and students, upon entry or matriculation, to conduct themselves in accordance with research integrity, to read the local regulations, to communicate them, and to put them into practice. For the most part, the discrepancy between what is required to be known according to the commitment and what is actually known is usually large.

Counter-examples are known for this "intergenerational" lack of knowledge about research integrity, but these are rare and mostly relate to very specific details (e.g. introduction of a proper lab book with documented instruction). Thus, the question arises why there seems to be little change over time at many research institutions and universities regarding the level of knowledge of early career researchers regarding research integrity.

In our presentation, we discuss various approaches to understanding and options to address this ignorance problem.

OP04.6: Aligning Research Integrity with the Sustainable Development Goals (SDGs) in Undergraduate Programs: Challenges and Solutions

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Teaching and assessing research integrity are often described as challenging, mainly when aiming to achieve high instructional effectiveness within the constraints of a single undergraduate semester. These challenges can encompass several aspects, including but not limited to (1) many students in the class lacking sufficient research experience, hindering their awareness and comprehension of potential ethical challenges associated with scientific research; (2) given the diverse backgrounds and departments from which students originate, the nature of their research endeavors can vary significantly; and (3) compared to more advanced individuals (e.g., graduate students and postdoctoral researchers), undergraduate students may possess limited or no appreciation for the ethical dimensions inherent in scientific research. These challenges may discourage certain faculty members from investing additional efforts in providing mentorship on the best research practices to undergraduate students, ultimately reducing opportunities for them to acquire insights into research integrity.

Therefore, this presentation light on the design and development of a research integrity curriculum explicitly customized for undergraduate students in Taiwan. The primary goal of this curriculum is to create an inclusive classroom climate for the study of research integrity and to address the abovementioned challenges by actively seeking and highlighting potential solutions and best practices. The strategies employed to transform the challenges into catalysts for enhancing the effectiveness of research integrity instruction will also be exemplified in the presentation.

The presentation will also cover instructions on how the curriculum design aligns with the Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education) and SDG 16 (Peace, Justice, and Strong Institutions). To this end, the present researcher, who serves as the course instructor, applies the ADDIE Instructional Design Model (which stands for Analyze, Design, Develop, Implement, and Evaluate) to create interactive pedagogies and in-class activities, such as Educational Digital Storytelling. These approaches are designed to engage undergraduate students in actively exploring and internalizing the learning content and enhance their intrinsic motivation in studying and practicing research integrity. Details on the links between the research integrity curriculum and SDGs will be stated and demonstrated in the presentation.

OP05.1: Ensuring Good Research Practices in a Time of Generative AI

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Generative AI (G-AI), which can generate new forms of creative content, such as text, audio, images and code, is increasingly available for scholars to use in their research practice. It confronts researchers and research institutes with a number of challenges and open-ended questions. Currently, there are hardly any (clear) discipline-based or discipline-overarching answers.

We aim to provide a basis for those answers by focusing on four interrelated areas with regard to ensuring good research practices in a time of G-AI, i.e. opportunities and challenges with regard to

(1) the research practice, including hypothesizing, data collection and analysis, dissemination of results. Here, most work is currently done in the research community, by journals, research organisations and HEIs. Our focus will be specifically on ensuring good research practices and research integrity,

(2) testing research competence (especially on the graduate level), individual and institutional research quality assessment, and the publication and reviewing process. Similar to how student testing is undergoing changes because of the availability of G-AI, how does research assessment need to evolve?

(3) equity, diversity and inclusion in the research practice, and how researchers can be facilitated in this respect. Because of the data and the algorithms that it is built on, G-AI may be biased when it comes to gender, race, socio-economic background, etc. Also, G-AI tools may not be equally accessible to all researchers across the globe, potentially, increasing existing disparities,

(4) 'ownership' of knowledge, reaping the benefits of knowledge, research as a public good. Currently, available G-AI tools are offered by for-profit companies, that do not disclose the algorithms, their use of the data, or their longer term intentions. Meanwhile, researchers hand these companies their creative ideas, data and thus potentially intellectual property. How do we ensure that research remains a public good?

We approach each of these issues on three levels, i.e. facilities, policies and infrastructures for ensuring good research practices for (i) individual researchers, (ii) research institutes and HEIs and (iii) (trans)national funding and legislative bodies.

We end with concrete recommendations for adjusting research integrity and other research policies to meet the opportunities and challenges discussed.

OP05.2: Research Ethics for Artificial Intelligence: The Twofold Need for Compliance Requirements and for an Open Process of Reflection and Attention

Anais Resseguier[1]
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This paper proposes to enhance research ethics frameworks for research projects developing and/or using Artificial Intelligence (AI). It highlights that these frameworks need both (1) requirements for compliance with emerging ethical and legal norms to govern this technology and (2) an open process of reflection and attention to research and innovation in this area. The field of AI ethics has seen intense developments since 2015 with numerous governmental and international bodies, institutions and companies creating guidelines, frameworks, and sets of principles for AI governance (Jobin et al. 2019). However, these initiatives have also received sharp critiques from experts in the field, including that of being a form of "ethics washing" (Wagner, 2018; Resseguier and Rodrigues, 2020) or of reproducing existing power structures and inequalities (D'Ignazio and Klein, 2020). The proposed approach seeks to address these critiques by focusing on review processes as handled by research ethics committees (RECs). As the AI ethics field is currently working toward its operationalisation, research ethics constitute a powerful, but so far underdeveloped framework to make AI ethics more effective at the level of research (Santy et al. 2021).
The present paper proposes a two-pronged approach to the operationalisation of AI ethics in research ethics frameworks. Firstly (1), this paper encourages the imposition of particular requirements within research ethics frameworks embedded in institutions and highlights aspects of the AI Act that research ethics frameworks can draw from (European Parliament, 2023). Secondly (2), ethics review frameworks offer a space for an open process of reflection and attention. The focus here is on questioning established norms and ways of doing through an open reflection and a continuously renewed form of attention to both technical advances in the field and social developments and concerns. Considering the uncertainty AI brings to societies, this constantly renewed attention and reflection is essential.
This paper draws from research carried out as part of two EU-funded research projects: TechEthos and iRECS. Eventually it seeks to make research ethics for AI more thoughtful and effective at mitigating potential harms of this technology.

OP05.3: Key concepts and issues for research ethics and integrity in the Green transition

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This presentation highlights research ethics (RE) and research integrity (RI) challenges related to current environmental and climate concerns. It does so through (1) a review of key concepts and issues in environmental and climate ethics for Research and Innovation (R&I), e.g., environmental justice; preservation and maintenance; equity and benefit sharing; the "do no significant harm principle"; the precautionary principle. Secondly (2), it examines existing research ethics and integrity guidelines to assess their ability to address environmental and climate concerns related to R&I and account for key concepts and issues. This presentation draws from preliminary results of the EU-funded RE4GREEN project: Research Ethics and integrity for the GREEN transition. It eventually seeks to highlight key areas of attention to enhance research ethics and integrity frameworks to better account for the current environmental and climate crisis. While Research & Innovation (R&I) has too often been a part of the problem of environmental degradation and biodiversity loss, it is today a central pillar of the European Green Deal and associated legislation to advance a range of climate and environmental objectives. This presentation focuses on the necessary efforts from the side of research ethics and integrity to support the Green Transition.

OP05.4: The impact of generative models for text and image creation on good research practice and on research funding

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Questions about possible fields of application, opportunities and risks of "artificial intelligence" (AI) are currently moving many parts of society. The reason for this is the development of gen-erative models for text and image creation and their availability to the general public. These generative models are based on machine learning mechanisms and use "deep learning" algo-rithms to generate content (texts and images) that is close to works of human origin.

Today, generative models from various commercial providers are also used in research. The influence these models have and will have on scientific work and good research practice is being discussed by various actors in the science system.

Likewise, research funders are affected in many ways by the current developments. For in-stance, the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation), in its statutory task of funding knowledge-driven research, described and published framework con-ditions under which the use of generative AI in the various steps of its funding activities is per-missible. In this regard the transparency and verifiability of the research process and the find-ings obtained from the point of view of third parties are key fundamental principles of research integrity. This value system continues to provide guidance when dealing with generative mod-els for text and image creation. Subject to discussion are, amongst others, the support of AI in the preparation of applications, any labelling obligations and the question of legal and content-related responsibility for corresponding texts, also with regard to research misconduct. The use of AI might lead to discipline-specific adaptions in the assessment of research performance. Last but not least the use of AI in the review and evaluation process has to be considered in light of the confidentiality of the assessment process.

Setting guidelines for the use of AI is challenging in this dynamic area. It will be important to gain and share experience of the respective opportunities and challenges to enable a science-based discourse.

OP06.1: Challenges posed by hijacked journals in Scopus

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Objective
This study presents and explains the phenomenon of indexjacking, which involves the systematic infiltration of hijacked journals into international indexing databases with Scopus being one of the most infiltrated among these databases.
Method
A systematic analysis is conducted to verify if already identified hijacked journals are present in Scopus. The information on identified hijacked journals is obtained from three sources: Beall's list of hijacked journals (n=139), Cabell's Predatory Reports (n=119), and Retraction Watch Hijacked Journal Checker (n=230).
Results
The study identified at least 67 hijacked journals that have penetrated Scopus since 2013. Of these, 33 journals indexed unauthorized content in Scopus, 23 compromised the homepage link in the journal's profile, while eleven did both. As of September 2023, 41 hijacked journals are still compromising the data of legitimate journals in Scopus. Unauthorized content has been consistently covered by Scopus and remains present every year throughout the period 2013-2023.
Such presence of hijacked journals in Scopus is a challenge for academic integrity due to the legitimization of unreliable papers that have not undergone peer review, and it compromises the quality of the Scopus database. The presence of hijacked journals in Scopus has far-reaching effects. Papers published in these journals are cited and unauthorized content in Scopus is imported into other databases, including the WHO COVID-19 Global literature on coronavirus disease database, ORCID. This poses a particular challenge for research evaluation in those countries, where clone versions of approved journals may be used for publication and verifying their authenticity can be difficult. This study also raises concerns about the quality control of Scopus and the procedures in place to protect the database from fraud and detect hijacked journals.
Conclusion
The proliferation of hijacked journals can be attributed to the growing demand for fast publication without rigorous peer review. The vulnerability of bibliographic databases and not sufficient quality control is accompanied by the development of fraudulent business. Bibliographic databases should implement effective and proactive procedures to detect hijacked journal, control the quality of their databases, and prevent fraudulent publishers from compromising the web links of legitimate journals or indexing unauthorized content.

OP06.2: Large-scale Flagging of Research Integrity Misconduct at Elsevier

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Objective

The objective is to be able to spot the cases of scientific misconduct such as authorship changes, and manipulated editorial, peer-review, and citation processes. We aim to flag such cases of scientific misconduct to editors as early in the submission process as possible.

Methods

For this purpose, we implemented a Python library that flags a set of Research Integrity hallmarks in a large collection of papers or manuscripts. These hallmarks can be grouped into author-, review- and editor-focused ones. Examples of author-focused hallmarks include authorship changes between revisions which can be an indication of authorship for sale. Reviewer-focused hallmarks include duplicate reviewer comments, too many reviews done within a period of time, the presence of too quickly done reviews, etc. As for editors' misconduct, we are flagging the cases when a manuscript is progressed against the reviewer's recommendation, or when the editor is also seen in the list of authors of the manuscript she processes.

Results

We analyzed dozens of journals and special issues and flagged thousands of suspicious papers to be retracted. This enabled Elsevier's Research Integrity & Publication Ethics group to conduct numerous investigations into specific Special Issues and individuals, resulting in twice as many paper retractions compared to the year 2022.

Conclusion

This project has given insight into the extent of a significant Research Integrity problem associated with authorship for sale, manipulated peer-review, and editorial process as well as with paper mills. We are engaged in collaboration with other publishers through the STM Research Integrity Hub, with the intention of both learning from their experiences and sharing our knowledge and technical solutions designed to address research misconduct.

OP06.3: From reactivity to proactivity: assessing proactive ethical and integrity guidelines structures of journals with recurrent retractions

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Background
The rising retraction rate, due to both honest errors and misconduct, has been catalyzed efforts to fortify ethical and research integrity structures across various stakeholders, such as academic institutions, funding agencies, including scientific journals. However, since journals play a central role in the scientific communication system, it is expected that journals must go beyond a reactive approach, thus acting proactively to prevent the publication of flawed research, given the implications that this type of research can enclose on this social system - as in the case of post-retraction citations, which in the long term can influence a scientific domain.

Objective
This study aims to evaluate the extent to which scientific journals involved in recurrent cases of retraction are now prepared to deal proactively through their ethical guidelines evaluations of submitted papers.

Method
Thirty-seven journals, part of the corpus of an ongoing study, which has issued between 2 and 25 retractions on articles published (and later retracted) by authors affiliated with a Latin American institution, were selected for this study. Through documental analysis, submission guideline sections will be evaluated to identify measures considered proactive to maintaining ethical structures and integrity in esearch. Observed indicators include, but are not limited to, the analysis of statements on research ethics and integrity, peer review models, raw research data submission, technical prescreening of data or figures, statements about potential conflicts of interest, AI-generated content, and authorship contributions.

Results
The ongoing analysis of ethical guidelines in journals intends to report a comprehensive assessment of whether the increased occurrence of retractions has spurred proactive enhancements in ethical guidelines. Consequently, we will gather structural indicators reflecting these proactive structures.

Conclusion
Learned lessons from more experienced journals involved in retractions can provide valuable guidance to less experienced or newly established journals in dealing with this problem. The compilation of best practice indicators is expected to stimulate debates regarding the necessity for proactive measures among journals. Limitations include the lack of clarity in many guidelines. Further conclusions will be provided once our analysis is completed.

OP06.4: Perception of research staff on the ethical structure of a university: knowledge, use and satisfaction.

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The implementation of ethical structures intends to promote research integrity. However, to what extent have they been consolidated in universities? This presentation aims to show the results of a research community's perception, knowledge and use of ethical structures in one Spanish institution.

The data for the study are the result of a survey carried out in June 2021 among all contract teachers at the Universitat Jaume I. 49.09% of the population participated in the survey (505 out of a total population of 1030). There were five closed questions and an open space where the participants could express their opinions. The aim was to assess their knowledge of ethical structures, their use and their level of satisfaction.

The results showed a modest awareness of the existing structures. The most familiar mechanism was the code of ethics (41.93%), followed by the ethics committee (30.24%) and the doctoral school's code of good practice (23.56%). The question on usage showed that the ethics committee was the most used, but only by 22.08%. This is quite remarkable, as nowadays most scientific publications and competitive calls for proposals require the submission of a favorable report issued by an ethics committee.

On the contrary, there is an increasing trend in the number of ethical evaluation requests to the committee: 88 in 2020, 125 in 2021 and 140 in 2022. One of the reasons for this increase in the number of applications to the ethics committee has been the institutional work to raise awareness of its relevance. Despite the increase in using the ethics committee, the data highlights the need for further awareness regarding the importance of ethics structures. Future research, within the university, will allow us to compare further data and develop the case study. However, research conducted in recent years at Universitat Jaume I provides relevant information about the challenges, boosters and barriers of these structures when promoting research integrity.

OP07.1: Artificial Intelligence-based Feature Recognition of “Paper Mill” Patterns

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[Objective] We study the feature model for automated detection of “Paper Mill”, and construct a tool for automated screening of “Paper Mill” from multiple dimensions, which will provide important support for the world's scientific research integrity governance and academic publishing quality control.
[Methodology] We collected retraction records and related data resources of “Paper Mill” from websites such as Retraction Watch, and constructed the first public dataset for training and evaluating the automated detection model of “Paper Mill”. The paper is structuralized by using a self-developed PDF parsing tool, and a citation network is built by exposing a dataset containing structured text and citation information of millions of nodes using the text through OpenCitations. We use text attention mechanism and heterogeneous graph neural network to learn multi-dimensional features of “Paper Mill”, construct text embedding and multiple meta-paths of “Paper Mill”, and classify, cluster and regress “Paper Mill” papers.
[Results] We achieve the detection performance of F1=0.777 based on title structural features, F1=0.842 based on abstract structural features, and F1=0.847 based on body structural features. The “Paper Mill” detection model based on citation network achieves the detection performance of Acc=0.816 and Recall=0.805. In addition, we found that thesis factories tend to blindly exaggerate the effects of fictitious compounds in word expression, as well as the situation that “Paper Mill” papers cite the same paper or a batch of papers, and the situation that there is a large number of aggregated “Paper Mill” papers in certain journals.
[Conclusion] The model has successfully constructed a feature model of the title, abstract, body, and citation structure of “Paper Mill”, which can effectively identify the “Paper Mill” papers and support the automated detection of “Paper Mill”. In the future, our detection model can also add a dual supervision mechanism to unify the structured text module and the unstructured graph neural network module in a single framework, and effectively conduct end-to-end classification training for these two modules, which can effectively improve the performance of the model.

OP07.2: The detrimental impact of Artificial Intelligence on future research integrity, unless we change course(s)

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Large Language Models (LLM's) have some opportunities for research (e.g., for literature reviews or data-analyses, language correction), but as long as (higher) education lacks a clear understanding on how to ethically implement AI, AI-tools are detrimental to science. Master students are today actively using AI-tools for different kinds of academic research and writing. However, in many academic programs, master students are still conservatively assessed through papers and theses, while there is no guarantee, after successful completion of these tasks, that the authors indeed possess the research skills that the deliverables indicate. Furthermore, proving the (unethical) use of LLM's requires a thorough investigation and is time-consuming.

All things considered, AI urges us to change the (European) learning goals of the higher education curricula and revise the criteria for theses. We aim to demonstrate that both students and educators are not fully aware of the ethical and didactical pitfalls AI-models create (survey, "How do you use an LLM in an ethical way?"). One significant ethical concern is that students may intentionally or unintentionally develop questionable research practices (we make the difference between direct and indirect plagiarism, based on our previous study). There is a high-risk that students neither acquire, nor practice the necessary research skills to contribute (ethically) to science in a professional context. LLM's get better and more specialised so fast that higher education can hardly respond adequately to the developments: we already lost valuable time due to the administrative requirements of curriculum changes. We will lose more than one generation of masters as skilled researchers is we do not act.

The implications for science will be charted. We suggest that universities reflect on their evaluation criteria, develop AI-free assessments, provide an ethical framework for good AI-practices, but most importantly, design courses on ethically and efficient interacting with AI-systems, like good prompting. AI is here to stay, but science needs to remain trustworthy and ethically acceptable.

OP07.3: Findings From a Paper Mill

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This is a case study of Springer Nature's investigation into the activities of a paper mill that resulted in a string of retractions. Apart from upholding the academic record, the investigation sheds additional light on the motivations of some authors and the strategies of dealing with the allegations on the part of the authors.

A major factor pushing authors to engage in dubious practices is the pressure applied to them institutionally – be it the publish or perish culture or the significant monetary or career gains that result from frequently publishing in reputable journals. This factor has been reported on and discussed multiple times. However, there is another side to it, and that is low awareness of how some of these companies actually function and how undesirable these practices are. Sometimes this is the result of the researchers in question being very inexperienced – but often it affects researchers who already occupy high-ranking positions in academia and employ intermediaries to save time and effort.

The case presented here concerns a major paper mill that offers a wide array of services that range from above-board practices, like translation of their clients' articles into English, to outright misconduct like overt attempts at peer review manipulation. The presentation will focus on the strategies employed by the paper mill to defend their clients, such as providing them with a "story" to explain the concerns raised around the issues in or around the publication – but also focus on the question of the authors' awareness of what becoming clients of that paper mill actually entails.

The investigation by Springer Nature uncovered instances when authors apparently were even unaware of what the paper mill actually did on their behalf – and this is an indication that better education and outreach is needed on a global scale.

OP07.4: The relevance of criminological inquiry about research misconduct

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Research misconduct has many forms and various shades of grey. From FFP (falsification, fabrication and plagiarism) to QRP (questionable research practices) and even QPP (questionable publishing practices), authors from various disciplines have been producing scientific evidence that helps understand causes, processes, risk factors and the effectiveness of consequences or preventive measures.
This presentation aims to argue in favour of admitting a criminological approach to studying and knowing more about research misconduct, helping to provide evidence that can shape the debate on how to prevent, mitigate and react to cases of research misconduct. Examples will be drawn from the literature, as well as from the personal research experience of the author on the topic. These include some results of research misconduct being studied as a form of occupational crime or deviance, as well as results from the evaluation carried out to one training on fostering research integrity to a project on publishing practices in predatory journals. All this will showcase the amplitude and breadth that criminological research can bring to concerns about research integrity and research misconduct.

OP08.1: Responsible PhD Supervision from the perspective of the supervisor and the PhD candidate

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Objective: To understand 1) what sort of practices supervisors engage in to promote responsible conduct of research among their PhD candidates and 2) which kind of strategies could promote a supervisory relationship characterised by psychological safety and organisational trust?

Method: I used homogeneous focus group interviews (qualitative method) to explore perceptions and experiences by supervisors and PhD candidates related to supervision for responsible conduct of research. Using purposive sampling, I recruited supervisors and PhD candidates from different fields. Within these disciplinary fields, I conducted focus groups with researchers from the same knowledge production model (e.g., social sciences [field], qualitative [knowledge production model]). Focus groups were moderated using an interactive and piloted-tested topic guide to deepen reflection and discussion.

Results: I conducted 15 focus groups in The Netherlands and Denmark, including a total of 75 PhD candidates and supervisors. Key practices included adhering to Open Science, relevance, equitable collaboration, responsible data management, ethical sensitivity, in-depth knowledge, understandable authorship, and appropriate design, analysis and coherent reporting choices. The emphasis on the practice differs per disciplinary field, I found that role modelling and implicit supervision are often combined with discussion and explicit supervision. In addition, the various strategies to assure a supervision climate characterised by psychological safety and trust were understood as prerequisites for responsible research to take place.

Conclusion: Using the metaphor of fire, I illustrate my conclusion that a responsible relationship, explicit discussions about responsible research, and implicit role modelling (aka practising what one preaches) are deeply interdependent. I connect these findings to existing theories about leadership. In addition, I reflect on my study's shortcomings (e.g., the findings are based on North-Western European countries and may not be applicable in other cultural contexts), and on the potential implications, such as how these results could be a preliminary step in measuring responsible supervision.

OP08.2: Is mentorship heritable? The transmission of integrity from mentor to mentee

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Transparency and openness are essential for reliable, credible science as it promotes reproducibility, trust, innovation, and global collaboration, underpinning scientific progress. While numerous factors influence the likelihood of a researcher publishing open access (OA), the role and influence of mentorship remains underexplored. This study delves into the impact of a researcher's mentorship on their co-researcher's inclination towards OA publishing.

Methods:
A bespoke database using Altmetric and Dimensions (both part of Digital Science) was created for the purposes of this study. Data included research publication and grant data, mentorship and open access status. The primary variables of interest were the average OA publications of the Mentor and Mentee. We also considered several relation variables: number of publications, years of co-authorship, grants received, among others.

Results:
We extracted over 20 million “highly likely” mentorship relations (4 million mentors with 10 million mentees) and the open access status of their publications from a previously curated dataset. We found an overall average of 4.70±5.45 years of collaboration, 1.02±3.04 publications together and a mean percentage 66% OA publishing for both mentors (46.50±25.54) and mentees (51.14±31.36). The regression analysis (adjusted R square 0.546) revealed a significant positive correlation between the mentors average OA publications and mentees average OA publications.Our results suggest that if a mentor is fully committed to publishing open access, this potentially increases the likelihood of mentees publishing OA by 76.48%. Further regression incorporating relation variables showed that the time spent together and the year of their first publication together had positive coefficients, indicating their positive influence on Mentors OA inclination. Conversely, the number of grants received together had a slight negative coefficient, suggesting a potential inverse relationship with Mentees OA inclination.

Conclusion:
Mentorship plays a pivotal role in shaping a researcher's academic choices, including their inclination towards OA publishing. The positive correlation between Mentors and Mentees OA publications underscores the influence supervision can wield in publishing decisions. However, the inverse relationship with joint grants suggests that financial factors might deter OA publishing. As the academic world evolves, understanding these dynamics offers valuable insights for institutions, funders, and policymakers aiming to promote OA.

OP08.3: Empowering Research Integrity: Fostering intrinsic commitment to good research practice across all academic ranks

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The sustainable and effective implementation of integrity in research is a major challenge that goes beyond the mere teaching of rules for good research practice. Rather, it is crucial to create an intrinsic awareness of the need to adhere to these rules. Without a real integration of RI principles into daily research practice, efforts to establish rules and regulations will have very limited impact. A profound reflection on one's own role and responsibility in everyday research and in the scientific system as a whole is essential and indispensable for the desired sustainable implementation of a culture of scientific integrity actively embraced by all. This approach is reflected in the concept presented for the training of professors and supervisors.

The teaching of basic principles and rules mainly focuses on the training of junior academics, while the training of professors has hardly taken place so far for various reasons. Training targeted at this professional group is not aimed at pointing out gaps or ignorance, but at refreshing existing knowledge and encouraging reflection on how to deal with the subject.
Precisely because those responsible for training and supervising young scientists come from this group, it must be ensured that professors and supervisors also know the contents of the established rules and regulations, convey them in everyday research and thus sensitize early career researchers to the importance of research integrity and good scientific practice in the long term. This requires experienced researchers in particular to reflect more on their own approach, which can be discussed and supported in such training courses.
The concept presented here is therefore aimed at the above-mentioned group of researchers and has been realized at some German universities and research institutions since mid-2022. In order to measure the impact, monitoring in the form of questionnaire surveys is planned for future events. We will report on the initial results in the presentation. Furthermore, initial experiences will be described and possibilities for improvement that can be derived from them will be addressed.

OP08.4: Do we achieve anything by teaching research integrity to starting PhD students?

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Objective
Education of young researchers has been proposed to promote research integrity. However, the effectiveness of research integrity education on PhD students is unknown. Therefore, we evaluate the immediate impact, as well as its retention over three months in a large sample of PhD students from biomedical sciences, natural sciences, as well as social sciences/humanities.

Methods
In a longitudinal design, we surveyed over 1000 starting PhD students from various disciplines regarding knowledge, attitude, and behaviour before, immediately after and 3 months after a compulsory 3-hour course given by a panel of experts. We compared the improvements of the PhD students with a control group who did not follow the research integrity course.

Results
Significant increases in knowledge scores at the post-test compared to pre-test were observed in both the intervention and control groups, but the increase was significantly higher in the intervention group than in the control group. Significant increases were also observed for attitude scores in both groups, at the post-test and at the follow-up test, with only the post-test increase being significantly higher in the intervention group than in the control group. The analysis of behaviour items on a 4-point Likert scale showed a significant but small improvement towards better behaviour in the intervention group compared to a significant decrease in the control group. However, when we analysed behaviour through yes/no items, there was a significant increase in both groups, unlike when using the Likert scale, the changes did not differ. The majority of participants (93%) reported having had conversations about research integrity, mainly with fellow PhD students. The majority of the participants (79 %) also indicated that they had applied/used the information received during the course, mostly regarding authorship (24%), data management (22%) and publication (18%).

Conclusion
A positive outcome of our study was the significant though modest improvement of PhD students' scores on knowledge and attitude, and the prolonged impact for some behavioural items. In addition, most participants indicated that the lecture had led to discussing research integrity issues and even applying the content of the course in their daily research practice.

OP09.1: Negotiating RI as academic survival strategies

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Objective
Many RI institutional initiatives seek to combat misconduct through a normative approach where lack of information is seen as a primary cause for integrity breaches. In contrast, some studies have sought to better understand the rationales behind questionable research practices (QRPs). This study furthers the latter approach and seeks to conceptualize QRPs as attempts by researchers to reconcile epistemic and social forms of uncertainty in knowledge production.
Method
The analysis is based on empirical material from 30 focus group interviews carried out with 147 researchers of different levels of seniority and stakeholders (both from ROPs and RFOs) from the four main areas of research (humanities, social science, natural science incl. technical science, and medical science incl. biomedicine) in 8 European countries between 2019-2020 (organized in the context of the SOPs4RI project). The coding process made use of an inductive approach, where the themes of QRPs and social and epistemic uncertainty in academic careers gradually emerged.
Results
The researchers' accounts often described misconduct as part of a spectrum of more widely shared practices that span various degrees of acceptability within a community. We have grouped these practices into various overarching "families" of QRPs that share some principal underlying strategies for reconciling the social and epistemic constraints on daily research practice: cutting corners, grey data practices, RI as box ticking, avoiding trouble, and authorship and grant writing practices.
Conclusion
We argue that conceptualizing QRPs as efforts to reconcile epistemic and social forms of uncertainty allows for more specific possibilities for discouraging them that go beyond normative and policing approaches. Recommendations include building publication cultures where uncertainties are acknowledged as a resource for scientific knowledge, shift the focus of evaluations from metrics to more qualitative methods; the creation of spaces to discuss and raise issues; and the collective tackling of job precarity throughout the research ecosystem. These recommendations stem partly from the researchers' own accounts during the interviews as well as existing literature. Although the recommendations are not new, their continuous resurfacing is a strong call from the work floor to strive for collective change in the endeavours of knowledge production.

OP09.2: On the interconnectedness of psycho-social and research integrity – experiences as confidential counsellor

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The #MeToo movement made abundantly clear that psychological or social safety is too often lacking and needs attention. Also it made many people more aware of that what they were encountering, was indeed unwanted behaviour and that they no longer wanted to silently endure the situation. However, there are many steps between acknowledging this, and taking action. To offer a safe space where one can share their experiences, and find help to take further steps if one wishes too, confidential counsellors can play a significant role. An important contribution of a confidential counsellor is to let the person talk, let them hear their story themselves out loud, and acknowledge their feelings or affirm that what they witness is indeed crossing boundaries. Reflection and possibly a decision on next steps comes next.
At the Amsterdam University Medical Centers there are two confidential counsellors for Research Integrity (RI) and nine confidential counsellors for unwanted behaviour, social or psychological safety, and integrity. One of them is specifically appointed for PhD-candidates and postdoctoral researchers on temporary contracts (author). Sometimes researchers are in touch with this last counsellor and the RI counsellors at the same time, because often unwanted behaviour and potential breaches of RI can co-occur in a working environment that feels unsafe. But more often, researchers only want to focus on the unwanted behaviour they experience, and mention potential breaches of RI in their examples. For instance: in a complaint concerning cronyism, gift authorship is mentioned. Or: requests for vacation time were rejected due to high publication pressure.
Objective: In this presentation I'll shed some light on the witnessed academic environment, where social/psychological and research integrity are both at play and are intertwined. I'll make a case for combined interventions addressing the academic culture as a whole rather than psycho-social or research integrity alone.

OP09.3: Integrity at the core of healthy and effective research cultures: the roles and responsibilities of research organisations.

James Morris[1]
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The research and innovation sector in Europe is renewing and expanding upon its commitment to ethics and integrity in line with major policy initiatives in open science, reforming research assessment, and collaborative approaches to research management and governance. Reviews of institutional policies and practices on integrity and ethics contribute to an evolution of research culture and clarify the roles and responsibilities of researchers, administrators, and decision-makers.

National Research Funding and Performing Organisations (RFOs and RPOs) play a key role in defining and implementing policies that shape the way in which research is conceived, conducted, and communicated, and influence the behaviours and attitudes of researchers and staff.

As an association of RFOs and RPOs, contributing to the evolution of research culture is a strategic priority for Science Europe and its members. Our work builds upon the shared values of Science Europe Member Organisations (where 'Integrity and Ethics' was identified as one of six common values), and defines practical actions to more effectively embed them in research systems at national, European, and global levels. In light of the recent update to the European Code of Conduct for Research Integrity, Science Europe is promoting advancements in policy development, with a specific focus on the roles and responsibilities of RFOs and RPOs in supporting the highest standards of integrity and ethics.
A policy paper, currently in development, will be presented highlighting specific actions and good practices that research organisations implement to support integrity and ethics across the entire research life cycle. The presentation will address the topic of integrity and ethics in research assessment processes; public engagement activities; and international collaboration, among other topics. Existing good practices will be highlighted, and draft recommendations will be presented.

The presentation will include an interactive poll to gather input from participants on their expectations and support needs from RFOs and RPOs. The published policy paper (foreseen shortly after the conference) will include reflections on the input gathered, in line with Science Europe's commitment to incorporate the perspectives of research communities in all its work relating to research culture.

OP09.4: Lessons from the Peruvian 'Vacunagate' Case on the Limits of Regulation in Research Integrity

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Objective: We examine Peruvian regulations on research integrity in the context of the Vacunagate case to analyze the limits of the regulation of research practice in creating and sustaining the integrity of the research enterprise.

Methods: We analyze the Peruvian Council of Science and Technology's (CONCYTEC) research integrity regulations, together with institutional policies on research integrity from a 2020 inventory funded by a U.S. Office of Research Integrity grant to the University of Miami Ethics Institute to identify underlying factors in the systemic failure of regulatory safeguards in the 2020-2021 clinical trial of Sinopharm's SARS CoV-2 vaccine in Peru as reported by the country's Sectorial Investigative Commission on the Application of the Candidate Vaccine against COVID-19.

Background: Peru is the most research intensive country in Latin America, with the region's longest established and most comprehensive regulation on research integrity. Peru has a national code of research integrity with standards of conduct for any person or institution that performs scientific research, and all Peruvian universities are required to have a research integrity policy. Peru's most prolific research university, the prestigious Universidad Peruana Cayetano Heredia (UPCH) has had both a research integrity policy and an institutional office of research integrity for several years. Nonetheless, in 2020-2021, UPCH became embroiled in a scandal involving international research on a SARS CoV-2 vaccine that involved conflicts of interest, misappropriation of vaccines, and deceptive recordkeeping. In a scandal popularly referred to as Vacunagate ("Vaccinegate"), high-ranking UPCH researchers in an REC-approved Phase III clinical trials of the Sinopharm BBIBP-CorV vaccine administered unauthorized doses off-study to over 450 academic colleagues and governmental officials. The resulting scandal revealed an underlying, systemwide disregard of the principles and rationale of research ethics and integrity, even amidst the establishment of new regulatory standards and oversight.

Results: Pressures from the high morbidity and mortality of the COVID-19 pandemic, together with self-interest among academic and governmental leaders, created the conditions for research misconduct and unethical science.

Conclusion: Vacunagate offers important lessons for policymakers and research integrity scholars on why regulations alone, without systematic attention to research climate, are insufficient to sustain integrity in research.

OP10.1: Leveraging Artificial Intelligence for Assessing Responsible Research Practices

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Background: With the increasing prevalence of artificial intelligence (AI) in research, there is a growing recognition of its potential to revolutionize meta-research, particularly in streamlining the extraction of crucial information from studies. Beyond efficiency, AI offers several advantages, such as quicker data processing, scalability, and the ability to uncover patterns that may elude human researchers.

Objective: This study aims to evaluate the efficacy of artificial intelligence, specifically AI Large Language Models, in assessing the features of studies with a focus on responsible research practices. By harnessing the power of AI, we seek to enhance the evaluation of study quality in a more efficient and consistent manner.

Method: In our research, we employed state-of-the-art AI Large Language Models, including ChatGPT and Claude.ai, to compare their performance in identifying text associated with responsible research practices against that of human researchers. Both AI and human researchers were tasked with identifying text passages mentioning aspects related to responsible research and evaluating whether specific criteria, such as sources of bias, blinding, random allocation, and specific hypotheses (amongst others), were met.

Results: Our presentation will showcase the outcomes of this comparative analysis involving 10 studies. We will highlight disparities between the information extracted by AI models like ChatGPT and Claude.ai and that extracted by human researchers. Moreover, we will present how conclusions regarding the fulfillment of specific differed. Finally, we will also provide essential background information on prompt engineering and study preparation, enabling researchers to use AI-assisted technologies for their own research purposes.

OP10.2: Academic publisher guidelines on AI usage: a ChatGPT supported thematic analysis

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Objectives:
As Artificial Intelligence (AI) technologies such as Generative AI (GenAI) have become more common in academic settings, it is necessary to examine how these tools interact with issues of authorship, academic integrity, and research methodologies. This work demonstrates the role that GenAI tools can play in supporting the research process, whilst also showing the current perceptions on GenAI tools held by academic publishers.

Methods:
This study employs inductive thematic analysis to explore publisher policies regarding AI-assisted authorship and academic work. Our methods involved a two-fold analysis using both AI-assisted and traditional unassisted techniques to examine the available policies from leading academic publishers and other publishing or academic entities. The framework was designed to offer multiple perspectives, harnessing the strengths of AI for pattern recognition while leveraging human expertise for nuanced interpretation. The results of these two analyses are combined to form the final themes.

Results:
The study identifies six overarching themes, of which three were consistently observed in both AI-assisted and traditional manual analyses. Crucially, the results serve as an empirical demonstration that GenAI tools are capable of not only matching, but possibly exceeding the capabilities of trained qualitative researchers in theme identification. Thematic analysis reveals a broad agreement has emerged among academic publishers that, although human authorship remains the gold standard, the use of GenAI tools is permissible as long as proper disclosure is made. These tools are increasingly gaining recognition for their auxiliary roles in tasks such as text generation, data analytics, and complex pattern identification. The study further explores the inherent limitations and biases present in AI-assisted analysis.

Conclusions:
There is a growing recognition of AI's role as a valuable auxiliary tool in academic research, but one that comes with caveats pertaining to integrity, accountability, and interpretive limitations. This study used a novel analysis supported by GenAI tools to identify themes emerging in the policy landscape, underscoring the need for an informed, flexible approach to policy formulation that can adapt to the rapidly evolving landscape of AI technologies.

OP10.3: Drafting a data management plan for an international project

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Grant agencies are more and more interested in funding applications that are bringing together experts from different countries to tackle global challenges. International teams means that data collection and sharing demand complex collaborations. In such a partnership, funded by the Canadian Government, 35 universities got together to research how to prevent plagiarism with a data collection spanning three years.

While this partnership offers great opportunities for collaboration, it also introduces unique data management challenges. This presentation will explain the process of creating a data management plan and how researchers and lawyers worked together for a year to come up with a data management plan that satisfied the ethics and security issues of 72 researchers and ten different countries. The partnership's data management plan took a full year to be elaborated and signed by all partners.

The key topics that will be covered are the following.
1- The impact of a data management plan on project efficiency, data quality, and compliance with data regulations.
2- The tailoring of a data management plan on disciplinary requirements, international data sharing agreements and ethical considerations.
3- Practices adopted for data collection, storage, and documentation with the partnership with specific information about data formats, and metadata standards.
4- Specific regulations about data security, sharing and accessibility.

This presentation will provide insights on different aspects of the data management plan but also on the advantages of having such a plan established before the start of the data collection.

OP10.4: What academics want versus what they need

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Objective
The project explored the acceptability to research staff across different research methodologies of introducing pre-submission checks, and obtained their views on the oversight of their research, with implications on trust.

Method
26 Semi-structured interviews were conducted: 22 with members of staff working across disciplines and faculties at LSHTM and 4 with editors of medical journals to gain a better understanding of the processes applied following submission and their views on institutional requirements.

Results
The emerging themes demonstrate a conflict between the desire for academic freedoms, and the necessity for the institution to be assured of the quality of research it produces. Several alluded to a negative feeling that 'big brother is watching' and raised concerns over the 'nanny state' in research. Many respondents described that the published record is self-correcting, thus onerous oversight by the institution is not required.

More junior members of staff, as well as staff who do not work in big research groups, spoke of wanting more 'rules' to follow to be re-assured that their research is conducted ethically and analysed to good standards, avoiding potential forays into questionable research practices.

Most respondents spoke of the need for clearer, more interactive training, although there was disagreement over how this should be done, eg whether online or face to face training was better.

Respondents were mixed on the impact of feeling trusted by the institution with increased oversight. Perhaps unsurprisingly, more senior members of staff who spoke of academic freedoms, said this would lead to feelings of mistrust, and cause them to negatively view the institution.

Thematic analysis is ongoing.

Conclusion
Balance is required to achieve appropriate oversight of research and reassure academics of their freedoms. Messaging of why oversight is important must be clearly described to ensure that staff feel trusted to undertake their roles.

OP11.1: Open peer review reports have higher developmental content and similarity than anonymized unpublished reports

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Objective To determine differences in the developmental content and report similarity of open vs unpublished anonymized peer review reports of medical journals.
Methods A retrospective, cross-sectional study comparing 117,595 open peer review reports from 59 Springer-Nature medical journals with 140,998 unpublished anonymized review reports from 174 Elsevier journals (both set of reports were obtained through agreements with the publishers). Main outcomes were developmental score of report (which classifies content of reports on 10 dimensions and report similarity (measured by Gini index). Control variables, used in linear and generalized regression models, included impact factor of journals, and reviewer gender, seniority, and country of affiliation.
Results Open peer review reports had 9.4% higher overall developmental content than unpublished reports, which included significantly higher content for study 'study limitations', 'applicability', 'organization and writing', 'data availability', and 'impact' of manuscripts. Open peer review reports were also more similar in content (i.e., had 4.7% lower Gini index dispersion). Only very week associations of reviewers gender, seniority and impact factor of journals with developmental content of reports was found.
Conclusions Our results show that published open peer review reports displayed higher developmental content and standardization of reports than anonymized and unpublished peer review reports. As open peer review is still used in only approximately 1% of journals worldwide, these results might help editors make more informed decisions regarding switching to more transparent review processes. We are deeply grateful for the access to these datasets, and invite publishers and individual journals to consider sharing infrastructure and opening their datasets to researchers worldwide, and in that way allowing replication of these results in different fields and journals, as well as development of other report assessment methods.

OP11.2: Correcting the published record: How authors react to editorial prompts about corrections to cited literature

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Objective: The integrity of the published record is central to the trustworthiness of science. Authors should ensure that what they cite in their articles is correct. This includes checking for corrections to the cited articles. We studied authors' responses after they were notified that one or more references they cited in their manuscripts had a correction notice in indexing databases.
Method: We included articles accepted in the Journal of Global Health in 2021 and the first four months of 2022 for which the editorial team identified that the cited reference list included articles that were corrected. The corrected articles were identified by the eXtyles editing tool, which uses CrossRef to check article references. We recorded the authors' responses regarding the need to revise their manuscript due to the correction of the cited article. Two researchers will independently check both the published, corrected article and the authors' submitted article to verify their responses.
Results: The Journal of Global Health's editorial team edited 412 accepted articles (original articles, viewpoints, meeting/news reports) during 2021 (n=303) and the first 4 months of 2022 (n=99). Out of these, 99 articles from 2021 (19.2%) and 47 articles from 2022 (15.5%) were flagged by the eXtyles editorial tool as having corrected articles cited in their reference lists. We are currently analysing the authors' responses about the corrected references and whether they replaced or removed the initial reference or changed the text according to the information on the correction in the cited reference. The analysis will be completed before the Conference next year.
Conclusion: We have yet to conduct the full assessment, but our first impression is that most of the encountered corrections were not related to the research claims in the article.

OP11.3: Redesigning reporting guidelines: presenting a new way to disseminate reporting guidance based on behaviour change theory

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Background

Few authors adhere to reporting guidelines when writing-up biomedical research. At WCRI 2022 we presented how we used behaviour change theory to understand barriers authors face when using reporting guidelines. This year we will show how we have addressed these barriers by redesigning reporting guidelines.

Methods

Our mixed-methods approach explored barriers and solutions to reporting guideline adherence. We collected data from researchers, publishers, and guideline developers through two literature reviews, a service evaluation, workshops, and focus groups. We combined the results to define intervention components that use behaviour change techniques to address identified barriers. We implemented these components by redesigning a reporting guideline (Standards for Reporting Qualitative Research; SRQR). We used interviews, observation, think-aloud, and writing appraisals to collect feedback from 11 authors, then made refinements.

Results

Our redesigned reporting guideline includes 47 intervention components that use 18 behaviour change techniques to address 32 barriers. Some components help authors to find, understand, and apply the guidance (like examples and pop-up definitions). Some make guidelines quicker to read and easier to digest (such as splitting text up into bullet points). Some nudge authors to use reporting guidelines early in their writing process. Styling and tone foster feelings of confidence and empowerment, not judgement.

Interviewees, many early-career researchers from the global south, commented that the redesigned guidance was easier to use than SRQR's original publication. They highlighted areas for improvement, such as graphic design and the number of examples. Our redesign could not address all the barriers we previously identified, and some un-addressed barriers prevented participants from applying guidance. For example, one participant left out content to meet journal word limits.

Discussion

Our changes to SRQR could be applied to all other reporting guidelines. Future studies will investigate whether our redesign increases adherence and is preferred by authors. Guideline developers can use our platform to create user-friendly evidence-based resources and collect user feedback. Our approach will be of interest to others aiming to drive behaviour change within the scholarly ecosystem.

OP11.4: AI Chatbots and the Ethics of Authorship

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The AI capability of large language models (LLMs) such as ChatGPT, Bard, Llama, and others has reached a level that they are arguably advanced enough that, with adequate prompting, they can generate coherent, competent text that is usable for publishable papers. If some significant portion of a paper—half or more, say—was generated by an AI chatbot, should it be listed as an author? With regard to issues of authorship attribution, is there a relevant difference between what a chatbot does in generating text and what a scientist or scholar does in writing a scientific report or other sort of paper? Distinguishing between being an author and a reporter is not sufficient to resolve such questions even in scientific contexts. In academic and some other contexts, the concept of authorship has an ineliminable normative element, so the more salient distinction is between being a moral agent versus only a causal factor. Authorship involves taking responsibility for rather than just being a cause of some text, and thereby accepting an onus of and commitment to answering for what is written. It would be inappropriate to ascribe either credit or blame to agents who cannot bear such responsibility. Applying and extending this sort of philosophical analysis of inappropriate authorship and framework for just attribution of credit in collaborative research (Pennock 1996), this paper shows why AI chatbots should be acknowledged as tools but not as authors, at least not yet. It is arguable that AI chatbots may soon or already be able to pass Turing's test for general intelligence and some can now at least appear to take responsibility, so while they may not qualify for authorship today, one can imagine a future when they could.

OP12.1: Ideology versus academic freedom. A matter of research integrity?

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In 2021 the Royal Netherlands Academy of Sciences published the report Academic Freedom in the Netherlands. With reference to the Dutch Research Integrity Code, this report explicitly creates room for ideological limitation of academic freedom, citing the concern for 'people, society and the environment.'

This development is not unique to the Netherlands. But to what extent does the discussion on ideology versus academic freedom fall within the scope of research integrity? For example, to what extent may or should research integrity committees allow for - or prevent - ideological limitation of academic freedom?

OP12.2: Do scientists want to dwell in the ivory tower? Mapping researchers' attitudes towards societal values in science

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§Objective
Researchers are increasingly expected not only to live up to the principles of research integrity, but also to navigate the potential social and political ramifications of their work. In this study we set to investigate the perspectives of researchers themselves on the interplay between science and society: do they agree that social values should guide their work, or do they prefer to work free from external influence?

§Methods
We conducted semi-structured interviews with 24 ERC grant holders based in 18 different countries working across all fields (Life Sciences, Physical Sciences and Engineering, Social Sciences and Humanities). Interviews are being analyzed via thematic analysis (Braun & Clarke, 2022).

§Results
The 24 interviews were conducted online between March and August 2023. The first author has since then been analyzing the transcriptions of the interviews generating initial themes. In the next phase (November-December 2023) themes will be further developed and refined together by the three authors. We expect our final analysis and the first draft to be ready by April 2024.
Though preliminary this first phase of analysis has let us identify some interesting points that will be further examined. For instance, many of the interviewed researchers stress both the importance of curiosity-driven research and the importance of tackling societal issues in ways that are not always easy to harmonize. Another interesting issue on which researchers hold strong and divergent opinions is the institutional requirement to consider diversity during the hiring process. On the one hand, many researchers think that striving towards a diverse research group not only counteracts gender-imbalance but has also positive epistemic effects on the science. On the other hand, a few are worried that hiring researchers for criteria other than research excellence would have detrimental epistemic consequences for the science.

§Conclusion
At the conference the first author will present the final and complete thematic analysis of the interviews and discuss the implications and limits of our analysis in the light of the broader literature. Particular attention will be paid to the implications for research integrity policies and practice.

OP12.3: Enriching engagement with ethical review processes

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The process of obtaining a favourable ethics opinion is often experienced by researchers to be an unjustifiably protracted process, with hurdles to be jumped and painful falls anticipated. It is rarely described as an enriching process or indeed one that contributes to a healthy research culture. As all research that is conducted at the University of Bath, by students and academic and professional service staff, no matter what its potential to do harm, requires some level of ethics review, the challenge of enabling an enriching process of engagement with ethics review is considerable.

This presentation will describe and reflect on the steps taken to address this challenge through the design and implementation of a new digital ethics review system. Our aspiration for the Ethics@Bath system, workflows and accompanying guidance is to facilitate research and enrich the experience for all stakeholders: those seeking ethics review, reviewers and those responsible for research governance.

We will consider the interests and activities of each of these three sets of users, noting the tensions that can exist between them, and describe how the Ethics@Bath system and associated review structures have been designed to attenuate them. The digital solution we have adopted offers the ability to be responsive to our growing needs: for example, we have introduced a new data and digital ethics committee in recognition of the particular ethical issues that artificial intelligence and other similar developments raise and a 'retrospective review' workflow to enable consideration of non-compliance and address questionable research practices. The interdisciplinarity composition of our committees mirrors the increasing inability of single discipline research to address many of the grand challenges that research projects are designed to address.

Going forward, the monitoring capabilities of Ethics@Bath is a vital part of enabling informed evaluation and reflection by those that serve on ethics committees and by the research governance team that support the process. This is a vital part of the culture change that is required to support those doing research to have an enriching - rather than enervating – experience of ethics review.

OP12.4: Conceptualising the global dimension of Responsible Research and Innovation through a decolonial lens – Reflections from a Summer School

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Objective | This study aims to develop a decolonial conception of a global dimension of Responsible Research and Innovation (RRI). It takes up the long-standing call for decolonising research practice and brings together positions of Global Health researchers from the Global South and North in order to develop a framework for RRI practice in decolonial perspective. We strive to answer the research question 'How to integrate efforts of decolonising Global Health research into conceptions of RRI?'.

Method | First, we conduct a systematic literature search on RRI and decolonising Global Health. Drawing on their intersections, we develop a framework for the conceptualisation of a global dimension of RRI. Second, we conduct a Summer School on 'Decolonising Global Health' in collaboration with the CharitéCenter for Global Health. During the 4-day event, we use participant observation to capture dynamics of South-North dialogue on decolonisation. We produce structured observation protocols on which we carry out a qualitative data analysis, identifying key characteristics of interactions and main themes of the debate. Results are integrated into the framework.

Results | By employing a literature review and a qualitative study, we shed light on the intersections between RRI and Decolonise Global Health on the one hand, and gain in-depth knowledge on the social dynamics of the debate on the other hand. The Summer School is being organised and takes place in March 2024. The framework derived from the literature informs data collection during the event and the following analysis. Subsequently, qualitative results enrich the framework. Results presented at WCRI show first insights into the framework as a novel approach to Research Integrity, that integrates a decolonial conception of the global dimension of RRI, and provide an outlook for the further trajectory of this conceptualisation process.

Conclusion | In response to the research question, we may derive potential strategies for fruitful integration of decolonisation discourses into RRI research policy based on a South-North dialogue on decolonising Global Health. The global dimension of RRI conceptualised in this study can provide guidance for further reflection on the various meanings of RRI practice in global perspective.

OP12.5: Promoting research integrity in the era of decoloniality and epistemic freedom towards locally relevant policies

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Increasing global attention to decoloniality has shone a light on its manifestation in research processes. To address inequities, inclusion, and more importantly, local relevance, it has become necessary to assess how research is conducted by whom and for whom. There have been calls for transformation of the different components of research including its agenda setting, funding mechanisms, leadership, methods, participants, and impact. For instance, two key principles of the decoloniality discourse are self-determination and decentring. Self-determination requires that users of the desired knowledge should be the determiners the 'what' (agenda) and 'how' (method). Decentring means that no group of people should have the power to determine the knowledge needed by others, which knowers should be included and heard, which methods for drawing out knowledge are valid, and what qualifies as knowledge. These principles do not only promote epistemic freedom in research but also local innovation, ownership and relevance. Research integrity is demonstrated when research espouses trustworthy and verifiable methods and findings which adheres to laid down rules and codes of conduct. Determining research integrity has been figured out in the current way of doing research with established norms, practices and standards. However, how does research integrity and responsible conduct of research look like in an environment where epistemic freedom is fully embraced? Principles underpin practices. Hence, the principles of research integrity will be a good place to start considering this question. The framework for responsible conduct of research espouses principles which include honesty, responsibility, fairness, and accountability. This presentation will demonstrate how these principles do and can be further demonstrated in a research environment that promotes epistemic freedom. It will also explore the responsibility of researchers, institutions and the scientific community in promoting research integrity and responsible conduct of research in such a research environment.

OP12.6: Integrity in Research Practice: Perception of undergraduate students in Rwandan universities

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Topic: Integrity in Research Practice: Perception of undergraduate students in Rwandan universities

Context: Research practice is one of the requirements for undergraduate studies completion in Rwandan higher education for educating students to contribute to knowledge creation. To ensure the quality of knowledge generated in that process, the literature highlights that education should stick to fostering integrity in research practice (Labib, et al., 2022). Nevertheless, research ethics is still an issue in educating students for knowledge generation especially when the students are developing and running their research projects while completing their studies and in countries with a young tradition on research (Kjellström, Ross, & B., 2010). This issue is observed in different parts of the world, and especially in the global south and in Rwanda in particular, that is, plagiarism is common in students' academic works (Clarke, Chan, Bukuru, Logan, & Wong, 2022; Sibomana, Ndayambaje, & Uwambayinema, 2018).
Objective: This paper intends to understand undergraduate students' perceptions about the respect of research ethical values in their research projects.
Method: The qualitative approach was used with data collected through 21 interviews from different study programs and analyzed by content analysis using a software program, MAXQDA.
Results: The findings of the study show two types of understanding. The first (confidential researcher) emphasizes the respect for research ethics through proper writing, referencing and citation, anonymization of data and avoiding plagiarism. The second one (dishonest researcher) perceives as normal the research malpractices like data falsification, plagiarism, and hiring other persons to write on their behalf. For this type, what matters is completing the required formalities for studies, and not the respect ethical standards.
Conclusion: In depth interviews give information on the rational behind the perceptions of the integrity of research. Nevertheless, as most interviews were conducted in Kinyarwanda, translation into English does not in some part describes in appropriate way what the participants say. This constitutes a limitation.

OP13.1: Research Integrity, Thick and Thin

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When we codify or incentivise research integrity, we can run the risk of being counterproductive. For those interested in fostering a culture of quality research, this is important to understand.

A widely adopted framework for cultural change has been suggested by Nosek et al. This framework moves from making good research practices first possible, easy, and normative, through to making them rewarded and required. We agree with the general structure and usefulness of this framework. However, for those interested in putting the framework to practice, a nuanced understanding is required. There are circumstances in which rules and incentives may be counterproductive to fostering good research conduct, and therefore there are reasons to be cautious in progressing integrity initiatives from the realm of norms to the realm of rewards and rules.

In this presentation, we consider the way that 'thick' concepts of research virtue are made 'thin' through codification. The ethos of the small number of passionate researchers cannot be transmitted wholesale to the wider research community. To render it into a useful form, we decontextualise it and codify it into the language of rules about what is permissible, impermissible, and obligatory. We call this ‘thinning’ translation the ‘deontic shift’, and while making this shift is often necessary, there are some opportunities to avoid it, and the costs and benefits should be better understood. We draw on lessons from the psychology and economics of incentives, from deontological and virtue ethics traditions in philosophy, and from practical experiences designing training programs in the field of research integrity, to argue that those concerned with promoting research integrity should be sensitive to the costs and benefits of both thick and thin ethics.

OP13.2: The ENRIO Handbook on Whistleblower Protection in Research – Critical Feedback and Future Challenges

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In July 2023, the European Network of Research Integrity Offices (ENRIO) published its “Handbook on Whistleblower Protection in Research” which comprises the expertise on this topic of ENRIO members from more than 20 countries. In research, whistleblowing usually refers to the process of researchers speaking up about a misconduct they observed or have been informed about (often within their working group). Researchers who report a research misconduct or, for example, bad working conditions are often facing negative consequences including retaliations as reporting is still stigmatized as damaging for the working group or the research institution. As a pattern, the messenger of such "bad news" is blamed, although it is primarily the person committing the misconduct who harms science. The ENRIO Handbook gives advice to researchers who might plan to report, but also to institutional leadership, research integrity officers and other stakeholders involved in and responsible for establishing a culture of research integrity. As the first handbook of its kind, it contains best practice guidelines on the subject and specific tips for those who may come into the role of a whistleblower. ENRIO’s aim has been to raise awareness on the prevalence and importance of whistleblower protection and to provide guidance on how to improve the institutional climate, promoting an atmosphere in which researchers feel safe to speak up. Having published the Handbook, ENRIO received diverse feedback on their recommendations. In this presentation, the (critical) feedback will be summarized and discussed by the chairs of the ENRIO working group “Whistleblower Protection” which drafted the guidelines. Moreover, critical aspects raised by the ENRIO community already in the making of the Handbook will be presented. The recommendations are supposed to fit to virtually every type of research institution all over Europe. But how can countries of different sizes with very different research and research integrity systems be addressed simultaneously? Are there more aspects that should be considered? ENRIO is open for follow-up debates and – if necessary – to adjust the Handbook in the future.

OP13.3: Fostering Creative Integrity: Engaging Design Educators in Addressing Visual Plagiarism Through Participatory Design Methods

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Objective:
This pilot study investigates methods, tools, and systems which can be employed to address four key issues faced by design educators in addressing visual plagiarism: i. lack of Knowledge, ii. incorrect Assumptions, iii. lack of Time, and iv. lack of Support (KATS). This study aimed to determine how design educators currently perceive issues of visual plagiarism, how students are educated on the topic, how the topic of visual plagiarism can be embedded into curricula and how higher education establishments could better support addressing visual plagiarism.

Method:
Exploratory research was conducted via a participatory design workshop developed to engage tertiary-level design educators in co-creation and discussion and was held in conjunction with The International Visual Literacy Association (IVLA). The workshop served as a platform for rich discourse, heterogeneous perspectives, and the identification of insights and issues. It was conducted online via Zoom and utilised Miro, a digital collaborative whiteboard tool, to facilitate active participation in co-creation activities.

Results:
Textual data and visual artefacts generated from the workshop were captured for analysis and provided relevant insights into the attitudes, experiences, and needs of design educators. Data analysis identified varying levels of knowledge, misconceptions concerning student understanding and a lack of support from policymakers. The findings have contributed to the development of best-practice policy proposals and have indicated potential models to aid design educators in addressing visual plagiarism effectively both in the creative classroom and also in their own practice-based, practice-led or practice-as-research.

Conclusion:
Addressing KATS issues is a critical aspect of cultivating creative integrity in design education, research and practice. The participatory design workshop method proved to be an agile means of engaging design educators, producing rich data, and generating co-created solutions. Conclusively, it is essential to address visual plagiarism pre-emptively in order to establish, maintain and strengthen academic and research integrity within the field of design. Nonetheless, additional research is needed to expand our understanding of visual plagiarism from international, multi-stakeholder perspectives, specifically considering the evolving technological landscape of design research, education and practice.

OP13.4: Working towards a more unified research integrity policy at Erasmus MC

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Erasmus MC, the largest teaching hospital in the Netherlands, consists of >45 clinical and non-clinical departments, each with considerable autonomy in managing their specific healthcare, research and teaching activities. With respect to research and education, we conducted structured interviews to understand how department heads oversee research integrity within their respective departments.

We found that department heads have varying interpretations of research integrity, generally falling into three categories: (i) individual scientists' behavior, (ii) interpersonal dynamics within research groups, and (iii) the broader research environment in which the department operates.

Our findings revealed notable variations in approaches to research integrity, influenced by three key factors: (i) whether the department prioritizes research/education or healthcare, (ii) the types of research data and methods predominantly used, and (iii) the department's size in terms of fte.

In total we identified nine methods departments employ to encourage ethical conduct: (i) fostering collaboration, (ii) implementing forms and procedures, (iii) establishing data storage guidelines, (iv) providing research integrity education, (v) mentoring junior researchers, (vi) appointing ombudspersons and confidential counselors, (vii) incorporating research integrity discussions into regular meetings, (viii) promoting an open and transparent culture, and (ix) conducting internal audits. The extent to which these methods are actively applied differs significantly across departments creating the need to streamline best practices as part of a learning organisation.

According to department heads, Erasmus MC's institutional policy for promoting research integrity should be normative, effective, cautious, and consistent. They suggest three areas where Erasmus MC could enhance its adherence to the Dutch code of conduct: (i) improving communication about existing guidelines and responsible officers within the organization, (ii) lowering (perceived) barriers to reporting potential violations of research integrity, and (iii) fostering greater coordination and collaboration between central and decentralized ombudspersons and confidential counselors.

OP13.5: The link between research methods and research ethics: Towards promoting ethical research culture in higher education.

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Introduction and Background: Globally there is an amplified need for promoting research integrity and preventing research misconduct. Research design and methodology are vital for research integrity, regardless of discipline. Consequently, incorporating research ethics is fundamental to good research design and practice. Researchers should always consider ethical principles when choosing a study title, sample, data collection method/s, analysis, write-up and communicating research results.
Statement of the problem: There is a growing misunderstanding amongst academic researchers, that Research Ethics Committees should evaluate only the ethical consideration section when reviewing a research proposal. Another popular misunderstanding is that ethics reviews obstruct research progress. These misunderstandings suggest that there is a compelling need to educate students and academic researchers in an attempt to promote ethical research thinking in higher education training institutions.
Aim of the study: This study aims to provide an understanding of the relationship between research ethics and research methodology to promote an ethical research culture.
Methods: The study will adopt a qualitative approach wherein secondary data sources will be critically reviewed and synthesised. Document analysis with the guide of discourse analysis will be used in analysing the research data. Data will be collected following appropriate channels and results will be ready by the time of the conference.
Conclusion: it is envisaged that a study of this nature could shed light on how academic researchers should incorporate ethical principles in their research to meet both their institutional requirements and other related legislations.
Keywords: Research Methods, Research Ethics, Ethical Research Culture, Higher Education.

OP13.6: Designing practical tools to foster the epistemic responsibilities of universities: A co-creation study

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Introduction.

For years university rankings dominated what values and practices universities should adopt to showcase whether they are a good university (e.g. using publication and citation counts). These same metrics are used in researcher assessment, which, as argued, also affects research integrity. Recent developments, such as the Hong Kong principles, aim to turn the tide.

The question of what should be considered a good university consequently needs a new answer. We propose to formulate this through the lens of epistemic responsibilities of universities (ERs). ERs concern the creation, sharing, exchange and safeguarding of knowledge and other epistemic goods. Fostering research integrity is considered one of six core ERs. In this study we aimed to create practical tools to foster realization of ERs.

Methods.

We conducted a co-creation study to develop practical tools. Applied co-creation methodology allowed researchers and participants to collaborate, making use of democratic knowledge formation and collective creativity. We hosted three rounds of workshops in the fall of 2022 (seven workshops in total). Workshops were analyzed qualitatively, and an iterative reflexive process guided this co-creation study.

Results.

Twenty-five people participated; from different backgrounds, nationalities, disciplines, and career stages (in six online- and one face-to-face workshop). During workshops participants did a series of exercises, followed by a dialogue about the findings. We made use of (online) materials such as images, drawings, post-it notes, etc. Three practical tools were developed, alongside a set of recommendations to fulfill the six ERs. These three tools are: 1) to establish independent red teams at universities to critically reflect on the ERs, 2) to develop co-creation spaces to foster ERs, and 3) to integrate events and activities in the university to stimulate awareness of ERs.

Conclusions.

These three tools were co-created by multiple stakeholders, focusing on building communities in universities stimulating and cultivating ERs. In the next phase of the project we will pilot test one of the tools, the red teams, in different universities and contexts. These co-created tools may contribute to collective efforts to embrace new values that shape what are considered good universities, with fostering research integrity as a core responsibility.

OP14.1: Uncovering Duplicated Images in Scientific Literature - Systematic Review as a Tool for Detection

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Objective
While performing a systematic review of preclinical evidence for interventions against early brain injury after subarachnoid hemorrhage, we came across multiple cases of image manipulation and duplication in the included study pool. We present our findings as a case study on the identification and management of this issue.

Method
After screening for eligibility, 656 publications were included in the review, for which we extracted i.a. bibliographic details, research location and the intervention under investigation. Subsequently, we randomly sampled 80 publications in which we performed visual inspection of e.g. western blot and histological images to detect image duplication and manipulation within and between publications authored by the same research groups.

Results
Our investigation revealed duplicated control lanes in western blot images in 3 of the 80 publications. Expanding our analysis to histological images identified an additional 5 publications with (partially) duplicated images within included study pool (n=656). Additionally, we found 15 publications outside the included study pool which exhibited image duplications. At the time of writing, all publications were traceable to 2 specific research groups.

We have reported all our observations on Pubpeer and all journals associated with the implicated publications have been alerted and have initiated their own investigations. At the time of writing, no errata or retractions had been published. Our examination of the included study pool is ongoing, in anticipation of discovering more problematic images. We are also exploring the potential of AI-assisted or automated detection methods.

Conclusion
Image manipulation and duplication can pose a significant threat to our confidence in an evidence base, but their prevalence is largely unknown. Systematic reviews provide a unique opportunity to identify duplicated images, especially between studies in a specific field of research. Our current visual inspection method is labor-intensive and may not offer optimal sensitivity, warranting further investigation into more efficient detection methods.

OP14.2: Correlating Indicators of Research Integrity: An Analysis of Image Integrity, Statistical Inconsistencies, and Missing Citations

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Objective:
We aimed to assess the correlation among indicators of research integrity, particularly focusing on image reuse, statistical inconsistencies, graphical integrity issues, and missing citations, determining their predictive power for potential fabrication or misrepresentation within academic publications.

Method:
Utilizing the PubMed Open Access Subset, we conducted an in-depth manual review of 1,000 cases. Each publication was evaluated for image reuse, statistical inconsistencies, graphical integrity issues, and missing citations. Analytical methods included descriptive statistics and correlation analyses to explore relationships among these indicators.

Results:
Our analysis yielded significant insights into the relationships among the selected integrity indicators. A high correlation was found among these factors; however, missing citations and statistical inconsistencies stood out for their higher predictive power in signaling potential fabrication or misrepresentation. Notably, these two indicators are generally more economical to detect, presenting a cost-effective avenue for initial screening processes. The robustness of missing citations and statistical inconsistencies as predictive factors was accentuated in the absence of other indicators, suggesting that these can be prioritized in preliminary assessments to optimize resource allocation.

The cost-effectiveness of identifying these two indicators is especially important. Image reuse and graphical integrity issues often need more complex and resource-intensive detection processes. In contrast, missing citations and statistical inconsistencies can be identified with relative ease and minimal investment without compromising the integrity of the evaluation. This economic efficiency is integral to streamlining the review process, particularly for venues with low resources.

Conclusion:
Our findings underscore the utility of prioritizing missing citations and statistical inconsistencies as economical yet effective markers for assessing research integrity. These insights can inform the development of targeted, cost-efficient screening protocols, enhancing academic publications' credibility and ethical standards while optimizing resource allocation in the evaluation process.

OP14.3: Mining tortured acronyms from the scientific literature

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Objective. The 'Problematic Paper Screener' (PPS, WCRI'22, https://doi.org/10.48550/arXiv.2210.04895) supports the human re-assessment of scientific articles flagged as suspicious. The 'tortured detector' tabulates 12k papers containing tortured phrases: established scientific concepts paraphrased with synonyms, such as 'butt-centric waterway' for 'anal canal.' Some acronyms are even tortured, such as 'Convolutional Brain Organisation (CNN)' for 'Convolutional Neural Network (CNN).' This abstract tackles the following task: discover and classify all acronyms from any given article: tortured or genuine.

Method. First, we built a test collection by sampling 75 tortured articles in open access in engineering. The first author visually studied each article to highlight and extract all acronyms, each one was labelled as tortured or not. Second, we designed heuristics to classify acronyms probing initials (mis)match. Third, we benchmarked the algorithm's output to compute recall and precision scores.

Results. The publicly released test collection (https://doi.org/10.5281/zenodo.10014634) contains 975 acronyms with 355 tortured and 53 suspects ones. Most tortured acronyms mismatch their initials (98%), genuine acronyms match their initials (97%), both may contain compounds and stop words. These statistics informed the designing of the classifier that yields 76% precision and 89% recall. Incremental failure analysis identifies false positives (e.g., examples given in brackets) and false negatives (i.e., matching acronym–initials yet irrelevant). As a positive consequence, we extended the list of tortured phrases used by the PPS with 190 new tortured phrases (4%). This extended list now informs the detection of papers featuring tortured acronyms.

Conclusion. The 'acronym classifier' allows the screening of incoming manuscripts or peer-reviewed articles and spot questionable passages. It as agnostic as it requires no prior knowledge of tortured acronyms already found. Publishers may add this screener in their editorial workflow, scientific sleuths can use it to screen articles for post-publication review. We welcome developers to use the test collection (and its foreseeable extended versions) to benchmark their own implementations and compare to the baseline performance reported in this WCRI abstract.

OP14.4: Year after year: Tortured conference series thriving in computer science

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Objective. The 'Problematic Paper Screener' (PPS, WCRI'22, https://doi.org/10.48550/arXiv.2210.04895) flagged 12k+ questionable articles featuring tortured phrases, such as 'glucose bigotry' instead of 'glucose intolerance.' It daily screens the literature for 'fingerprints' from a list of 4k tortured phrases known to reflect nonsensical paraphrasing with synonyms. We identified a concentration of 'tortured articles' in IEEE conferences and reported our concerns in November 2022 (https://retractionwatch.com/?p=127299). This WCRI submission unveils 'tortured conference series': questionable articles that keep being accepted in successive conference editions.

Method. We analysed data from the 'Tortured detector' of the PPS (https://bit.ly/PPS-tortured). The considered corpus includes articles from conference proceedings flagged with 5+ tortured phrases (n = 3848). We grouped the records by publisher and by conference. For each conference, we calculated the yearly (i.e., per edition) number of tortured articles included in the conference proceedings.

Results. The 3848 tortured articles were published over 2008–2023 in the conference proceedings of 11 publishers. Those publishing 10+ tortured articles are: IEEE (n = 3227; 84%), IOP Publishing (n = 314; 8%), AIP Publishing (n = 233; 6%), ACM (n = 45; 1%), and Atlantis Press (n = 10; <1%). IEEE (Institute of Electrical and Electronics Engineers) and ACM (Association for Computing Machinery) are the two flagship professional associations of computer scientists: they award the two major prizes in Computer Science (CS) and publish most of CS research. The 45 tortured ACM articles appeared in 35 conference editions, with a top concentration of 4 articles in AICTC'16. In contrast, way higher concentrations affected IEEE: up to 17% (n = 44) tortured articles appeared in the ICERECT'22 proceedings. Even more troubling: we flagged 172 conference series with 2+ tortured articles published over 2+ editions. The worst cases in volume and longevity are 1) ICACCS with 82 tortured articles over 6 years since 2017 and 2) ICCES with 75 tortured articles over 8 years since 2016.

Conclusion. IEEE has published the highest number of conference proceedings featuring tortured articles. We found evidence of affected conference series and advise IEEE to audit their peer review process to prevent further contamination of the literature.

OP14.5: Bad smells in reviewers' reports? Text-mining the MDPI Open Peer Review Corpus

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Objective. Malpractice affecting the reviewing process is detrimental to science. We introduce methods to reveal evidence of peer review manipulation, such as template usage, citation manipulations or botched and meaningless reviewer reports. We apply and evaluate these methods on a corpus of reports.

Method. We downloaded the "MDPI Open Peer Review Corpus 2" webscraped by Miłkowski et al. (2023, https://doi.org/10.18150/shkp7b). We focused on 'Round 1' reports, retaining those in plain text (excluding those uploaded as attached files). We computed statistics on report length, identified references suggested by reviewers with regular expressions, extracted frequent word sequences, and analysed the pairs of reports showing an inter-textual similarity higher than 90%.

Results. The MDPI corpus consists of reports for 135,653 accepted articles in MDPI journals from 2011 to 2022. We mined this 170 GB dataset and observed several shortcomings. Some reports appear to be truncated due to failed webscraping. The dataset we analysed contains 135,437 articles and their 339,387 associated reports. The average report has 270 words with a median length of 202. Microscopic reviews consist of one word only, such as 'accept', 'none', 'Nil' or 'N.A.' (n = 230). These seem to be reports (mis)presented by the publisher as 'Round 1' albeit resulting from a peer review ran for an undocumented earlier submission ('reject and resubmit' editorial act). Tiny reports of less than 20 words account for 3.5% of the dataset. We also searched for report templates being constantly reused. Report–report similarities show that 40 reports were almost identical. At least 10 articles share two identical reports. Large chunks of text were reused across unrelated 380 reports sharing at least 300 words in chunks of 10+ words. We also spotted potential coercive citations: some reports contain the same wording suggesting authors to add a set of DOIs/PMIDs.

Conclusion. We found very few evidence of questionable features in the MDPI reports. More research is needed to improve malpractice detection and assess its prevalence in (open) peer review reports. Once implemented into publishers' workflows, early misconduct detection should help to prevent botched reports, template reuse, and coercive citations.

OP14.6: Why do some retracted articles continue to get cited?

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Objective: Segments of retracted publications still receive substantial citations after the retraction, raising concerns in the community. This serves as an intriguing case to explore the limits of interventions into the scientific discourse. The presentation investigates reasons for ongoing citations and whether these lead to epistemic harm.

Methods: The research design is based on a case study, examining six Retracted Publications (RPs) with continuous and six RPs with decreasing citation dynamics, publications in both groups having been retracted due to falsification, fabrication, data or reproducibility problems. It employs co-citation analysis, an analysis of disambiguated concept terms and metadiscourse patterns (through keyword extraction and filtering) in citation contexts. This mixed methods approach integrates computational techniques with close readings for a thorough understanding.

Results: The co-citation and citation context analyses deliver evidence that (1) some RPs are part of ongoing discourses that are unresolved by the retraction – they are co-cited with publications providing supporting evidence; in one case retraction reasons (cross-contamination) did not fully account for the effects. There is also evidence of (2) specific informational values of disputed claims, such as the promise of innovative applications, and the danger of health risks for humans (if claim happen to be correct after all, i.e. citing authors err on the side of caution). Based on the concept term analysis it can be shown that (3) other than core empirical claims of RPs are cited (such as more generic claim levels and methodical claims). These different phenomena occur partly only, partly to a much more considerable extent in RPs with ongoing citations as opposed to those with citations decreasing after the retraction.

Conclusions: Epistemic harm should be approached in a differentiated way. The findings question the idea that retracted publications disseminate false claims unchecked. The possibility of harm cannot be completely dismissed, but the wider retraction corpus shows that retractions seem mostly effective, whereas in the minority of analysed high-profile cases with continuous citations normal scientific discourse prevails. These citations are less problematic than often assumed and can be explained by autonomous assessments of epistemic risk and informational value by the citing community.

OP15.1: Promoting diversity and inclusively in research through the concept of Ubuntu: A South African Perspective (Anderson-Kleinert Diversity Award)

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Objective: To motivate the inclusion of Ubuntu into research training programs and policies to foster inclusivity, social cohesion and accountability in responsible conduct of research
Background
Current debates on promoting best practices in science underscore the need for creating an enabling environment for responsible conduct of research within cultural context. Different strategies have been identified, including providing training to support researchers from diverse fields in conducting research in compliance with national and international guidelines, creating supervision and mentoring policies and guidelines, establishing rules for working transparently with partners and ensuring fair assessment procedures and preventing hyper-competition and excessive publication pressure, among others. Additionally, the Cape Town Statement on Fostering Research Integrity through fairness and equity advocates for diversity and inclusivity amongst its 20 recommendations, all of which aim to strengthen the research environment for responsible conduct of research.
Problem statement
South Africa is a multiracial, multicultural country yet is unified by the essence of Ubuntu. Ubuntu has diverse underpinnings, including Humanity-as translated by the Nguni language, and is synonymous with other Afrocentric values such as “botho” (Sesotho), “uhuthu” (XiTsonga) and “vumunhi” (TshiVenda) all of which translates to “humanness”. Increasingly, Ubuntu has become a powerful value for promoting social cohesiveness, care and reciprocal relationships among community members in SA and beyond. Despite efforts to promote research integrity in Africa, there is a lack of inclusion of Ubuntu and its underpinning principles.

This presentation will outline the benefits of integrating Ubuntu as a key research integrity principle. Using a normative argumentative approach and published case studies, the presentation will underscore how Ubuntu transcends basic ethical principles and research integrity principles and emphasize the critical role of humanness, compassion, and interconnectedness as core values in promoting inclusivity, accountability and diversity.
Conclusion
We argue that Ubuntu should be integrated with core research integrity and ethical principles. This can potentially enhance community cohesion and research integrity through virtuous researchers

Mejlgaard, N., Bouter, L. M., Gaskell, G., Kavouras, P., Allum, N., Bendtsen, A. K., ... & Veltri, G. A. (2020). Research integrity: nine ways to move from talk to walk. Nature, 586(7829), 358-360.

OP15.2: How Should Research Integrity be Introduced to Undergraduate Students? Insights from SURE-Africa Project at a Medical School in Southern Nigeria (Anderson-Kleinert Diversity Award)

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Research Integrity (RI) is pivotal in assuring quality research. To ensure responsible scientific research practices, RI principles should be integrated into the science curriculum and introduced early in the student's academic journey. More so, there is no evidence to suggest that undergraduates yet to experience research cannot appreciate education in responsible science. There is also no consensus on the most effective teaching methods regarding format, frequency, curriculum, mode and target audience. Therefore, leaving RI education exclusively for postgraduates may not achieve the desired knowledge and transformational effect since the exposure period is often limited to one-off events. Innovative teaching methods such as flipped classrooms, cinema or artistic representations, small group instruction, case-based or problem-based learning, gamification, and student-facilitated sessions, have proven to increase student engagement with science subjects.

In August 2023, we seized an opportunity within the collaborative Strengthening University Research Education in Africa (SURE-Africa) project to introduce RI to a cohort of 166 undergraduate medical students at Ambrose Alli University, Ekpoma. In this paper, we describe our innovative method for introducing research integrity to medical students before they embark on their research projects, with the aim of inspiring RI educators and trainers in universities. Due to the large class size, students were divided into eight cohorts, with 27 students per cohort for didactic RI lectures and smaller groups of seven students per cohort for research dilemma game sessions. Traditional lecture designs used European and American versions of the introduction to RI, while innovations included the Rotterdam Dilemma game, the Scientific Virtue Clock, an African short film (Tales by Moonlight-honesty), quotes on Ubuntu, a music video (on happiness-Eudaimonia), an Google images. These sessions, facilitated by both tutors and students, each lasted approximately 90 minutes.

Our observations revealed that all students actively participated, displaying sustained engagement, critical thinking abilities, and a keen eagerness to practice RI. Through a blended teaching design, appropriate duration, and innovative techniques, undergraduate science students at all levels can grasp RI principles. However, we recommend an empirical evaluation of our observations.

OP15.3: Best Practices and Lessons Learned from 30-Years of Teaching the "Responsible Conduct of Research" to Junior Faculty, Postdoctoral Scientists and Graduate and Undergraduate Students at Columbia University

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The U.S. federal National Institutes of Health (NIH) provides the most public funding for both biomedical research as well as research training. For many years, the NIH has required that all undergraduate/graduate students, postdoctoral scientists and junior faculty supported by an NIH institutional training grant, fellowship or career development award receive formal training in the Responsible Conduct of Research (RCR). This requirement includes those participating in long-term (e.g., 1 year or more) or short-term (e.g., summer) research training. In 1993, at Columbia University in New York, I developed and direct one of the 1st formal for-credit, full-semester course in the "Responsible Conduct of Research and Related Policy Issues" (http://researchethics.cumc.columbia.edu/). This presentation discusses the mission, development and implementation of this enduring course. Included is information on how the course continues to meet the challenges of expanding NIH requirements as well as new areas of biomedical research. Also discussed are the different student attendees, which represent a wide range of: (1) Research interests, e.g., translational and basic science, clinical and epidemiological research, bioinformatics and computation biology, nursing, dental, bioengineering, public and global health research, and (2) Education/training levels and individual career paths, e.g., undergraduate/early graduate students, postdoctoral scientists, clinical fellows and junior faculty. Details on the course include curricula, format, course content, structure, leadership and grading requirements. Criteria for identifying and including content-expert speakers, from both Columbia University as well as from other academic institutions (who represent a wide range of relevant areas of expertise and experience), are discussed. Also addressed are RCR topics that most resonate with class participants, as demonstrated by the subject areas they individually select for their required essays. The RCR topics they choose to further explore are reflective of their individual career stage and trajectory, research interests, and concerns for successful careers as independent investigators. Course topics include: Research misconduct; Mentee-mentor relationships; Safe research environments, Scientists in society; Authorship and publications; Human research participants; Data management; Laboratory animals; Conflicts of interest and commitment; Peer review; Intellectual property/technology transfer; Collaborative research; Industrial partnerships; Scientific method; and Strategies for a successful research career.

OP15.4: Achievements and Future Challenges in Establishing Research Ethics at the Korean University Council of Research Ethics (KUCRE)

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1. Purpose: To evaluate the achievements of the Korean University Council of Research Ethics (KUCRE), which was established as an autonomous council in 2015 as a representative non-governmental organization for the establishment of research ethics in Korean universities, over the past three years and to suggest directions for future development.

2. Methods: First, we focus on two programs that have been operating from 2021 to 2023: "Consulting on the operation of research ethics systems in universities" and "Operation of education programs to train research misconduct verification experts in universities." Second, it utilizes the methods of quantitative analysis focusing on satisfaction and qualitative analysis focusing on in-depth interviews to understand the specific achievements of each program operation, the reasons for them, and what should be improved and added in the future.

3. Results: First, a total of 31 universities participated in the consultation on the operation of the research ethics system in universities. The consultation focused on the diagnosis of the current level of the research ethics system including regulations, organization, budgets, personnel, education programs, and the investigation process for research misconduct allegations. Possible tactics for improvement or modifications are suggested based on the situation of each university. Second, 58 faculty members of different universities participated in the training program to foster research misconduct verification experts to work at their own universities. The program provides information on the domestic and international trends of research ethics and related guidelines on responsible conduct of research (RCR), and standard procedures for investigating research misconduct allegations. Experiences of handling research misconduct at different universities were shared.

4. Conclusion: KUCRE's two programs have contributed significantly to establishing research ethics in universities by helping universities establish an autonomous research ethics system and by training and utilizing the university's own research misconduct verification experts. In the future, it is necessary to expand the program to more universities and professors, as well as to develop tools to verify its effectiveness.

OP15.5: Evaluation of the Efficacy of Education and Training on Research Integrity for Young Researchers at KMUTT, Thailand

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The aim of this research is to assess the efficacy of research integrity (RI) education and training for young researchers, specifically graduate students at the master's and Ph.D. levels at King Mongkut's University of Technology Thonburi (KMUTT). We conducted a survey involving more than 1,000 early-stage graduate students who are planning to pursue master's or PhD thesis work across various faculties and schools. These students possess varying levels of background knowledge and awareness regarding RI. Some of them have completed the university-prescribed online RI training course and/or attended educational workshops, while others have not received any such training prior to participating in the survey. The survey findings from the group that received education and training will be compared with those from the group that did not receive any training (the control group). This comparison will utilize an online survey to gauge their knowledge in RI and assess the practical application of the knowledge they have gained from the training in conducting research. Furthermore, we will evaluate the participants' satisfaction with the training and their expectations for the training course. The overarching objective is for every trained graduate student to enhance their awareness and actively participate in fostering a culture of RI within the university.

OP15.6: Exploration of a new model of scientific research integrity construction in Chinese hospitals——Taking the experience of a Top 10 tertiary medical center as an example

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Academic misconduct in medical field occurs frequently around the world, which makes hospital administrators must pay attention to the education and management of academic norms. In recent years, under the leadership of the Ministry of Science and Technology of China, several programmatic documents related to academic integrity have been issued to guide scientific research institutions across the country to standardize the management of scientific research integrity issues. The Ministry of Education, the Health Commission and other departments work together to create a good academic atmosphere. Based on the above background, taking our hospital as an example, we are exploring a new model of scientific research integrity management.

1. Develop an online training system for scientific research integrity and academic norms. Conduct online training for all medical staff when new employees enter the job and graduate students enter the school, including academic norms related documents, academic integrity video broadcasts, online examinations, etc., and clinical work can only be carried out after obtaining the required credits.
2. Carry out intensive training at important time points. Carry out intensive training for relevant groups during National Natural Science Foundation of China project application and newly hired graduate tutors employing, etc. Carry out case education on typical cases of academic misconduct as a warning.
3. Develop an integrated system for thesis publication management. Before the paper is proposed to be submitted, the author is required to file in the system to indicate whether the target journal is a high-risk early warning journal. Within one month after the publication of the paper, the authors are required to upload all the original experimental data to urge the researchers to keep the original data for later traceability. If the page fee is too high, the system will also start the academic committee discussion mechanism to avoid possible improper business practices that affect academic justice.

Through the above various management modes, the academic integrity awareness of medical staff can be effectively strengthened, the occurrence of potential adverse events can be reduced, management efficiency can be improved, and the academic integrity of the hospital can be effectively promoted.

OP16.1: Stakeholders' Views about Research Misconduct in a Public University in Ghana

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Objectives
Anecdotal evidence exists that research misconduct (RM) occurs among academics in Ghana, yet little is known about the specific motivation and drivers in Ghana. Using an exploratory descriptive case study design, this study examined the views of key stakeholders in a public university in Ghana on the prevalence and drivers of research misconduct. Data was obtained from institutional policies and 30 in-depth interviews of Ghanaian academics in a public university in Ghana and analyzed thematically focusing on participants' perspectives on RM causes, enablers/inhibitors, and preventative interventions.

Results
It was noted that the causes of RM in academia are multifaceted and complex. Academics believed that RM existed in Ghanaian academic institutions mainly because of the concept of the "publish or perish" phenomenon. A regulatory definition of fabrication, falsification, manipulation, and plagiarism (FFMP) and a professional definition of failing to fulfill scientific norms but not falling under FFMP are two crucial perspectives on RM that emerged. It was found that while university rules offer recommendations for doing research responsibly, they make no specific mention of what constitutes RM, its associations, and how to identify such misconduct promptly.

Conclusion
It is being recommended that more objective ways of earning promotion in academics other than the "publish or perish" phenomenon which appears to be the main driver of RM in academia in Ghana.

OP16.2: Reflecting on the implementation of a newly developed integrated research integrity management system: North-West University, South Africa

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During the 2022 WRIC I presented the newly developed Integrated Research Integrity Management System (IRIMS) for the Faculty of Health Sciences at the NWU. The integrated approach refers to both 1) an approved framework for fostering a climate of responsible conduct of reseach through support, organization, communication, and training, as well as 2) various SOPs for handling breaches in research integrity on faculty level in a restorative fashion. If the breach involved non-compliance or violation of good research practice the restorative approach was followed and included individualized formal mentorship under a senior researcher and training. If, however, the breach involved research misconduct (FFP) the actions would be more disciplinary in nature and the case escalated.
In 2022 this system was rolled out to the rest of the seven faculties with the support of the DVC: R&I (strong managerial support) and ensuring buy in by the deanery and faculty management, but also academics. A bottom up buy in approach was followed. A research integrity web page was created. This presentation will focus on the strategy followed to get this buy in and final approval of the IRIMS. Due to it being a newly developed system the initial focus in 2022 was getting the buy in and focusing on breaches and the handling thereof with lots of training sessions. During 2023 the focus was more on the fostering of a climate of RCR by introducing the approved framework through discussions on faculty level with academics and spontaneously leading to the development of a RIPP for each faculty.
As the system unfolded a history developed and it became known how restorative processes using individualized mentoring led to growth of researchers with no further consequences for i.e., promotion and acceptance of IRIMS grew. Researchers also felt comfortable to consult if there were uncertainties. This session will also include reflections on lessons learnt – good and bad – during this process by briefly focusing on reflections through the eyes of the research integrity management, RIO, Researcher Directors, and the Head of the Ethics Office on IRIMs over the past two years.

OP16.3: The State of Research Ethics and Integrity among University Students in Africa: Insights from selected Botswana Higher Education Institutions.

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Objective:

1. To investigate the awareness, understanding and compliance of research integrity and ethical guidelines among University students in Botswana.
2. To identify the barriers to research integrity and ethical compliance among University students in Botswana.
3. To recommend strategies for strengthening compliance with research ethics and integrity principles within the Botswana University context.

Method:

This study utilised a survey-based research design and sampled the top 6 out of 10 registered Botswana Universities. The study used SPSS 29 for a detailed descriptive analysis of the respondents' perceptions of research ethics and integrity and applied thematic analysis to capture the strategies for enhancing compliance with research ethics and integrity principles.

Results:

The study, based on responses from 135 participants, revealed significant findings regarding research ethics and integrity within the sampled Universities in Botswana. Although a majority (87.4%) were aware of research ethics structures, and 80% claimed a clear understanding of research integrity principles, this awareness did not consistently translate into a culture of research ethics and integrity within the sampled Universities. Notably, 53.3% of respondents were unaware of any such culture in their Universities. This indicated a disconnect between theoretical knowledge and practical adherence to ethical research principles.
The primary reasons for this non-compliance and deviation included a lack of training specific to research ethics and integrity, leading to unintentional ethical violations. Moreover, inadequate guidance from supervisors and faculty members, particularly in cases where supervisors lacked the expertise for effective ethics supervision, contributed to deviations from ethical research practices. In remedying these deviations, the study proposed several recommendations under key themes including seminars, workshops and continuous professional development, the inclusion of ethics education in academic curricula, mentoring programs, transparent reporting mechanisms, stricter penalties for unethical behaviour, and extending the dissertation period to ensure sufficient time for quality research.

Conclusion:

The study is limited to Botswana University students' perceptions with the exclusion of other perceptions. The study reveals a gap between awareness and compliance in research ethics and integrity and strongly emphasises the need for practical measures to align awareness and implementation of research ethics and integrity within Botswana Universities.

OP16.4: Development of Legislative Interventions and Policies for Preventing Research Misconduct in Africa

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Objective: This systematic review outlines a comprehensive research project aimed at the development of legislative interventions and policies to proactively prevent research misconduct within the African context. Acknowledging the paramount importance of research integrity, this project underscores the necessity of creating comprehensive guidelines and regulations tailored to the specific needs and challenges of the African research landscape.
Method: The methodology of this research involved an extensive analysis of existing legislative frameworks and policies in various African countries. This analysis was undertaken to identify gaps, weaknesses, and areas for improvement in the existing regulatory landscape pertaining to research integrity.
Results: The systematic review findings yield valuable insights that hold the potential to reshape the landscape of research misconduct prevention in Africa. By identifying shortcomings in current legislative approaches and proposing innovative solutions, this research project serves as a catalyst for the development and implementation of more effective strategies and policies aimed at safeguarding the integrity of research within the African academic and scientific communities.
Conclusion: The culmination of this research project represents a significant step forward in ensuring that African research endeavours uphold the highest standards of ethics and accountability. Furthermore, it stands to empower African nations with the tools and knowledge needed to foster a culture of responsible research conduct, ultimately contributing to the advancement of science, innovation, and credibility on the continent and beyond.

OP16.5: Challenges in Setting up a Research Integrity Office in a Lower Middle-Income Country (LMIC) Academic Institution: Lessons from Moi University, Kenya.

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Background: Research integrity offices (RIO) to promote research integrity (RI) and manage allegations of research misconduct (RM) are uncommon in low-middle-income countries (LMICs). We describe our experience setting up a RIO in Moi University, Kenya.
Approach: Moi University has a robust collaborative health research program. We implemented our project between 2017 and 2023. The approach included baseline studies, bench-marking, co-creation of an institutional research integrity framework, and setting up of the RIO. We describe challenges encountered, approaches to addressing them, and lessons learned.
Challenges and Mitigation: Four challenges were encountered and successfully mitigated
1. Lack of local data: We surveyed 100 researchers and administrators in health research institutions on awareness, occurrence, and guidelines for RM.
2. Lack of national guidelines on RI: We held a 3-day national workshop attended by 70 researchers, ethics committee members, research directors, national research regulators, and 3 international experts to develop a model institutional framework for RI.
3. Lack of local case studies: We bench-marked with two institutions (University of South Africa and Indiana University, USA) with functional structures for RI.
4. Lack of institutional guidelines on RI at Moi University: We developed a contextualized curriculum on responsible conduct of research and embedded policies on RI into the institutional research policy.
Lessons learned: Our findings showed RM was perceived as frequent while institutional guidelines on RI were lacking. Reports of RM were associated with perceptions of the effectiveness of institutional guidelines on RM. Focus on promotion of RI was considered more productive than on managing RM. We learned early inclusion of institutional leadership is critical in achieving institutional buy-in, the proposed framework must complement existing institutional policies, and a champion is needed to push the RIO agenda. Institutional guidelines should include policies and standard operating procedures focused on rewarding research/scholarship while preventing and managing RM. Lastly, the RIO needed to be separate from the research ethics committee.
Conclusions: The promotion of RI through RIOs is a new but core requirement for the full integration of LMIC research institutions into the global research market. National and institutional challenges must be overcome to set up RIOs.

OP16.6: Research Integrity in Higher Education Institutions in the countries of the Andean Community

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In recent years, research ethics and integrity have entered the field of general universities in Latin America due to their need to climb positions in international rankings. To this end, they have been concentrating efforts on the institutionalization of research through carrying out multi-country research, obtaining grants and generating publications, among others.

However, from a quick review of the regulations of some well-positioned universities in the Latin American region, it could be infer that the ecosystems designed for the management of research ethics and integrity are unsystematic for the management of the issue within each institution, as well as for the need to coordinate different types of multicenter research.

Likewise, the confusion between the research ethics with people and the research integrity has led to the creation and implementation of ethics committees with both functions that, far from facilitating the work, we sense has ended up generating greater efficiency problems for ethical evaluations that research projects require.

Apparently, the universities of the countries of the Andean Region best located in the rankings are not the exception.
In order to verify our hypothesis, the universities of the Andean Community countries (Bolivia, Colombia, Ecuador and Peru) located among the 1000 best in the QS Ranking have been identified with the purpose of analyzing the research ethics ecosystems and integrity that each one has designed. There are 18 universities: none in Bolivia, ten in Colombia, two in Ecuador and four in Peru.

The initial findings are quite significant: great confusion is observed in the roles of the research ethics committees and those for research integrity, as well as an absence of regulation that indicates the powers that each one has.

At the end of this diagnosis, we will be able to identify weaknesses and confusions that have been incurred in the design and implementation of the research integrity ecosystems with the purpose of proposing improvements that are consistent with the nature of the institutions involved in the analysis, as well as the reality of the member countries of the Andean Community that host the universities that have been the subject of study.

OP17.1: The Individual Participant Data (IPD) Integrity Tool for assessing the integrity of randomised controlled trials

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Objective: Mistrust in research is increasing, causing some to argue that relying solely on publications or summary-level trial data is no longer sufficient. The availability of individual participant data (IPD) enables more comprehensive integrity checks, but guidance on which checks to use and how to conduct them is lacking. We aimed to address this by developing a tool for assessing the integrity of randomised controlled trials (RCTs) using IPD.
Method: We conducted a literature review to identify existing methods to assess the integrity of RCTs and their IPD. These were mapped into key domains and discussed among an expert advisory group. Agreed items were incorporated into a standardised tool and automated where possible. This tool was piloted on 73 trials from two IPD meta-analyses, a sample of five trials with IPD datasets flagged by journal editors as having known integrity issues, and eight similar datasets without known integrity issues. Evaluation workshops were held to iteratively refine the tool.
Results: We developed the IPD Integrity Tool, comprising seven study-level domains (retraction notices and expressions of concern, provision of IPD, ethics approval, trial registration/protocol, communication with investigators, randomisation, and plausibility of recruitment rate, follow-up, results and author group) and eight IPD-specific domains (unusual or repeated data patterns, baseline characteristics, correlations, date violations, patterns of allocation, internal inconsistencies, external inconsistencies, and plausibility of data). Within each domain, items are rated as having either no issues, some/minor issue(s), or many/major issue(s) according to decision rules, and justification for each rating is recorded. If there are many and/or major issues that cannot be resolved, the study should be excluded from evidence synthesis and/or not considered suitable for publication. In our validation checks, the Tool accurately identified all five studies with known integrity issues.
Conclusions: The IPD Integrity Tool enables users to assess the integrity of RCTs via examination of IPD. The Tool may be applied by various stakeholders, such as journal editors to prevent publication of untrustworthy studies, and systematic reviewers to assess RCTs for inclusion in analyses. The overarching goal is to ensure that only trustworthy evidence informs guidelines, policy and practice.

OP17.2: Academic and research misconduct among health and non-health students: which Big 6 personality profiles are at higher risk in each field?

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Objective: Personality has been associated with academic and research misconduct. Traits such as compassion, humility and honesty are particularly valuable in health professionals. In a previous study, we found that more manipulative medical students, who display less of these attributes, were more likely to report academic misconduct. In this study, we aim to explore how personality is associated with misconduct in health versus non-health students.

Method: The participants of this study are Portuguese health and non-health students at the University of Porto (U.Porto). Data is being collected cross-sectionally using the HEXACO-60 and a validated multiple-choice questionnaire to assess students' academic and research misbehaviour (e.g. cheating, plagiarism, fabrication and falsification). A regression model adjusting for personality traits, field of study and demographics of the students will be performed. This study was approved by the Ethics Committee of the University of Porto.

Results: This work is part of a PhD integrated into a wider research project at the U.Porto, in collaboration with the European Network for Academic Integrity (ENAI). Over 300 students from medical sciences and humanities have replied to the questionnaires. Data from other non-health fields is also being collected. Correlations between student misconduct and the six personality dimensions have been initially explored. Three of the Big 6 traits revealed statistically significant correlations with student-reported misbehaviour. The personality traits associated with misconduct in health students were different than those associated with reported misbehaviour among humanities students. These initial findings suggest differences among health and humanities students regarding the personality profiles who are more likely to report academic misconduct. Prospective results, considering other non-health fields and adjusting for demographics, will further contribute to understand the relationship between personality and misconduct.

Conclusion: Academic misconduct, if not adequately tackled, can carry over into professional and scientific practice, negatively impacting society and the truth of science. This presentation will shed light on the different profiles of students at risk of breaching integrity in health and non-health fields and discuss strategies on how to better support them.

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OP17.3: Development of a tool (INSPECT-SR) to identify problematic randomised controlled trials in systematic reviews of health interventions

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Objective
Cochrane defines a problematic study as one "where there are serious questions about the trustworthiness of the data or findings". These studies contain false data, and may be entirely fabricated. In systematic reviews of health interventions, the goal is to identify all randomised controlled trials (RCTs) which have been conducted on the topic, to critically appraise them, and to synthesise their results. Critical appraisal is usually restricted to considering methodological quality; authenticity is not routinely considered. As a result, problematic studies go unnoticed, and contribute to the conclusions of influential systematic reviews. The INSPECT-SR (INveStigating ProblEmatic Clinical Trials in Systematic Reviews) project has developed a tool to assess the trustworthiness of RCTs, to prevent problematic studies from influencing patient care.

Methods
A protocol was published online (https://www.medrxiv.org/content/10.1101/2023.09.21.23295626v2). INSPECT-SR was developed in five stages: 1) survey of experts to assemble an extensive list of checks for assessing trustworthiness, 2) the list was applied to 50 Cochrane Reviews, to evaluate feasibility and impact, 3) Delphi survey to establish which checks were supported by expert consensus, 4) consensus meetings to determine the content and form of the tool, 5) testing in the production of new systematic reviews.

Results
More than 100 experts and potential users contributed to the development of the INSPECT-SR tool. Results from the development process will be presented, together with the resulting tool. The tool guides the user through a series of trustworthiness checks in four domains: Inspecting text and publication details, Inspecting the results in the paper, Inspecting conduct, governance, and transparency, Inspecting the research team and their work. The tool can be applied when undertaking health systematic reviews to identify problematic RCTs.

Conclusion
INSPECT-SR is a feasible, open-access tool for evaluating problematic studies in health systematic reviews, developed using empirical evidence, theoretical considerations, expert consensus, and user testing.

OP17.4: Are global clinical trial funders policies on clinical trial registration and reporting improving? - a cross-sectional study

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Objectives: Assess the extent to which the clinical trial registration and reporting policies of 25 of the world's largest public and philanthropic medical research funders meet best practice benchmarks as stipulated by the 2017 WHO Joint Statement, and document changes in the policies and monitoring systems of 19 European funders over the past year.
Method: Cross-sectional study, based on assessments of each funder's publicly available documentation plus validation of results by funders. Our cohort includes 25 of the largest medical research funders in Europe, Oceania, South Asia, and Canada. Scoring all 25 funders using an 11-item assessment tool based on WHO best practice benchmarks, grouped into three primary categories: trial registries, academic publication, and monitoring, plus validation of results by funders.
Results: The 25 funders we assessed had put into place an average of 5/11 (49%) WHO best practices. The best practice adopted by most funders 16/25 (64%) was mandating open access publication in journals. In contrast, only 6/25 funders (24%) took principal investigators' past reporting record into account during grant application reviews. Funders' performance varied widely -UK National Institute for Health Research was the only funder that adopted all 11 policies. Several other funders have also put strong research waste safeguards in place. However, Italy's Ministry of Health and Instituto de Salud Carlos III both failed to score any points. Of the 19 funders for which 2021 baseline data were available, 10/19 (53%) had strengthened their policies over the preceding year. Average number of policies adopted by this cohort rose from 4/11 items (36%) to 5.5/11 items (50%) during 2021-2022.
Conclusions: Medical research funders should do more to curb research waste and publication bias by strengthening their clinical trial policies. Funder policies do not necessarily translate into improvements in practice, especially if funders do not actively monitor grantees' compliance with their requirements, a notable study limitation. Strong clinical trial registration and reporting policies coupled with monitoring and sanctions reduces research waste and promotes transparency This study enables funders worldwide to address gaps in their clinical trial transparency policies by pinpointing exactly where they fall short of WHO best practices.

OP17.5: Fabricated studies in women's health: disconcerting experience from a whistleblower

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Background: In the last 5 years I have raised my voice against untrustworthy and fabricated papers in my field women's health. Here I describe my experiences as a whistleblower.

Methods: I have written to editors and publishers about >700 articles. Concerns included implausible time-lines and effect-sizes, discrepancies between publication and trial-registration, data-copying from other articles, plagiarism and wrong statistics. The formal response numbers are reported to this meeting as abstract 493.

Results: There were no standards for investigation. Original data were shared with me in 53 cases, of which 45 showed clear signs of data-fabrication. In one case, the journal limited its investigation to the data-set provided by the senior author, while denying a problematic data-set provided by an author that stepped down after publication. In the investigation of that paper, a hospital in London, UK, cleared a clearly fabricated dataset without formal statistical review. None of the cases flagged in institutes in Canada, China, Egypt, Iran, India and Italy resulted in a serious investigation.
Some editors copied me in while writing to authors, suggested a letter-to-the-editor, named me in the retraction message or published my name in an editorial. I have asked advice from the committee for publication ethics (COPE) in five series of cases about evident fabrication that was not dealt with in reasonable timelines. Despite evident fabrication, publishers state after years 'they are looking for a statistician' or that 'a case is complicated as the author is not sharing data'. COPE subsequently confirmed this was all according to their guidelines.
I have been accused of being a racist by numerous authors from 4 countries, with multiple authors complaining at my university and one UK based author accusing me of racism at the Australian Medical Regulator. Eighteen of my own papers have been accused of fabrication and investigated, all without any finding of wrongdoing.

Conclusions: In addressing fabricated medical research, the problem is not the detection of fabricated papers. The main problem is that the overwhelming majority of stakeholders is looking away, in a desperate attempt not to see scientific wrongdoing. I wish you all a fruitful conference.

OP17.6: How to Deal with Academic “Inbreeding”?: Inmobility, Mobility and Meritrocracy in Research and Higher Education Institutions

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The lack of institutional mobility, also known as 'academic inbreeding' (or ‘endogamy’) is a sensitive issue in human resources practices in research and higher education. Inbreeding typically refers to recruiting staff that has been trained, often as Ph.D., at the same hiring institutions, where many of them achieved tenure.
Inbreeding often has a negative connotation due to a combination of mechanisms. Firstly, such practices can compromise scientific integrity, create barriers to meritocracy, and, in extreme cases, lead to nepotism and corruption. Secondly, immobility can inhibit institutional renewal and hinder scientific innovation. These effects can leak into research systems, undermining talent acquisition, competitiveness, and scientific progress.
The management of inbreeding is challenging because of the entrenched practices and the need for talent retention. Research groups, university departments, and institutes make considerable efforts to train specialized academics and researchers. As a result, retention strategies inadvertently promote limited mobility. Prestigious institutions are the most studied in this regard because they train highly capable academics and they tend to recruit the people they need from their reservoir. In addition, mobility is often limited to similar institutions and ends in returning to the same place. That is why, in many countries, the most prestigious institutions also show higher levels of inbreeding.
The state of research reveals significant gaps in both conceptual understanding and effective management. One of the main problems is the lack of clear concepts and indicators to distinguish beneficial from harmful practices.
This paper criticises the concept of endogamy. It argues that it is a foreign concept for the social science background. Thus, the argument focuses on different types of meritocracy to qualify recruitment and promotion. It also provides an analytical elaboration based on organizational theory, specifically contrasting 'local' versus 'cosmopolitan' orientations. The former is aligned with merit-based criteria tailored to specific institutional needs, while the latter reflects broader scholarly recognition, typically linked to contributions to public knowledge.
The article uses empirical data from Spain to analyse types of immobility and their relationship to meritocracy. It proposes a set of useful practices and indicators to avoid simple interpretations and unintended consequences.

OP18.1: China's research integrity monitoring system study and it’s application

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Research integrity monitoring is an effective way to understand the status of research integrity. This study conducts in-depth research and practice on the China's research integrity monitoring system. First, the development process, the management system, and the key influencing factors of research integrity in China were analyzed in detail. Then, research integrity related evaluation, surveys, and annual reports from the United States, Denmark, Finland, Austria, and the Netherlands were carefully studied. On this basis, four necessary characteristics of China's research integrity monitoring indicator system were proposed, they are comprehensiveness, dynamism, operability, and efficiency, as well as eight key indicators of the monitoring system were identified. Based on the above study, a national level research integrity monitoring indicator system was establish, which consists of 7 primary indicators and 23 secondary indicators. The primary indicators are institutional framework, management system, education and publicity activities, misconduct cases, retraction of misconduct papers, research and cooperate, satisfaction of society. From 2019 to 2022, four annual monitoring of China's nationwide research integrity were conducted using this system. Case study, network retrieval, questionnaire survey, bibliometrics, symposium, and field research were used to collect data. The monitoring results show that significant progress in research integrity has been made in China in recent years, including institutional framework building, management mechanisms improvement, investigation and exposure misconduct cases, and a significant increase in social satisfaction with research integrity. However, there are many challenges that China encountered, such as research integrity education, paper mills, and the challenges from new technologies. This study successfully established China’s first national level research integrity monitoring system, and the monitoring results and policy suggestions provides effective support for the government decision-making.

OP18.2: Cross-Institutional Research Integrity Training Model - Facilitator Dialogical Reflections

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A Cross-Institutional Research Integrity Training (CIRIT) consortium made up of representatives of Irish Higher Education Institutions (HEIs) and Research Performing Organisations (RPOs) was established in 2021 to develop and deliver seminars on Research Integrity (RI) and Open Research (OR) practices to research stakeholders nationally. Underpinning the CIRIT model is a virtue approach to RI with participants working in small groups to dialogue and reflect on moral conflicts and dilemmas using Problem Based Learning (PBL) and social constructivist pedagogy.

The aim of this research was to review a CIRIT model using facilitator dialogical reflections. Objectives of the research were 1) to ascertain the effectiveness of the current CIRIT delivery model, and 2) to consider the future development of CIRIT.

An action research methodology was employed. CIRIT facilitators acted as insider researchers and conducted two action research cycles over a twelve-month period. Post-seminar dialogical reflection findings were actioned for subsequent seminars. A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis methodology framed the dialogical reflections.

Key findings of the research included: the strength of the open honest relationships among the CIRIT facilitators; the diverse competencies of the individual facilitators; the strong seminar organisational skills; the complementary nature of the training to other RI training offerings; and the development of a standard delivery model fine-tuned over a number of iterations. This has ensured the design, organisation, delivery, and continuous improvement of high-quality, professional seminars. A weakness identified was the lack of accreditation and recognition by funders, which may have disincentivised some potential participants. Online delivery also offered its challenges. Opportunities for CIRIT include growing the range of training offerings, enlisting facilitators from more HEIs and RPOs, and offering/delivering training across Europe. Funding and resourcing were identified as the main threats to the growth of CIRIT.

The CIRIT model was found to be effective, providing training that encourages strong participant engagement to foster an RI community of practice. The strength of the consortium and the opportunities identified put CIRIT in a position to grow and evolve as a training model to suit an ever-changing RI and OR landscape across Europe.

OP18.3: A multi-dimensional learning strategy to foster research integrity

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The European Code of Conduct for Research Integrity (RI) and recent European Commission (EC)-funded research endeavours underline the pivotal role of research institutions in imparting comprehensive RI education. Recognizing the intricate nature of RI in diverse academic disciplines, tailored training becomes essential at the faculty, department, and doctoral school levels. Discipline-specific training should not only deliver knowledge but also emphasize the development of researchers' moral character, ethical reasoning, and practical skills. Encouraging interactions and discussions between research supervisors, ECRs, and supervisees is vital to bridge the gap between theory and practice. To complement traditional top-down training, research institutions should promote diverse learning approaches. Group mentoring, peer mentoring, and reverse mentoring bring fresh perspectives and enrich discussions on responsible research practices. The proposed multi-dimensional learning strategy incorporates various training approaches and objectives at different levels, optimizing the learning experience. It encourages constructive dialogues among all stakeholders involved in research, fostering active participation, knowledge exchange, and empathy. This approach creates an inclusive and diverse learning environment, enhancing research integrity. Grounded in European research initiatives and projects, these recommendations provide a roadmap for research institutions to reinforce their commitment to research integrity, promote responsible research practices, and contribute to a culture of integrity.

OP18.4: Interventions to Support Healthy Authorship Practices in Research Teams

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Objective: Authorship on publications is critical for success in academia, but students and faculty often differ in their perceptions of what matters for authorship. We conducted an educational intervention for graduate students (n = 185) and faculty (n = 118) engaged in collaborative research to provide formal training in authorship ethics and good practices.

Method: All participants came from our large, public, research-intensive university in the United States. Students completed a short, online, asynchronous training course on authorship practices and ethics. They also completed an authorship agreement with their faculty research mentor for a current research project. Half of the student participants were randomly assigned to completed an additional synchronous workshop on authorship ethics with study personnel. All students were surveyed before and after the training to evaluate the intervention's effectiveness. Students were paid for their participation. All procedures were IRB approved.

Results: Analysis of the pre- and post-training survey results showed our intervention positively improved students' self-ratings of their authorship knowledge and their confidence navigating authorship decisions and advocating for themselves. Students' perceived stress over potential authorship conflicts decreased. All students and faculty mentors successfully completed their assigned authorship agreement form, with students reporting that the form was 'helpful' and 'improved understanding of how the [principal investigator] views authorship'. Nearly all students reported the intervention deepened their appreciation of the ethical complexity of authorship and changed their understanding of authorship practices. Participants assigned to the additional workshop showed slightly weaker gains in confidence in discussing authorship plans with collaborators than participants who did not undergo the workshop, but they did not differ in other outcomes.

Conclusion: These findings suggest formal training may help institutions effectively promote good authorship practices among students and faculty. Our sample came from multiple disciplines, but a single institution. Other institutions may need to adapt our project resources further for their cultural context. We did not observe added benefits for students receiving the additional workshop, suggesting online training, paired with authorship conversations with a mentor, is a sufficient resource investment for institutions looking to positively impact knowledge and perceptions regarding authorship ethics.

OP18.5: Promoting excellence in research through integrity – developing a theoretical foundation for open distance e-learning

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Integrity, in its broadest sense, is a concept that is at the heart of African cultures. Examples include initiatives such as Batho Pele in South Africa, which is a Sesotho word translating to “People First”. Batho Pele communicates eight principles: consultation, standards, equal access, courtesy, accurate information, openness and transparency and value. Another example of integrity is Ubuntu – derived from the isiZulu phrase Umuntu Ngumuntu Ngabantu (a person is a person because of others). The principles encompassed in the philosophy of Ubuntu include justice, responsibility, equality, collectiveness, relatedness, reciprocity, love, respect, helpfulness, community, caring, dependability, sharing, trust, integrity, unselfishness and social change.

This paper aims to develop theoretical insights in research ethics and integrity, to form the foundation for educating staff and students within an open distance education and e-learning (ODeL) environment.

The theoretical framework informing this paper is andragogy. It is theorised that the development of research ethics and integrity education and interventions that speaks to the adult learner, should lead to a deeper engagement with research and a lifelong commitment to excellence and making a difference in communities. Andragogy incorporates the principles of readiness to learn, motivation, self-concept and self-directedness, orientation, and experience, to address the unique needs to adults within a learning environment. Breaking away from the concept of merely conducting research as a means to finish a degree, creates an opportunity for research to become a vehicle to change.

The systematic literature review was conducted and reported using the PRISM technique. Specific search terms were used to search the following databases: Web of Science, Ebscohost, Scopus and Sabinet. A thematic analysis was conducted on the content of the identified research publications to develop a sound theoretical foundation for the development of ODeL-friendly training content.

This paper explores best practice in research ethics and integrity teaching and learning with the aim of applying it within an ODeL environment. By researching and adapting best practice in research ethics and integrity teaching and learning to an ODeL environment, the content of this paper encourages the integration of African philosophies in adult and distance education.

OP18.6: Fostering Research Integrity Culture through Rotatory Role-Playing: A Study on Enhancing Awareness of Research Integrity Code of Conduct

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Ensuring research integrity and promoting a robust academic ethics culture are the academic community cornerstones. The EU Horizon 2020 initiative, precisely the "Path2Integrity" project, has introduced innovative strategies to bolster research integrity, including using "rotatory role-playing" as an educational method. This study delves into the application of rotatory role-playing with scenario-based learning, focusing on the core principles of academic integrity, exemplified by the "Taiwan Code of Conduct for Research Integrity," such as honesty, respect, transparency, etc. The primary objective is to examine the impact of this educational approach on students' awareness and internalization of academic integrity principles, both before and after the learning experience.

The study reveals a significant enhancement in students' awareness and internalization of academic integrity principles through rotatory role-playing. By immersing students in authentic ethical scenarios, they grapple with ethical dilemmas, deliberate on the consequences of their actions, and engage in meaningful dialogues. This immersive learning experience empowers students to make well-informed decisions grounded in ethical considerations, ensuring a genuine commitment to academic integrity rather than mere lip service.

The "rotatory role-playing" technique enables students to step into the shoes of researchers confronting ethical challenges, fostering a profound understanding of the essence of integrity. This approach transcends superficial adherence to rules, shaping students into ethical researchers equipped to uphold the principles of honesty, respect, and transparency throughout their academic careers.

This study underscores the potential of innovative educational approaches, like rotatory role-playing, in instilling a lasting culture of research integrity among emerging scholars. It highlights the importance of experiential learning and scenario-based education in promoting ethical conduct within academia, ultimately safeguarding the quality and credibility of academic research.

OP19.1: Surveys of Institutional Research Culture - Can we measure change?

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Background: Following the Wellcome Trust survey published in 2019 the University of Edinburgh deployed a modified version of the survey in 2020, and again in 2022. We have been keen to develop a quantitative framework to establish whether different groups within our community experience our research culture differently, and how our research culture changes over time.

Methods: Most survey questions invite a 7-item Likert scale response. We used Ordinal Logistic Regression (applied to each question) to compare responses from different groups, and to compare responses across time (adjusted for differences in the demographic characteristics of respondents in different years). Then, we used random effects meta-analyses to estimate the change in research culture over time.

Results: There were 1494 responses to the 2020 survey (summary at doi.org/10.17605/OSF.IO/82F4X, data at doi.org/10.7488/ds/2990) and 941 responses to the 2022 survey (summary at doi.org/10.17605/OSF.IO/82F4X, data at doi.org/10.7488/ds/7485). 73 questions were asked in both surveys. After adjusting for College (Arts, Humanities and Social Sciences; Medicine and Veterinary Medicine; Science and Engineering), status (academic; PhD student; research professional), sexuality, gender, disability, caring responsibilities and first generation to go to University, responses to 3 questions indicated a significant worsening in research culture, for 20 questions there was a significant improvement, and 50 were unchanged. It was not possible to adjust for race or ethnicity because of improvements in how these were recorded in 2022, or for transgender status because of the relatively low number of respondents.
Overall, random effects meta-analysis suggested a significant improvement in research culture (odds ratio 1.092, 95% confidence interval 1.052 to 1.134). There were differences in the pattern of responses across Colleges, informing both the local implementation of improvement strategies and the identification of best practice to share across Colleges.

Discussion: The findings of our research culture surveys have informed our Research Culture Delivery Plan. While the apparent improvement in perceptions of research culture is welcome, we do not yet have sufficient experience to know whether this statistically significant improvement represents a culturally significant improvement.

Limitations: Reducing the complexities of changes in research culture to a single number may be unwise.

OP19.2: Conflict Resolution, Accountability, Respectful Interactions, Ethics, and Supportive Environments (CARES): Development and Validation of an Organizational Climate Survey

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Objective: To describe the development and validation of the CARES Climate Survey, a 22-item measure to assess interpersonal dimensions of work-unit climates. Dimensions of work-unit climates are identified through work-unit member perceptions and include civility, interpersonal accountability, conflict resolution, and institutional harassment responsiveness. This work recognizes that disrespectful, hostile, and intimidating behavior may be targeted towards numerous groups of organizational members based on multiple dimensions of their identities, often intersectionally.

Method: Two samples (N=1384; N=868) of academic researchers, including one from the North American membership of the American Geophysical Union (AGU), and one from a large research-intensive university in the U.S., responded to the CARES and additional measures via an online survey.

Results: As hypothesized, exploratory and confirmatory factor analyses identified four dimensions addressing unique but correlated aspects of interpersonal climates in organizations. Moreover, the CARES dimensions correlate positively with important organizational outcomes such as workgroup integration, organizational citizenship behavior, work unit diversity climate, and work unit experiences, and negatively with important individual outcomes such as continuance commitment to one's employer. Multi-group confirmatory factor analyses established the invariance of scale measures across a broad range of salient sub-groups. This speaks to questions of intersectionality, suggesting that different groups perceive and respond to the survey items using the same frames of reference, or cognitive schema. CARES is not a measure of the frequency or prevalence of interpersonal interactions whether respectful or harassing. We have specifically avoided inclusion of experientially framed survey items that tap concepts such as harassment frequency. Moreover, although some of the CARES items tap into aspects of diversity, equity, and inclusivity, CARES is not a DEI survey.

Conclusion: The CARES is a brief, psychometrically sound instrument, usable by researchers, institutional leaders, and other practitioners to assess interpersonal climates in organizational work-units. This is the first study to develop and validate such a measure of interpersonal climates specifically in research-intensive organizations, using rigorous psychometric methods, grounded in both theory and prior research on work-unit climates. Limitations of this work include the data collection occurring only in North America, and limited outcomes measures being collected.

OP19.3: Signs, Symptoms, and Situations of Moral Distress During the Pursuit of Research Excellence

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Objective: Moral distress occurs when researchers experience emotional suffering or anguish when scientific procedures appear to conflict with one's personal values or obligations. Programs to support researchers experiencing moral distress are non-existent or limited at most research performing organizations. We present the results of our moral distress findings, and the Moral Distress Consult Service launched in 2023 at Roche – a global healthcare research organization developing drug, device, and diagnostic products. Roche has active research programs in various ethically complex areas including human stem cells and organoids, gene therapy, rare diseases, pediatric diseases, and implantable medical devices.

Method: Data from the Ethics Consultation Service log (January 2023 - September 2023) were reviewed for the tag "moral distress" as well as topic area. Google Scholar and PubMed were reviewed (English language, any time) for articles about moral distress in the research setting using keywords, "moral distress", "research", "bioethics".

Results: 23 of 86 (27%) ethics consultations evidenced a moral distress component. Situations triggering moral distress include drug access/equity (11, 48%), vulnerable populations and rare disease (5, 22%), project termination (4, 17%), organizational ethics (2, 9%) and human stem cell research (1, 4%). Moral distress in the research setting has been rarely explored, with only 5 articles identified. Our Moral Distress Consult Service was launched in July 2023 and uses the RESTORE method to enable discussion and processing of an experience, hearing different moral perspectives, and providing an opportunity for closure on a troubling experience. Each consult provides a written advisory report to the researcher and service quality is tracked through feedback reporting. Other resources offered include journaling, support networks, and education. As of 10 Oct 2023 (90-day launch period), 23 Moral Distress Consults have been performed.

Conclusion: The research integrity ecosystem must include recognizing and addressing moral distress in researchers as moral distress can potentially impact research excellence if researchers are frustrated, anxious, or burned out. Moral Distress Consultation can be a tool to respond to researchers experiencing moral distress.

OP19.4: UK Committee on Research Integrity – building the evidence base

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The UK Committee on Research Integrity aims to enable the UK research system to ground approaches to research integrity in the best possible evidence. This presentation describes two projects that the committee has undertaken to collect and communicate information about research integrity in the UK.

One project looked at the published literature to review and analyse evidence (both qualitative and quantitative) on the enablers and inhibitors that influence the actions of those working in research. Through this, the committee seeks to build an evidence base that funders, institutions, and others who support research integrity can use to prioritise interventions.

The second project used a complementary source of evidence about research integrity in the UK: the annual statements that UK universities are obliged to publish under the UK Concordat to Support Research Integrity. The committee undertook the first comprehensive analysis of these statements, revealing the wide variety of practices to support research integrity at an institutional level and indications about the scale of research misconduct investigations in UK universities.

- Analysis of research integrity annual statements https://ukcori.org/our-work/analysis-of-research-integrity-annual-statements/

OP19.5: Restoring Public Trust in the U.S. Government Through Scientific Integrity

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Introduction: On 27 January, 2021, President Biden released a Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking (Memorandum) reasserted the vital importance of scientific integrity in evidence-based policy development.
Purpose: The purpose of this project is to describe the actions and outcomes of the Scientific Integrity Fast Track Action Committee (SI-FTAC) and the high-level National Science and Technology Council (NSTC) Subcommittee on Scientific Integrity (SOSI). We describe how each committee had a role in responding to the President's Memorandum.
Results to date: The SI-FTAC included representatives from over 30 agencies and their bureaus including NASA, NSF, NIH, EPA, USGS and NIST. The SI-FTAC produced the report Protecting the Integrity of Government Science which includes the committee's assessment of current agency scientific integrity policies and best practices. The report established the next step of creating a framework for iteratively assessing agency policies and programs. The committee identified the urgent need for a federal definition of scientific integrity. The report was used to create A Framework for Federal Scientific Integrity Policy and Practice (Framework), which provides a roadmap for improvement of scientific integrity policies and practices at Federal agencies. At the conclusion of the activities of the SI-FTAC, the SOSI was chartered as a subcommittee of the NSTC to oversee implementation of the Framework across the Federal government.
Ongoing: The SOSI uses the Framework as the foundation for the ongoing activities. The SOSI is currently organized into the following interagency working groups (IWG) to address specific tasks from the Memorandum and Framework: Policy and Assessment, Community of Practice (CoP), Training, Survey, Communication and Outreach, Implementation and Evaluation.
Impact: The work of the SI-FTAC and SOSI represent a first-ever whole of government approach to improving the integrity of science within the U.S. federal government and creating a structure for future evaluation and iterative improvement of each agency policy and the entire federal research enterprise.

OP19.6: The Scope and Current Projects of the U.S. National Academies' Strategic Council for Research Excellence, Integrity, and Trust

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The Strategic Council for Research Excellence, Integrity, and Trust (the Strategic Council) was convened by the U.S. National Academies of Science, Engineering, and Medicine with a mission to continually improve the health of the scientific enterprise by identifying and addressing bold topics and emerging issues that impact research excellence, integrity, and trustworthiness of scientific results. The Strategic Council has been charged with identifying, anticipating, and prioritizing key challenges to research excellence, integrity, and trustworthiness; articulating principles, policies, and best practices to address those challenges; catalyzing progress by coordinating collaborative action; and breaking barriers where needed to accelerate solutions, be they conceptual, technological, cultural, or procedural.

The Strategic Council serves as an entity—outside of the U.S. government and separate from the main components of the scientific enterprise--to foster the integrity of science and improve the efficiency and effectiveness of the scientific enterprise while at the same time preparing it for tomorrow's challenges. In this role, the Strategic Council gathers information from the main actors in the research ecosystem and works with the Council membership to identify factors that affect the health, integrity, resilience, efficiency, and trustworthiness of the scientific enterprise. The Strategic Council held its first meeting in October 2021.

During its first two years of operation, the Strategic Council examined a wide variety of topics and created 7 working groups. A set of high-level goals aligns these working groups within the Council's broader mission:

1. Align the incentive structures within the research enterprise to promote trustworthy scientific results.
2. Identify and communicate the norms of excellent research.
3. Encourage widespread adoption of tools and methods proven to increase efficiency and quality of research.

This presentation will outline the initial set of completed activities as well as the current efforts of the Strategic Council's working groups.

OP20.1: The Ethics of Responsible AI: Ways of Long-term Coping

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What kind of initiative is required for ethically responsible development and use of AI? This is not a question about what are the right answers to concrete issues raised by AI, but a question about what sort of effort might work best and why.

The question is a uniquely pressing one, due primarily to two factors.

First, AI is unlike other technologies, in that has entered (or will soon have entered) into any and every human endeavour. The fact that AI is a ubiquitous form of development makes it impossible to contain, or indeed describe for purposes of giving ethical advice, in quite the way one might do for traditional technologies.

Second, the swiftness with which AI develops is almost unfathomable. In combination with the unforeseeable directions of this development, this means we cannot expect to be able keep track of the shifting research challenges by means of traditional ethical documents.

There is much talk of a need for guidelines, but we should not foreclose other alternatives without a proper process of reflection. The particular state of affairs we are facing regarding AI is evident from the variety of efforts from major actors: the EU is working its way towards a new AI Act, while the G-7 has opted for an approach of coordinating governance through the “Hiroshima AI process”, and the UN has chosen the route of a global regulatory watchdog. What is needed specifically for research, is a considered view of what kind of effort will work best over time, in a situation where even the near future is radically underdefined.

NENT (Norway’s National Committee for Research Ethics in Science and Technology) has just been through a process of revising its set of general ethical guidelines, and is now facing the question of how to best grapple with the AI challenge specifically as a complex ethical issue for researchers, research institutions, and research funders. My talk will be a presentation of the main options with an emphasis on the strengths and weaknesses of each.

OP20.2: AI and the evolution of scientific norms: whether and how the norms of science should change to accommodate AI?

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Objective:

Norms of science have evolved over time, from ancient Greece through the Scientific Revolution and today. Scientific norms have been evolving because the nature of scientific enquiries and used methods change over time. Artificial Intelligence (AI) is another technology at researchers' disposal, but a pressing question is, given the astonishing capabilities of AI, should established ethical principles and virtues of science change or can we further specify and refine existing ethical principles and virtues to respond to challenges posed by the use of AI in research?

Method:
In this presentation we will offer a brief explanation of how AI works to highlight its specific impact on research practices. We will then examine established norms of science and explore AI's impact on these.

Results:
AI's integration into research brings significant advantages for science and society, but also creates some novel and complex ethical issues related to accountability, fairness, objectivity, rigor, transparency, trustworthiness, and other important and established values.

Conclusion:
While using AI does not require a radical change in the established ethical norms of science, it will require the scientific community to develop new guidance for the its appropriate use. We propose the following guidelines for using AI in research in a responsible and ethical manner: 1) Researchers and developers must address and manage AI biases; 2) AI-related biases should be transparently communicated in layman's terms; 3) Affected communities should be consulted about AI's research applications; 4) Misuse of AI for data fabrication, falsification, or plagiarism may lead to researcher liability; 5) While AIs shouldn't be credited as authors or inventors, their contributions must be acknowledged; 6) AI mustn't disclose confidential research-related information; and 7) Research ethics education should cover responsible AI use.

OP20.3: Publishers' Post-Publication Response Rate and Outcomes of Concerns About False Data in Medical Publications

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Objective: The publication of false data undermines the trustworthiness of medical literature.[1] It is likely that the scale and magnitude of the problem over the past two decades have been underestimated.[2 3] Post-publication review allows the assessment of potentially problematic papers after publication. The efficiency and effectiveness of post-publication assessment, which follows the Committee on Publication Ethics (COPE) guidelines, has not been assessed. We studied publishers' and editors' post-publication responses and outcomes on papers with potentially untrustworthy data.

Method: We studied post-publication reviews of potentially problematic papers in Women's Health that were identified during systematic reviews and while systematically assessing the work of one author. We wrote e-mails to the respective journal editors and publishers with the concerns we identified during our assessment. The journal's response was classified as retracted, expression of concern (EOC), correction, no wrongdoing found or investigation pending. We also registered time to response. In 2023, we verified the original e-mail dates sent to the editors and publishers and responses.

Results: Between 2017 and 2023, we identified 1,008 potentially problematic papers, of which 732 we had formally written to the journal (58% randomised clinical trials and 42% cohort studies). There were 183 papers (25%) that had a formal conclusion (retraction= 95, EOC= 64, correction= 4 and no wrongdoing found= 20), with 87% being retractions and EOCs, of which 62% were due to false data. The median time to response was 33 months, with 12% of the assessments concluded within 12 months.

Conclusion: Most concerns raised about trustworthiness we flagged were justified. Although COPE has guidelines for post-publication assessment in place, they do not have any standards for timelines, leading to unacceptable delays in response. Thus consequentially affecting future research and patient care.

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OP20.4: Research Integrity and Ethics in the 21st Century India: A Critical Appraisal

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Background:
Crisis on research integrity and ethics has been deeply ingrained in India since the colonial period. After independence of India (1947), various measures have been adopted to promote research integrity and ethics, but this crisis still exists. The rise of neo-liberalism has made this issue even more complexes as it invokes academic capitalism. The rapid increase in predatory journals and scientific misconduct pose a big challenge in research integrity in India.
Objectives:
An attempt has been made in this paper to critically evaluate the policy and guidelines adopted by the Indian Council of Medical Research (ICMR), an apex body for biomedical research and the University Grants Commission (UGC), an apex body of higher education system in India for maintaining research integrity and ethics in the 21st century. Effective strategies to strengthen research integrity in India have also been proposed.
Methods:
In this study, a systematic literature review has been conducted. This study is based on secondary data and both the qualitative and quantitative methods have been applied. Descriptive statistics and thematic maps have also been used in this study.
Results:
This study finds that the guidelines on research integrity and ethics in biomedical and health research are well defined but the guidelines have not been properly framed especially in social science research. The prevailing policies and guidelines on research integrity and ethics seem to be very effective for promoting best practices in research but, in reality, it is difficult to implement across caste, class, gender, religious and ethnic groups in India. Restructuring the higher education system in promoting academic capitalism with uneven research environment and infrastructure impede to maintain research integrity and ethics in India. An integrated approach in developing inclusive research culture as well as building inclusive society is needed to ensure research integrity in India.
Conclusion: A new policy framework with raising awareness and training on research integrity and ethics are required in addressing socio-economic inequality, cultural diversity and social needs in India.

Keywords: Academic capitalism, Biomedical research, Neo-liberalism, Research ethics, Research integrity

OP21.1: A taxonomy of scholarly disinformation to enhance research integrity

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Objective: A taxonomic framework for defining disinformation within scholarly communication is needed to develop a shared understanding and language to uphold research integrity. To create a robust taxonomy, we sought to answer these questions about scholarly disinformation: Who are the actors? What entities propagate disinformation? Through what methods is information being manipulated? Why do they do it?

Methods: Using a three-part methodology, we:
1. Conducted a literature review to identify scholarship on taxonomies of disinformation;
2. Developed then iteratively reviewed and modified the taxonomy using the authors' expertise;
3. Tested the veracity of the taxonomy using ten public cases. These cases, strictly limited to scholarly contexts, involved individuals with relevant training and expertise (i.e., scholars), utilized scholarly communication methods (e.g., scholarly journals or events), or presented themselves as scholarly (legitimately or not). The taxonomy was adjusted based on the results and in agreement among the authors.

Results: We propose a foundational taxonomy of scholarly disinformation. We mapped concepts into three key categories: Actors (who), Venue (where), and Methods (how). A fourth category - Motivation - briefly explores why people spread and their venues disinformation; however, this result fell beyond the scope of this research.
1. Actors are the entities who knowingly or unknowingly propagate the disinformation. They have three subcategories: individuals, organizations, and governments.
2. The Venue is where or what was used as the structure of disseminating the mis- or disinformation and fell into This category encapsulates where and how the disinformation is disseminated, encompassing three subcategories: journals (including scholarly and mock-scholarly publications), events (such as conferences), and media (ranging from social media to websites).
3. The methods for how scholarly disinformation propogates include using deceptive techniques of scholarly communications (e.g., manipulating the publishing process), gaming mainstream media (e.g., manufacturing controversy), and leveraging judicial systems (e.g., filing lawsuits).

Conclusions: Developing a shared language and model for describing disinformation equips the scholarly community and the broader public with a defined vocabulary to better understand, describe, study, and ultimately mitigate scholarly mis- and disinformation thus fortifying the foundation of research integrity.

OP21.2: How to assess the scientific integrity of the collected work of one author or group of authors

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Objective: To propose a pragmatic method based on practical experience to investigate data integrity across the collected papers of one author or group of authors. Currently, no published methods include both analysis of published summary statistics (low granularity) and individual assessment (high granularity) of suspicious studies.

Method: We use a pragmatic method. Based on practical experience investigating clinical research by problematic authors, we propose a combined approach to investigate the published work of one author or group of authors.

Results: In the investigation of the work of one author or author-group, we recommend a systematic search for the work of the involved author(s) in PubMed, Google Scholar and the RetractionWatch database, as well as a search of trial registries for unpublished completed, ongoing, and planned clinical trials. Summary information from studies should be tabulated and study periods graphed to assess consistency between study registration, execution, and publication. This assists in the identification of studies on the same topic that were conducted in the same place and/or at the same time. Pairwise comparison of baseline and outcome tables may reveal copying from studies on a similar topic, or, alternatively, unfeasibly large differences between values of the same baseline characteristics in similar studies. Assessment of baseline characteristics from multiple randomised clinical trials using Carlisle's method for assessing the plausibility of collections of p-values can determine whether the data are consistent with a properly executed randomisation process, as can checking whether both leading and trailing digits of baseline characteristics follow the expected patterns for random variables, such as Benford's law. If serious concerns are raised, a more thorough investigation should be performed, including assessment of individual participant data, human research ethics committee and institutional review board approval, and other governance documents. In addition, each paper should be assessed with the TRACT checklist (https://pubmed.ncbi.nlm.nih.gov/37337220/).

Conclusion: The proposed methods provide a systematic and reproducible way to assess the collected work of one author or group of authors. Simultaneous assessment of the integrity of all clinical trials of one author or group of authors is more powerful than assessment of single trials.

OP21.3: Citations to questionable journals threaten research integrity: bibliometrics as a key actor in the detection

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Bibliometrics can play a crucial role in protecting research integrity by identifying questionable publishing practices. Questionable publishers engage in unethical research practices. They are exploiting the academic publishing business model, i.e., manipulating research staff and students by soliciting articles (often through spam emails) and usually requesting payment for publishing in advance, a lack of peer review, and false claims about database indexing and impact factors that can harm the credibility of research. Bibliometrics can help detect these practices by tracking citations to questionable journals. In this paper, it is investigated whether journals that have been removed from the Directory of Open Access Journals due to suspected misconduct are still being cited within journals indexed in the mainstream citation databases. The analysis showed that Scopus contained thousands of references to the removed journals. The majority of the publications citing these journals came from the area of engineering. It is important to note that although we cannot assume that all the journals removed followed unethical practices, it is still essential that researchers are aware of the issues surrounding citing journals that have been suspected of misconduct. This study aims to highlight the importance of bibliometrics as a method for detecting citation contamination. This study aims to raise awareness of bibliometrics' potential for safeguarding research integrity and promoting ethical publishing practices.

OP21.4: Methods of Dissernet development after “progress” of research falsification

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Objective
Dissernet was founded in 2013 as a network of volunteers working to clean Russian science of plagiarism, in dissertation first of all.
Methods
We describe the progress of the methods and the findings by the Dissernet and contemporary progress in the domestic and international malpractice, research of malpractice.
Results
Dissernet had found by 2023 more than 20000 suspected plagiarized dissertations, 13000 documented in details. During early years Dissernet targeted government officials, politicians and top academics. Later the research addressed the whole volume of publicly accessible dissertations. Dissernet complained total 2067 cases to the government’s Higher attestation commission. As a result, 1388 persons were deprived their degrees based on plagiarized/falsified theses. More 7000 cases are exposed on the web site.
Major finding was the number of constellations of journals with dissertation councils with universities/research institutes. These ‘fabrics’ corrupted the peer review, publishers of books and journals. The pressure to publish journal articles as a requirement for the thesis and for the research evaluation led many authors to buy publications in the legitimate periodicals as well as in hijacked and predatory journals. Only in Russian journals we located about 100 000 articles with infringements of the publication ethics and more than 1400 were retracted. New algorithms by Dissernet makes possible to find the massive republication of plagiarized texts translated from and to Russian. All these forms of misconduct disproportionally involved authors connected to dissertation ‘fabrics’. We learned to detect the data fabrication and falsification. We identified more than 1500 dissertations plagiarized with changing the object, study setting, and observation period, but retaining numerical data.
Conclusion
Publication in the international journals and obtaining the scientific degree became a condition for the promotion in the academy and for funding. All these creates the national and international markets of services, falsifying the content of reports and/or authorship. Race of arms of Dissernet vs academic cheaters is successful in sense of estimation of the size of the problem and exposing misconduct. For the healthy academic atmosphere the internal integrity assurance mechanisms are needed as well as persecution of the misconduct by funding bodies.

OP22.1: Identifying Training Needs for Research Ethics Committees

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Research ethics committees (RECs) are increasingly required to assess applications that make use of or build on new and emerging technologies. This is caused by growing use of technologies and techniques across most disciplines, not just in the biomedical sciences but also the natural sciences, engineering and technology as well as increasingly in the social science and humanities. A current example is the use of AI to analyse large datasets which is a trend across disciplines. This can raise new ethical concerns which can be difficult to predict and assess, putting new requirements on RECs.

RECs typically include members from diverse backgrounds, and they normally aim to include subject experts in the fields of their remit. However, such subject expertise is increasingly difficult to provide in light of rapid advances in scientific knowledge and technological capabilities. There are potentially many ways of ensuring subject expertise, but the probably most straightforward one that does not require a fundamental re-organisation of existing processes or rethinking of how ethical and social issues are to be dealt with is to inject missing knowledge and expertise into the RECs via specific training interventions.

In the work informing this abstract we therefore sought to answer the following research question: which training needs will need to be addressed to allow ethics review procedures to appropriately deal with the most pressing current developments? This question requires an understanding of who has such training needs, what subject areas the training is required in and the context and level of detail that is required for ethics processes to work.

We will present the findings of an online survey that was sent out to REC members and researchers in December 2022 to identify their training needs, as part of the EU-funded project iRECS. We received 283 responses. The presentation will show the results of the data analysis, demonstrating that there are discernible differences in terms of perceived training needs, which allow for the planning of more formal training programmes geared towards the needs of RECs and their members to ensure that they can appropriately cover ethical questions arising from these technologies.

OP22.2: The Necessity to Teach Research Integrity Values

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There is widespread agreement that we need to teach students about research integrity and help them understand why it is important to adopt a mindset that is committed to following the ethics and rules of science. However, there is much more disagreement on how exactly we should do so. Based on the experiences of a student ombuds office we argue that there is room for improvement in conveying the importance of research integrity and helping students to internalize the core values of science.

Most higher education institutions focus on teaching students how to conduct proper research and use citations. There is, however, a lack in conveying why research integrity is important (Zucha and Droll 2021, 3). It is therefore not surprising that research integrity is not a particular important topic among students (Pavletic and Hammerbauer 2022, 331-334). They often experience research integrity as a burden during their studies.

We argue that research integrity is the result of internalizing and habitualizing the core values of academia. We identify (at least) three aspects that are important in teaching research integrity:
1) Transparent regulations while avoiding overreaching. While there is a need for transparent, accessible and clear regulations, we should strive to avoid being overly excessive with rules and laws and instead focus on conveying the values of science to young researchers.
2) Educating those who teach students (Löfström et al. 2015). While many higher education institutions do require junior faculty to take courses in research integrity, such training is often not mandatory for senior faculty. We think that it would be important to implement education on research integrity thought the academic career.
3) Ongoing exposure to the values of research integrity and socialization into the scientific community. Research integrity should not only be part of a course at the beginning of a study program, but should be represented throughout the whole curriculum at different stages. Additionally, it is important to make students aware that the values of research integrity are not just abstract ideals but have concrete and practical consequences.

OP22.3: The ethics of scholarship: Reflections on postgraduate supervision and research

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The importance of postgraduate supervision and research ethics in doctoral standards is well known. The South African Council on Higher Education's report on doctoral standards in South Africa (2022) reinforces the role of supervisors in the successful completion of a doctorate and that research ethics should be regarded as a graduate attribute. A random review of South African universities' stance on research ethics in postgraduate studies emphasises the professional and scientific role of the supervisor and the importance of research ethics training. However, research ethics training focuses more on preparing an application for ethical clearance and approval and how the application should be reviewed than the ethics of postgraduate supervision. Professional councils are emphasising the importance of professional behaviour whilst a literature review reveals that the focus is more on ethical behaviour in different aspects of the research process and less on the relationship between supervisor and student.

Despite the agreement that postgraduate supervision ethics cannot be ignored, it seems to be a neglected matter in institutional policies and training in research ethics. The importance of postgraduate supervision ethics is based on the commonly accepted understanding of postgraduate supervision as the professional and scientific guidance from a research expert to a student to complete a research project and meet the requirements of the qualification to be awarded.

This presentation wants to view the ethics of postgraduate supervision from a scholarship perspective, hence scholarship ethics.

Scholarship is generally understood as the quality of knowledge, also referred to as "doctorateness" in doctoral studies. Eight key aspects of the ethics of scholarship will be unpacked, namely,

(a) the interplay between university qualification, institutional aspirations, and relevant public policies,
(b) the respective roles, duties, and responsibilities of supervisors and students in generating new knowledge,
(c) the boundaries of knowledge creation viewed against Artificial Intelligence,
(d) the inclusion of social justice and human rights in knowledge creation,
(e) cross-institutional, out-of-country, and post-COVID-19 supervision,
(f) the effective management of resources,
(g) the value of the research to the scientific community, government, business and industry, and end-users of the research, and
(h) the preparation of next-generation researchers.

OP22.4: Enhancing Research Integrity in Low- and Middle-Income Countries: Lessons from Global Initiatives in Oncology

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Objective: Research integrity is a critical field for academia and scientific community. It is particularly relevant in low- and middle-income countries (LMICs) where limited resources and educational opportunities can make researchers vulnerable to various ethical challenges such as predatory publishing, plagiarism, data manipulation, and so on. The aim of this oral abstract is to review our published global efforts to tackle these issues through research and training with a focus on oncology as an illustrative field.
Method: Four cross-sectional survey-based studies including educational interventions were conducted globally to investigate predatory publishing, and other issues of research integrity. Factors associated with each research concern were studies using univariable and multivariable statistics. Outcomes after delivering distance-education based interventions were also described.
Results: Our results revealed that many researchers, particularly in LMICs, are trapped by predatory journals due to pressures to publish quickly. Use of digital education based on distance-based interventions in different languages showed a notable improvement of researchers' knowledge on predatory publishing. Distance education, coupled with mentorship and social networks, emerged as a promising approach to enhance awareness on the issue. Another comprehensive training program on research integrity we established under the leadership of the African Organization for Research and Training in Cancer (AORTIC) encompassing various advanced courses, including those addressing predatory publishing, data manipulation, plagiarism, and gender inequity issues also provided practical guidance for oncologists in under-resourced settings and emphasized the importance of research integrity in oncology to limit the damages of flawed research on patients with cancer.
Conclusion: The critical need to enhance research integrity, especially in LMICs, where the risks of research misconduct are high, and resources are limited may be achieved by global low-cost training initiatives. The commitment of organizations like AORTIC sets an example for other societies in LMICs to actively engage in reducing disparities in training on sensitive research issues through education and training, ultimately contributing to equitable cancer research and mitigating ethical challenges in the field.

OP23.1: We are as strong as our weakest link-Fieldworkers' role in research integrity

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Generally, organisational policies and guidelines are critical in shaping staff interaction, behaviour and practices (Handy, 2007). In global health research, Institutional systems and policies could potentially influence research integrity practices directly or indirectly. The Singapore statement on research integrity stipulates that institutions ought to create environments that encourage integrity through education and enforcement of policies and standards (Kleinert, 2010). In Africa, studies on research integrity have focused on ethical challenges faced by research frontline staff, commonly known as fieldworkers. Institutional support systems and their role in influencing fieldworkers' research integrity practices have rarely been studied. This study sought to fill this gap.

Methodology
Several qualitative methods, including document review, key informant interviews, individual in-depth interviews, and non-participant observation involving senior managers, principal investigators, field managers and fieldworkers, were used to examine whether the participating research institutions had fieldworkers' institutional support systems, policies, and guidelines and the extent to which existing fieldworkers' institutional policies and guidelines shaped the fieldworkers' scientific and ethical practices and their understanding of and ability to foster research integrity.
Results
Fieldworkers reportedly provided critical support in conducting health research and ensuring their research institutions realised their visions and specific study objectives. Fieldworkers' value was seen in their ability to implement protocols for research teams, translate study information and establish relationships with study participants. Despite their critical role, institutions lacked clear institutional fieldworkers' support systems. Lack of oversight and support supervision, limited focus on interpersonal care and welfare, pressure to meet targets and use of impersonal quality assurance approaches were attributable to fieldworkers feeling isolated from their study team, power distance, lack of identity, being exposed to emotional distressed and low-self-esteem, all of which had implications for fieldworkers' research integrity practices, including indulging in QRP.
Conclusion
Fieldworkers played a critical role in supporting research. However, limited institutional support systems exposed them to moral distress, with implications for research integrity practices. There is, therefore, a need to engage research institutions, funders, and decision makers to devote and ringfence resources toward strengthening institutional support systems for fieldworkers. This is likely to enhance the trustworthiness and reproducibility of Africa's research output.

OP23.2: Indigenising Research Management: What Does it Mean for Research Integrity Managers and Administrators? (Anderson-Kleinert Diversity Award)

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Research Management and Administration (RMA) as a profession is primarily influenced by Euro-Western paradigms. From a cognitive perspective, it affects how Research Integrity Managers and Administrators (RMAs) fulfil research management and administration activities. These paradigms influence research integrity policies, codes, guidelines and standards globally, nationally and institutionally. A preliminary literature review revealed a lack of studies addressing the strategic integration of indigenous research integrity management practices and theorising about this issue in RMA.
Consequently, this qualitative study intends to fill this gap by understanding how RMAs make sense of "Indigenising" research management, specifically focusing on research integrity. Two open-ended questions were asked to purposively selected Research Managers and Administrators that participated in a pre-conference workshop at the 2023 International Network of Research Management Societies Congress in Durban, South Africa, on 30 May 2023:

- What "does "indigenisation of RMA" mean to you?
- Identify and motivate five core principles that should guide the Indigenisation of RMA.

The preliminary findings suggest Research Managers and Administrators ought to act as change agents to facilitate an understanding of local beliefs, values, norms and cultures. The notion of "when I come to your space, I have to respect your way of life" can be realised by evaluating research integrity through many lenses. For instance, diversity must be acknowledged to build trusting relationships by understanding the cultural variations of 'respect' in different research and local contexts. RMAs believe inclusivity, cultural sensitivity, shared identity, building relationships and constructive feedback, could be the guiding principles for indigenising RMA practices. Recognising a shared identity in reaching collective goals and benefits will promote research integrity in equitable partnerships.

The recommendations confirm the value of consultative RMA procedures in fostering different viewpoints and building the trust and transparency necessary for integrity in research. Phase two of this study will investigate enabling conditions in promoting the indigenisation of RMA and the corresponding competencies needed for this process.

OP23.3: A Large-Scale, International Cross-Sectional Survey of Attitudes and Perceptions of Medical Researchers Towards the Use of Artificial Intelligence Chatbots in the Scientific Process

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Objective: Artificial intelligence chatbots (AICs) are programs designed to simulate conversations with human users through text or speech. AICs can revolutionize the way scientific research is conducted. The purpose of this survey was to understand researchers' attitudes towards AICs and explore their familiarity, perceived benefits, challenges, and factors influencing their adoption.

Method: Corresponding authors and their e-mail addresses were identified by querying MEDLINE for articles indexed over two months and running an R script on their PMID metadata. A total of 61 560 e-mail invitations were sent. The survey was administered from July 9, 2023 to August 11, 2023. Participants had 3 weeks to complete the survey and were sent 2 reminder e-mails spaced one week apart.

Results: 2165 participants completed the survey. Most were familiar with AICs (n=1294/2138, 60.5%). About half had used an AIC for purposes relating to the scientific process (n=1107/2125, 52.1%). Only 244/2137 (11.4%) participants reported that their institution offered AI tool training, of which 64 completed the training (26.2%). 211/2131 (9.9%) reported that their institution implemented policies regarding AIC use in research. Most participants expressed interest in learning more and receiving training on AIC use in the scientific process (n=1428/2048, 69.7%). Participants expressed mixed opinions regarding the potential benefits of using AICs in research, whereas most agreed upon their cons/challenges. Participants agreed that AICs were most beneficial in reducing the workload and administrative burden on researchers (n=1299/1941, 66.9%), but were most concerned about their lack of understanding surrounding how AICs make decisions and generate responses (n=1484/1923, 77.2%).

Conclusion: This study provides a snapshot at an early stage of AIC use in medical research, serving as a baseline to measure the technology’s evolution. Most researchers are familiar with AICs and have used them in their research. Although there is clear interest in understanding how AICs can be used, little formal instruction is available, indicating that research integrity may be compromised. Future research should focus on developing guidelines and formal training surrounding appropriate AIC use, as well as addressing current limitations and errors in chatbot models.

OP23.4: Responsible Artificial Intelligence – legal perspectives on emerging technologies and research integrity

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Digital technologies, and specifically the Artificial Intelligence (AI), have and will significantly impact the development of humanity. The new technologies have already raised fundamental questions on their goals, governance, policies, roles and interactions with other systems and humans, what risks they involve, and how can these be controlled and by whom. The ethical, responsibility and integrity aspects connected to the emerging technologies go beyond a mere discussion on privacy and surveillance – they approach challenges as the ethics and integrity of big data, opacity, manipulation and deception, employment and automation, technical autonomy, machine ethics, and many others. Since this field is so dynamic and diverse, technology policy is difficult to be planned and enforced, especially that it can take many forms, from funding and infrastructure to taxation and legal regulations. Taking into consideration the diversity and fragmentation of the technology and data governance worldwide, the UNESCO Recommendations on the Ethics of Artificial Intelligence (AI) and the forthcoming AI Act on the EU level, are the most prominent and promising initiatives, to shape the future of a more responsible development of the AI.
The presentation will be a structured attempt to address and discuss selected aspects of ethics and integrity of emerging technologies, with potential policies and procedures' recommendation for each type of issue, rather than in general. Selected key issues will be analysed and discussed separately: privacy & surveillance (including cyber security), manipulation of behaviour, opacity of AI systems, bias in decision systems, with some closing remarks on machine ethics and artificial moral agents (de lege ferenda viewpoint).
Moreover, a broader approach to the topics will be offered, beyond the narrower conceptualisation (ethics and integrity within the information technology), to address challenges related to human and cultural rights, intellectual property rights and creators' freedom, security and privacy aspects, and touching upon the security of science (de lege lata analysis). As concluding remarks, examples of cooperative approaches to emerging technologies (i.e., the cooperative AI initiative), that engage with transparent methodologies of co-creation, to address challenges as cohesion, autonomy, safety, bias, opacity, will be discussed.

OP24.1: iRISE – SOLES: A Systematic Online Living Evidence Summary for interventions to improve reproducibility

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Objective: Reproducibility is fundamental to scientific progress. While several interventions to improve research reproducibility have been proposed and/or tested, the optimal strategies for achieving this goal remain unclear, and the quantity and quality of existing evidence are yet to be systematically evaluated. In the iRISE (improving Reproducibility In SciencE) project, we adopt a broad definition of reproducibility, including proxies such as open science practices and methodological rigor. One of our aims is to create a Systematic Online Living Evidence Summary (SOLES) to collect, synthesize, and curate the literature on interventions seeking to improve reproducibility.

Method: We will systematically search for articles describing interventions to enhance reproducibility (including proxies) in the indexed literature, with no limits on publication date. Two independent coders will screen a subset of 5000 papers for relevance and annotate included studies with predefined attributes, including scientific discipline, country, participants, intervention, and outcomes. Using these assessments, we will train a machine classifier to screen the remaining citations and develop natural language processing tools to extract key information automatically. We will establish an automated pipeline to continuously update a structured database of relevant studies. To visualize the resulting data, we will create a publicly available interactive web dashboard.

Results: The project will result in a web dashboard for research users to interrogate and visualize the latest evidence. This will include an evidence gap map, illustrating the domains (e.g., in a certain discipline or population) in which most interventions have been described and evaluated.

At present, we are refining our protocol and searches, with citation screening scheduled to start in November 2023. We will present the dashboard and its functionality at the conference.

Conclusion: iRISE-SOLES will provide the scientific community with a comprehensive, current evidence summary of interventions to improve reproducibility. A limitation of our approach may be that complex attributes prove challenging to extract from articles programmatically. In this case, we may need a greater quantity of manual annotations (i.e., training data) to improve performance. The dashboard will allow researchers, policymakers, and other stakeholders to make informed and evidence-based decisions on activities they undertake to improve reproducibility.

OP24.2: Navigating ambiguity and uncertainty in research practice

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Objective: Researchers possess considerable discretion in how their research is designed, executed, and reported. Research on this discretionary space is important considering the extensive effect that researcher discretion could have on outcomes of a study. To facilitate and guide researchers to exercise their discretion responsibly, we need to understand what these decisions consist of.

Method: We conducted twelve months of ethnographic fieldwork in two different end-of-life care research groups between 2020 and 2022. Participant observation allowed us to witness the everyday decision-making as it happens, and to describe the deliberative processes and the context of researcher discretion in daily practice.

Results: We found that researchers are constantly required to make decisions under incomplete information and must navigate a complex constellation of values in their research practice.

We observed that when researchers were confronted with uncertainty in their research decisions, they engaged in various methods to reduce this uncertainty, for example literature reviews and pilot testing, which could generally be described as research-within research. The extent to which this uncertainty could be reduced was limited only, but importantly, by the finite resources at hand.

However, researchers also faced decisions the nature of which would not allow themselves to be solved by any measure of new information. These contained components of moral ambiguity, and occurred when researchers faced multiple potentially conflicting values. Examples of these values that potentially conflicted in our observations include transparency, feasibility, completeness, timeliness, and care for the participant.

Conclusion: The ethnographic methods chosen in this study allowed us to produce an in-depth insight into the practice of researcher discretion, but does not allow for inferences of generalisation. Further research is necessary to determine how well the practices we observed reflect practices in other research settings. However, it seems likely that all researchers must exercise discretion under uncertainty and moral ambiguity, presenting decisions for which the knowledge of generic guidelines may not prove sufficient to determine the best course of action. Therefore, we propose that efforts to improve the responsible conduct of researchers should also include building researchers' capacity to critically and proactively engage with these decisions.

OP24.3: The attribution of two portraits of Rembrandt revisited: A case study of replication in art history

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In the sciences it has become increasingly clear that research integrity and replicability of research are intertwined. For the humanities this is less evident, which led us to explore the strengths and limitations of replication in the humanities by executing a case study within the field of art history. We did so by replicating the research into the attribution of the two portraits of Rembrandt in the Mauritshuis in The Hague and the Germanisches Nationalmuseum in Nuremberg, carried out in '98-'99. We readdressed the original research questions: Who made the version in The Hague, who painted the one in Nuremberg, and how do these paintings relate to each other? First, we answered them by staying as close to the original study protocol as possible (a reproduction). Second, we answered them again with an improved study protocol and newer technical research methods (a conceptual replication). The conceptual replication included an expert attribution meeting to compare the paintings in real life once more.
The reproduction and conceptual replication both resulted in corroboration of the attributions made in the original study. The conceptual replication added knowledge to our understanding of the two paintings, their material properties and their interrelation. The case study showed how replication in art history may not only contribute to corroboration and trustworthiness of findings but has other potential epistemic strengths as well: to contribute to art historical historiography, to educate professionals, to mitigate biases and optimise methodologies and transparency.
The reproduction of the study was limited by gaps in knowledge about the course of events of the original study. In addition to that, it turned out to be unfeasible to carry out the reproduction without being familiar with new findings on Rembrandt's oeuvre since the original study. It furthermore was practically impossible organise an expert meeting for both the reproduction and the conceptual replication. Therefore, our reproduction of the original study was only partially carried out. Despite practical and theoretical limitations, our case study showed that replication in art history is possible and has the potential to serve various epistemic aims.

OP24.4: Critical evaluation of the current state preregistration in animal research

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Recent studies demonstrate that a large part of preclinical data derived from animal experiments is never published and that questionable research practices impair the translation of preclinical results into clinical research. Ensuring the maximal gain of knowledge from each performed animal experiment represents not only an ethical duty but can also accelerate the scientific progress in biomedicine.

Preregistration can boost the publication of all data and effectively improve the quality of research studies. By registering a time-stamped study plan before performing experiments, the research process becomes transparent. Preregistration supports researchers in thoroughly planning their study, it enables the distinction between planned and unplanned statistical analyses and advances the reporting of all experiments conducted.
Preregistration is mandatory for most clinical trials and widely accepted in other disciplines. However, in animal based research it remains marginal although three registries already actively encourage the preregistration of animal research, i.e. preclinicaltrials.eu, open science framework registry and animalstudyregistry.org.

In the outlined talk, we will present the most recent statistics of preregistration in animal research, critically evaluate the efficacy of preregistration in animal research and discuss current barriers and limitations.
Although the numbers of preregistrations in animal research are rising, the uptake stays behind expectations. Many researchers are still not aware of the possibility to preregister their work. Furthermore, surveys show that researchers are hesitant about the additional workload and fear the early transparency towards animal rights activists as well as peers.

We want to present strategies on how to inform researchers, how to reduce the administrative burden, and how to effectively create incentives to sustainably increase the uptake of preregistration in preclinical research.

OP25.1: Impacts of misinformation on the translation of science with the public.

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Objective: Misinformation is pervasive and has presented significant problems for policy makers, stakeholders and researchers in terms of communicating science to the public. Inoculation theory (McGuire, 1964) has been proposed as part of the solution to addressing susceptibility to misinformation as it provides a framework for interventions which aim to increase individuals' ability to identify misinformation and apply critical thinking skills. This presentation reports findings which aim to evaluate the effectiveness of an inoculation framework at addressing misinformation about science.

Method: Participants were recruited from Australia. The first study had a within subject design which identified the types of misinformation people attend to and why through the lens of a contentious science topic. Study two and three were mixed design online experiments which compared the effectiveness of different inoculation interventions. Data was analysed using ANOVAs and regressions.

Results: Study one found that individuals perceive misinformation which contains cognitive cues such as statistics as more accurate, compared to misinformation which contains affective cues. However, individuals' perceptions are largely being driven by their emotions as well as attitudes and beliefs about the topic. These factors were accordingly considered in the design of the inoculation interventions in study two and three. Study two took a direct approach to addressing misinformation about a contentious science topic with the training correcting specific sources of misinformation about the topic. This direct approach was ineffective, as there were no significant differences in perceptions of accuracy of a later encountered misinformation article. Study three therefore aimed to evaluate the effectiveness of an indirect approach to addressing misinformation about contentious science topics. Specifically, this study will evaluate whether training about techniques through the lens of one topic will carryover to a different contentious science topic. Results of this study are forthcoming.

Conclusion: This research highlights that part of the reason why communicating science to the public is difficult is because susceptibility to misinformation is inextricably linked to individuals' emotions and beliefs. Therefore, these factors need to be considered both as part of the effort to address misinformation susceptibility, but also more generally when researchers are communicating with the public.

OP25.2: How should our understanding of research integrity be used to inform trustworthy science communication.

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Objective: Governments are increasingly using science and scientific findings as the basis for, and justification of, policy making decisions. Therefore, trust in science and science communication by policymakers and the wider public is more important than ever before. However, researchers' motivations within science communication may not always be altruistic or transparent, consequently impacting upon the trustworthiness of science communication. Learnings from a qualitative research study of Australian researchers provide insight on researchers' motivations within science communication.
Method: The lived experiences of 33 Australian researchers (M age = 49.9, SD = 9.6); 15 females and 18 males within the STEM (n=20), Public Health (n=7) and social science (n=6) disciplines were interviewed using semi-structured interviews. Thematic analysis within an interpretive phenomenological analysis framework was the applied method for analysis.
Results: Findings suggest that while many researchers do attempt to engage in science communication with integrity and transparency at the fore front, this is not always the case. For instance, some researchers report that a researcher's goal in engaging in science communication is to "create agitation" within the media, while others report self-promotion as being the driving force behind engagement in science communication. Yet others report the "publish or perish" culture in academia alongside the difficult funding landscape as drivers which may entice researchers to engage in science communication that pushes the bounds of their integrity as researchers.
Conclusion: With a general lack of trust in science permeating society, critical discussion is needed to determine if the tenants of research integrity (honesty, rigour, transparency, fairness, respect, recognition, accountability and promotion) should be used as a more explicit guiding framework for researchers to ethically engage in science communication.

OP25.3: Editorial Review in International Science for Policy Organisations

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Objective:
Many international organisations rely on a system of (internal) peer review to guarantee the quality of their research based public reports and to prevent reputational damage. This paper provides an overview of the approaches taken in 20 such organisations with a focus on the procedure in place, the resources required, other forms of author support, the selection of reviewers and the incentives provided to them, approaches to assessing the impact of editorial review and avenues for future development.

Method:
20 international organisations with a (partial) research mission (FAO, UNESCO, ILO, UNIDO, CERN, OECD, WorldBank, IMF, ECB, JRC, EPRS and others) provided written input to a set of structured questions in preparation of an interactive virtual workshop. An analysis of the provided written material and the workshop proceedings formed the basis for this presentation. Participants were given the opportunity to review the material.

Results:
While there is convergence among the organisations in the procedural arrangements there are considerable variations in the intensity of the review effort, the resources invested, whether they use external or only internal reviewers and the variety of author support provided. Impact assessment proved challenging, though negative experiences that could have been prevented through editorial review were provided. Organisations without such systems in place are considering to establish them.

Conclusion:
This is the first overview of editorial review in international organisations operating at the Science for Policy interface. Such organisations have a special responsibility to help ensure that their publications adhere to high levels of scientific quality and integrity. For their reports they cannot rely on traditional journal peer review, which is why many have set up their own peer review systems. Not only is there considerable scope for mutual learning about the approaches followed by these organisations, other national and international organisations operating in this field may benefit from the approaches and examples provided. The network of actors responsible for editorial review in these organisations will reconvene on a regular basis to engage in in-depth exploration of topics of common interest.

OP25.4: Promoting research integrity and communication using science informed art

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In an era characterized by the rapid advancement of scientific knowledge and technology, the need for effective communication and the preservation of research integrity has never been more crucial. Blending the creative realm of art with the rigorous discipline of science presents as a powerful and innovative tool for both enhancing public understanding of complex scientific concepts and fostering research integrity through visual science communication. Science-based art transcends conventional modes of scientific communication by translating complex research findings with greater clarity and accessibility using visually compelling and accessible forms. Science-based art is a mechanism to reinforce research integrity by mitigating the potential for misinterpretation and miscommunication of research findings as the process of creating science-based art necessitates a thorough understanding of the underlying research and close interdisciplinary collaboration between scientists and artists. The integration of artistic elements in scientific communication further enhances engagement and outreach with diverse audiences to promote science literacy, foster a deeper appreciation for science, and bridge the gap between experts and the public. Furthermore, collaborations between scientists and artists offer a unique avenue for cross-disciplinary engagement, stimulating creativity and innovation as well as interdisciplinary exchange of scientific themes. Besides its contribution to outreach, communication, and collaboration, scientifically accurate and aesthetically engaging art can be further used as an educational tool to enhance science communication skills and encourage creativity among future scientists. This presentation will delve into the advanced realm of utilizing science-inspired art as a novel and impactful tool to uphold research integrity via visual science communication. Drawing from the literature and work from the Global Young Academy Science and Art, Peace and Justice working group, the presentation will explore the multifaceted role of science-based art to transform the manner in which research is conducted, communicated, and appreciated and harness the power of artistic expression in the realm of science to foster a deeper connection between researchers and society to ultimately advance the cause of research integrity and the dissemination of knowledge.

OP26.1: TIER2's activities to foster a next-level funders community in reproducibility

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Reproducibility is an opportunity to improve the way research is conducted and the environment in which it is carried out. Researchers across domains believe that we are in the midst of a credibility revolution where insufficient transparency in reporting, questionable research practices and publication biases exacerbating the lack of reproducibility. Reproducible research and open science practices support the integrity and quality of research while increasing trust in the science and innovation ecosystem.

TIER2 – enhancing Trust, Integrity and Efficiency in Research through next-level Reproducibility, is an EU Horizon Europe project that aims to broaden our knowledge and understanding of reproducibility, co-create and test tools, engage and grow communities, and implement high-quality policies. One of our key objectives is to foster and empower networks of researchers from different research areas and cross-disciplinary stakeholder groups of funders and publishers to enhance reproducibility across contexts.

Multiple stakeholders in the research environment have an interest in fostering reproducibility and research integrity practices. Multiple tools and initiatives exist to assist researchers to collect and openly sharing research data/ outputs, however this step may not be carried through to the entire research process. Funders have a unique position in the research ecosystem to drive improvements in research integrity by setting policies, monitoring funded projects, and supporting compliance. However, funders lack strategies to promote and implement these strategies and practices in their assessment of funded projects.

TIER2 is building a next-level community of motivated and engaged funders who are willing to invest efforts in future empirical steps. Gauging the interest and standpoint of funders, we are focusing on how and why reproducibility is important to funders, ways in which funders may support and monitor reproducible research practices, and ultimately what tools and resources funders would need to increase and track reproducibility.

Here we present co-creation activities, strategies, and events we have carried out to engage with funders, building on the active funders' community and their expert knowledge of their portfolios and needs, to support the implementation of tools which will increase reproducibility and research integrity in the long run.

OP26.2: Are research funding decisions related to applicants' assessments of research ethics and integrity?

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Objective
Research funding organizations play an important role in promoting research integrity and ethics. This paper analyses how applicants in the Research Council of Norway (RCN) make sense of research ethics and integrity when applying for funding, and how panels enforce this in their evaluation and scoring.

Methods
Our data consists of 406 applications for funding, including corresponding panel assessments and scores. The applications are from basic and applied calls in medicine, education, and maritime research. We extracted the discussions of ethics from the applications when included, and any mention of ethics in the corresponding panel assessments. Three steps constitute our coding: Firstly, identifying whether ethics is discussed at all, secondly extracting the content of each of the statements about ethics (self-assessed issues, measures to cope with issues, and aspirations to do good), and thirdly synthesizing the statements into types so that we can assess whether the content mattered for the score and assessment. So far, we have completed the extraction and the first step, and we will complete the remaining before the conference. We will code panel assessments in the same way, identifying their content, and determining whether different types of ethics assessments affect the scores.

Results
In the first round of coding, we found that applicants that wrote something about ethics and integrity (N=325) got a score of 4,77 out of 7 on average, while the applications lacking this part (N=81) got a score of 4,87. Thus, writing about ethics in the application was toxic to the tune of 0,1 points on average in the sample. Only 44 % of the panels mention ethics in their assessment. This indicates that all else being equal, panels do not punish applicants for declining to do an ethical self-assessment. The remaining steps in the coding might lead to more nuanced analyses.

Conclusion
RCN states on its website that its projects are required to maintain high ethical standards, and that ethics is assessed during competitions for funding. The first round of coding indicates that panels are hesitant to enforce such standards.
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OP26.3: How One Grant Reviewer Stopped 10 Year of Research Misconduct

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Data presented in a publication are readily available for public scrutiny. However, preliminary data included in grant applications are not so transparent. In this presentation, we describe a case in which the respondent included falsified and fabricated data in multiple grant applications for over 10 years with no negative consequences. A single concern raised by a grant reviewer grew into an allegation of research misconduct. During oversight review of the institution's report, ORI reviewed all papers and grant applications submitted by the respondent and found extensive data manipulations and reuse.

The respondent intentionally falsified and/or fabricated various types of experimental image data as well as numerical data in more than 400 figure panels (100% of the preliminary data) in 16 NIH grant applications (100% of her grant applications) she submitted to the National Institutes of Health (NIH). When her manipulations were questioned, the respondent explained that she had two different standards for papers and grant applications, which confirmed her knowing and intentional action to mislead the grant reviewers and receive funding based on falsified and fabricated data.

At the end of a lengthy investigation process followed by the respondent's multiple attempts to evade consequences, the respondent finally admitted to committing research misconduct. ORI made a finding of research misconduct against the respondent with a ten-year period of exclusion from eligibility to apply for or be supported by funds from the Federal Government.

Falsified and fabricated data in grant applications may escape detection for years because the data have not been released for widespread scrutiny. Reviewers may be the last line of defense in detecting suspect data, as demonstrated in this case. Their diligence and careful review of applications contributes to preserving the quality and integrity of science.

In this presentation, we will go over 1) the scope and the details of data falsification and fabrication; 2) how the respondent tried to defend her actions; and (3) steps that were taken by the institution and ORI to determine that the respondent intentionally committed research misconduct.

OP26.4: Corrections to journal articles supported by European and US research grants: a cross-sectional study, 2014-2022

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Objective

Our aim is to assess the number and content of corrections to publications supported by two European Union's Horizon 2020 (H2020) programmes, Marie Skłodowska-Curie Actions (MSCA) and European Research Council (ERC), and two US funding agencies: National Institutes of Health (NIH) and National Science Foundation (NSF).

Methods

We retrieved information on articles declaring funding from four funding organizations from Scopus and Web of Science (WoS) Core Collection databases for 2014-2022 period. We measured the following variables: total number of corrections; percent of articles with corrections; annual number of corrections. We have manually collected the errata notices from the obtained articles, and will conduct a linguistic analysis of these notices, using Linguistic Inquiry and Word Count (LIWC) tool. We also plan to analyse the type of correction, median time from publication to correction, time changes in the number of corrections, and differences between the two indexing databases.

Preliminary results

In WoS we identified the following number of corrected articles: 16 (0.26%) out of 6132 articles with finding from MSCA, 304 (0.19%) out of 162047 articles with ERC funding, 3700 (0.42%) out of 872587 articles with NIH funding, and 944 (0.13%) out of 724406 articles with funding from NSF, NIH. In Scopus, the articles tagged as errata were: MSCA – 66 (0.35%) out of 18698 articles, ERC – 288 (0.24%) out of 120275 articles, NIH – 1126 (0.23%) out of 486862 articles, and NSF – 940 (0.21%) out of 453279 articles. We will continue with data analysis and we will have complete results at the time of the conference.

Conclusion

Although the number of corrections is low compared to the volume of publications funded by major global funding agencies, the differences among the indexing databases create problems in identifying corrected literature and may have adverse effect on the integrity and trustworthiness of literature sources.

OP27.1: Is Innovation the Enemy of Fairness? A Research Data Perspective

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Research data are key to scientific progress. Increased data sharing during the Covid pandemic helped to accelerate research, the discovery of vaccines and their modification to protect against new strains of the virus. However, this innovation partly came at a price. While researchers from the Global South generated and shared crucial research data to study new variants, they were often left out when it was time to reap the benefits. Not only did mostly researchers from the Global North publish based on the data - thereby increasing their currency in science. But also the resulting vaccines often were not made available in the Global South, partially because for profit companies refused to give up their patents.

This recent example can be seen as part of the history of scientific progress achieved at the expense of fairness. With the publication of the Cape Town Statement, that focuses on equity and fairness in research, these practices will increasingly come under scrutiny. As researchers it is important to consider when innovation and fairness are at odds and how research in the future can be innovative as well as fair. This is especially salient when research (products) enter the private sector or researchers collaborate with industry actors.

In this presentation, I want to highlight the historical and present relationship of fairness and scientific progress from a research data perspective. By drawing on case studies - both good and bad - it points out ways to resolve the issue, i.e. to make make scientific progress fairer for all.

OP27.2: Conflicts of interest in research across scholarly disciplines: cross-sectional study and qualitative content analysis of policies

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Objective
To investigate how conflicts of interest in research are addressed across selected scholarly disciplines. We will focus on how of conflicts of interest are defined, categorised, disclosed and managed across disciplines, and describe any commonalities and differences between disciplines.

Methods
Cross-sectional study of conflict of interest policies of top journals, top publishers, international journal associations, multidisciplinary scholarly associations, funding agencies and universities from: economics, engineering, law, medicine, and environmental toxicology. Two authors will independently include policies and extract data. Our analysis includes descriptive statistics and qualitative content analysis of policies. Protocol Registration: OSF DOI: https://osf.io/dn93r.

Results
Results are currently pending; however, we fully expect to have available results at the time of the conference.

Conclusion
A broader understanding of how conflicts of interest are addressed within individual scholarly disciplines and from a multidisciplinary perspective may provide us with a possibility to learn from diversity and achieve better fit-for-purpose policy strategies.

OP27.3: Putting Research Integrity on the Map: Understanding Dynamics of Responsibility Across European Research Integrity Policies

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Research integrity (RI) has emerged as a pivotal topic in both academic discourse and policy development. However, the alignment between academic research and policy discourse on RI is not always consistent. The recent shift in academic attention, emphasising the significance of institutions in promoting RI, prompts questions about how this institutional emphasis has developed in policy discussions during the same time frame. It also raises questions about how we determine the appropriate balance between individual, institutional, and systemic responsibilities when it comes to the promotion and maintenance of RI.

This study investigates how responsibility for fostering and promoting RI is constructed in policies at the transnational, national, and university levels across Europe. We examine the translation and adaptation of language and values, paying particular attention to the interplay between the ALLEA European Code of Conduct and national policies, as well as the alignment of major university policies with European and national directives. By doing so, we map the RI policy landscape, uncovering the extent to which language and values travel and exploring variations in how different national and institutional contexts construct and assign responsibility for fostering and supporting the norms and values of RI.

Our paper illuminates both the commonalities and discrepancies found in the way policies at different scales across Europe construct responsibility for RI. In doing so, we critically address the notion of a straightforward "trickle-down" policy effect and contribute nuances to an understanding of variation in RI policy formulations across Europe.

OP27.4: Shaping the field: a review of the use of theory in research on research integrity

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Objective: Interest in research integrity has proliferated and gained prominence, particularly within the past decade – both in policy and academic environments. Research on research integrity might be considered an emerging research field, with dedicated journals and conferences. However, it is still characterized by fragmentation and is often carried out by researchers belonging to other fields, thereby bringing varied approaches to the study of research integrity. The implications of this for the knowledge produced is, however, still understudied.
Our study examines the place of theory in the shaping of the field of research on research integrity and how the choices of theoretical frameworks in given studies shape the logic of inquiry.
Method: To provide an inclusive overview of the relevant research and the theoretical variation underpinning it, we conducted systematic searches of SCOPUS, PubMed, and Web of Science databases for English-language articles published between 2010 and 2023, based on a pre-defined set of search terms (that include: research, academic, and scientific integrity, research and scientific misconduct, good and questionable research practices) . Having surveyed a total of 4555 publications, the study analysed 560 articles specifically focused on research integrity and scientific misconduct.
Results: The study finds that the theoretical landscape is highly heterogenous. It is, to some extent, dominated by grounded theory, personality psychology and institutionalism, but also engages a very broad scope of other theoretical perspectives, including social psychology, psychoanalytic theory, and narrative analysis. The study investigates the implications on research design and the logic of inquiry, by exploring thematic clusters addressing same, similar or compatible issue(s) within the field of research on research integrity, and analyze the role of theory, its variation and contribution to informing the logic of inquiry carried out across the selected studies, as well as attempt to trace patterns in theory application.
Conclusion: The review thereby aims to contribute to a wider debate on research integrity, and the way we study it, and in so doing, this study aims to make a further contribution to the overarching objective of tackling the persisting lack of public trust in science.

OP27.5: Development and application of a research integrity maturity model

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Objective:
We have developed and tested a research integrity maturity model to assist institutions to benchmark their maturity levels of a scale which includes key descriptors including culture; systems; processes; training; and evaluation.

Method:
The model was developed based on lived-experience of research integrity staff and experience obtained from working in national research funding bodies. assessment of institutional capability and readiness can easily be tested against the model descriptors.

Results:
A longitudinal study of one medical research institute over 3 years demonstrated that the institute has progressed, though this was mainly precipitated by experiencing a serious research integrity issue.

Conclusion:
The model provides a useful template for all institutions to benchmark and improve their capability and capacity to respond to research integrity concerns.

OP27.6: Developing a topography of “responsible conduct of research” across disciplines: a three-part study

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Objective:
Conceptualizations of “Responsible Conduct of Research” (RCR) have largely been developed in disciplinary silos (e.g., ‘reproducibility’ applies primarily to quantitative sciences). Our three-part project aims to develop existing RCR frameworks (e.g., the Singapore Statement on Research Integrity) to advance understanding of how RCR is understood across disciplines.

Method:
First, we conducted a scoping review on responsible research, in which we analysed the texts of 75 articles and documents. Second, we interviewed experts on RCR across disciplines, and conducted a reflexive thematic analysis on the transcripts. Third, we are conducting a Delphi study in which experts across 34 disciplines and multiple world regions refine a list of RCR dimensions collated from the results of the first two studies.

Results:
Our scoping review found six main dimensions of RCR derived from the literature on research integrity and responsible research and innovation: integrity, accountability, reflexivity, transparency, anticipation, and capacity-building. Most of these were conceived as meta-responsibilities, encompassing multiple sub-dimensions of RCR.
Interviews with experts supported these meta-responsibilities, and yielded many sub-dimensions of RCR intersecting with actor responsibilities (including responsibilities to epistemic ideals, society, participants, institutions, the research community, or individual researchers) as well as with the research process (undertaking research ethically and with rigour and integrity, and communicating research honestly and clearly).
The Delphi process is underway (due by February 2024). Part 1 expands the list of dimensions collated from our scoping review and interviews by adding additional dimensions the panellists identified as missing; Part 2 collects participants’ ratings of each dimension’s relevance per represented discipline.

Conclusion:
This project will generate an RCR topography, with a unique structure that captures a range of dimensions. We will develop a ‘buffet-style’ framework that encompasses universal, or core dimensions, discipline-specific but broadly applicable dimensions, and niche dimensions that are highly important within certain disciplines, but very discipline-specific, using language and examples that are understood across disciplines/institutions. We intend this topography to guide individual researchers, institutions, and policy-makers to help focus discussion and future efforts of RCR, including in our next project which aims to embed RCR in local contexts.

OP28.1: A classification and ranking of Questionable Research Practices reported in surveys

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Questionable Research Practices (QRP) are a highly diverse set of behaviours that elude clear definition and demarcation. Multiple surveys have sought to measure their frequency, but the heterogeneity and ambiguity with which QRPs are defined hampers direct cross-study comparison and meta-analytical summary. This study aimed to summarise definitions and data on QRP assessed in surveys, and rank QRPs by frequency of engagement reported across studies.
We systematically collected form the literature surveys that asked researchers about their engagement with QRPs. From each study we recorded the phrasing used to define each QRP, the corresponding reported rate of engagement, and other relevant study characteristics (sample size, population, recall period, etc.). We then iteratively developed a taxonomy of QRPs and compared the admission rates in each resulting category. The final, most effective classification was derived from overlapping and merging two lower-level classifications, which categorised, respectively, the aspect of research affected by the QRP (e.g. authorship, data, analysis, etc...), and the nature of the alteration of information (respectively, whether the QRP consisted in an omission, addition, or modification of information, or something else).
The final sample size consisted in 296 QRP data points, obtained form 23 distinct samples collected in 20 distinct publications.
All behaviours described in these surveys were re-classified in one of 27 categories, plus three categories for actual misconduct (FFP) and a small “other” category.
The resulting ranking of QRPs, in decreasing order of median percentage of reported engagement was: "select analysis", "select citation", "select covariates", "general p-hacking", "withhold methods", "HARKing", "poor methods", "select results", "select publication", "gift authorship", "select data", "round p-value", "ignore QRP", "mis-citation", "no IRB approval", "optional stopping", "salami-slicing", "ethical breach", "other", "conceal limitations", "gain authorship", "appropriate ideas", "modifying data", "appropriate results", "self-plagiarism", "sponsor pressure", "deny authorship", "conceal COI", "fabrication", "falsification", "plagiarism".
Whilst certainly diverse and heterogeneous in their specific definitions, most QRP reported in surveys fall into a consistent set of mutually exclusive categories. The frequency with which these categories of behaviours are reported in surveys reflects the inverse order of perceived egregiousness. These results could inform research integrity training and policies.

OP28.2: Ranking Research Misconduct and Questionable Research Practices: An Informal Survey Among Ph.D.-students

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Objective: Investigate how PhD-students rank various types of research misconduct and questionable research practices according to their severity.

Method: Ph.D.-students are asked to make repeated pairwise comparisons of various research malpractices in an open and informal online questionnaire called a 'wiki-survey' (Salganik & Levy, 2015). Aggregation of individual opinions enables the survey to establish a collective ranking of malpractices in terms of their severity and possible culpability.

Result: The collective opinion among Ph.D.-students agrees well with the established norms for responsible conduct of research by replicating the most severe types of malpractice to be fabrication of data, falsification of data, and plagiarism. The probabilities of these malpractices beating a random other malpractice in the survey are 93%, 92% and 79% respectively. In fourth place with 77%, we find the malpractice of "Ignoring Substantial Safety Risks to Participants, Workers or Environment", and at the bottom of the rankings, we find excessive self-citation, insufficient supervision, and salami publishing with 21%, 23%, and 24% respectively.

Conclusion: Ph.D.-students have a good grasp of the perceived severity of various types of research misconduct and questionable research practices. Students largely agree that fabrication, falsification, and plagiarism are the worst malpractices in research. However, Ph.D.-students also see the neglect or disregard of substantial safety risks as highly problematic, suggesting that safety risks could be given more weight in the definitions of research misconduct.

OP28.3: Are questionable practices always detrimental? On the context dependency of ethical evaluations of academic practices.

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In this talk, we argue that the current use of terminology describing deviations from good scientific practice lacks sensitivity to an important dimension of potential deviations: The context dependence of their ethical acceptability.
We are used to distinguishing between good practice, misconduct, and a grey zone of detrimental, unacceptable or questionable practices located between these two extremes.
This one-dimensional spectrum overlooks that a given practice, e.g. deleting deviating data points, may in one context amount to misconduct, whereas it may be acceptable in another. Similarly, the ethical evaluation of a situation may require negotiation because the norms and rules are unclear or only stated on a general level. For that reason an action can be 'questionable' for two distinct reasons, either because it ethically falls between good practice and misconduct or because it is difficult to make an ethical evaluation. In the talk, we will explore this context dependence, and argue that it forms an independent epistemic axis: When we evaluate an action, the question of ethical severity and the amount of contextual information needed to form an ethical evaluation constitute two separate dimensions.
Through examples, we show that the lack of attention to context dependence has had significant consequences for a) the validity of research of student misconduct and b) the formulation and implementation of rules and guidelines on research and academic integrity.
We suggest a number of way to improve the use of terminology. For instance, introducing a clear distinction between, on the one hand, detrimental practices that are characterized by being sandwiched between good practice and misconduct on the severity axis, and, on the other hand, questionable practices that are characterized by their context dependence, and whose severity is undetermined until further details are provided.

OP28.4: Themes and emerging factors from research misconduct cases in the media: A report of findings from a review of recent case studies for the BEYOND project

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Objective: This research presentation will share insights obtained from a case-study review on the state-of-the-art knowledge in research ethics and integrity (REI) carried out as part of the Horizon Europe-funded BEYOND Project. In keeping with the wider objectives of the BEYOND project, the aforementioned research engages with a complex socio-systemic perspective to addressing the factors that influence RM and lapses in RE/RI standards.

Methodology: BEYOND project researchers are conducting a comparative qualitative review of cases of Research Misconduct (RM) collated and analysed across four BEYOND partner countries (Estonia, Latvia, Netherlands, UK) due to be completed in December 2023. The review's methodology focusses on collating cases which appeared in the media and public discourse between 2019-2023 and were verifiable and analysable from multiple documentary sources, and using a grounded theory approach to analyse their content in qualitative detail to identify significant issues and relevance to the project's four thematic areas of focus: the reporting of RM; gender aspects related to RM; researcher precarity and working conditions; researchers' mental health and well-being, and the rehabilitation and reintegration of researchers' who have committed RM or were accused of RM. . This qualitative component was supplemented by mixed-methods desk research to obtain comparative profiles of each of the case study focus countries, and other BEYOND project countries, to obtain a baseline for similarities and differences between countries to inform the analysis.

Findings: This presentation will identify key findings on significant patterns and themes identified from the review, and new and emerging factors we have identified in this research. Our findings will aim to analyse researchers' activities and behaviours in relation to relevant factors concerning systemic socio-political issues, institutional structures and the research environment. Particular emphasis will be placed on the four thematic areas outlined in the methods section.

Conclusion: Applying the findings of this review will highlight spaces for innovative interventions at both organisational and government levels to promote effective REI policies and processes, and targeted educational interventions to promote REI and mitigate RM at a range of institutional and career levels.

OP28.5: Balancing Complexity and Collaboration: Multi-Institutional Research Integrity Investigations in Australia

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In this paper we will examine the implications of Australian research institutions conducting joint or multi-institutional research integrity investigations.

The Australian Code for the Responsible Conduct of Research (2018) establishes the standards that Australian research institutions must adhere to, delineating best practices and outlining the responsibilities of institutions and researchers. Accompanying The Code are best practice Guides covering key areas to aide institutions in shaping research policies and procedures.

One such guide is The Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research (2018). It outlines institutional and researcher obligations, defines breaches and research misconduct, underscores the principles of procedural fairness, and delineates institutional roles. The Guide aims to provide consistency with detailed information on how preliminary assessments and investigations of allegations are to be managed. It serves as a valuable resource for research institutions, particularly their Research Integrity Offices (RIOs). In cases of integrity complaints involving collaborative research across institutions, specific advice is provided. The Guide states that institutions should collaborate when a potential breach of The Code arises to avoid duplicate investigations.

Anecdotally, we are seeing a rise in multi-institutional research integrity investigations. This is likely the result of researchers moving across institutions more frequently in their careers, the drive for multidisciplinary research teams and the growing number of authors on outputs. Arguably, multi-institutional collaboration may be the only way to assure a fair and comprehensive investigation, but potentially at the cost of expediency. These investigations must consider many elements including privacy requirements, state laws, institutional policies and/or workplace agreements, resourcing or funding arrangements, administrative burden, and reporting requirements. We explore how these complex investigations are currently managed and how to best balance the advantages and challenges with collaborative approaches to investigating potential breaches of The Code (2018). We will consider how the Guide to Managing Investigations can be strengthened to support multi-institutional investigations and examine ways to ensure that procedural fairness is accorded to respondents during an investigation.

OP28.6: From watchdogs to Epistemic activists – a pass-through towards institutional change?

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During COVID-19 crisis journals have accepted research that lacks of rigorous scientific methods and it was later found to be fraudulent. One example is hydroxychloroquine clinical trials. Even if the scientific community identified methodological and biomedical concerns of these trials days after the publication, the article remained in the scientific record. It influenced political leaders and conspiracist groups leading to severe societal costs.
In practice, scientists who flag this kind of scientific misconduct and other potential errors in the scientific record face significant obstruction, delay, harassment, and danger to their career prospects. Some of them fear to raise their voices, but others made the catch-fraud activity their main endeavour. This research aims to analyse individuals called simply “scientific watchdogs” or even “epistemic activists”. They dedicated their time to develop new tools to correct the scientific record, to name and shame individuals and organisations and to connect with one another to exchange experiences and new tactics.
In the wake of some scandals flagged by epistemic activists, academic institutions, editors and other organizations issued statements and principles trying to regulate scientific misconduct which reinforces the argument of Scott Frickel & Neil Gross. These authors argue that scientific or intellectual movements are central mechanisms for change in the world of scientific knowledge and ideas. In this vein, the movement of epistemic activists is our primary source of analysis. The research questions that we intend to come across are:
• How epistemic activists networks can alter the academic and publication system (peer review and post-publication peer review)?
• The inception of this movement and the controversies that rise up to challenge the established academic and publication system
• How this movement is being able to shape research policy agendas and methods of science.
• What are the main obstacles and forms of resistance that this movement is facing?
• Which norms, values, conceptions of science underpin each action and different profiles of activists inside the movement?
The following methods are being used for data collection and analysis: in-depth interviews; open-access presentations, posts, comments and letters in internet, specially Pubpeer and general media.

OP29.1: The Cochrane Evidence Pipeline: Revolutionizing Study Identification in Evidence Synthesis

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Background: The Cochrane Evidence Pipeline is transforming the way research is identified and processed for Cochrane and other evidence synthesis initiatives. It enables the systematic flow of research data through tailored workflows, integrating crowdsourcing and machine learning to generate precise and dependable metadata about studies. The Evidence Pipeline operates at two levels: at the review level, a workflow known as Screen4Me lightens the load on authors by evaluating title-abstract records, while at the study repository level, studies relevant to Cochrane's Central Register of Controlled Trials (CENTRAL) and the Cochrane COVID-19 Study Register (CCSR) are identified through a combination of crowd-based efforts and machine algorithms, ensuring the currency of these vital resources.

Objective: This presentation will provide an in-depth exploration of the primary components of the Evidence Pipeline as applied to specific review-level processes (via Screen4Me) and data repository management (CENTRAL and CCSR). We will also outline our evaluation efforts for each component and compare the system's overall performance in comparison to traditional methodologies.

Results: To date, the Evidence Pipeline, through the Screen4Me workflow, has been employed in more than 100 Cochrane reviews. The average reduction in screening workload for author teams is an impressive 72%, with an average time to screening task completion of just ten days per review. At the repository level, 99% of RCTs in CENTRAL have been identified by the Evidence Pipeline, demonstrating its efficiency.

Conclusions: The Cochrane Evidence Pipeline represents a significant step in expediting study identification for reviews and other evidence synthesis outputs. It not only lightens the load for author teams within the current review production paradigm but also paves the way for a new era that harnesses the power of efficiency and scalability to curate comprehensive repositories of studies for the Evidence-Based Healthcare (EBHC) community.

Patient, Public, and/or Healthcare Consumer Involvement: The Evidence Pipeline proudly engages Cochrane Crowd, Cochrane's citizen science platform which invites individuals with an interest in health to join research efforts. Their collective contributions have played a pivotal role in the success of the Cochrane Evidence Pipeline, aligning with the principles of open collaboration and transparency in research.

OP29.2: Increasing robustness of preclinical research towards successful translation: an assessment of the evolution of protocols from exploration to confirmation

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The DECIDE project is the accompanying module of a German funding call for confirmatory preclinical trials. As the meta-research component of this call, it provided methodological support for 12 confirmatory preclinical multicentre studies and is developing a framework for robust research. The goal of the current study is to assess how experimental protocols change throughout the preclinical development pathway.

For this, we developed a questionnaire of key robustness-related practices and items related to the description of the experimental setup used (including the animal model, intervention scheme, control groups and primary outcome of interest). The projects were selected through the funding call described above. We extracted the information available from the exploratory experiments and from openly available pre-registrations, then queried each project group to validate and complete the information. If pre-registrations are not openly available, each project group is asked to fill in the questionnaire in full. Once experiments are completed, each center involved in the confirmatory study will be asked to fill in the questionnaire for the executed protocol, highlighting adjustments needed to the pre-registered protocol.

Each item in the questionnaire is associated with internal or external validity, or reliability. Translational validity will be complemented by expert elicitation regarding the clinical relevance of the experimental setup. These will be used to visualize the variations in experimental design through a translational preclinical project.

With the evidence generated by the participating laboratories we will explore the robustness and validity (internal, external and translational) of the project during their exploratory and confirmatory stages. This will aid to understand the development of exploratory protocols into confirmatory protocols in light of the translational goals of each project. We will assess which research practices are more feasible to modify within and across centres.

This is a descriptive study of how researchers designed and executed experimental protocols in a translational preclinical project. We believe this study will be a valuable contribution to the preclinical and to the meta-research communities interested in strengthening the quality of preclinical research.

OP29.3: Transparency in the secondary use of health data: Assessing the status quo of guidance and best practices

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Objective: In this project, we answer two research questions: (1) What guidance do research papers and institutional documents provide for improving the transparency of studies that use real-world health data? and (2) What transparency policies do patient registries that provide real-world health data employ?

Method: For research question 1, we searched PubMed and Google Scholar to find relevant literature and used experts to find institutional documents. For research question 2, we drew a sample of patient registries from the ENCePP database. The different types of research transparency (preregistration, methods reporting, results reporting, data sharing, and code sharing) were both quantitatively and qualitatively coded.

Results: We found that there are a substantial number of research papers that aim to provide guidance to improve the transparency of real-world health data studies, mainly in relation to study preregistration and methods reporting. Data sharing and code sharing are mentioned rarely, possibly because of the unique nature of real-world health data. Institutional documents often lack guidance on transparency topics. There is substantial heterogeneity in the extent to which patient registries require researchers to be transparent. Registration and results reporting are most often mentioned as desirable in use-and-access policies, but calls or justifications for improving other transparency aspects are rare. More elaborate qualitative coding is currently underway.

Conclusion: The guidance to improve the transparency of real-world health data studies seems to be initiated primarily bottom-up (i.e., from researchers themselves). Health organizations and patient registries would do well to use this bottom-up guidance and implement it in formal guidance documents. Our conclusions are limited to patient registries because we did not include other types of registrires that provide real-world health data.

OP29.4: Trialblazers: putting patients in the driving seat of clinical trials

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Despite its stated commitment to patient and public involvement and engagement (PPIE), the academic research culture and infrastructure can create an intimidating environment for all but the most confident and scientifically literate patients. The commitment required to contribute to a research project can be a burden for people who are, by definition, less likely to be able to bear it.

Starting with trials, Trialblazers would address the need for a range of low-commitment and high-impact ways for patients and carers to influence the direction and design of trials at the earliest possible stage

Building on previous work developing and delivering a series of "Build-a-Trial" workshops for patient contributors, I will develop and refine this involvement method, and create additional ways for people to contribute.

The James Lind Alliance (JLA) is a non-profit making initiative bringing patients, carers and clinicians together in Priority Setting Partnerships (PSPs) to create a Top 10+ list of research priorities for a range of conditions. My aim is for a "Build-a-Trial" exercise to be initiated for any Top 10+ research question indicating the need for a trial.

To test the feasibility of the proposal I will work with the charity Action for ME to design a trial indicated by one of the Top 10+. for ME/CFS:

Which existing drugs used to treat other conditions might be useful for treating ME/CFS, such as low dose naltrexone, or drugs used to treat Postural Orthostatic Tachycardia Syndrome (POTS)?

The UK Government's recent delivery plan on ME/CFS includes a calls to action to find ways to involve patients and the public in ME/CFS research and to respond to James Lind Alliance PSP Top 10+ priorities. Both these calls would be fulfilled by this proposal and could lead to the funding of a high-quality trial of one or more drugs to treat the condition.

Research funders could adopt this method of patient involvement in trial design as standard. This would reduce the waste caused by competing research groups carrying out patient involvement work to inform grant applications which ultimately fail.

OP29.5: Results of the use of the Quality Output Checklist and Content Assessment (QuOCCA)

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Research is conducted with the aim of supplying dependable new knowledge. To achieve this aim, research must be well designed, properly conducted, and accurately reported. Unfortunately, a large fraction of the published literature falls short of the target. To improve this serious deficiency, there are many initiatives from research funding agencies, journal publishers, and institutions which conduct research. Mindful of this problem, a group of researchers at NeuRA generated a tool that could assess the quality and reproducibility of research published by the institute's scientists.
Our Quality Output Checklist and Content Assessment (QuOCCA) was designed to apply to a broad range of biomedical research pursuits. The checklist has been published and is freely available along with guidelines on how to fill it in for a publication (neura.edu.au/about/research-quality#Quocca). It includes 11 simple questions. They evaluate three pillars of research: research transparency, research design and analysis, and research reporting practices.
Five pairs of raters assessed all articles (n=928) published from 2017 to 2020, by researchers at our institute. Overall, the results were similar between years and revealed limited engagement with several recommended practices highlighted in the QuOCCA. For example, within each year, ≤10% of studies pre-registered their hypothesis and analysis plan, or made their data or code available. Data analysis was blinded in <5% of articles and ~30% of articles included 'spin'. A range of educational initiatives have been subsequently introduced and their effectiveness will be evaluated by using the QuoCCA to assess NeuRA articles published in 2021 and beyond.
The QuOCCA is quick to administer and focuses on broadly applicable and relevant concepts to open, high-quality, reproducible and well-reported science. Thus, the QuOCCA could be used by other biomedical institutions and individual researchers to evaluate research publications, assess changes in research practice over time and guide the discussion about high-quality, open science. Given its generic nature, the QuOCCA may also be useful in other research disciplines.

OP29.6: The Use and Misuse of Clinical Trial Registries: Reflections from Metaresearch in the UK and Germany

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Clinical trial registries are a crucial tool to combat bias and support the integrity of clinical research. Registries offer centralized and open databases of information about planned, ongoing, and completed trials. These should provide accountability and transparency into the conduct of clinical trials and support research and evidence synthesis, while providing informational value to the public. Yet, the current use of trial registries is suboptimal and often fails to meet these goals.

In this talk, we will cover the history of clinical trial registration, the benefits it has provided, its current shortcomings, and recent developments in the space, including new results specifications for registries under development by the WHO's International Clinical Trials Registry Platform. We build on our metaresearch at major research centers in the UK and Germany, where we use and analyze registries as tools for clinical trial transparency, including projects such as TrialsTracker (www.trialstracker.net), IntoValue (doi.org/10.1016/j.jclinepi.2021.12.012), and DIRECCT (doi.org/10.1136/bmjopen-2021-053096). We will draw from our collective experience to provide an overview of the cutting edge of what is known about the use of this registry infrastructure. Issues with registries will be considered within the broader clinical trial environment, and actionable areas for a range of stakeholders (e.g., registries, regulators, funders, research institutions, journals) will be proposed. Finally, we will examine what research disciplines outside of the biomedical sciences can learn from the development and use of clinical trial registries.

OP30.1: Do potential predatory journals and mainstream ones differ in handling retractions?

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It is noticed that some potential predatory journals (PPJs) are retracting their publications. However, it remains unknown to what extent and how many other PPJs have retracted their publications and whether PPJs differ from mainstream journals in handling retractions. We will report on a currently on-going research project which seeks to answer these three questions. We have compiled a list of over 2,000 PPJs and identified through the Retraction Watch Database over 1,200 retractions contributed by the target PPJs. The same number of retractions have been randomly sampled from an already-constructed dataset of over 13,000 retractions indexed by the Web of Science, excluding those published in the listed PPJs. For each case of retraction in the two datasets, journal performance in handling retractions will be assessed on seven dimensions: 1) retraction policy (i.e., whether the journal has a policy on retraction publicized on its website); 2) free accessibility of the retraction notice (i.e., whether the retraction notice is freely accessible on the journal website); 3) online availability of the retracted publication (i.e., whether a retracted publication remains accessible on the journal website); 4) publication-to-retraction time lag (i.e., the number of days between the publication dates of the retraction notice and its corresponding retracted publication); 5) visibility of retraction status (i.e., whether the retracted publication is watermarked, whether the retraction notice retracts only one publication, and whether the title of the retraction notice makes explicit its communicative purpose of retraction); 6) connectivity of retraction-related documents (i.e., whether the retraction notice and its corresponding retracted publication are cross-linked); 7) informativeness of the retraction notice (i.e., whether the retraction notice discloses all the compulsory information as proposed in the literature on retraction). Given our rich experiences in coding and analysing retraction data, our currently on-going research project will be ready for the conference. Our research findings will provide practical implications for identifying PPJs (in case of their underperformance in effective retraction handling) and improving mainstream journals' retraction handling (in case of their similarities with PPJs in retraction mishandling).

OP30.2: Conflicts of interest policies for editors, statistical reviewers, and peer reviewers in medical journals: cross-sectional study

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Objective: Assessments of submitted journal manuscripts should ideally be fair and objective. However, peer reviewers and editors are not necessarily neutral and may have conflicts of interest, which can influence manuscript assessments and editorial decisions. We aimed to characterise medical journals' conflicts of interest policies for editors, statistical reviewers and peer reviewers and describe how the journals manage and enforce their policies.
Method: Cross-sectional study of journal policies and questionnaire of journal staff based on a preregistered protocol (https://osf.io/snr37). We purposively sampled 300 English-language journals from the Journal Citation Report's Clinical Medicine group. We manually searched journal websites for policies and relevant information concerning conflicts of interest of editors, statistical reviewers and peer reviewers. To assess enforcement of policies, we searched journal publications and journal websites for disclosures from editors, statistical reviewers and peer reviewers. One author identified relevant information, a second confirmed the relevance, and two independently extracted data from included documents. Further, we sent a questionnaire to each of the 300 journals with 29 questions concerning management and enforcement of the journal's policy. We performed descriptive and comparative statistics to investigate the differences in policy content according to journal impact factor and between publishers, and qualitative content analysis of the open-ended responses from the questionnaire.
Results: We did not have the results ready at the abstract deadline, but the results will be ready for presentation at the conference.
Conclusion: Conclusions will await the results.

OP30.3: Empirical Insights into global retraction notices: Assessing Quality for Improved Transparency and Accountability

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Objective: Retractions play a vital role in addressing concerns related to research integrity. Unfortunately, not all retraction notices effectively convey sufficient details about retracted articles to the public.
Method: This study has developed a comprehensive rubric to evaluate and standardize the quality of retraction notices. This rubric encompasses various criteria, including whether the notice reports the individuals responsible for initiating the retraction (Q1) and conducting the investigation (Q2), outlines the reasons for retraction (Q3), provides correspondence details between authors and the editor (Q4), references retraction policies influencing decision-making (Q5), documents actions taken by the journal following the retraction (Q6), evaluates the emotional tone (Q7) and objectivity (Q8) of the language used, ensures the proper identification of retracted articles (Q9), and assesses the consistency of authorship between retractions and retracted articles (Q10). This rubric was utilized to assess a total of 12,917 retraction notices from 1983 to 2022, with a maximum score of 10 available for each retraction notice.
Results: The results indicate that the global average quality score for retraction notices remained around 4 between 1983 and 2004 but steadily increased to approximately 6.5 in 2022. This enhancement can primarily be attributed to significant improvements in Q9, Q2, Q5, and Q6 during the investigation period. Notably, Q1, Q3, Q7, Q9, and Q10 have all achieved a score of over 0.7 in 2022, while the remaining five sub-criteria still fall below this threshold. Quality levels exhibit variations both among different publishers and within various journals. Among the top 10 publishers with the highest number of retractions, Dovel Medical Press ranks highest with a score of 7.86, followed by Taylor & Francis at 6.83, and Springer Nature at 5.83. Remarkably, a publisher's headquarters typically achieves a higher score than its branches worldwide. A detailed assessment of these ten sub-criteria for publishers and journals has also been conducted.
Conclusion: These findings emphasize the lack of uniformity in retraction policies across individual publishers and journals. The criteria outlined in this study serve as a valuable reminder and be readily referred by publishers and journals to facilitate the standardized composition of retraction notices.

OP30.4: Requiem for the retraction: why proposals for 'honest retractions' fail in their objective to promote and encourage the self-correction of science

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‘Self-correction of science’ as a concept has been heavily debated in the literature on research publishing. The retraction as a mechanism for correcting the literature is often viewed as ineffective to promote self-correction. Authors are reluctant to retract their own articles because retractions may imply misconduct and therefore carry a negative stigma. Research integrity researchers and other stakeholders have put forward a number of proposals over the years to counter this, ranging from allowing authors to ‘withdraw’ instead of retracting their article, or by proposing a whole new taxonomy of retractions and corrections. A common denominator in these proposals is that there should be a clear distinction between retractions for misconduct, and retractions for honest errors. Proponents argue that authors would then be more inclined to ‘do the right thing’.

There is however no evidence that would suggest that these proposals contribute to their objective of more self-correction. I hypothesize these proposals are counterproductive and that it’s likely that there will be fewer self-corrections. First, I argue that in the majority of cases, journal editors don’t (and can’t) have enough information to determine if authors committed misconduct or simply made an honest error. In order to reliably obtain this information, journals rely on institutions to investigate, leading to significant delays in resolving cases. I also argue that editors should not be put in the position to make this determination, as they could face significant legal and reputational risk if they ‘convict’ an author of misconduct publicly in a retraction notice, leading to hesitancy to correct the literature. Second, having additional retraction types for honest errors will only reinforce the stigma of regular retractions. The current retraction mechanism may be imperfect, but it allows editors to decide to retract based on the reliability of the article, without having to make a judgment of misconduct. To encourage self-correction of science, I advocate for more awareness of the editor’s sometimes difficult position in retraction cases and for a better understanding of what a retraction is and in general less ‘retraction shaming’ and more ‘retraction positivity’.

OP30.5: Towards automatic detection of citation quotation errors: An open dataset and machine learning models

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Objective: It is through citations that scientific claims gain credibility, propagate, and become accepted as facts. Citation quotation errors can be detrimental to the integrity of the scientific record. Biomedical text mining has the potential to detect quotation errors such as non-existent findings, unsubstantiated interpretation, and misquoted information. The goal of this study is to develop text mining resources and models to support citation integrity checks.

Methods: We collected a corpus of 100 highly-cited biomedical articles from PubMed Central Open Access subset (reference articles) and annotated citations to them (citing articles) with the following information: (1) citation context (the text in the citing article that discusses some aspect of the reference article); (2) evidence segments (the texts from the reference article that best aligns with the citation context); and (3) citation accuracy (ACCURATE if the citation context is consistent with the evidence segments, or one of the following error categories: CONTRADICT, IRRELEVANT, NOT_SUBSTANTIATE, OVERSIMPLIFY, MISQUOTE, ETIQUETTE, and INDIRECT). Using our annotated corpus, we developed a machine learning pipeline consisting of a cascade of deep learning models that identify citation contexts, align evidence segments with citation contexts, and classify citation accuracy.

Results: Our dataset contains 3,062 instances, 39.22% of which are quotation errors. Our citation context identification model works well (0.98 F_1 score). Our models for evidence segment alignment and coarse-grained accuracy classification (ACCURATE, NOT_ACCURATE, IRRELEVANT) are less successful (0.55 and 0.4 macro-F_1 score, respectively). We continue to improve our models in ongoing work and develop models for fine-grained error categorization. We plan to make our dataset available by the time of the conference in June 2023.

Conclusion: Manually verifying citations takes a considerable amount of time and effort. We created the first publicly available, manually annotated dataset of citation quotation errors and have been developing machine learning models for their automatic detection. Our dataset and models can ultimately underpin automated citation accuracy verification tools that can be used by authors, reviewers, and editors and incorporated into the peer review process. Such a tool can help ensure the integrity of citation information and reduce the propagation of untrustworthy information in science.

OP30.6: Monitoring Open Science Practices — towards a community-derived automated dashboard for biomedical institutions

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The Biomedical Institution Open Science Dashboard initiative aims to create an accessible, open-source dashboard capable of automatically aggregating data concerning open science practices at biomedical institutions. Our vision is that the dashboard will enable institutions to (1) monitor their adherence to existing open science mandates; (2) track changes in open science practices over time; (3) promote a standardized method for comparing open science implementation across different institutions.

To develop this dashboard, we conducted a Delphi study that brought together biomedical institutions globally. We reached a consensus on 19 key open science and transparency practices that the biomedical community considers relevant to monitor.

The dashboard was created by reusing and adapting existing code, including code from the Charité Dashboard on Responsible Research and the open research information data managed by the Curtin Open Knowledge Initiative. It employs a combination of structured data analysis and algorithms to retrieve, process, and analyze data relating to open science and transparency practices. We successfully automated 9 out of the 19 open science practices, such as open access, open data, and trial registration. In this study, we present the results of the dashboard validation.

We conducted a validation study to assess the accuracy of automating open science practices in the dashboard. The validation used a subset of data from the Montreal Neurological Institute (The Neuro) from the Academic Observatory. We randomly selected a 15% sample (n=540) of articles from the set of Neuro research articles published between 2009 and 2022 (N=3,606). Additionally, the institution provided a list of ongoing and completed clinical trials.

We extracted bibliographic metadata related to open science practices from each article in the validation dataset. Two independent researchers extracted data and discrepancies were resolved through consensus. The results were then compared with the dashboard dataset. Each of the automated practices demonstrated reliability exceeding 85% compared to a manual extraction exercise. Our results show that the dashboard can be used as a reliable and effective tool for monitoring open science practices, and we discuss the next steps for implementation.

OP31.1: Challenges and Opportunities in Promoting Research Integrity in African Institutions

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Objective: The study aimed to identify the challenges and opportunities in promoting research integrity in African institutions.
Methodology: This study reviewed systematically studies conducted and published in Africa within the period 2000-2023. The journals were obtained from PubMed, Google Scholar, Pan African Medical Journal, PLOS, Frontiers, and Research Integrity journal. The study involved the descriptive and subjective analysis of the included studies to draw the conclusions and recommendations.
Results: Research integrity issues in Africa, notably in South Africa, Nigeria, and Kenya, encompass cases of fabrication, falsification, and plagiarism. High-profile instances, such as the Werner Bezwoda case in South Africa, have revealed irregularities in clinical trials, while rising trends in cheating and plagiarism have been reported in South African universities. Research misconduct is a concern in Nigeria, with authorship conflicts, plagiarism, and data falsification prevalent, often attributed to inadequate institutional regulations. In Kenya, research misconduct impacts both students and faculty, with a significant proportion admitting to such behaviors. These issues threaten research integrity, emphasizing the need for preventative measures and ethical research promotion in the region.
Promoting research integrity in African institutions faces challenges including limited resources leading to unethical practices, inadequate institutional capacity, historical factors like colonial legacies affecting autonomy and perceptions, lack of awareness among researchers about ethical practices, and insufficient training programs. To address these challenges, potential opportunities and strategies include capacity building and training programs, strengthening Research Ethics Committees, promoting local research ethics guidelines, international collaboration and peer review, and raising awareness about research integrity. These initiatives aim to improve knowledge, ethical standards, and oversight, ultimately fostering a culture of research integrity in African institutions.
Conclusion: Promoting research integrity in African institutions is vital for ethical research and the quality of African research. By addressing challenges like limited resources and historical factors, strategies such as capacity building and international collaboration pave the way for responsible research. Ultimately, by promoting research integrity, African institutions can enhance the credibility, reliability, and excellence of research outcomes, making a meaningful and lasting contribution to the well-being and development of the continent and the world at large.

OP31.2: Strengthening Research Ethics and Integrity in East and Sub-Saharan Africa

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The evolving research landscape requires continuous checks and balances of the ethical capacity of the National Research Agencies (NRAs), Research Ethics Committees (RECs)/Institutional Review Boards (IRBs), Institutional Animal Care and Use Committees (IACUCs), research institutions and the community. Sub-Saharan Africa is challenged with inadequate infrastructure for open data sharing and management, ethics capacity building coupled with the lack of a specific code of conduct framework for scientific integrity. The Strengthening Ethics and Responsible Conduct of Clinical Trials in East and Sub-Saharan Africa (SERCEA) project seeks to close this gap through the establishment of frameworks for research integrity, open science platforms in addition to establishing an E-learning platform for the Good Research Regulatory Practice Course (GRRP).

Coordinated by University of Maastricht (UM), SERCEA will be implemented by the Uganda National Council for Science and Technology (UNCST), Kenya Medical Research Institute (KEMRI), Tanzania Commission for Science and Technology (COSTECH) and Kamuzu University of Health Sciences (KUHeS). A needs assessment will be undertaken on the feasibility and facilitators for research integrity, strengthening of open science initiatives and the establishment of an open data access platform prior to co-creation of solutions. This consortium is enabled by partnerships such as the East African Health Research Commission (EAHRC), East African Science and Technology Commission (EASTECO) and the African Vaccine Regulatory Forum (AVAREF).

The SERCEA project will contribute to i) enhanced cross disciplinary research across the partner institutions ii) enhanced regulatory capacity to conduct clinical trials in Eastern Africa iii) improved trust in clinical trial research results by the community, iv) improved clinical pharmacovigilance in hospitals and research sites and v) improved data portability and reproducibility. Through support of the global health EDCTP3 joint undertaking grant 2023/2026, the consortium is pushing for the acceleration of regional excellence in research ethics and research integrity.

OP31.3: How can human experience influence the development of integrity tools and workflows? A case study from image screening

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Objective
Our image screening service supports researchers by upholding best practices with respect to research integrity and by identifying potentially inappropriate image editing in manuscripts accepted for publication. The service launched in April 2020 with five journals and now includes over 400 journals representing a wide range of disciplines. We describe our experience of using the service, and how this has contributed to the development of improved tools and workflows.
Methods
We evaluated over 400 journals involved in the screening program and investigated the average time taken to undertake screening and the volume of manuscripts that had image concerns identified. We also considered whether we could make improvements to how the manual process was conducted in terms of accuracy, reliability and scale.
Results
On average it takes approximately seven minutes for a trained person to screen a manuscript using software. The output report is an Excel spreadsheet which can be shared with editors. Six percent of all manuscripts screened resulted in concerns regarding potentially inappropriate image editing. These concerns were referred to the journal and for follow up with the authors and their institutions, as necessary. In the majority of cases, the concerns raised were satisfactorily resolved prior to publication. In 2022, 45% of journals using the image screening service also had an integrity concern raised with the publisher's research integrity team. The image screening service is most effective for certain types of images (western blots, gels, photographs, cell images). However, the process itself is highly manual and cannot detect duplications across published articles. The creation and interpretation of an Excel report can also be time-consuming and labour-intensive.
Conclusion
Our findings are influencing the development of an automated tool using artificial intelligence for implementation earlier in the editorial workflow, with a report created automatically and stored centrally via a web link. This will improve the scalability and reliability of screening, as well as the quality of feedback to authors and editors to ensure that potential issues are raised appropriately and in compliance with research standards prior to publication.

OP31.4: Constructing an International Framework for the Promotion of Research Integrity in Asia: An Interim Report

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The promotion of research integrity and education for responsible and ethical conduct of research (RECR) is essential for sound social development. However, breaches of scientific norms and rules continue to occur in many Asian countries, undermining public trust in researchers and professionals. While governments and academic communities have made efforts to promote research integrity, the number of cases of research misconduct and questionable research practices QRPs) continues to increase. The dysfunction of RECR education leads to not only research misconduct in a narrow sense, but also major social problems such as statistical data falsification and performance test data fraud. Furthermore, the multinationalization of research has exposed various problems due to differences in concepts and practices in practicing research activities.

This project aims to establish a framework for collaboration among Asian countries (especially Japan, Malaysia, Taiwan, and South Korea) to dramatically upgrade and optimize their individual efforts to promote research integrity. The project has been conducted to create a database of the organizations, human resources, legislation, institutional systems, educational methods, and teaching materials that are responsible for promoting research integrity in each country. Through mutual visits and international online workshops, the project will clarify individual issues and common challenges in each country, and explore solutions by sharing best practices. In addition, the project will identify human resources to promote research integrity from various sectors and establish a network.

As part of the project, the 5th Asia Pacific Research Integrity Network Meeting (APRI 2023) was held in March 2023 in Tokyo, Japan.

The project is partly supported by the Toyota Foundation for it International Grant Program 2022, entitled "Cultivating Empathy Through Learning from Our Neighbors: Practitioners' Exchange on Common Issues in Asiat," for he duration of October 2022 to September 2024.

This interim report, presented on behalf of the international project team and the Association for the Promotion of Research Integrity (APRIN) which organized the 5th APRI Meeting, will summarize the project's progress and findings as of May 2024.

OP32.1: A Research Institution's Experience of the Recommendations of Cooperation and Liaison between Universities and Editors (CLUE).

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Objective

Ensuring trust in research is a key objective of research integrity for both universities and editors. As a research institution, we have sought to implement CLUE recommendations (2021) for institutions—but what has been our experience? We consider the CLUE recommendations for research institutions and reflect upon our experience.

Method

The proposed method is qualitative and experiential. We reflect upon our experience of liaison between universities and editors. We consider several case studies of research integrity investigations undertaken at RMIT University in which we cooperate with publishers and assess these case studies against the recommendations of the CLUE Working Group (2021).

Results

Through case studies of research integrity investigations conducted at RMIT University in which the institution has liaised with publishers and editors, we have identified challenges to the communication between institutions and publishers, as well as to corrections and retractions of research outputs.

Such challenges include: unexpected outcomes, like publishers seeking alternate corrective actions; a lack of reciprocal transparency from publishers; and differing understandings of procedural fairness that can lead to publishers privileging authors over institutions.

Conclusion

We argue that reflections from an institution inform better practice in meeting the recommendations of CLUE (2021)—with the aim of promoting and fostering research integrity—and conclude that it may not be enough to ensure trustworthy research for institutions to work in line with these recommendations.

OP32.2: Beyond Organisational Boundaries: Ecosystem and Researcher Influences on Integrity and Practice

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To-date, research examining the extent to which organisational attributes contribute to increased engagement in questionable research practices (QRPs) is scant. Our study aims to fill this gap, utilising data from the 2019 International Survey on Research Integrity (IRIS). We simultaneously aim to explore how several individual- and organisational-level factors influence QRP engagement.

IRIS is a cross-national survey encompassing researchers from across disciplinary fields and career stages. Through categorising respondents based on their institutional email addresses, we were able to undertake a multilevel analysis to discern the extent to which QRP variation arises from organisational and country-level differences. We simultaneously test the role of various researcher-level and organisation-level factors in influencing QRP engagement.

Our findings show that only about 1.3% of the variation in QRP engagement is due to unexplained organisation-level and country-level differences. We also found that certain organisation-level attributes impact QRP engagement. Those on permanent contracts and females tend to engage in fewer QRPs on average, while early career researchers engage in more QRPs on average. We find that the most significant researcher-level determinant of QRP engagement is greater commitment to the normative ideals of science. Researchers in the medical sciences reported the highest average QRP engagement, compared to those in the natural sciences, social sciences, and humanities. Organisationally, perceptions of a collegial working environment and reduced publication pressure correlate with fewer QRPs. Research integrity training was not associated with QRP engagement. However, where protocols and personnel for addressing research integrity breaches existed, QRP engagement was typically lower. The lack of awareness of a written institutional statement on research integrity correlates with increased QRP engagement. Notably, researchers in academia exhibit less QRP engagement than their counterparts researching in industry, non-profits, government research centres, and health research centres.

Our research suggests that broader ecosystem-wide factors and researcher-level attributes might be the primary causal factors behind higher rates of QRP engagement, with less overt influence of proximal organisational environment. While organisational dynamics contribute, it appears that individual differences and researcher responses to more general ecosystem dynamics are particularly important for research integrity and practice.

OP32.3: Keeping the PEACE: Applying an interview model to research integrity investigations

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Background
A key part of a research integrity (RI) investigation is interviewing complainants, respondents, and other affected parties to gather relevant information pertaining to a research integrity complaint. This is often a difficult and stressful process for all involved. This is made worse by inexperience, poor planning and evaluation, and a lack of guidance and support for those conducting and taking part in interviews. The PEACE model is a well-established interview technique for non-coercive investigative interviews that was originally developed for the police. The pneumonic stands for Preparation and Planning, Engage and Explain, Account Probing and Challenge, Closure, Evaluation. The model aims to obtain factual and detailed accounts from an interviewee. In accordance with most National and International Integrity Codes, this model focuses on procedural fairness principles and is highly adaptable to all types of organisations, regulatory requirements and interview types.

Discussion
Having undertaken training in the PEACE model, we applied this approach to RI interviews. With some adaptations, the approach was effective at promoting and improving planning and evaluation of RI interviews. Furthermore, application of the model helped create a shared understanding of the aims of the interview, built good rapport and facilitated in obtaining an objective account from interviewees.

Conclusion
In this paper, we explore how this model can be applied to integrity interviews and how this can support integrity teams to apply evidence-based practice when it comes to research integrity investigations.

OP32.4: Placeholders: An Honest-Error Defense?

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Honest error is not research misconduct. When data are questioned, the authors often claim their actions are an honest error. A common honest error defense is forgetting to replace the "placeholder" images, graphs, or tables. This presentation describes how this strategy by the respondents failed in a recent misconduct case at the U.S. Department of Health and Human Service's Office of Research Integrity, (ORI).

Questioned data in this case involved reuse of images to represent unrelated experiments in multiple figures in various venues. The respondents (a postdoctoral fellow and his mentor) claimed honest errors were made by forgetting to replace the "placeholders." Analyses of the questioned work and available evidence by the institutional committee and ORI revealed that the respondents' actions were not due to honest error. The figures were not just place holders. For example, the respondents relabeled the "placeholder" images to fit an intended scientific message and wrote corresponding figure legends. Also, they either could not produce presumed replacement data or the data they did share were questionable. The respondents used "placeholders" in multiple figures in multiple grant applications, suggesting that forgetting to replace them was not an isolated occurrence. These actions demonstrate the respondents' intentional falsification and/or fabrication. When presented with this undisputable evidence, the respondents signed settlement agreements with ORI.

ORI found that both the postdoctoral fellow and his mentor committed research misconduct and falsely reported the data. The postdoctoral fellow, who generated the data, was responsible for knowingly, intentionally, and/or recklessly falsifying and fabricating data. His mentor was responsible for knowingly and/or recklessly reporting falsified and fabricated data in one hundred and six figure panels in fifty figures included in three papers and sixteen federal grant applications. In the absence of reliable image data, the respondents falsified and/or falsely reported figures, quantitative data in associated graphs purportedly derived from those images, statistical analyses, and related text.

In ORI's experience, "placeholders" are a red flag rather than an honest error. An honest error defense by means of a "placeholder" explanation may not save one from a finding of misconduct against them.

OP33.1: The case for a percentage-based author-contribution system in scientific publishing

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Peer-reviewed journal publications play a key-role in most stages of career development in academia. This role can be summed-up to three “axioms”: the more in number, the better; the higher the journal impact, the better; the higher the citation count, the better.
This paradigm may have worked in the past, but has eventually led to a close-to-dystopian scientific publishing environment, where an increasing percentage of researchers focus on inflating their numbers/metrics rather than on the careful curation and quality of their research outputs.
In the authors view, a critical reason for this is that authors' contribution to their fields is not evaluated separately from their papers' contribution. Currently, all authors of a paper are attributed with the same numbers/metrics, those of the paper. This renders maximising paper production and citation count the goal for many, since prevailing practices in career development essentially promote quantity over quality, thus incentivising behaviours that extend far beyond the realm of research integrity.
This work proposes a percentage-based author-contribution system in scientific publishing and presents the case on why such a change in the current paradigm is needed. The proposed system dictates that co-authors of a paper will have to declare a percentage-based author-contribution list, totaling to 100%. This percentage will represent each author’s contribution to their field through the specific paper and can be associated with whichever number/metric (journal impact, citations, or other), significantly reforming and rationalising comparative evaluations of authors. In the above, each paper’s contribution to its field remains intact. The proposed system is deemed to be both fair, as it incentivises research integrity and meritocracy while hurting bad practices, and easy-to-implement, as percentage-based contribution can be seamlessly expanded to all aspects of author-related metrics and included to all scientific databases.

OP33.2: Peer reviewer credit in research assessment

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Peer review is the most important mechanism for quality control in science. It is an essential part of a researcher's activity, but it is time intensive and often goes unrecognized. Responsible research assessment advocates are working with the community to agree on measures that would broaden assessment criteria to move away from metrics such as impact factors and enable peer review work to be counted as scholarly output. In April 2022, EMBO hosted a workshop funded by the Wellcome Trust, which gathered 17 participants from different stakeholders such as publishers and journals, funders, research institutes, and service providers. The purpose was to identify policy issues, technical requirements, and methods that would allow researchers to earn credit for journal-level peer review. The overarching themes that emerged during the workshop were the needs to increase the size and diversity of reviewer pools, to improve training for conducting peer review, and to develop methods for giving tangible credit to reviewers. Workshop participants agreed that while reviewer credit is most relevant for early career researchers, providing mentoring and training for all researchers would help to diversify reviewer pools across seniority and geography, relieve pressure on established researchers and help to preserve the integrity of peer review in the future. These points will have to be kept in mind in developing systems to reward reviewers in assessment procedures. Among the main outcomes of the EMBO workshop was the acknowledgement that there is a lack of standards for assessing review quality. To further develop these ideas, EMBO has created a working group within the Coalition for Advancing Research Assessment (CoARA) with the aim of developing and piloting principles and guidelines for standards that would allow peer review work to be recognized as scholarly output. This talk will outline the lessons learned from the EMBO workshop to support wider implementation of peer review credit.

OP33.3: Research Integrity Indicators project from the UK Committee on Research Integrity

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The UK Committee on Research Integrity is working collaboratively with a broad range of stakeholders to convene and to help shape conversations around quantitative and qualitative indicators of research integrity, both nationally and internationally. Through this work, we aim to contribute to fairer approaches to research evaluation and to help build the evidence base for research integrity in the UK. This work builds on initial work produced by Research Consulting and commissioned by UKRI, GuildHE and Cancer Research UK to explore research integrity indicators [1]. The main aims of the committee's research integrity indicators project are twofold: to seek to identify a set of indicators that can be used by individual higher education institutions in the UK to monitor and improve their support for research integrity; and a set of indicators that will enable the committee to evidence research integrity at the national level and note trends over time. We will be using INORM's SCOPE five-step process [2] to guide and inform our work.

1. Indicators of research integrity - An initial exploration of the landscape, opportunities and challenges https://www.growkudos.com/projects/indicators-of-research-integrity-an-initial-exploration-of-the-landscape-opportunities-and-challenges
2. The SCOPE framework: a five-stage process for evaluating research responsibly. https://inorms.net/wp-content/uploads/2022/03/21655-scope-guide-v10.pdf

OP33.4: Fostering research integrity practices among Postgraduate Students, Postdoctoral Research Fellows (PDRFs) and University Staff: A Case of a South African University

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This paper looks at the need to foster research integrity practices among postgraduate students, PDRFs and staff at a South African University. This becomes important in view of the fact that debates focusing research integrity is on the rise worldwide and also considering the prevalence of a wide range of research and ethical issues and practices among researchers. The issue of quality and integrity also comes to mind when research work are carried out. But also noteworthy is the fact that some researchers and even universities are not knowledgeable on issues around research integrity. In some cases, early career researchers and interestingly, senior researchers alike are vulnerable and inexperienced on how to cope with the nitty-gritty of research and the need to avoid questionable research practices. There is therefore the need to guide against these barriers to ensure good practices. Using qualitative research method, this paper looks at knowledge and attitudes of postgraduate students, postdoctoral research fellows and staff members at a South African university to assess their understanding of what research integrity is all about and if they practice it. Interviews were conducted with some purposively selected postgraduate students, PDRFs and research staff at a South African university and data was analysed thematically. Findings revealed that most postgraduate students and staff are not aware of nexus of integrity in research. For some, the concept of 'research integrity' is new to them. The paper concludes that fostering research integrity practices needs urgent attention to further create a very good atmosphere where research culture and practices will thrive. The paper suggest various methods to follow towards fostering sound research integrity practices among research staff and students. The study also recommends the need for research integrity to be taught as part of research methodology modules to further sensitise postgraduate students while regular talks are suggested for PDRFs and research staff.

OP34.1: Research data management practices and challenges at a large comprehensive university: A cross-sectional mixed method study

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Objectives: Good research data management (RDM) is essential in research-intensive universities, especially since data are getting larger and more complex. However, studies in this area are limited. We aim to systematically identify the current RDM practices of researchers and research postgraduate students in the context of a large comprehensive university.

Method: We conducted a cross-sectional online questionnaire at the University of Hong Kong in May 2022. Principal investigators (PIs), academic staff, research-focused staff including research assistants and postdoctoral researchers, research support staff including technicians, and research postgraduates were recruited as participants through periodic university-wide emails. Statistical analysis was conducted using R. A thematic analysis was performed on the free-text comments provided by the respondents.

Results: Based on 218 complete responses, we found that 46% of the respondents reported generating ≥1 terabyte of data. These big data generators can be found across a variety of disciplines. Only 56% of all respondents reported continuously updating their data management plan throughout a research project. Worryingly, only 67% and 46% of the respondents had a concrete plan to archive or deletion their data, respectively. We found 60% of the respondents agreed RDM costs should more or less be shared evenly between the PI and the university. The top three storage types used were the cloud, personal computer and USB / hard drive, with 18% using only one type of storage, risking data loss. The respondents reported the uncertainty or perceived lack of suitable data infrastructure as the major challenge in RDM. Thematic analysis showed that there was a lack of clarity in data custodianship, and lack of good infrastructure that caters for variable data sizes, accessibility, consolidation, security and discipline-specific requirements.

Conclusions: The study provides empirical data on the current state of RDM practices in a large comprehensive university. The finding highlights the importance of designing clear policies related to data ownership, long-term data archive and removal, and storage cost-sharing. The result also highlights the need to provide fit-for-purpose infrastructure for RDM that considers diverse needs of researchers.

OP34.2: The institutional journey to foster research integrity through research data management and open science: Are we there yet?

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With the aim to mitigate research integrity risks and advocate responsible data sharing, the Nanyang Technological University (NTU) launched the NTU Research Data Policy and the NTU Data Management Planning (DMP) requirement in 2016.

The university's DMP template guides the researcher to preempt potential research data risks, plan mitigation measures, and to also prepare for data sharing and archival. Incorporating the submission of a Data Management Plan (DMP) as a mandatory step in the grant funding process has helped to raise awareness of good research data management and sharing practices within the university.

Following this, the institution established an open-access data sharing repository in 2017 and introduced closed data platforms in 2022, recognizing the importance of being 'as open as possible, as closed as necessary.' The university is currently developing an Institutional Research Data Storage Finder to assist its researchers in navigating storage options tailored to the sensitivity level of their research data. Furthermore, ongoing research data audits are now part of the institution's practices, with a particular focus on projects dealing with sensitive research data. The winners of the inaugural NTU Open Research Awards served as a source of inspiration for many others, as they shared their experiences with open research during the inaugural Singapore Open Research Conference in 2022. These initiatives have played a crucial role in preparing researchers to meet the research data management expectations set by the institution, funding bodies, and publishers."

It is thus timely that we take stock of the journey thus far and benchmark ourselves against international frameworks, such as the UK Digital Curation Centre's RISE (Research Infrastructure Self Evaluation Framework), the Australian Research Data Commons (ARDC)'s 'Research Data Management Framework for Institutions' (2023) and ARDC's 'Data Governance Checklist for Institutions' (2023). With greater emphasis placed on open science, the University attempts to also examine emerging frameworks such as the UNESCO's 'Checklist for universities on implementing the UNESCO Recommendation on Open Science' (2022) and the OpenAIRE's 'Open Science Policy Checklist for Research Performing Organisations' (2018), to see if there are elements that will take the NTU journey to the next level.

OP34.3: Data management in research misconduct cases in the UK

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Many UK funding agencies have policies that require employers of funded researchers to inform them about cases of research misconduct. There is some variation in the point at which this is required during an investigation as well as the information that needs to be shared. Funders in the UK have established they have a legitimate and/or public benefit interest to ask for the information, however employers of those involved in investigations are extremely nervous about providing details of investigations, particularly the name of the respondent.

All parties have a strong interest in managing cases of research misconduct and their consequences to ensure confidence in research outputs, protect the financial investment in ongoing projects and fulfil a duty of care to those involved. In the UK, concerns from employers about data provision to the funder focus on compliance with data protection laws and fears of defamation allegations, as well as protecting careers and managing reputational risks. Funders have concerns that without this information they are unable to ensure their funded research, or the funds themselves, are not at risk and will not be able to fulfil their safeguarding responsibilities.

To help guide both groups on how to manage data provision within data protection laws, as well as ensure their own governance is set up appropriately, a group of organisations linked to funding in the UK have designed a set of short web-accessible knowledge modules, drawing on guidance provided by the Information Commissioner's Office, combined with an open webinar discussion forum to increase confidence and understanding in this area.

This session will describe the project and present the outputs to help attendees determine whether this approach would be helpful in their own country if similar issues exist.

OP34.4: Collating and comparing institutional data on university research infrastructures: critical reflections from ACU Measures

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This presentation will introduce findings from the Association of Commonwealth Universities' online benchmarking service – the 2022-23 ACU Measures Supporting Research Survey – which has collated institutional data on the types of research support structures, priorities and provisions that drive research across its global membership of 500+ universities.

Designed using participatory methods to engage universities in diverse regulatory and geographical contexts, the survey adopts a conceptually broad view of research support to enable data collection on: (1) the types of research activities undertaken (e.g., numbers of grant applications and awards, university-industry contracts); (2) the extent / deployment of institutional resource required to do so (e.g., sources of research income, organisational KPIs, and the allocation of research management staff, training, data systems / services, and policies to manage research portfolios across the research lifecycle).

Collecting data from 100 universities across 29 countries and five continents, this twin approach is designed to provide greater contextual insight into different research environments and reveals significant disparities - broadly correlating with country income – in access to funding, scale of research activities, and institutional support systems.

For example, nearly 40,000 grant applications were reported by all participating institutions. 88% of these were submitted by high country income universities at a rate of over 1000 applications per institution. In contrast, institutions based in low-income countries reported a rate of 44.

Yet a diversity of data practices and provisions underpin these figures. 69% of all respondents confirmed the use of electronic management systems (whether commercially procured or developed in-house) to support the administrative and financial management of these grant applications, with uptake varying hugely across high (95%), upper-middle (61%), lower-middle (53%) and low (42%) country income institutions. This pattern was similarly reflected in reported rates of university policies on data management and protection, and the provision of staff training in the collection, storage, and preservation of research data.

These example findings illustrate the importance of evidencing the intersecting drivers that underpin the university research function and offer an opportunity to critically reflect on the value of comparative data in better contextualising conversations about institutional infrastructural needs.

OP35.1: Partners in Integrity – The Importance of Global Collaboration for Responsible Research: A South African and UK Perspective

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This paper will demonstrate the importance of global collaboration between Research Managers and Administrators (RMAs) in ensuring the successful delivery of responsible collaborative research. This paper is written from the perspective of two Research Managers from the University of the Witwatersrand, Johannesburg in South Africa and the University of Bristol in the UK, exploring how collaboration between RMAs can ensure integrity in the research process. The authors will demonstrate how operationalising the recommendations from the Cape Town Statement on Research Integrity can engender responsibility in global research.

There is a growing body of guidance available to help researchers undertake global research collaboration, outlining principles and approaches for integrity. However guidance and examples of best practice in facilitating and implementing collaboration between RMAs is now only beginning to catch up. The premise underpinning this abstract is that RMAs are uniquely situated within the research ecosystem and should be seen as facilitators to enable responsible partnerships. However, due to a lack of collaboration between RMAs, the perception of acting as barriers to responsible research persists. The authors of this paper will demonstrate that by creating a reflexive space for RMAs to collaborate, undertake best practice sharing, and learn from our mistakes can facilitate successful partnerships.

By promoting collaborations between RMAs to embed integrity through global connections of research managers, we are recognising the need to develop deeper understanding of the bespoke issues faced by partnering organisations in implementing the recommendations of the Cape Town Statement on Research Integrity. Projects undertaking a holistic approach to the implementation of the Cape Town Statement on Research Integrity, can ensure successful research outcomes. This can be achieved by developing a robust research integrity framework to address potential research integrity issues that may arise during projects involving global collaboration.

Whilst acknowledging that global collaboration can be done well, in order to contribute to promoting research integrity principles in the global research environment, we need to better collaborate with our RMA global colleagues. In doing so, we can continue to foster a culture of research integrity within professional services and academic partnerships to achieve this goal.

OP35.2: Research Stewardship – A New Concept to Keep Up With the Times

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The world in which we live, conduct, and manage research has changed. These geopolitical changes affect many different facets of research integrity, including our partnerships, how we asses risk, our governance practices, our training, our policies, and has increased the importance of being transparent about our activities. At the University of Technology Sydney we have addressed this rapidly evolving space with our vision of what we term 'research stewardship'. The two key elements of research stewardship are (1) the responsible conduct of research, ethically and with integrity; and (2) responsible research activities. Research stewardship encompasses both cultural change and legislative compliance. Research integrity is a core underpinning component of research stewardship.

We have brought together a new team to help ensure that research stewardship becomes a foundational component of the UTS research value proposition and provides university leadership with confidence and transparency with respect to the conduct of high-quality research that is carried out by our researchers, supported by our professional services staff, and trusted by our stakeholders and the community.

18 months on, we will reflect on the strategic and operational benefits and challenges we have faced in delivering this vision, particularly around streamlining our processes, enacting a culture change, and getting the messaging right.

OP35.3: Shifting Power and Advancing Equity in the Field of Sexual and Reproductive Health Globally

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Objective: “Knowledge flow” has historically gone from the Global North to the Global South, with research questions and resources to gather more “knowledge” favoring institutions in the Global North. The sexual and reproductive health (SRH) research and advocacy community is holding dialogues to attempt to establish new ways of working together that shift power in service of advancing equity in global SRH work.

Method: Holding workshops at the International Conference on Family Planning (November 2022), the Population Association of America conference (April 2023), Women Deliver (July 2023), and the Interdisciplinary Association for Population Health Studies (October 2023) to innovate ideas and share strategies. To date, this team has engaged with ~1,200 individuals from 111 countries.

Results: Participants (n=1,247) have indicated that they value learning about emerging practices in shifting power, creating equitable partnerships, how to implement power shifts, and what long term structural changes will dismantle existing systems. Long term hopes focused on moving priority setting and decision-making closer to communities while improving partnerships. To implement this, participants identified learning and unlearning individual behaviors and biases, and improving partnership models. Concrete actions identified followed a similar pattern with an emphasis on learning and unlearning, continuing the conversation, and challenging current partnership dynamics.

In July, we launched a platform to form/connect a community of practice working on power-shifting. The intention behind the community is to share understandings and learnings as well as identify opportunities to address persistent inequities in the field in the domains of research, program implementation and evidence-based policy advocacy. 830 individuals have signed up to date for the community of practice. The community has been actively sharing resources, and opportunities to hold important conversations, lift up new ways of working, and innovate solutions.

Conclusion: Shifting power in the field of sexual and reproductive health globally is an ongoing process, with organizations testing new models, individuals trying to put in place revised practices, and everyone striving to a better ideal of how work gets done. As this is an area of the field very much in transition, sharing experiences and reflections will help us all improve our practices.

OP35.4: The Blur of Academic Integrity and Research Integrity – The Complementary Link

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Research finds itself in an interesting position as an activity that sits within the remit of academic and research integrity. For researchers and research stakeholders to translate research into trustworthy policy and innovation, research should be undertaken with robust academic and research integrity principles. An African perspective from Wits University, Johannesburg, and a European perspective from the University of Bristol in the UK will be explored. There is a misconception that academic integrity and research integrity are used interchangeably but we will demonstrate that this is not the case.

We will explore the link between academic and research integrity for translating research into trustworthy policy and innovation at the institutions. We will interrogate the overlap between the 2 spheres of integrity to identify how to manage issues that may arise between the gaps that neither covers.

Academic integrity is foundational of all Higher Educational Institutions and research integrity is a complementary component that underpins research outputs to progress into trustworthy policy and innovation. There is a misconception that academic and research integrity are interchangeable or siloed practices which is not the case. A comparison of Bristol and Wits' policies, procedure, and other tools will be analysed to determine what is currently in place and how robust research integrity policies can cover these gaps.

By conducting this comparison we will demonstrate that regardless of an institutions location, through collaboration and best practice sharing of education and training programs HEIs can ensure consistency in the implementation of the Singapore Statement to the Cape Town Statement on Research Integrity to establish the foundation of trustworthy and innovative research and policy.

There is a need for the interlinking of academic and research integrity for research to ensure trust for research to inform policy and to address societal issues. Academic and Research Integrity remain complementary as tools to promote research undertaken ethically and for researchers to demonstrate the integrity of their work. This ensures public trust, that robust governance of academic and research integrity processes are in place in facilitating ground-breaking research that stands up to public scrutiny for trustworthy policy and innovation.

OP36.1: Students' Perceptions and Lecturers' Experiences of Thesis Supervision in the School of Creative Arts, University of Education, Winneba

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Graduate theses supervision is very imperative in institutions of high learning. This is to ensure the quality and rigour of graduate research, facilitate the learning and skill development of students, and to guide them through the complex process of conducting and writing up independent research. It is a crucial component of the graduate education process to make graduate students complete their theses on time, however, the extent to which such supervision is done at the Faculty, is not known. While some students complete their theses on schedule, others overly spend many years on the programme, making them lose their studentship. The study, therefore, explores the perceptions of graduate students and supervision experiences of lecturers regarding postgraduate theses supervision. The study was rooted in the qualitative research paradigm using simple descriptive research as the design. Ten participants were purposively selected, including masters (n=2), PhD (n=3) and supervisors (n=5). Data was collected using semi-structured interview while content-thematic analysis as used to generate a comprehensive description of the perception and experiences of supervisors and supervisees. It was found out that, not all the supervisors have the full capability to assist their supervisees in their dissertation journey, in spite of the positive interpersonal relationships with the supervisees. Also, the inability of students to complete their work on schedule is determined by other factors such as physical and financial challenges faced by students, the calibre of students admitted, workload on supervisors and low staff strength in the faculty. The study concludes that theses supervision is of moderate quality in the faculty because of the prevalence of these factors. However, the study used a small of volunteering participants, emphasising the need for broader sample population to arrive at a larger picture of the phenomenon. It recommends that the leadership of the faculty and the Graduate School should prepare codes and guidelines concerning theses supervision to improve the output. The institution should consider increasing the staff strength and institute supervisor-supervisees fora at least twice a semester to make supervisors and supervisees committed to their responsibilities to ensure quality supervision.
Keywords: Research Supervision. Supervision quality. Supervisors. Supervisees.

OP36.2: Navigating Open Science and Research Ethics in the Basic Sciences: Insights from a Qualitative Study

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• To debate the relation within open science and research integrity breaches.

• This project is built on a qualitative approach using semi-directed interviews as a research method. We conducted 30 interviews, each of which lasted around one hour. Therefore, data collection for the interviews corpus was made in different stages: 1) Using the QS World University Rankings 2022 as a guide, the top 5 universities in Brazil, France and Peru. 2) After this identification process, basic science researchers - Biology, Chemistry and Physics- were contacted and interviewed if they agreed. 3) Interview transcriptions were analyzed using the Nvivo software. 4) The coding process used a thematic analysis with an inductive category development approach.

• Preliminary results are:
1. Researchers - especially in the 2 developing countries- worry about "scooping" of concepts, information, and contributions by peers with better resources, which fosters a culture of rivalry. Conflicts over authorship and disloyalty are frequent in research teams. Preprints can be used to claim authorship, thus legitimating stolen research data. Due to academic organizations that are hierarchical and dependent on status, open science may not deter wrongdoing even when it promotes openness.
2. Guest researchers - such as foreign postdocs- who are early in their careers may not be given co-authorship credit in the research products' final versions, even if they conducted the experiments, which could be detrimental to their careers. Later, open research data - given credit to the main laboratories- is used to legitimize these behaviors.
3. The significance of strategic open science practices since for-profit businesses may later make money from research that was initially intended to benefit the larger scientific community.
4. Ethical protocols are discussed in the context of "helicopter research," emphasizing the importance of sharing benefits with the communities providing genetic resources. International big-team science initiatives - especially- in biological research sometimes involve an unequal division of labor, underlining the necessity of involving local researchers in project commencement.

• This project emphasizes the need for more precise authorship criteria, the inclusion of regional researchers in projects, and the security of research data in open science.

OP36.3: The institutionalization of principles of equitable partnerships by large international funders – naivety or lack of commitment?

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In the recent call for public feedback on amendments to the US National Institutes of Health (NIH) policy applicable to subawards and consortium agreements, reflection on the reality of the risk of non-compliance and the heightened inequality of partnerships was forced to the surface. Stellenbosch University (South Africa), one of the top eight recipients of NIH funding of all non-US (so-called foreign) institutions, will share insights and experiences of the difficulty faced in ensuring compliance within unreasonable compliance constraints in order to continue participating in public health research.

There are several initiatives and actions taken by organizations such as the European Union (EU) and the World Health Organization (WHO), where the importance of equitable partnerships between the wealthier countries and the Lower Middle-Income Countries (LMICs) are emphasized, as well as the ethical conduct of research within this context.

It is noteworthy that the NIH is regarded as a partner in support of the values and principles of ESSENCE (WHO). However, what is proposed in the revised guidelines for foreign subawards and consortium agreements, are in contrast with the values and principles for equitable partnerships.

By analyzing the proposed amendments to the NIH policy, important aspects such as data sharing and transfer, data security, jurisdictions, legislative frameworks such as privacy and human tissue legislation (which at times are clashing with the funder's or prime recipient institutions' jurisdictional legislation), capacity constraints, monitoring capabilities, operational and practical considerations and the associated cost implications of compliance, will be addressed. This analysis will be considered within the context of the Cape Town Statement on fairness, equity and diversity in research and the TRUST Code: A Global Code of Conduct for Equitable Research Partnerships.

This presentation will give insight into the reality and struggles faced by a non-US LMIC university where the stark contrast between the intention of large funders to support equitable partnerships and the reality of the constraining compliance requirements create barriers to equitable partnerships. Recommendations to both funders such as the NIH, as well as the LMIC institutions, will be forthcoming, where healthy equitable partnerships are balanced with the required compliance.

OP36.4: Knowledge and Prevalence of Research Misconduct among Post-Graduate Students in South-West Nigeria.

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Background: Research misconduct is a serious problem with grave consequences on the research and researchers and credibility of the institutions as it threatens public trust. Despite the challenges that research, misconduct poses across both public and private sectors fewer previous studies have been done to assess the knowledge and prevalence of research misconduct among post-graduate students in Nigeria.
Objectives: The focus of the study is to determine the knowledge and prevalence of research misconducts among the post-graduate students in Nigeria.
Methods: A descriptive cross-sectional survey study design is adopted in this study. The Leslie Fischer's formula: n = Z2pq/d2 was used to calculate the sample size. 400 young scholars undergoing masters and PhD program across Nigeria Universities were assessed in this study. Data was analyzed with SPSS version 22.
Result: With regard to knowledge on research misconduct, 65% of the respondent were able to identify all the components of the research misconduct correctly while 55% and 70% understood what research falsification and plagiarism entailed respectively. In all, 25% of the respondents claimed they were involved in one or more practices in the last 12 months that constituted research misconduct.
Conclusion: There is high prevalence of research misconduct among post-graduate scholars with varying degree of knowledge of what constitute research misconduct among the post-graduate students. It is recommended that institutions should establish research integrity assessment procedures and emphasize research misconduct and integrity components of research ethics for all post-graduate students at the beginning of their course year.
Key words: Knowledge, Prevalence, Research Misconduct and Post-Graduate

OP37.1: Embedding equity in international research collaboration

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The Wellcome Sanger Institute is developing an organisational approach to embedding fairness and equity in its international research collaborations, particularly those with partners based in low- and middle-income countries (LMICs) that may contain imbalances in power and resources.

Global genomics collaborations are essential in understanding and addressing challenges such as international health disparities, pathogen spread and evolution, and global biodiversity loss. These challenges can only be tackled effectively when partners from different global settings work together as equals, sharing their skills, resources, data, and perspectives openly and equitably. In contrast, inequitable research practices that do not seek meaningful input from, or bring benefit to, local researchers and communities must be avoided. Disregarding benefit sharing is exploitative, and neglecting to involve local scientists may bypass critical skills and perspectives. This may cause research to be misaligned with local priorities, thus lessening its impact and value.

We held interviews and hosted two roundtable events with experts in ethics, social sciences, biomedical sciences, publishing and funding based in high-income countries (HICs) and LMICs to explore principles of equity in research collaborations. The roundtables, hosted in collaboration with the Centre for Science and Policy (CSaP), prompted lively discussion and highlighted several aspects for us to consider, including the importance of:
-Taking time to build trust between partner
-Enabling intellectual co-leadership from start to end of the research project
-Aligning the research agenda with local priorities
-Ensuring mutual long-term benefit through sharing of research capacity, such as bioinformatics skills, sequencing technologies, computing infrastructure or access, and administrative training

These insights are now being collated to form a working definition of an “equitable collaboration” and to develop (a) guidelines for Sanger research teams to collaborate equitably with international partners, and (b) recommendations for changes to policies and practices at the Institute to facilitate equitable partnerships.

This work will serve as a starting template for international collaboration and form a key part of the organisation’s research culture. It is hoped that this may act as a blueprint to inspire other research institutes to develop their own principles of equity.

OP37.2: Incorporating research ethics into collaborative public-private sector research in Horizon Europe technological innovation projects: ethics advisors' reflections on experiences from DIDYMOS-XR

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Large-scale projects funded by the EU bring together a wide range of actors from academia, industry, public bodies and civil society to research and develop innovative solutions to a variety of global challenges. Working with heterogenous groups of stakeholders from across academia, industry, including SMEs, public bodies, and civil society also presents its own set of challenges, including diverging priorities, different understandings of societal and/or ethical issues, and competing with more established actors who may be able to provide cheaper solutions at the cost of ethics and transparency. There are also inherent conflicts between open science principles and protecting intellectual property in commercial research and development. Scholarship to date has provided limited guidance for the practical application of research ethics as part of this process. This presentation will discuss these issues based on the researchers' reflections on their practical experience of working as the ethics advisors on DIDYMOS-XR, a Horizon Europe project on developing technologies for digital twin capture and extended reality applications for industrial and cityscape environments. This reflection focuses on the process of trying to create a commonly understood and actionable ethics protocol for carrying out the project's research. This includes consideration of the approaches and techniques used to negotiate the differences between the closed nature of research in the private sector, including consideration of the different scales of enterprises, compared to the formal principles, practices and oversight in universities and public research institutions. We will then suggest how these understandings can provide a basis for future empirical research and practical work on developing ethical protocols and adherence to ethical standards when engaging in collaborative research involving both public and private sector researchers.

OP37.3: More ethics in the laboratory, please! Scientists' perspectives on ethics in the preclinical phase

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In recent years there have been calls to improve ethics in preclinical research. Promoting ethics in preclinical research should consider the perspectives of scientists. Our study aims to explore researchers' perspectives on ethics in the preclinical phase. Using interviews and focus groups, we collected views on ethical issues in preclinical research from experienced (n=11) and early-stage researchers (ESRs) (n=14) working in a gene therapy and regenerative medicine consortium. A recurring theme among ESRs was the impact of health-related preclinical research on climate change. They highlighted the importance of strengthening ethics in relations within the scientific community. Experienced researchers were focused on technicalities of methods used in preclinical research. They stressed the need for more safeguards to protect the sensitive personal data they work with. Both groups drew attention to the importance of the social context of research and its social impact. They agreed that it is important to be socially responsible – to be aware of and be sensitive to the needs and views of society.
This study helps to identify key ethical challenges and, when combined with more data, can ultimately lead to informed and evidence-based improvements to existing regulations.

OP37.4: The Role of Data Protection Laws in Promoting Research : An East African Case Study

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Objective
This paper aims at showing the role of the law in enhancing research. It will specifically look at data protection law in order to establish the importance of safeguarding the rights of data subjects in research in the East African region.
Method
The scope of the study is across East African countries. The methodology is legal research methodology and comparative study methodology. This study will analyze the legal landscape of data protection in the East African countries with an aim to show how the presence or the absence of such laws affects the rights of research subjects in this region.
Results
Most of the East African countries have enacted data protection laws most recently being Tanzania. However, there are some countries that do not have any data protection laws. The result is that there is violation of the rights of research subjects due to lack of provisions that safeguard their rights. Also, there is lack of implementation of the enacted laws in the jurisdictions where the data protection laws exist. More so, some of the data protection laws are too general but are not pertinent to areas such as the use of health data and this makes it difficult to enforce general data protection provisions to unique situations that arise in health related circles.
Conclusion
The presence of data protection laws in some East African countries enhances the protection of the rights of the data subjects. The absence of data protection laws leads to the exploitation of research subjects and violates their human rights. It is therefore clear that most East African countries do have some laws in regard to data protection. However, there is an implementation gap.
There is a limitation that some East African countries do not have accessible laws to the general public so an analysis of these laws has been difficult. More so, there are some countries like Tanzania which have the data protection laws only available in Kiswahili. There is need for translation. However, some available translations may be subject some minor omissions.

Section 2: Abstracts exclusively displayed on the Virtual Platform

DP-001: Research on the Development of Research Integrity Education Practices in Chinese Universities

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Research on scientific integrity over the years has found that the problem of academic misconduct is related to a variety of factors, such as personal awareness, bad staging, evaluation system, etc., but the reason for this still lies in the problem of people's moral concepts and values, we still firmly believe that education is the fundamental solution to solve the problem of scientific research integrity, but this will be a long process with little immediate results.
The research on research integrity in China started late, and research integrity education mainly in universities is still in the stage of development. This study refines the stage of development of China's research integrity education practice and the corresponding problems by sorting out the evolution of China's research integrity education policy and the current situation of China's and international universities' research integrity practice.

The study takes the analysis of China's policy orientation since 2000, the statistics of research integrity education in 10 top Chinese universities, and the questionnaire survey of 54 research integrity practitioners in universities as the support of the problem analysis, and finds that there is a disconnection between the policy and practice of research integrity education in Chinese universities, insufficient coordination among multiple departments, lack of a long-term mechanism and a unified kernel, thin educational content and form, and the perception of research integrity education as a negative event. It is found that there is a disconnection between policy and practice in Chinese universities, lack of multi-departmental coordination, lack of long-term mechanism and unified kernel, thin educational content and form, and the perception of scientific research integrity education as a negative event.

DP-002: What is ChatGPT the name of? - II. ChatGPT and higher education

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Within the framework of the research project “The gravity of academic plagiarism in the perception of scholars, students, and science policy makers in Bulgaria”, an important part of which is the perception of students of matters related to plagiarism, we turn our gaze to the possible application of ChatGPT and its pedagogical utility in the context of contemporary university settings. The implications of ChatGPT for the learning process and for knowledge transmission are discussed. We will highlight some of the diverse range of opportunities it offers for university students, enhancing their learning experience by supporting and developing problem-solving and critical thinking skills and providing personalized learning, accessibility, interdisciplinarity, among others, as well as the benefits of ChatGPT for university lecturers – for lesson planning, tailoring activities to particular students or classes, assessment and evaluation, for administrative teacher support, among others. Concurrently, some of the key challenges of using ChatGPT in education, which need to be addressed are e.g. overreliance on the model, lack of knowledge and expertise, copyright and plagiarism issues, bias. Practical issues of recognizing text produced by ChatGPT notwithstanding, the importance of discussing the place of LLMs in education has to do with concerns over its interference with the learning process, circumventing necessary stages of knowledge formation.

DP-003: Training program on research integrity and responsible research culture for research teams and ethics committees

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Objective: Fostering a responsible research culture cannot be achieved individually, a culture is created with other colleagues within your research team. To our knowledge there was no research integrity (RI) training available for teams to collaboratively work on tailor made team goals and plans of action. During the conference the rationale, design and first experiences of trainees and further development of the advanced team training in RI will be presented.
Method: Twelve interviews with junior and senior researchers from seven different Dutch universities of applied sciences and from seven different research domains have been conducted and analyzed. The aim of the interviews was to understand their experiences with RI and their needs for a training in RI. A step-by-step approach (published elsewhere) to translate the experiences of the target group into training in research integrity was followed to develop training programs. A pilot with an ethics committee is currently ongoing and pilots with two more teams are being planned.
Results: An advanced team training for research teams, ethic committees and teams with a shared mission in research integrity has been developed. The training consists of four sessions of two hours each and encourages team dialogues and guides the team in creating an action plan to foster a responsible research culture. The first experiences and evaluation of the team training will be shared during the conference. The syllabus with hand-outs for the team training are made available open access in English and Dutch.
Conclusion: An advanced training on research integrity and a responsible research culture is developed to meet an identified need for team-based tailor-made training that has not been met yet by previously existing training programs.

DP-004: Research Integrity in Polish curricula. Mapping the current practices

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The presentation is designed to present a fragment of a broader concept of basic research, attempting to answer the question of effective ways of teaching research integrity, pedagogical methods to consolidate or model correct attitudes and behaviors in the world of science among young scientists and novice researchers.

The presented section is based on an analysis of the publicly available curricula for teaching research ethics and research integrity as part of the compulsory courses and additional classes offered at universities and doctoral schools in Poland, as well as the codes of ethics in force at the institutions concerned. The contents of the selected courses were compared with the contents of the European Code of Conduct for Research Integrity (ECoC).

Additionally, the form of delivery of a given course was taken into account. (lecture, exercises, projects, other)
The results of this part of the study were used to map themes, on the one hand independent of the profile of the respective university or field of study so-called common to all students and early career researchers, and on the other hand to identify gaps, the lack of addressing ethical themes from the point of view of ECOC implementation, relating the findings to the ECOC, reveal current blind spots in teaching.

The analysis of this part of the concept allowed the formulation of in-depth interview questions, aimed at both students and lecturers, to identify effective methods for teaching research integrity, methods that contribute to the identification and continuation of good research practice, which is another part of the project.

Partial results show that curricula dedicated to ethics implemented at Polish universities do not overlap with ECOC content. Students do not receive content that facilitates their understanding of what proper research is, or what the consequences of unethical behavior in this area might be. Although the majority of the classes should be delivered in the form of exercises, the passive form of teaching often dominates, and there are few methods that activate open dialogue on possible moral dilemmas.

DP-005: Research on Early Warning Model for Retracted Papers

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In recent years, the frequent occurrence of paper retraction events has caused many negative impacts. Proactively identifying and warning papers with retraction risks is helpful for the scientific community to proactively identify and self correct errors, as well as for the government to promote scientific development and clean up academic atmosphere. To address this issue, this study designed a paper retraction risk warning model from two paths: risk transmission and risk evidence. In the risk transmission path, take existing retracted papers as clues, establish a risk transmission path from topics such as papers, authors, and journals, and build a multi-layer network; In the risk proof path, risk calculation is based on the questioned problem papers. Finally, combine the two paths to calculate the risk of retraction and provide a warning. The study validated the effectiveness of the model using all existing retracted papers. The results showed that the model was able to preliminarily and effectively warn against retraction of papers.

DP-006: Completeness and changes in data reporting pharmacological interventions to treat COVID-19 in ClinicalTrials.gov and corresponding publications

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Objective: We aim to assess trials on pharmacological interventions to treat COVID-19: for the completeness of the WHO TRDS items and results data reporting in the registry, and the completeness and changes in these data elements in corresponding publications.
Methods: The proposed study will include data extraction from ClinicalTrials.gov and data from any corresponding publications reporting the results of registered trials. The study will examine RCTs of all recruitment statuses on COVID-19 pharmacological interventions that were registered or published on or after January 1, 2020 and updated on or before the day of the search along with any corresponding publications. The proposed study will investigate RCTs of all recruitment statuses registered or published on or after January 1, 2020 and updated on or before May 31, 2021 along with any corresponding publications. The secondary outcome of this research is to report completeness of the other parameters that are a part of the protocol section of trial registration, but are not mandatory WHO TRDS items.
Results: The result of this study will be presented at the World Conferences on Research Integrity 2024.
Conclusion: The results of the proposed study could improve insight into the transparency of clinical trials reporting in the field of pharmacological interventions to treat COVID-19 patients.
Findings from the study may highlight a source of publication bias, which can influence professional medical practice guidelines and clinician's decisions on medicine prescriptions. There are several limitations to this study. The studies to be selected and used for data extraction from ClinicalTrials.gov may not be a comprehensive representation of the total set of COVID-19 trials in registries around the world. Moreover, recent findings showed that the majority of clinical trials concerning COVID-19 are registered in the Chinese Clinical Trials Registry, so we may have excluded some trials.
Due to the retrospective study design, data interpretation could be subjective particularly for the qualitative data collection portion of the study where major changes in the WHO TRDS and results are determined.

DP-007: Adverse event reporting in clinical trials on pharmacological interventions to treat COVID-19 registered on ClinicalTrials.gov compared to corresponding publications: a cross-sectional study

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Objective: We aim to assess the completeness and changes of the reporting of adverse event data, all-cause mortality, and participant flow data from randomized controlled trials (RCTs) on pharmacological interventions to treat COVID-19 registered on ClinicalTrials.gov.
Methods: We plan to describe data regarding the adverse events and results from RCTs on pharmacological interventions to treat COVID-19. Our descriptive analysis on the adverse events and results data will determine the completeness and presence of any changes in the (1) description of and number of participants affected by OAEs and SAEs from last registration to publications, (2) number of all-cause mortality participants from last registration to publications, (3) number of participants enrolled from last registration to publications, (4) number of participants allocated according to study group from last registration to publications, (5) number of participants described in the follow-up according to study group from last registration to publications. The proposed study will include data exported from web based registry ClinicalTrials.gov and data from any corresponding publications to trials. The proposed study will examine RCTs of all recruitment statuses with results on COVID-19 pharmacological interventions, including biologicals that were registered or published on or after January 1, 2020, and updated on or before the day of the search, which include adverse events.
Results: The results of the proposed study will be demonstrated at World Conferences on Research Integrity 2024.
Conclusion: There are several limitations to this study. First, the studies to be selected from ClinicalTrials.gov may not be a comprehensive representation of the total set of trials in the registry due to the time frame for selection and the predominance of U.S. based trials compared to non U.S. based trials. interpretation could be subjective particularly for the qualitative data collection portion of the study where discrepancies in the adverse events and results data are determined. The results of proposed study could improve insight into the transparency of the reporting of adverse events and other patient-relevant data from clinical trials reporting on pharmacological interventions to treat COVID-19 patients.

DP-008: Selective reporting in randomized clinical trials included in a systematic review of renal effects of selective cyclooxygenase-2 inhibitor anti-inflammatory drugs

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Objective: To assess the presence of selective reporting of renal adverse reactions in clinical trials on selective cyclooxygenase-2 inhibitor anti-inflammatory (coxibs).
Method: This is a cross-sectional analysis based on an ongoing systematic review on the renal adverse effects of coxibs (registered in PROSPERO: CRD42022380227). Included studies were assessed for the presence of selective reporting of outcomes using item 6 of the Cochrane Risk of Bias tool. RCTs setting a predetermined incidence threshold for reporting adverse events or detailing only predefined adverse events were categorized as high risk. We collected the 2022 Journal Impact Factor (JIF) and percentage of gold open access from Journal Citation Reports website. Dates of manuscript submission and approval were extracted to calculate the length of peer review. We investigated factors associated to the selective reporting by qui-squared test or t-test ($p<0.05$ as significant). All analyses were performed in Stata v.14.2.
Results: Selective reporting was observed in 30/49 included studies; 47 had JIF and 31 were published from 1999-2006. Over half of the studies were conducted in North America (n=35) and Europe (n=14) and length of peer review was 170.12±120.97 (n=26). RCTs with selective reporting established thresholds to report reactions: 1-2% (n=4), 3% (n=8) and 4-5% (n=7) or reported only pre-specified adverse events (n=11). Selective reporting was significantly higher in journals of lower JIF (n=29; 6.08±6.47 vs. n=18; 28.97±54.52; p=0.029). Osteoarthritis RCTs had more selective reporting (20/26 vs. 10/23; p=0.016). Similarly, of the 22 studies lasting up to 6 weeks, 17 had selective reporting, which was significantly higher than RCTs of longer duration (13/27; p=0.037). Most studies (41/49) were funded by pharmaceutical industry, mostly by Merck (n=19), Pfizer (n=12) and Novartis (n=8), and there was a lower tendency of selective reporting in studies funded by Merck (8/19 vs. 22/30; p=0.029). No significant differences were observed in length of peer review, open access, publication date, and number of participants ($p>0.05$).
Conclusion: Selective reporting a common concern in coxibs' RCTs and was more frequent in less influential journals, RCTs on osteoarthritis, and shorter duration studies. This bias potentially contributes to underestimates the renal risks of coxibs.

DP-010: Beyond Red Tape: Rethinking Research Ethics Governance in Malawi

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Robust research ethics oversight grounded in principles of beneficence, justice, and respect is essential for protecting human participants, especially vulnerable groups while advancing impactful research. However, governance gaps can compromise oversight and undermine ethical values in practice. This paper examines Malawi's research ethics regulatory framework using critical ethical principles to highlight strengths, challenges and proposed reforms. It looks at strengths, weaknesses, and solutions for optimising Malawi's research ethics governance to enable rigorous oversight that protects research participants while facilitating responsible, beneficial science. Malawi's National Commission for Science and Technology (NCST) grants ethics oversight mandates to institutional Research Ethics Committees (RECs) like those at Kamuzu University of Health Sciences and the University of Malawi. However, many hospital-based studies also require additional approvals from internal ethics committees, termed 'grand rounds'. These additional ad hoc hospital 'grand round' reviews contribute little substantive ethics oversight. At the same time, their frequent demands for including internal staff as researchers raise concerns about coercion and undue influence on vulnerable patient groups. This conflicts with principles of distributive justice and fairness in subject selection and recruitment. Patients may also feel pressured to participate if hospital staff are part of the studies, threatening voluntary informed consent. While internal review helps ensure hospital leadership support, redundant approvals burden researchers and delay evidence to inform health policy. The paper proposes solutions to consolidate authority within legitimate RECs while building their capacity to provide rigorous, efficient ethics reviews. Further, reforms must be guided by ethical frameworks valuing justice, autonomy, and human dignity to craft oversight systems that protect Malawi's vulnerable participants while supporting impactful research.

DP-011: Reporting characteristics and risk of bias of randomised controlled trials for deep caries management

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Objective

Developments in the treatment of deep caries should be supported by randomised controlled trials (RCTs), providing crucial evidence for stakeholders. However, inadequate reporting details can hinder RCTs validity and transparency, affecting their interpretation and applicability. Therefore, we aimed to assess adherence to the CONSORT statement and the risk of bias of RCTs in deep caries management published in paediatric dental journals.

Methods

We searched PubMed to identify RCTs published in six paediatric dental journals from 2010 to 2022. We included RCTs focusing on deep/extremely deep dental caries lesion management in paediatric dentistry. To assess adherence to CONSORT guidelines, we utilised a modified tool with scores ranging from 0 to 2 (maximum 38 points). The higher the scores, the better adherence to the CONSORT. The risk of bias was assessed using the Cochrane RoB 2 tool. Descriptive statistics and regression analysis were performed, with significance level set at 5%.

Results

We included 127 RCTs in our study. The mean (Standard deviation) overall CONSORT adherence score was 21.1 (± 6.7). Notably, 96.1% of the studies had a score of 2 in the “intervention” item, while 83.5% scored with 0 for the "estimated effect size" item. Regarding the risk of bias assessment, 40.1% were categorised as high risk of bias, 59.1% classified as having some concerns, and only 0.8% had low risk of bias. The adjusted analysis showed that RCTs that were older (both 6-10 years old and more than 10 years old) received lower CONSORT scores ($p<0.001$) compared to more recent ones within the last 5 years. Moreover, RCTs with high risk of bias had lower CONSORT scores ($\beta= -3.12$, $p<0.001$) compared to those with low or some concerns. The RCTs published in journals that do not endorse the CONSORT statement in their author’s guidelines scored lower ($\beta= -2.75$, $p<0.001$) than those published in journals endorsing the statement. RCTs with a registered protocol, whether prospective or retrospective, received higher CONSORT scores ($p<0.001$) compared to unregistered trials.

Conclusion

Among the investigated RCTs, the adherence to CONSORT was relatively low. Moreover, a lower adherence to CONSORT was linked to higher risk of bias.

DP-012: Critical analysis of factors influencing citation integrity and miscitation in academic literature: a review of reviews

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Objective: Research misconduct is one of the major threats jeopardizing public trust in the academic and research enterprises (i.e., universities, colleges, research organizations, publishing houses). While it is considered ethical practice to cite sources systematically and accurately, it is possible that these citations might not be accurate. Indeed, the citations might simply not match (untrue), fail to reflect the content of the original source, exaggerate or underreport the original content. In this presentation, we will outline findings from a review of reviews (i.e., overview of reviews) to address the research question, "what factors influence citation integrity and mis-citation in academic literature among students and faculty in higher education, globally?"

Method: The following electronic databases will be searched for relevant publications: MEDLINE (OVID), Embase (OVID), PsychINfo (OVID), CINAHL (EBSCO), Web of Science, Frontiers, Scopus, IEEE Xplore Digital Library and Applied Social Sciences Index & Abstracts (ProQuest). Key terms and medical subject headings (MeSH) will be based on previous literature and discussion with an expert librarian. The search terms will include synonyms and truncations of the following major concepts include: "citation integrity" AND "miscitation" AND "factors" AND "academia" AND "publication" AND "review". We will focus on reviews, including systematic, scoping, narrative and other literature reviews as deemed relevant. Studies will be screened and extracted by four reviewers and conflicts resolved through discussion or a third reviewer. Both quantitative and qualitative analysis of relevant data will outline key findings.

Results: This review of reviews will provide synthesized and summarized findings on the literature regarding factors influencing citation-integrity and mis-citations, and where possible, highlight barriers, facilitators, and recommendations for key stakeholders in academia (i.e., faculty, students, reviewers, editors, publishers).

Conclusion: Findings from this study will help shape the tools (surveys and interview guides) used in a mixed-methods study exploring the views of reviewers, editors, publishers, academics, and student scholars regarding citation integrity and mis-citation. These insights will guide the improvement of citation policies and guidelines in the academic field.

DP-013: The Implementation of Researcher Training Initiatives to Positively Influence Responsible Conduct of Research in a Diverse Cultural Community

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Background
Over the last few years, there has been a growing call within research communities to incorporate relational and cultural development within research settings (Casci & Adams, 2019; Clément-Stoneham, 2022). Changing organizational culture could be one way to address issues of unsafe work environments, inadequate retention of a trained workforce, and research misconduct and non-compliance (Casci & Adams, 2020). It is believed that an effective research culture will promote responsible conduct of research (RCR) practices, innovation and creativity, and a sense of a supportive and safe community. This begs the question; how does a research institution create an effective research culture? What steps and activities are needed? Who within the institution needs to become change agents to promote change? Due to the collaborative nature of research, will other research-related organizations need to be involved for change to be long lasting?

Purpose
The purpose of this presentation is to explore how newly created and implemented RCR training played a role in influencing change in the research culture of a graduate university with a diverse cultural research community. The King Abdullah University of Science and Technology (KAUST) hosts 120 different nationalities and is home to a research community from all parts of the world. This research community consists of ~2,500 members, including faculty, research staff, postdoctoral fellows, core laboratory technicians, and postgraduate students.

Methodology
We will utilize a multi-phase approach to study the impacts of the new RCR training. Following one year of the researcher training initiatives, follow-up surveys will be initiated for the first cohort of participants. A pre-and-post survey will be conducted with a second cohort consisting of individuals who have taken offered RCR training initiatives. Qualitative interviews of key informants will be conducted to provide a deeper insight into the research culture.

Results: Currently pending. Will be shared at conference.

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DP-014: What is ChatGPT the name of? - I. ChatGPT and academic production

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In the framework of the research project “The gravity of academic plagiarism in the perception of scholars, students, and science policy makers in Bulgaria”, our interest is drawn to the latest emerging preoccupation for educators and scholars in the field of plagiarism, namely the (mis)use of LLMs for text production. A qualitative analysis of published articles for which the researchers had co-opted ChatGPT as a “co-author” is conducted in order to pinpoint the issues related to academic integrity. On the backdrop of a multitude of digitally-based tools that target a specific academic activity already available, the question of what sets ChatGPT apart is addressed. As more and more scientific journals prohibit the use of the chat bot for text-generating purposes, we explore how LLMs impact our conception of academic integrity and our notion of authorship, as well as the implications for academic production.

DP-015: Modeling the Impact of Strict Punitive Measures on Academic Ethical Issues

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Ethical issues in academic research have always been a critical subject. For academic misconduct, previous research used to discuss the appropriate regulation and punitive/incentive system based on a normative theory. However, these studies failed to fully understand the complexity of the process of the science production within it. In this study, we focus on not only the moral component of the individuals, but a whole system of how research activities are carried out.

Given the substantial challenges in collecting empirical data, exploring its general patterns need a systematic perspective. Therefore, this study employs Agent-Based Modeling to simulate the fundamental mechanisms and dynamics of the academic ethical issues and to examine whether to only strict punitive measures can really reduce the occurrence of research misconduct or only make researchers to adopt more conservative/less innovative research topics.

In the simulation model, we set agents as individual researchers with different parameters standing for their preferences and academic abilities. Agents can decide what to research from a topic pool which consists of research topics with different parameters standing for the concepts like potentiality and difficulty. We also designed a multi-leveled (including data collection, result explanation…) stochastic process to illustrate whether a research activity is going to success or not. The result of research is linked to an outcome evaluation system (like publication opportunities), and for failed research, agents can choose whether to re-do it by paying additional time and costs or switch to a new topic. For each part of the process, agents can choose to cheat, while a parameter for the severity of research misconduct will be generated according to the place and degree at which the agent has cheated. Correspondingly, we designed a system for misconduct detecting and punishing linked with the degree of the cheating. Moreover, we translated the outcome evaluation and punitive by the misconduct being detected into a utility function, on which agents can making their decisions on whether cheat depends.

Through this simulation, we mainly discuss about that the over-escalating punitive actions can lead researchers to prefer less innovative topics. Details will be presented on the conference.

DP-016: Institutional strategies for Research Integrity: paving the way to comprehensive and proactive measures

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Cases of research misconduct, especially when high-level researchers are involved, have a profound impact in research systems at large. Despite research misconduct is practiced by a minor fraction of the scientific community, such cases cast doubts in society on research, hinder public investments, and put in danger the legitimacy of institutions.

Integrity is a core feature of research and higher education. It permeates many aspects of institutional life related to research performance, authorship, affiliation, management, supervision, commercial partners, etc. The institutions have the responsibility not only to monitor and act against malpractice, but also to work for prevention along the whole ladder of the career in academic research.

This paper presents the building-up of the new Research Integrity Strategy at the University of Cordoba (Spain) as a comprehensive framework to promote integrity and prevent malpractice. The strategy is based on a multilevel approach that not only takes into account formal rules and corrective measures, but also focuses on cultural awareness and interactions at every level of the professional career and organizational working units.

The overall goal aims at enhancing awareness of different degrees of misconduct, from crude violations of legal norms, to more subtle forms of behaviours that lead to breaches in good practices, eventually fostering the community rejection. For this purpose, a thoughtful design was performed to shift from pure regulations mostly focused on severe cases to a dynamic self-regulating framework that prevents misconducts and their tolerance.

A basic assumption is that a successful strategy requires an efficient embedding within the institutional structure, and largely relies on the actual involvement of every area at each development step. An internal multi-area commission was appointed, including external expert assessment and guidance by the Research Integrity Committee.

The strategy integrates education, communication, regulation, dissemination, and monitoring with a 4-phase working-plan: diagnosis, actions' design, implementation, impact analysis and review. As expected, the diagnosis phase resulted key to identify priority issues and focus groups, and highlighted the relevance of visualizing low-intensity misconducts that seed further integrity breaches in the future. This case study constitutes a strategic contribution to discuss institutional policies for integrity.

DP-017: Exploring the Impact of Ethical Risk Factors on Research Misconduct: A Study of Moral Judgment Education

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Research misconduct remains a critical concern within the scientific community, demanding comprehensive strategies for its mitigation. This study examines an innovative educational approach's effectiveness in fostering ethical awareness and moral judgment among students. Specifically, it explores the influence of ethical risk factors on research misconduct. It evaluates how teaching moral judgment within the context of potential ethical risks can enhance the ethical decision-making processes.

The study engages graduate students in scenario-based ethical education, designed to elucidate the consequences of ethical risk factors on research misconduct. By adopting a moral judgment perspective, students gain a deeper understanding of the implications of their actions in an academic context. The educational approach encourages students to reflect upon the ethical dimensions of their research endeavors, promoting responsible and ethical conduct.

Preliminary findings indicate that this educational approach contributes positively to developing moral judgment and ethical decision-making skills among students. By providing real-life ethical scenarios and encouraging critical thinking about potential ethical risks, this education model helps students make informed, ethically sound choices. The study highlights the importance of integrating moral judgment education into graduate-level curriculum as a proactive strategy to reduce research misconduct and promote research integrity within academic institutions.

This research sheds light on the critical role of education in enhancing students' ethical awareness and decision-making processes. It serves as a stepping stone for further discussions and initiatives to address research misconduct within the academic community.

DP-018: The Three R's of Research Ethics&Integrity: Reflection, Responsibility and Reciprocity

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The Three R's of Research Ethics&Integrity: Reflection, Responsibility and Reciprocity

As an Integrity Officer in a Biomedical Research Performing Organization, I have outlined a training framework based on three principles: Reflection, Responsibility and Reciprocity. These three R's promote sustainability and provide effective opportunities to implement the ethical and integrity guidelines of the European Code of Conduct for Research Integrity (ALLEA, 2023).
Assuming that Responsible Research is "a dynamic, iterative process in which all stakeholders in research and innovation become mutually responsive and share responsibility for both the process and its outcomes" (Gurzawska et al., 2017), the three R's training framework covers two of RRI main dimensions, mainly: Anticipation & Reflection and Openness &transparency. By integrating these dimensions in the content and in the methodology of the training itself, this framework aims to:
1. provide opportunities for researchers to explore how their studies can affect different groups and individuals in society;
2. set up safe spaces for reflection on the purposes and potential implications of their own research, including potential errors and uncertainties, as well as on their own role in the design of their proposals and procedures;
3. promote awareness of the role of Openness and Transparency in establishing public trust in science and scientists. Assuming that more openness does not necessarily mean more trust, the three R's of scientific research point out to the quality and not only quantity of the conducted studies. Moreover, it also sets up the bridge between the quality of the content and the quality of the relationship among all the stakeholders, thus making it clear that Integrity requires Ethics.
Subjectivity, objectivity and inter-subjectivity are always in interaction along the proposed framework. Only within a top-down and bottom-up dialogic approach can ethics and integrity in research be meaningful to each individual scientist, making changes in the daily actions and attitudes and building up a different scientific ecosystem.
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DP-019: CATALISI: towards the promotion of research integrity in Higher Education Institutions within the European Union

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In the last decades, European Higher Education Institutions (HEIs) are facing important transformations in an ever changing context. This has resulted in growing disparities in research and innovation (R&I) performance among them and in regards to other HEIs outside the European Union (EU). The objective of the CATALISI project (January 2023 to December 2025) is to analyse the needs of different HEIs within the EU belonging to different countries to later provide with a set of acceleration services specifically tailored for each HEI according to their needs. This will be done not only to increase the R&I performance of European HEIs, but also to narrow the gap between HEIs belonging to different regions and countries within the EU.
The transformations driven by CATALISI will focus on the following domains: Human Capital, Research Modus Operandi and Finance. Specifically, regarding this second domain, the project will focus on developing transformations concerning research assessment and recognition of qualifications to promote good practices and responsibility, and also on the promotion of Open Science to support and develop sustainability in science outreach. In order to achieve the transformational goals, the methodology will follow the four-helix model (explore, co-create, implement, and evaluate). This will allow to first analyse the state of each intervention area in every HEI individually in order to delimit their needs and strengths and subsequently provide the more suitable strategy for each case. CATALISI partners are divided into experienced facilitators (those providing the knowledge for the HEI's transformation) and implementers (those that will acquire the knowledge and put it into practice).
Also, the acceleration services that will be developed and implemented will focus on "(i) a coaching and support mechanism for HEIs to pursue institutional transformation in various areas, (ii) a methodology for an investment strategy to facilitate access of higher education institutions and surrounding ecosystem to support to deliver on the chosen transformations, (iii) a monitoring mechanism to assess progress in the transformation efforts". This way, CATALISI expects to promote institutional changes and transformations towards the promotion of ethical structures for the promotion of RRI in HEIs.

DP-020: Using games to teach scientific integrity to nursing students: an experience report

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Objective: to report the experience of using games in the discipline of “Ethics, Bioethics and Law of Professional Practice” belonging to the curriculum of the undergraduate Nursing course at a Private Higher Education Institution in the Federal District.
Method: This is an experience report on the use of a game to teach professional ethics and scientific integrity to 1st year undergraduate nursing students from August to September 2023.
Results: Two academic classes enrolled in the discipline participated in the activity, totaling 53 students. Among the objectives of this discipline, the teaching of the professional nursing code of ethics, bioethics and its principles in nurse decision-making, as well as research ethics stand out. The game used was the game called “pass or pass” in Brazil, in which the class is divided into two teams, in which one participant from each team, alternately, must answer a quiz question given by the moderator. Only one person responds, the participant who first presses the button making the panel light flash must answer or pass. If they don't know the answer, if the representative from the other team doesn't know how to answer, they can pass the question on. The team that gets it right scores and if it gets it wrong, the team loses points. As a teacher of the subject, I was able to observe that all students were interested and attentive to the game and the theme, even though it was their first contact with the nursing code of ethics and the topic of scientific integrity, they sought to respond in accordance with the prior knowledge they had about plagiarism, honesty, morals, conduct, among other topics belonging to the quiz. After the game, the students expressed, during the oral evaluation of the activity, that they were able to understand the topic and its importance for professional practice. The professional nursing code of ethics sets out the professional's responsibilities and duties regarding their performance in research.
Conclusion: This experience allowed the development of a deductive-reflective teaching-learning process in the construction of knowledge and understanding of the nurse's responsibility for scientific integrity.

DP-021: An interdisciplinary database ethics dumping cases

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Objective:
As global collaborations grow, researchers in high income countries (HICs) increasingly collaborate with those based in low-/middle-income countries (LMICs). However, sometimes collaborations aim to capitalize on the possibility of weaker regulations and oversight in LMICs, to facilitate research that would be deemed unethical (or heavily scrutinized) in HICs, resulting in so-called ethics dumping. Currently, it is challenging to find cases of ethics dumping (especially those that are only reported in local languages or collated in a discipline-specific repositories) or do systematic and interdisciplinary research because there is no dedicated database for storing these cases. Together with our interdisciplinary team at the Global Young Academy and colleagues at the Embassy of Good Science, we are creating this database.

Methods:
We are collating cases of ethics dumping to create a database to be hoster on the Embassy of Good Science (https://embassy.science/) platform as the designated repository. For this purpose, we have gathered work conducted by previous research (e.g., deliverables of the TRUST Project (https://trust-project.eu/) and various journal articles and theses) and will store these on the Embassy of Good Science.

Results:
In September 2023, we were awarded a grant by the Global Young Academy to initiate the development of this database, which remains a work in progress at the time of submission. Leveraging our interdisciplinary team and the extensive network of the Global Young Academy and the Embassy of Good Science, our objective is to raise awareness about this intricate issue and provide tailored recommendations, especially for early career researchers. We are eager to take advantage of an oral presentation during the WCRI to showcase our dataset, discuss cases and receive feedback about our recommendations.

Conclusion:
Our project will deliver a public, central repository of reported ethics dumping instances from scholarly literature and deposit it on the Embassy of Good Science. Furthermore, we are enthusiastic about enhancing the capabilities of researchers, universities, and local communities in LMICs, by empowering them to more effectively advocate for their interests when engaging with international research consortia.

DP-022: Uganda success story in strengthening research ethics capacity: An overview of its achievements to-date

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In Uganda, clinical research constitutes about 16% of health research, up from about 5% in the early 1990s notable effort has been made in the past years to build a coherent framework for ethics and clinical research regulation in the country. The Uganda National Council for Science and Technology (UNCST) has over the years obtained funding from the European and Developing Countries Clinical Trials Partnership (EDCTP). Herein is a chronological account of finalized projects that led to a systematic improvement in research governance systems through this funding over the years.

The first EDCTP project in 2008 helped establish a national accreditation system for Research Ethics (RECs) Committees in 2009 which ensures that the RECs and Institutional Animal Care and Use Committees (IACUCs) provide the highest possible ethical standards and protection to research participants and animal subjects. In addition, the support in 2008 led to the revision of the May 1997 guidelines, published in March 2007 as "National Guidelines for Research involving Humans as Research Participants". These new guidelines put emphasis on establishment and accreditation of RECs, storage of samples and conduct of research in vulnerable populations.

In 2015, another funded project, the Clinical Trials Regulation and Ethics Capacity Development- sought to strengthen capacity of the national regulatory agencies in the review and approval of clinical research in Uganda through training of regulators and establishment of the Good Research Regularity Practice. In addition, the National Research Information Management System: https://nrims.uncst.go.ug/ was established for the standardization of work processes for the National Regulatory Agencies and RECs.

Finally, in 2018, the Scaling up of capacity of Research Ethics Committees in Uganda project provided technical capacity building and electronic infrastructure for the RECs to help them embrace and effectively use the NRIMS. As a result, the UNCST and RECs became fully operational online.

In conclusion, these EDCTP funded projects have made it possible for Uganda to make progress in improving its governance systems so that research can be conducted according to the highest ethical, legal and professional frameworks, obligations and standards.

DP-023: On Values: Integrating Research Integrity and Philosophy of Science

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This talk builds on recent attempts to foster a dialogue between Research Integrity (RI) and Philosophy of Science scholarship (Ambrosj, Dierickx & Desmond 2023, Resnik & Elliott 2018), in particular with insights from values in science and social epistemology. The work in both of these research areas shares a commitment to developing a system of values scientists should follow, but they employ different methods.

Scholars in research integrity, prompted by cases of misconduct, empirically investigate the prevalence and causes of misconduct across various disciplines and cultures with the aim of formulating effective preventive and regulatory measures. Their results are shaped into evidence-based educational materials or guidelines for promoting the Responsible Conduct of Research. However, research indicates the moderate effectiveness of educational materials, while a growing number of well-designed guidelines and policies is often seen as an additional burden for scientists or a checklist they must fulfill.

On the other hand, philosophers of science are increasingly moving away from the perception of science as an individual human activity that occurs in isolation from the influence of moral, political, and social values, driven solely by cognitive values (Value-free ideal: VFI). They perceive science as a societal activity guided by both cognitive and non-cognitive values (Value-laden ideal: VLI). To shape a VLI, they initiate a series of fruitful debates that analyze different values and the role they play in scientific practices. Although they do not agree on the appropriate value-laden model of science, we believe that insights from these debates would be beneficial in addressing the problems related to RI. First, a conceptual analysis of key terminology such as responsibility or authorship could precisely define the terms and clarify their position in a broader context, leading to better understanding and applicability. Second, insights from the concept of the social structure of science could assist in creating a culture that promotes research integrity in the scientific community. Third, acknowledging the presence of non-cognitive values in the research process could dispel the implicit assumption of a dishonest scientist. Instead, it could highlight the importance of education and enhance the implementation of educational programs.

DP-024: Biostatistics in medical journals - practical recommendations

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The most recent published results indicated that only 40 percent of accepted manuscripts on COVID-19 meet statistical validity. This is due, among other reasons, to the fact that there has not been a significant improvement in the frequency with which biomedical specialised journals perform statistical review over the past several years. Another reason includes the nowadays not very practical ways of teaching biostatistics in medical universities. For this reason, it is necessary to publish international biostatistical recommendations for authors and editors to reduce the current problem in the future. Several such recommendations have been published in recent years. Some of them concern statistical guidelines for authors to review before submitting a manuscript to a specific journal. Still other recommendations are intended to answer the question of where medical journal editors should get statistical reviewers from. The published recommendations also answer the question of how the subject of biostatistics should be taught in practice. Sending the published recommendations to 3.000 medical journal editors has been met with a positive reception of this type of ongoing activity to improve the quality of global science. The aim of this abstract is to present the latest published international biostatistical recommendations at the 8th World Conference on Research Integrity. They are based on my experience as a statistical editor/reviewer for many years in numerous biomedical journals.

DP-025: Science theatre: Setting the scene for research integrity and communication

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The interface of science communication and research integrity is a pivotal juncture in the contemporary scientific landscape. In an era where the ethical conduct of research is under scrutiny and the imperative for transparent and effective science communication is paramount, theatre emerges as a transformative medium for setting the stage and engaging stakeholders in nuanced dialogues. By embodying intricate ethical scenarios within its narratives, theatre transcends the traditional methods of ethics education and serves as a catalyst for introspection and ethical growth among scientists and researchers. To illustrate, the use of dramatic narratives and compelling characters provides a platform to engage diverse audiences in critical discussions on ethical dilemmas, from research misconduct to the responsible conduct of science. Theatre further presents as novel conduit for science communication by providing a captivating stage for facilitating dialogue and rendering science accessible and compelling to a diverse audience by transcending the traditional boundaries of knowledge dissemination. With its potential to engage emotions and intellect simultaneously, theatre becomes a potent tool for transcending the jargon-laden confines of scientific discourse to bridge the gap between experts and the general public to foster dialogue, understanding, and appreciation for science. This presentation presented by a co-lead of the science and art working group of the Global Young Academy, will delve into the dimensions of the amalgamation between science and theatre as a transformative approach that position theatre as an avant-garde vehicle for advancing research integrity while bridging the chasm between the scientific community and the public. The complex interplay between these two spheres as an educational tool will be discussed, underscoring how theatre's dramatic canvas can illuminate ethical dilemmas, empower audiences to navigate the moral nuances inherent in research, foster critical reflection, and spark an enduring commitment to veracity within the scientific community. It will further discuss the advanced strategies employed by theatre in narrating scientific complexities in an engaging, comprehensible, and evocative manner. Ultimately, the marriage of science and theatre represents a paradigm shift in science education and public engagement and as a potent means to contribute to a more transparent and trustworthy scientific landscape.

DP-026: A global study in the Retraction Watch Database RWDB

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Objective: The Retraction Watch Database (RWDB) serves as a global platform for documenting retractions in scientific journals. In the present project, RWDB dataset was utilized for a quantitative analysis aimed at uncovering global insights: regional discrepancies, countries with most retractions, analysis of publishers, reasons, and more.

Method: In September 2023, a search was conducted using the Crossref API, which yielded 47024 results in a CSV file extracted from the comprehensive RWDB register. In these data, statistical analyses were carried out using R software for statistical computing and Excel. Countries were classified according to region income classification (World Bank).

Results: Regarding the region of retractions, East Asia & Pacific accounted for 26278 cases, followed by Europe & Central Asia 8558, North America 4442, South Asia 3453, Middle East & North Africa 2453, Latin America & Caribbean 641 and Sub-Saharan Africa 326. The top countries were China 22178 cases, United States 3730, India 3074, Russia 2491, Germany 977, The UK 888 and South Korea 777. As for the income group classification, Upper middle-income countries 26633 cases, High income 13034, Low middle 5589, and Low income 891. 95% of the articles were behind paywalls, and 83% of coauthors. The top publishers associated retractions were 'IEEE' 10088, 'Springer' 5993, 'Elsevier' 5709, 'Wiley' 2863, 'Hindawi' 2030, 'Taylor and Francis' 1917, 'SAGE' 1242, 'IOP' 1231, and 'PloS' 960. The primary reasons were specifical 'Concerns' (9276 cases) and 'Notice' (6307), followed by misconduct such as 'Duplication' (5888), 'Breach' (4728), 'Error' (4146), 'Fake Peer Review' (3430), 'Euphemisms/misconducts' (2044), 'Data of Retraction/Other Unknown' (2022).

Conclusion: The region with the highest number of retractions was East Asia & Pacific probably driven by China. Upper middle-income countries exhibited the highest number of retractions, Low income had fewer regardless of their region and one might think that partly of the number of retractions can be explained by income. The majority of retractions were associated with paywalled articles and reputable publishers, often featuring coauthorship. The primary reasons for retraction were 'Concerns' and 'Notice,' followed by 'Duplication,' 'Breach', and 'Error.' Notably, a significant number were attributed to 'Fake Peer Review,' ranking sixth in prevalence.

DP-027: Priorities of publication about sustainable development goals in pharmaceutical journals

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Objectives: To assess the proportion of publication on epidemics predicted to end by 2030 according to the Sustainable Development Goal (SDG) target 3.3 (aids, tuberculosis, and malaria) in pharmaceutical journals.
Methods: This cross-sectional study included all journals indexed in Journal Citation Reports (JCR) Pharmacology and Pharmacy category. Primary outcome was priority of publications on aids, tuberculosis and malaria, defined as ≥3% of publications about the themes. After exporting JCR's list of journals containing its bibliometric indicators, we searched Web of Science Core Collection via EndNote20 to identify the number of publications about SDG 3.3 and the total of publication in each journal up to 2022. Then, the countries from the editors-in-chief were collected in each journal website and classified as low- and middle-income (LMIC) or not according to The World Bank. Poisson regression was employed to calculate prevalence ratios (PR) and 95% confidence interval (CI) of the outcome and journal's characteristics.
Results: From 362 Pharmacology and Pharmacy journals, 353 were included (82 from Emerging Sources Citation Index [ESCI] and 271 from Science Citation Index Expanded [SCIE]), as 9 did not have information about the editors' origin. Most journals started in the decades of 1991-2010 (39.4%) and 2011-2022 (33.5%) and published >15% in golden open access (50.7%). Journals started from 2011 onward had more editors-in-chief from LMIC (34.5%;p<0.001), and higher priority of SDG3.3 publication (PR=2.32;95%CI 1.47-3.66), in comparison to those started in ≤1990, as well as those started in 1991-2010 (PR=1.92;95%CI 1.22-3.03). Sixty-one editors-in-chief were from LMIC (17.3%), most of these journals belonged to ESCI (39.0%;p<0.001) and had <15% in golden open access (22.9%,p=0.005). Journal Impact Factor (JIF) was slightly lower in those journals (2.33±2.63 vs. 4.10±7.39;p=0.066). Having LMIC editor-in-chief increased the outcome (RP=1.57;95%CI 1.10-2.23), and no association was found in continents, JCR category, JIF quartile and number of articles published by year (p>0.05).
Conclusion: More recent journals and that had editors-in-chief from LMIC had higher priority of publication on SDG3.3 in this analysis, limited by indirectness. Increasing diversity in the editorial board of journals can be strategical on the path to achieving SDGs.

DP-028: Piloting structured peer review

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Objective: To evaluate a pilot of structured peer review by: 1) exploring if and how reviewers answered structured questions, 2) analysing reviewer agreement, 3) comparing that agreement to agreement before implementation of structured peer review, and 4) further enhancing the set of questions.
Design: Structured peer review consisting of 9 questions was launched in August 2022 in 220 Elsevier journals. For pilot analysis we used 10% of this sample. We applied a random selection of journals across all fields and IF quartiles, and then selected those that in the first 2 months of the pilot received 2 reviewer reports, leaving us with 107 manuscripts from 23 journals. Review reports were qualitatively analysed. After the questions, reviews could leave Comments-to-Author, and Comments-to-Editor. All answers were coded independently (IRR 94%), with consensus used for results.
Results: Almost all reviewers (n=196, 92%) provided answers to all questions. Overall length of answers was 164 words (IQR 73 to 357). Reviewers had highest (partial) agreement (of 72%) for assessing the flow and structure of the manuscript, and lowest (of 53%) for assessing if interpretation of results are supported by data, or if statistical analyses were appropriate (also 53%). Two thirds of reviewers (n=145, 68%) filled out the Comments-to-Author, which resembled standard peer review reports. Those Comments-to-Author sections contained on average 4 out of 9 topics (SD 2) covered by the structured questions. Absolute agreement regarding final recommendations (exact match of recommendation choice) was 41%, which was higher than the period of 2019 to 2021 (31% agreement, P=0.0275).
Conclusions: Our preliminary results indicate that adoption of structured peer review leads to reviewers covering more topics than they usually do in their reports and that it leads to higher agreements. However, this was not a randomized trial, and further studies should be done to corroborate this. Further research is also needed to determine if structured peer review leads to greater knowledge transfer or improvement of final version of manuscripts.

DP-029: Retractions in Social Sciences and Arts & Humanities: a systematic review

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Objective: Retractions are rare in Social Sciences and Arts & Humanities (SSH), but a growing trend warrants attention. This research aimed to systematically investigate the retraction reasons, authorship, collaboration type and geographical distribution of the retractions in SSH.

Method: We retrieved retracted notices in the research areas of SSH from Web of Science between 2002 and 2021 and relative 402 retracted papers.

Results: Results indicate that the number and proportion of retracted papers in SSH are generally increasing yearly, with publications retracted for fabrication/falsification/plagiarism (FFP) and suspected fraud accounting for a disproportionate amount. A higher percentage of retractions in the previous five years were the result of publisher errors (e.g., publishing an incorrect or a duplicated version). Besides, retractions due to misconduct account for a greater proportion of cases in low/lower middle income and Global South countries. This study reveals that the majority of retracted papers due to misconduct are from multi-institutions or international collaborations.

Conclusion: The increasing retractions in SSH bring up concerns concerning research quality, scientific trust as well as scientific resources wasted. Retractions can be reduced to some extent by educating and increasing knowledge of publishing ethics and responsible research behavior among researchers, scholar communities and journal publishers.

DP-030: Conflict of Interest Discloser Process in NSTDA Research Project Management

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Research integrity (RI) is an essential key to establishing trustworthiness in research. It can foster trust and confidence in the experimental processes and results. Conflict of interest (COI) is one of the components that decrease in RI. COI in research represents an unreliable situation that could occur throughout the research process, but it is often disregarded or not properly managed. In practice, researchers may not declare COI because they do not know that they are in a COI situation or either concern about the consequences of disclosing and some may avoid disclosing all COIs in their research. The research conducted along with COIs could be useless by unreliability so research institutes should implement COI management procedures to ensure transparency.

Some types of COIs have clear management in the organization's rules. However, certain types cannot be defined and are difficult to handle. For instance, they may sometimes rely on an individual's ethical perspective, making it a subjective matter.

For The National Science and Technology Development Agency, Thailand (NSTDA), The management of COI in research is applied to specific roles, including project investigators and co-researchers. The procedure is defined as follows: COIs will be declared by project investigators and their research team in the beginning, as they submit their project proposals. If COIs arise during the research project, it must be disclosed to NSTDA within 30 days. COI disclosure includes both financial and non-financial interests, such as compensation, travel support, personal relationships, or activities that could affect the research. Subsequently, project reviewers consider their disclosures and suggest suitable COI management for the research team. This approach improves awareness of COIs, enhances operational transparency, and minimizes the impact of COIs. NSTDA implemented this process since the last quarter of 2022. It was found that 0.5% of all submitted project proposals declared COIs, and all of these had already been managed.

However, the best way to manage COI is not through disclosure but rather through avoidance. If researchers don't disclose it, no one knows. Or even if they disclose, it may not be dealt. Being aware and avoiding by themself will be effective management.

DP-031: Honorary authorship in health sciences: systematic review and meta-analysis

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Objective: To estimate the prevalence of honorary authorship (HA) in health sciences.
Methods: We conducted a systematic review and meta-analysis of survey research indexed in PubMed, Lens.org, and Dimensions.ai until January 5 2023. We applied standard sys. review methodology, which included in-duplicate screening and data extraction, assessment of methodological quality of surveys, and where appropriate meta-analyses of answers given to questions assessing HA.
Results: After screening 1,584 deduplicated records, 19 were included, in which a total of 51 questions were used to assess aspects of HA. Similar questions were meta-analyzed together. We found a pooled prevalence of 26% (95% CI 21-31, based on 6 surveys and 2,758 respondents) of researchers that perceived their co-author(s) as honorary on their publication (when researchers were not referred to any authorship criteria). A pooled prevalence was 18% (95% CI 15-21, based on 11 surveys and 4,272 respondents) when researchers were referred to Committee of Medical Journal Editors (ICMJE) authorship criteria, and 51% (95% CI 47-56, based on 15 surveys and 5,111 respondents) when researchers were asked to declare their co-author(s) contributions on the publication at issue (and these were then compared to ICMJE criteria). Furthermore, 10% of researchers (95% CI 9-12, based on 11 surveys and 3,663 respondents) reported being approached by others to include honorary author(s) in their publication, and 16% (95% CI 13-18, based on 2 surveys and 823 respondents) admitted adding (an) honorary author(s).
Conclusions: Despite many ways to ask about honorary authorship in surveys, our pooled estimates indicate a very high prevalence of honorary authorship in health sciences. While further rigorous surveys are always warranted for obtaining even more precise estimates, greater focus should perhaps be directed to research assessment reform, monitoring and interventions aiming to reduce this practice.

DP-032: Modern film and documentary media as a teaching tool in the pursuit of research excellence

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There is a wealth of literature reporting the use of film and documentaries to teach clinical ethics to medical students and healthcare workers, but a paucity of literature on the use of these tools to promote research excellence (e.g., settings of bench research, clinical trials). In June 2022 the Bioethics Department at Roche (a global research organization developing drug, device, and diagnostic products) launched a program using film to promote research excellence among employees.

After collating a list of films and documentaries, they were calendared for online discussion (June 2022 - October* 2023) with a specified format: 1) employee watches film privately using streaming link and then attends an online discussion with Bioethics staff; or 2) same as format #1 with the addition of a guest panel (e.g., film director, external topic expert) and movie clip discussion prompts. Sessions were recorded. Spontaneous narrative feedback from attendees was analyzed for quality improvement.

Film, format, themes, attendance (live):

“Three Identical Strangers [documentary, format 1]” Research methods, data reporting, genetic data, vulnerable population, confidentiality. n=12
“Extreme Measures [modern film, format 1]” Research methods, abuse of power, informed consent, vulnerable populations. n=12
“I am Human [documentary, format 2]” Neuroethics, data ethics, therapeutic misconception, governance. n=150 + 29 on-demand.
“The Bleeding Edge [documentary, format 1]”, device clinical trials, governance, safety, transparency. n=12
“Drugs that Heal: Could Psychedelics Treat Depression? [documentary, format 1]”, Research methods, safety, informed consent. n=27
“Pigment: Stigmatizing Diseases that Affect Identity [documentary, format 1]” Justice, diversity and inclusive research. n=12
“n of 1 [documentary, format 2]” Research methods, safety, data reporting. n= 35 *registered

Employees from 28 countries across North America, Europe, and Asia attended, from numerous departments including clinical operations, regulatory affairs, legal, drug development, chief diversity office, and biosamples.

Feedback identified increased awareness and mindset shift on matters of research excellence:
“Thanks for a great discussion that prompted me to review how I work.” “A very successful event on fundamentally important topics….I feel we are just at the beginning of an area that may be deeply transformative, hopefully for the "good" of humankind.”

DP-033: Enhancing Transparency in Dental Clinical Trials Registry in India: Finding a Way Forward

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Introduction:

The clinical trial registry is considered an important step in the field of evidence-based medicine. Registration of trials ensures transparency, accountability, and accessibility of clinical trials. It has been observed in a few surveys about some problems associated with the reporting and the quality of clinical trials registry.

Purpose of the study:

Current status of registration in the field of dentistry in India at the Clinical Trial Registry of India (CTRI). Attempts were also made to identifying solutions for problems in filing of CTRI form.

Methodology:

This study was done by using the search Keyword “Dental” on www.ctri.nic.in to gather the clinical trials registered up to August 2023. A team of four reviewers evaluated the clinical trials registered in the CTRI pertaining to dentistry. All the parameters were filled in a predesigned data extraction sheet in an anonymized way containing 32 variables such as type of trial, type of study design, source of funding, method followed like blinding, publication status etc. All parameters were reported as frequency and percentages. Differences between the categorical variables were analysed statistically.

Results:

Eligible registrations were 830 out of 1084 because 254 were not related to any disciplines of dentistry. It was observed that 81.5 % of the studies registered were prospective, 73.5 % of trials were part of a PG thesis, 66.4 % were randomized controlled trials, 98.2 % of trials did not require regulatory approval from Drug Controller General of India (DCGI), only 4.5 % of trials have been published and citation is updated among others.

Conclusion:
Based on the data obtained, the number of trials registered is less than it should be and those trials registered have not reported the results and updated the publication status. An awareness of various stakeholders is required to fill and follow CTRI suggestions for research integrity.

DP-034: On the Ethics of Neuroscience: A review of ongoing challenges in neuroethics and the structural solutions to promote research ethics and research integrity

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At the intersection of ethics and neuroscience, the distinctly twenty-first-century field of "neuroethics" is often subdivided into two areas of focus: the neuroscience of ethics, on the one hand, and the ethics of neuroscience, on the other (Roskies, 2002). Focusing on the latter, and the "ethics of practice" relating to studies involving human participants specifically, this paper draws from research conducted as part of two EU-funded research projects, namely TechEthos and DIDYMOS-XR. It reviews research ethics and research integrity challenges related to the evolving neuroscience research landscape. In particular, it focuses on research involving the development of neurotechnological applications for use in the consumer and military domains, each of which poses distinct but related challenges in the absence of being governed by research ethics guidelines such as the Belmont Report and the Declaration of Helsinki, which are applicable in biomedical and clinical settings (Ienca et al., 2022). In the consumer domain, the private sector has driven innovation and commercialisation of a wide range of non-medical applications, for which the proposed benefits have come up against increased awareness of the potential ethical, legal and social risks (Knopf, Frahm and Pfotenhauer, 2023). Yet, whereas public sector research efforts are as a result increasingly conducted in accordance with ethical governance measures, such as responsible research and innovation (RRI) approaches, similar systematic frameworks for socio-ethical responsibility are underrepresented in the private sector (Pfotenhauer et al., 2021). Alongside the emerging market for consumer neurotechnological applications, and the challenges for neuroethics posed by the involvement of the private sector, another area of research-driven innovation is in the field of defence and security. Research and development of military neurotechnology presents a dual-use dilemma, since the same research aimed at therapeutic interventions for treating neuropsychiatric illnesses such as post-traumatic stress disorder (PTSD), for instance, may also feed into applications for cognitive enhancement (Tennison and Moreno, 2012). This paper will review the ethical issues of neuroscience research in the consumer and military domains, focusing in particular on neurodata management and dual and misuse of results, and consider different structural interventions in support of research integrity and research ethics requirements.

Section 3: Abstracts of posters displayed in Athens

PP-001: The role of research frontline staff in promoting research integrity

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Introduction: Frontline health research workers are critical in operationalising global health research. Commonly referred to as fieldworkers, they are usually employed to support seeking informed consent, collecting qualitative and quantitative data and simple non-invasive biological samples, and maintaining good relationships with communities involved in research. Despite their centrality in shaping the research output in Africa, previous studies have focused more on their challenges. The implications of fieldworkers' scientific and ethical practices for research integrity have rarely been studied.

Objective: This presentation aims to share the results of a qualitative study that explored fieldworkers' values, knowledge and practices of conducting community-based research in two African research institutions. The presentation will attempt to elucidate how fieldworkers' values and practices could influence research integrity in a low-and-middle-income setting.

Method: Data were collected using individual in-depth interviews and non-participant observations. The qualitative data were transcribed, coded and analysed thematically using Nvivo 12.0.

Results: Fieldworkers believed their institutions valued the work they (Fieldworkers) did. Conversely, the same institutions were perceived to undervalue fieldworkers' personhood and isolate them from the mainstream research staff, as exemplified by their limited commitment to timely addressing fieldworkers' welfare and challenges. Despite the availability of training opportunities, power distance, limited opportunities to share challenges and grow professionally, and lack of humanistic and interpersonal management practices were perceived to influence fieldworkers' sense of belonging and commitment toward responsible conduct of research. These experiences could have influenced fieldworkers to normalise deviance, cut corners and adopt coping mechanisms with perverse implications for their scientific and ethical practices.

Conclusion- Fieldworkers' perceptions and practices could be influenced by factors associated with their work environment. Promoting fairness and inclusivity in staff empowerment and capacity building could enable fieldworkers to develop a sense of ownership and appreciate the intrinsic value of responsible conduct of research. Further research is needed to assess the most effective model for supporting fieldworkers.

PP-002: Strategies for Effective Research Management and Administration to Support Current and Future Research Endeavours in Botswana

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The paper examined three main issues, which are directly linked to research management and administration in Africa with Botswana as its focal point. Firstly, the paper elicited the key elements and functions of research management and administration, discussed the challenges and trends facing research management and administration and lastly, suggested strategies and solutions to overcoming the identified challenges. In exploring these issues, the study adopted a systematic literature review approach. The study conducted an extensive review of existing literature, research reports, and scholarly articles on research management, administration, and support systems. The findings of the study highlight the significance of creating an enabling environment that promotes high-quality research, fosters innovation, and maximises the societal, economic, and scientific impact of research outcomes. Several key challenges in research management and administration in Botswana were identified, including limited funding and resources, low research and innovation budget, inadequate human resource capacity, subpar research output quality, lack of research technical know-how due to insufficient training and capacity building, and inadequate knowledge transfer opportunities due to weak university-industry links. In response to these challenges, the study recommends a range of strategies and best practices. These include the development of a national research strategy framework, establishment of dedicated research support offices within research institutions or universities, promotion of research capacity building, strengthening of research ethics committees and development of comprehensive ethical guidelines, encouragement of open access publishing and data sharing, facilitation of interdisciplinary and cross-institutional research collaborations, implementation of effective research data management practices, and active stakeholder communication. By implementing these recommended strategies, research management and administration in Botswana can be significantly enhanced, enabling researchers to overcome the identified challenges and achieve impactful and transformative outcomes. Collaboration and proactive efforts from stakeholders are crucial in establishing a conducive research ecosystem that supports innovation and contributes to the overall advancement of knowledge. This research paper provides valuable insights and practical recommendations for improving research support systems in Botswana. It is anticipated that these findings will guide policymakers, institutions, and researchers in their endeavours to strengthen research capabilities and drive positive change.

PP-003: Unveiling the veiled injustices of women researchers in Cameroon

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This abstract highlights the persistent inequalities encountered by women researchers in Cameroon examines the factors contributing to gender disparities in research and provide recommendations for fostering a more equitable research landscape.

The study adopts a mixed-methods approach to data collection and analysis. Qualitatively, in-depth interviews and focus group discussions are conducted with women researchers, academic administrators, and policymakers to capture their experiences and perspectives. Quantitative data are collected through surveys administered to a representative sample of women researchers from diverse academic institutions in Cameroon.

Women researchers in Cameroon face numerous challenges that hinder their full participation and advancement in the research field. Access to funding is a significant barrier, as women often encounter limited opportunities to secure research grants and resources. Gender biases persist, leading to unequal treatment, stereotypes, and biases in hiring, promotions, and publication opportunities. Inadequate mentorship and networking options hinder career progression and professional development for women researchers. Work-life balance poses a challenge, with societal expectations and caregiving responsibilities impacting their ability to fully engage in research activities. Additionally, cultural and social norms may limit women's mobility and participation in research, further exacerbating the inequalities they face. These challenges collectively contribute to lower research productivity, limited career advancement opportunities, and a lack of representation of women in leadership positions within the research field in Cameroon.

To address these inequalities, several recommendations are proposed. Implementing gender-sensitive policies and practices within research institutions is crucial, including gender mainstreaming in decision-making processes, targeted funding opportunities for women researchers, and gender-responsive initiatives. Establishing mentorship and networking programs can provide support and guidance for women researchers, fostering their career advancement. Raising awareness about unconscious biases and promoting a culture of inclusivity through training and workshops is essential. Collaboration between research institutions, policymakers, and funding agencies is vital to drive systemic change.

By acknowledging and actively addressing the inequalities faced by women in research, Cameroon can harness untapped talent, enhance scientific excellence, and contribute to sustainable development. Creating an inclusive research environment where women researchers can thrive will yield diverse perspectives, innovative ideas, and equitable contributions to society.

PP-004: The adverse impacts of research malpractice

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Misconduct in research can have serious socio-economic consequences, both for the individual and for society. As part of the EU-funded project Beyond, we have conducted a review of peer-reviewed and grey literature examine the socio-economic ramifications of research misconduct and questionable research practices. This work seeks to understand the impact of research malpractice on the economy and different social groups, as well as the socio-economic uncertainties it creates for end-users, the international scientific community and the public sector. Misconduct and questionable research practices can lead to false or misleading results, resulting in wasted resources, reputational damage and financial loss. It can also affect public confidence in science and research, leading to a decline in funding and support. In addition, research misconduct can have a detrimental effect on the careers of the individuals involved, with serious consequences such as job loss, reduced funding opportunities and even legal action. It can also discourage young researchers from working in the field, resulting in a loss of talent and potential innovation. This study highlights the importance to have specific mitigation measures, actions taken to minimize or reduce possible negative impacts, their severity and improve beneficial socio-economic impacts. A set of recommendations has been formulated, emphasizing the promotion of a culture of research integrity, the monitoring of policy development, improvements in investigation procedures and protective measures, the strengthening of peer-review processes, and the provision of appropriate incentives. The implementation of these recommendations holds the key to mitigating research malpractice effectively.

PP-005: Responding to Changing Environments: Insights and Action Areas for Federal and Research Institutions from the 2022 Senior Research Officials' Conference

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In September of 2022, Duke University and the U.S. Office of Research Integrity co-sponsored a conference, “The Senior Research Officials’ Role in Promoting Research Integrity: Responding to Changing Environments,” to convene leaders from government agencies and research institutions to discuss the role of senior research officials in promoting research integrity. The goal was to identify methods of promoting change amongst federal and research institutions in the following areas:

1) the role of workplace environment in research integrity
2) the integrity of research grant applications; and
3) research security.

Through presentations, break-out sessions, and discussions related to these topics, five action areas, important for promoting research integrity and quality, emerged.

The first action area focuses on the need to break the cycle of ‘passing the harasser’ from institution to institution by (a) requiring candidate disclosure of any employment related misconduct findings and (b) the hiring institution connecting with prior institutions about any misconduct investigations. The second action area involves funding agencies and institutions working to promote research integrity by curbing hyper competitiveness to publish, improper/inadequate data management, and toxic research work environments that perpetuate racial and gender disparities. Related to the second, the third action area addresses the need to diversify incentive structures so that published replication studies and teaching/mentorships are recognized similarly to novel research publications. The fourth action area focuses on providing proper training across the various stages of a research career (from students, staff, trainees, and faculty) as a primary driver for change in the research integrity space. Framing responsible conduct of research training as an opportunity for professional development would incentivize faculty to participate actively, which in turn supports the last action area identified in the conference. The last action involves striking a balance between promoting international research collaborations and the need to protect national security. By providing guidance to researchers seeking to establish these relationships, institutions can avoid xenophobia and promote security.

Importantly, attendees expressed interest in future meetings convening leaders from research institutions, fundings agencies, and regulatory agencies. We propose using this inclusive model to convene future meetings both nationally and internationally.

PP-006: Time and research integrity: Researchers' experience of time, speed and acceleration in academia

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In this paper-presentation, we present the findings of a study of researchers' experience of the relationship between time, speed, and acceleration in contemporary academia and research integrity (RI).
The study is based on a secondary analysis of two extensive focus group studies. The first study, part of the Danish PRINT project, involved 22 focus groups exploring questionable research practices (QRPs) across various research fields. The second study with 14 focus group interviews was part of the EU-funded SOPs4RI project, aimed to promote research integrity in European research and funding institutions.
We have reanalysed the 36 focus group interviews to better understand the relationship between RI and time (pressure), speed and acceleration in academia. We use what Hartmut Rosa calls a subjective approach to the study of time and RI (2010, p. 21). We do not attempt to measure the objective changes that have occurred in academia, i.e., the number of activities handled per time unit before and now, but focus on researchers' experience of these changes. We thus examine researchers' narratives of time pressure and speeded up (as well as slowed down) processed in academia, and we explore researchers' understanding of the implications of these developments for research integrity.
The study shows that interviewees experience time through competing temporalities of acceleration and deceleration. Time is increasingly experienced through the prism of projectification – often understood as an accessory to acceleration. Perhaps not surprisingly, acceleration is reflected upon in line with some of the well-known negative effects on RI. E.g., acceleration manifests itself in intensified pressure to publish, in normalization of practices of expedited publications, exaggeration of studies' contributions (in competition for promotions and funding), and in acceleration of education of young researchers. Each of these manifestations of acceleration in academia is further linked to the perceived primarily negative) impact on the quality of research and research integrity. However, our study also shows that increased acceleration in academia in a few cases is experienced to have led to a stronger professionalisation of some (humanistic) fields (e.g., from publishing books without peer review to focusing more on journal articles with peer review).

PP-007: PERITIA - Policy, Expertise and Trust in Action

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This poster presents the research and selected outputs of the Horizon 2020 project PERITIA – Policy, Expertise and Trust in Action (https://peritia-trust.eu/). From February 2020 to May 2023, the project brought together a multidisciplinary consortium of 11 partner institutions from 9 European countries to investigate the level and conditions of public trust in expert advice on policy matters. The core objective was to understand and foster trust in experts and expertise in the public domain. The project was carried out in three phases. Phase 1 carried out multidisciplinary and interdisciplinary research on the philosophical, ethical, psychological, and social underpinning of social trust in experts. Phase 2 tested the theoretical conclusions of phase 1 through a large-scale survey on the levels and indicators of trust in experts across seven European countries. This was followed by an investigation of key indicators of trust and trustworthiness of experts through online experiments. Phase 3 aimed to reach citizens directly by engaging in and learning from activities that can enhance legitimate trust in experts. These included deliberative mini publics in five capital cities, an essay competition for young Europeans, podcasts, online data dashboard, and a toolkit to help citizens better gauge the trustworthiness of experts. To date, PERITIA has produced 23 peer reviewed articles, 6 journal issues, 4 books, 2 literature reviews, data from a major European survey, 3 international conferences and 10 workshops in addition to outputs targeted at other stakeholder groups such as policymakers and citizens, several of which have been listed above.

PP-008: How is research ethics and integrity (REI) leadership manifested in national surveys? Cases of Estonia, Finland, Norway and the Netherlands

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A systems approach (Bertram Gallant, 2017) encourages to consider the national dimension of research integrity. National surveys provide a picture of a wider research community overarching research institutions. We posed the question: how is research ethics and integrity (REI) leadership manifested in national surveys?

We conducted a meta-analysis of (latest published) national surveys of Finland (Research Integrity Barometer, 2018), Estonia (Eesti teaduseetika uuring, 2023), and are working on analysing surveys of Norway (Research Integrity in Norway, 2018) and the Netherlands (National Survey of Research Integrity, 2020) using deductive content analysis. The REI leadership competence framework (Tammeleht et al., 2022) describes four central principles: 'people's needs', 'developing the community', 'leaders' personal competencies', 'open culture'. The national surveys are analysed in relation to the research integrity system of each country, but also commonalities and differences and emerging trends are identified.

Preliminary results based on the national surveys of Finland and Estonia show that researchers' needs include support in the working environment, socializing for values and principles, leaders to take REI issues more seriously (e.g. Estonia) and the need for understanding for career planning, common practices and managing pressure (Finland). Community can be developed through REI infrastructure, like guidelines and training. Participation in training varied according to the surveys (e.g. 35% of the respondents in the Finnish survey had not taken part in training while the corresponding number for Estonia was 56%). Leaders' competencies were mostly displayed in open answers in both Finnish and Estonian surveys and indicated that leaders should be ethical role-models especially when it comes to dealing with misconduct. Open culture is displayed through trust and courage to talk about ethical topics (incl. whistle-blowing). The Finnish survey stands out with more than 70% of the respondents display satisfaction with the supportive community and encouraging leaders. Yet, observed misconduct is often not reported because of fear, missing instructions or seeing no point in reporting.

Based on the meta-analysis of national surveys we provide recommendations about the development of competencies of REI leaders. In addition, suggestions are made on how to evaluate the research environment based on national REI surveys.

PP-009: Building a centre for Research Integrity and Open Science (RIOS): how to foster RCR?

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At Free University Amsterdam there have been multiple initiatives on research integrity in the last decade. First of all, policies have been established to carry out the so-called duty of care that the Dutch Code of Conduct prescribes and within all departments/faculties specific coordinators have been appointed to see to it that these are carried out. New policies have been established, like mandatory trainings for all PhD candidates and for supervisors. Secondly, the Netherlands Research Integrity Network was established at the FU, accommodating for researchers, trainers and policy makers, by organising a wide variety of RI events, like network meetings, conferences and Summer schools. By establishing a centre for Research Integrity and Open Science, the aim is to stimulate the fostering of responsible conduct more sustainable within the organisation and to bring knowledge, skills and expertise together.

Method
A centre for Research Integrity and Open Science (RIOS) at FU, will address a number of challenges, namely a) to make initiatives in RI more sustainable, b) to seek collaboration with overlapping activities (like on RI and open science) and c) to support exchange and sharing of good practices within and outside the university. Using the SOPS4RI model as guidance, the RIOS aims to create a centre that channels all initiatives on RI within the FU, supports collaboration and exchange and gain national and international visibility in RI and OS. In order to achieve these aims, a 2 year strategy is used, supported financially by both FU and an EU funded project (Catalisi), using Theory of Change stimulate a transformation in the organisation towards a more sustainably fostered responsible research culture.

In this poster presentation, we present the strategy of RIOS for the coming 2 years, the KPI's we strive for, and how output from relevant projects, like Sops4RI, the Embassy of Good Science, NRIN, Catalisi and NERQ help to support the aims of this centre of excellence at the Free University in Amsterdam.

PP-010: Assessment of Research Integrity Environment at Makerere University College of Health Sciences

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Background

Makerere University College of Health Sciences (MakCHS) hosts the largest and oldest Medical School in Uganda and the East African region. It has a large volume of research activities by students, staff and international collaborations that churn out an enormous research output on an annual basis. It is reasonable to believe that the large volume of research activity will come with sizeable number of reported research integrity (RI) glitches but this has not been the case. Like other low income settings, the low reporting rate of research integrity glitches could be due to the status of frameworks and systems available to identify and manage them. Among the top 20 high ranking universities in Africa, Makerere University is a research intensive university whose research should be conducted responsibly and within the ethically acceptable frameworks and guidelines. In order to achieve this, MakCHS has a duty to be mindful of the quality and integrity of its research output.

Research Integrity activities

MakCHS has 5 Research and Ethics Committees (RECs) that identify and handle cases of research misconduct. The College hosts several training courses for example, the Responsible Conduct of Research and offers student mentorship in proposal writing and implementation.

Gaps

Due to the high volume of research coupled with absence of a dedicated research integrity office, inadequate training of REC members in research integrity and absence of guidelines hinder RECs from promoting research integrity among researchers and research communities.

Conclusion

Research is essential in the MakCHS' strategic plan. It's imperative that research integrity is given serious attention if the institution is to achieve enhancement in the production of good quality research. The magnitude and causes of RI glitches is unknown making it difficult to develop effective interventions. The few cases reported may give an impression that all is well yet there is reasonable possibility that many cases go unreported. Therefore there is need to conduct an empirical study to assess the current status of the RI mechanisms at MakCHS to identify the gaps upon which interventions can be formulated.

PP-011: The TIER2 project: Enhancing Trust, Integrity and Efficiency in Research through next-level Reproducibility

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Objective:
This poster introduces the TIER2 project's programme of research and first results. TIER2 is a major EC-funded project to increase reproducibility of research results. Concerns over poor levels of reproducibility (broadly: the possibility for the scientific community to obtain the same results as the originators of a specific finding) have grown in a variety of disciplines. Many key causes and potential solutions are directly relevant to Research Integrity, including lack of transparency in reporting, data, and analysis, lack of replication studies, publication bias, and questionable research practices.

Methods:
In response to these challenges, TIER2 will centre epistemic diversity by selecting three broad research areas - social, life, and computer sciences, two different knowledge production models (Qualitative research and Machine Learning Research) and two cross-disciplinary stakeholder groups - research publishers and funders to systematically investigate reproducibility across contexts. Through coordinated co-creation with active stakeholder communities, TIER2 will:

- Create a framework to emphasize the importance of different knowledge production models in different epistemic contexts
- Examine the epistemological, social, and technical factors that shape reproducibility across these contexts
- Build a state-of-the-art evidence-base for existing and newly created reproducibility interventions and practices for different stakeholder communities
- Co-create techniques of scenario-planning, backcasting, and user-centred design to select, prioritise, adapt, and implement new tools to enhance reproducibility across contexts.

Results:
WCRI 2024 will take place at the mid-point of TIER2, by which time key results will be available. In particular:

- Theoretical work on the implications of epistemic diversity for the relevance and feasibility of reproducibility across research fields
- Scoping of the evidence, including of interventions to support reproducibility
- Future Studies research to envision the desired future of reproducibility
- Design and first results from eight pilot studies to develop and test new reproducibility tools and practices for researchers, publishers, funders

Conclusion:
TIER2 will contribute to increasing reproducibility, re-use and overall quality of research results and consequently boost trust, integrity and efficiency in research. By introducing WCRI participants to TIER2 and its first results, the poster will inform the community and foster connections/synergies to other ongoing work.

PP-012: Reflecting on the Impact of a Research Integrity Work Package in a Dementia Research Program: Qualitative Analysis

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Objective: To understand the impact of a research integrity work package from the perspective of individual researchers participating in a research program with a main focus other than integrity research.

Method: Qualitative analysis of written reflections. The author, Principal Investigator of an ERC Consolidator Grant on end of life with dementia (2018-2025), asked team members between October 2022 and September 2023 of two work packages on dementia care to write a brief report about how they experienced the presence of a third work package on research integrity that also involved team activities. The Principal Investigator, experienced in qualitative research, coded their reports. Activities mentioned and any phrasing of research integrity were coded using pre-determined categories while codes for reflections were developed inductively and linked to shape a common narrative.

Results: Three post-doctoral fellows and six PhD-students were invited and all wrote individual reflection reports between 222 and 889 words. Eight who participated in scheduled 2-weekly 30-minute discussion of vignettes of dilemmas in conducting research, mentioned they valued it, referring more to the ethical rather than methodological nature of the dilemmas. In contrast, the five of nine members of mixed level who jointly followed a research integrity course were critical of limited interaction they experienced along with substantial tasks to be performed individually, missing guidance to navigate in-between black and white. They felt that considering and interacting on multiple perspectives with team members with different backgrounds and levels on hypothetical dilemmas, made especially the PhD students aware of the grey areas in their own research. They appreciated the depth and safety discussing imaginary cases with no one clearly best solution which triggered sharing real-life experiences and it helped team bonding. It increased students' confidence to be able to recognize, bring up and navigate dilemmas.

Conclusion: Interaction between junior and senior researchers around integrity and ethics offers a relatively safe learning experience equipping juniors in their careers to identify and act upon dilemmas. The findings refer to a single project and the analyses may be limited through impact of hierarchical relationships and interests.

PP-013: An exploratory study on the inclusion of Research Methodology courses in Greek universities' curricula

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Objective: This exploratory study will map the inclusion of Research Methodology courses in the curricula of all Greek universities, focusing on the disciplinary context.
Method: The mapping was made by analysing the latest versions of the official descriptions of university curricula (the "Study Guides") for undergraduate studies that are openly available at the official institutional websites. Potentially relevant to Research Methodology courses were retrieved from the Study Guides, by five of the authors. The decision on whether a specific retrieved course is related to research methodology was made collectively, based on specific inclusion and exclusion criteria that were defined by combining deductive and inductive approach.
Results: The authors have, currently, mapped five Greek universities, including those that are at the first two places of the number of admissions, as mandated by the governmental decision Φ.253.1/42905/A5. The retrieved Research Methodology-relevant courses were courses: (a) directly related to Research Methodology, (b) that included elements of Research Methodology, (c) that included statistical methods applied in the context of a specific research field. The first round of mapping suggests that the inclusion of Research Methodology or Research Methodology-related courses in the curricula of Greek universities is more prominent at the disciplines of Social Sciences and Humanities and less prominent at the disciplines of Natural Sciences and Engineering. This does not imply that the latter disciplines lack methodological guidance; it is mostly related to a more "fragmented" or "case-by-case" approach to Research Methodology. The results of this study, which will be presented in their entirety at the 8th WCRI, are pertinent to the aims of the WCRI, since a solid knowledge on Research Methodology is considered as one of the parameters that support reliable research practices and, more general, research integrity.
Conclusions: The preliminary results of the mapping suggest that the inclusion of Research Methodology or Research Methodology-related courses in the curricula of Greek universities is more prominent at the disciplines of Social Sciences and Humanities and less prominent at the disciplines of Natural Sciences and Engineering.

PP-014: Using vignettes for assessing ethical sensitivity in national research ethics and integrity study

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Current presentation focuses on the Estonian research integrity and research ethics (REI) study, one of the first in Central and Eastern Europe to have national scope. The study mapped the current status quo in order to plan and prioritise for future activities in developing national REI infrastructure.

A web-based survey was developed and carried out in Estonia with the call sent to all accredited Estonian research institutions. Overall, 354 responses were collected. Gift authorship and hampering the work of a colleague were problematic practices most noticed amongst colleagues while two of the noticed QRPs – salami-slicing and improper use of research funding – were seen as less severe.

In addition to evaluating the issues related to FFP, QRP, training and REI infrastructure, the study included vignettes focusing on the ethical sensitivity. The topics for the narratives were: IRB approval after the study; pressuring research participant; including a co-author in a manuscript; and having an intimate relationship with a co-worker. The vignettes presented in the questionnaire elicited 491 comments which were analysed using qualitative thematic analysis. Results of the argumentation are presented, and the implications discussed. For vignette focusing on IRB approval after the study, 52% of the respondents considered this to be ethically questionable, comments discussed whether the results were used for research or for improving the course. Pressuring research participant was considered unethical by 72% with comments discussing why the behaviour was unethical. Including a co-authorship in a manuscript after a request from senior co-worker was considered to be unethical by 89% with comments discussing whether supervision happened in the situation and whether the authorship criteria are fulfilled. Having an intimate relationship with a co-worker was considered to be unethical by 20% with comments stating the personal relationship to be out of the scope for REI or discussing whether power-imbalance was present. The results indicated that narrative-focused vignettes are effective in eliciting ethically sensitive thinking and motivating considerable number of responses. In conclusion, they are promising in capturing the status quo.

PP-015: Analysis of attitudes toward research integrity and evaluation system of Japanese scientists in life-science fields

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Objective: As global competition intensifies, the evaluation of researchers has become a major issue in the research environment. We conducted an attitude survey to extract academic and policy knowledge regarding an environment in which researchers can exercise their original motivation and engage in healthy research activities.
Method: This study targeted researchers in the life sciences. A web-based questionnaire was administered over a two-month period with the cooperation of the member societies of the Federation of Bioscience Societies and other organizations. The questions consisted of five- or seven-point scale items on research evaluation and fairness.
Results: A total of 947 respondents were included. Hierarchical cluster analysis was performed based on responses to questions about research motivation, concerns about outsourcing, and attitudes toward research ethics. A total of 230 respondents with "Don't Know (DK)" responses were excluded from this analysis, and the remaining 717 were included in the subsequent analyses. Through cluster analysis, we found four clusters of respondents. And then, factor analysis or analysis of variance was conducted on the four clusters. We examined the attitudes of four clusters toward research evaluation factors, their perceptions of the impact factor, and evaluation items for young researchers and PI researchers. We identified the following characteristics of four clusters. Cluster 1 tended to show no interest in anything other than their own research activities, Cluster 3 tended to be relatively negative on items related to research integrity, and Cluster 4 tended to try to be honest in their research. An interesting characteristic of Cluster 2 was that it tended to respond honestly to the items on research integrity, and they also tended to internalize performance-based thinking. Simultaneously, Cluster 2 showed a tendency emphasizing the importance of education and other aspects in its evaluation of researchers' abilities and backgrounds.
Conclusion: These results suggest that there is diversity among researchers in what they consider important in research evaluation and in their perceptions of research integrity. In the future, we will analyze the details of the four clusters and the characteristics of DK respondents to obtain basic information to make recommendations for a better research ecosystem.

PP-016: Assessing institutional frameworks for ensuring research integrity in Southern Africa; Lessons from selected Zimbabwean Universities

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Discussions at the 7th World Conference on Integrity in Research, which revealed that context and environment have a major impact on research integrity, formed the basis for this study. Low research funding and weak institutional settings supporting research can jeopardize the quality of research and compromise integrity.

Objective

This study conducts a SWOT-like analysis of institutional frameworks supporting research in Southern African universities. It uses selected Zimbabwean universities as case studies to determine how these frameworks create a research environment that either supports or detracts from research integrity.

Method

The research relies on a qualitative research methodology. Case studies were purposefully selected. Questionnaires addressed to university officials responsible for university-wide research are the main instrument for data collection. Questionnaires focus on obtaining data on the existence of regulations governing research, availability of research funding, and availability of dedicated research integrity offices, among other topics contributing to the goal of the study. Questionnaires will be supplemented by interviews with researchers and university officials selected through purposive random sampling. Data collected will be analysed and presented thematically.

Results

Comprehensive results are not available because data collection is ongoing. However, there is evidence that although there are frameworks guiding research in the selected cases, many challenges exist that may compromise the integrity of research. One challenge that arises from the data already collected is lack of funding. Timeline for the research is that data collection will be completed by end of January 2024. Thus, the research will be completed by the time of the conference. It is expected that the results will provide information on how context and environment affect the integrity of the research, particularly in LICs. Such information is important for determining how to improve the integrity of research in such contexts, and it may also be critical for researchers from HICs who wish to collaborate with colleagues from LICs.

Conclusion

A tentative conclusion is that there are institutional frameworks for research in Southern African universities. However, there are a number of challenges that compromise these frameworks, creating a research environment that poses many risks that threaten the integrity of research.

PP-017: Academic Research Values: Conceptualization and Scale Development

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Objective
Gaining a better understanding of researchers' values can improve scientific careers, attract a more diverse range of people to enter science, and elucidate mechanisms that lead to both exemplary and questionable practices. We draw on value theory in social psychology to conceptualize the values influencing researchers' attitudes, decisions, and actions. After conceptualization, we generate, pre-validate, and test value items.

Methods
Our studies employ a range of scale development methods. For conceptualization and item generation, we integrate theoretical and mixed methods insights (6 interviewees, 255 survey participants). We use mixed methods for item reduction as well as face/grammatical/syntax (2 experts) and content validation (20 experts). Finally, we add statistical scale evaluation (~1000 survey participants). Samples consist of researchers.

Results
As an outcome of our process, we define academic research values as "principles which serve as a basis of evaluating outcomes of scientific work-related actions, guide the selection of scientific work goals, and represent the relative importance assigned to various academic job aspects related to research. They serve as guiding principles for (groups of) researchers in the academic work setting and are desirable to a varying extent in the sense that they represent important and worthy causes to researchers." Initial steps of our process led to the generation of 246 values. We are now working on reducing this number – the expected outcome is a comprehensive list of the best rated items. We are currently collecting the final round of data from 20 experts and expect to have results by 2024. Statistical scale evaluation takes place afterwards, results should be first presentable at WCRI.

Conclusion
An improved conceptualization and measure of academic research values could enhance our understanding of the role values play in research practices, as a way of assessing the outcomes of research integrity courses, and as a tool for exploring the personal differences between researchers of various nationalities, disciplines, and career stages. Full scale validation might be only a distant hope given limitations of representing researchers across a broad range of characteristics. While such efforts will be labor-intensive and expensive, the return on this investment seems worthwhile.

PP-018: Cafè culture at the PRBB: making academia great again

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It has become increasingly apparent that research culture – not only how we do, communicate and value research but also how we interact with and support each other – is highly interlinked to the quality and integrity of research.

The good scientific practice working group at the Barcelona Biomedical Research Park (PRBB) organised last July a 2h-event to discuss the challenges of the research environment and how to solve them.

This "Cafè culture" event, based on the Wellcome Trust Café Culture kits1, consisted of group discussions about the challenges that should be addressed to improve research culture and ideas or examples of existing good practices about how to address them – at the PRBB and in general.

Over 50 people participated, from different job categories and career stages: junior researchers (20%), mid-career researchers (25%), senior researchers or leadership management (11%), technicians (16%) and support staff (28%). Key topics of especial concern to the scientific community were highlighted in the lively discussions:

-Harassment/micro-aggressions and impact on mental health and wellbeing

-Assessment of researchers and too much competition

-Supervision issues / hierarchies and lack of open communication about interpersonal problems

-Precariousness and job insecurity

-Sustainability in the lab

Solutions were also proposed, which included actions to promote transparency, improve work-life balance, strengthen supervision and mentorship, and advocate for better funding, all aimed at fostering research quality, integrity, and overall well-being.

Additionally, each participant was invited to share a personal commitment they would be willing to start working on. These collectively focused on creating a more inclusive, sustainable, and supportive work environment, while also encouraging personal growth and proactive engagement with the institute and the broader scientific community.

Perhaps the most striking effect of the event was to see how needed this was. With a rating of 4.63 out of 5, there was a general desire for follow up discussions on these topics – especially with more active involvement from the leadership - and for more action-focused activities that can be implemented practically in our context. The PRBB Good Scientific Practice Working Group is already working on a follow-up event in 2024.

PP-019: A holistic approach to good scientific practice: the PRBB case study

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The Barcelona Biomedical Research Park (PRBB) hosts six research institutions dedicated to study life from molecules to whole populations. One of the largest biomedical research hubs in the South of Europe, the PRBB is a melting pot of nearly 1,700 people from different scientific and cultural backgrounds, that aim to do high quality research with the utmost integrity.

Indeed, since its creation in 2006, research integrity has been a core value at the park, with a holistic approach consisting of the following elements:

1. Code of good scientific practice: created in 2000 and recently updated to reflect the changes in the European Code of Conduct, this sets recommendations and commitments agreed upon all the centres. It emphasizes the role of both individuals and institutions to ensure a local research culture free from undue pressures and harassment, that fosters research integrity and mutual respect.

2. GSP working group: established in the first instance to create the Code, this group formed by members of all six centres at the park meets regularly to share learning and good practice in scientific integrity, to catalyse the development of cross-institute initiatives and to act as an independent support for PRBB institutes in cases of serious misconduct.

3. Research integrity training: since 1998, the Pompeu Fabra University (UPF) - linked to the park - offers all Biomedicine PhD students a research integrity compulsory course. This was pioneer in Spain and it teaches about 160 students yearly. In addition, the PRBB and its centres organise other courses related to good scientific practice for their staff, and the PRBB offers workshops on scientific integrity to external organisations.

4. Wellbeing: acknowledging that a healthy working environment is a key element in achieving research excellence with integrity, the PRBB has a programme to ensure the wellbeing of staff, including social activities, training (on stress and time management, mindfulness, peer mentoring, emotional intelligence or resilience) and anti-harassment policies as well as psychological and medical support.

All in all, the PRBB has a global aspiration to create a healthy environment that is conducive to excellent research and that proactively avoids integrity-related issues.

PP-020: Perception of the Climate of Research Integrity in the National Health Sciences University, University of the Philippines Manila (Quantitative Phase)

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Objectives: To characterize the climate of research integrity (RI) in the University with queries on the participants' knowledge, attitude, and practice (KAP) by adopting Thrush' Survey of Organizational Research Climate (SOURCE) instrument, modified and validated to the University context

Methods: The quantitative phase assessed RI perception via the validated, modified survey instrument with 58 items administered online. Data were analyzed using univariate and multivariate approaches. Scores were standardized to 0 to 4 where 4 is the highest of KAP. Academic rank and disciplinary field were compared using Kruskal-Wallis test.

Results: A total of 371 responses were gathered. Sixty-one percent were females. By academic rank, there were 143 physician trainees, 115 faculty, 55 graduate and 38 undergraduate students, and 20 administrative personnel. By field of research, 130 were engaged in multiple fields, 122 clinical, 96 basic, 9 applied, and 14 others. The overall median knowledge is 2.77 (1.54 IQR), attitude 3.24 (1.23 IQR), and practice 3.20 (1.05 IQR). By academic rank, there was no significant difference in the median KAP but the faculty had the lowest score and the only one below the median (2.7, 3.08, 3.14, respectively). By field of research, there was no significant difference in the median KAP but those engaged in pure applied research had the lowest score at 2.37, 2.99, and 3.14, respectively.

Conclusion: Generally, there is a high level of KAP among the University constituents. This reflects a good perception of the climate of research integrity. Improvement is needed among the faculty and those engaged purely in applied research as they scored the lowest.

PP-021: Survey of the Research Community of a large, Research-intensive University - Research Culture and its Intersection with Responsible Research Practices

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Objective

Recent evidence from CoARA, the Royal Society, Wellcome and others highlights the pivotal role research culture plays in supporting research integrity. University College Dublin (UCD) is a research-intensive University, with almost 4000 staff and over 38,000 students across a wide range of disciplines. We determined that it was important to assess how UCD researchers, defined broadly, perceived the UCD research environment, and how this intersected with responsible research practices. To that end, we carried out an online survey and performed quantitative and qualitative content analysis of the results.

Method

We invited graduate research students, research assistants, research fellows, post-doctoral research associates (PDRAs), technical officers, research managers / administrators (RMAs) and faculty to take the survey. There were Likert-style questions, and open-ended questions.

Results

The response rate was 19% overall. The most notable variations included a low response rate from technical officers, indicating that they did not perceive themselves to be truly part of the research community, whereas 37% of faculty and 30% of PDRAs responded. Both technical officers and RMAs felt strongly that the use of the term “support staff” to describe them was pejorative, and that their contributions to research were undervalued. Overall, the community considered that UCD exhibited a supportive culture in areas where specific policies had been developed, including authorship, research impact, research integrity and open research. However, it was clear that researchers felt the university could do better in some respects, including valuing quality, over quantity, of research. It was also the case that the free-text responses as well as our follow-up focus groups revealed a high degree of uncertainty about the whole concept of research culture.

Conclusion

Our baseline survey revealed that UCD generally provides a positive and collegial research environment, supports research integrity, and highlighted areas that could be further strengthened, including improving the inclusion of technical officers in research integrity training and in the research community generally. The results were used to inform out workplan, which will, inter alia, include a repeat survey in Q4 2023, measures targeted at inclusion of technical officers and RMAs, and seed funding for local initiatives.

PP-022: Research culture challenges among early career researchers: a qualitative study

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Objective
The goal of this study was to identify challenges that impact early career researchers (ECRs), including postdoctoral researchers (PDRA) and graduate research students (GRS).
Method
79 PDRAs and 272 GRS from University College Dublin (UCD) responded to open-ended survey questions about research culture improvement, university acknowledgments, promoting a positive research culture. Additional feedback was obtained from 23 PDRAs and 57 GRS through post-survey focus group discussions.
Results
Using content analysis of open-ended responses and focus group discussions, we identified key challenges in fostering a positive research culture among ECRs. The first theme centres on precarity and stipends. Respondents emphasized the need for increased resources to support GRS stipends, which, in turn, would benefit academics. Concerns also arose about the precarious nature of PDRA fellowships and their broader consequences. Short-term contracts with strict milestone requirements were listed as a barrier to developing external collaborations, which would benefit the long-term PDRA career and the institution.
Training and mentoring were the next themes. Greater focus on provision of structured and consistent mentoring was a desire expressed by GRSs and PDRAs (e.g., “I find it unacceptable that so many people just have to put up with working under an unsupportive supervisor just because they don’t want to put their degree at jeopardy if they complain”). Suggestions included providing increased training for supervisors, echoing current developments within UCD Graduate Studies. Participants also mentioned few opportunities to discuss their research across UCD more broadly, outside of their immediate research environment.
Finally, ambivalence regarding their status emerged as a recurring theme. Respondents expressed a desire for increased acknowledgment of the vital contributions that GRSs and PDRAs make in the overall research output of the University. GRSs reported that they would like to be recognised as “researchers in their own right” and PDRAs reported feeling like they fall somewhere in between staff and temporary contractors, with an undefined status.
Conclusion
Qualitative analysis revealed that comments made by ECRs at UCD coalesced around four themes: precarity, training, mentoring, and ambivalence of position. These challenges are not unique to UCD and are reflected more widely across the research ecosystem.

PP-023: Institutional Research Management and Regulations to Strenghten Scientific Research at the Universidad Femenina del Sagrado Corazón, UNIFÉ, Lima, Perú

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Objective
In response to the changes taking place in Peru regarding improvement of college education quality, Universidad Femenina del Sagrado Corazón (UNIFÉ) started the road to consolidating a culture of research integrity. This abstract describes such process.
Method
Systematisation of information based on years of experience in implementing the mentioned culture.
Results
The results shown refer to the process of implementing a culture of integrity in research in our institution. In order to respond to our objective, we saw the need to manage activities that lead to the achievement of this and the initial step was the installation of a Committee to ensure such a culture, carrying out management activities such as training, organisation of regulatory documents and formats.
For training, the university community - teachers and students - is called on a continuous basis, which is disseminated through email, intranet, social networks, conferences, UNIFÉ research week.
Likewise, teachers receive guidance on the assessment of theses, disciplinary and interdisciplinary research projects in which the emphasis is placed on integrity, highlighting issues such as protection of persons, collaborative work, data management, responsive publication, and conflict of interest.
On the other hand, normative documents and formats were developed to provide information, evaluation and monitoring of good practices: Code of Research Ethics (http://www.UNIFÉ.edu.pe/transparencia/estatuto_reglamento_norma_manual/CODIGO%20DE%20ETICA%20DE%20INVESTIGACI%C3%93N%202020.pdf), Intellectual Property Regulations (https://www.UNIFÉ.edu.pe/transparencia1/1_normatividad/investigacion/reglamento_propiedad_intelectual_2022.pdf) and Research Integrity Regulations (https://www.UNIFÉ.edu.pe/transparencia1/1_normatividad/investigacion/reglamento_integridad_investigacion_2022.pdf
Our process has been influenced by the World Conferences on Research Integrity (WCRI), taking into account the Hong Kong principles, following the guidelines of the European Code of Conduct for Integrity in Research, the National Code of Scientific Integrity (Peru), the Ethical Code of Integrity and Good Practices of the University of Barcelona.
Conclusion
The culture of research integrity in UNIFÉ, through the management carried out and regulations developed to strengthen it, so far, is being recognised as an essential element in the entire university community. A great challenge we face is to internalise this culture to a greater extent - to ensure good practices - and to make it visible in the actions of the university community and in its academic productions.

PP-024: Evaluating the development of research ethics and integrity competencies – what can we learn from monitoring learning diaries kept during a training programme?

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Effectiveness of training in research ethics and integrity (REI) is difficult to measure and there is limited information about how ethics competencies evolve during the training (Watts et al., 2017). In our study we look into reflective learning diaries used during REI training to monitor the development of REI competencies as well as effectiveness of the training in the long term.

In our case study we present the REI leadership micro-credential programme and outline the development of REI competencies of participants based on the learning diaries (2 different formats) they kept during 1 semester (11 entries by 6 people). We also look at the long-term effects of the programme by analysing a longer reflective task after 4 months of diary keeping. As measurement criteria we utilized the SOLO taxonomy (Biggs, 1999) to evaluate the level of understanding of REI topics in the diaries. We also used Mezirov's levels of reflection (Kember et al., 1999), and monitored presence of content knowledge (ethical principles, ethical analysis and ethical approaches) in diary entries. Qualitative data analysis was used in the form of deductive content analysis with MaxQDA programme and coding carried out by 3 researchers.

Even though data analysis is still ongoing, we can see trends based on our initial results. Individually kept logs do display mostly analytical reflective levels as well as the level of understanding where learners show awareness of various ethical issues and often can make connections between them. Nevertheless, learning diaries kept in the forum format display also a wider variety of content knowledge, especially regarding ethical principles and ethical approaches, as well as evidence of developing ethical sensitivity. The individual reflective task done after 4 months displayed high levels of reflective thinking, understanding and ethical sensitivity.

All in all, we can say that the micro-credential programme was effective in supporting development of REI competencies. We also outline a set of recommendations for utilizing learning diaries during REI trainings and propose feasible criteria to evaluate them. We are aware of the limited number of participants, but hope to alleviate it with multi-faceted analysis criteria as well as inter-rater agreement.

PP-025: Perspectives of Research Stakeholders on Fostering Research Integrity at the Kenya Medical Research Institute

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Background
The Kenya Medical Research Institute (KEMRI) is a state agency established under the Government of Kenya (GoK) law to carry out research for human health. While Research Integrity (RI) is a critical component in research, KEMRI currently lacks an established system for addressing RI concerns such as Research Misconduct (RM). In practice, KEMRI handles reported cases of RM by establishing short-term and ad-hoc bureaus of scientific integrity. This approach is reactive, often ineffective in actioning bureau recommendations, and sometimes punitive. There is a need to promote research integrity through a reliable system. We sought to gather perspectives of research stakeholders about fostering RI.
Objective
This paper describes the perspectives of institutional research stakeholders on fostering research integrity at KEMRI.
Methods
KEMRI organized a two-day Research Integrity Workshop on 30th and 31st January 2023 targeting institutional research stakeholders. This includes scientific and technical staff. An online survey was rolled out to gather views of participants about fostering RI. Data was analyzed using Microsoft Office 365 Excel.
Results
A total of 25 participants responded to the online survey. Out of this, 17 (68%) were research scientists, 4(16%) were students on internship, 3(12%) were non-scientists and 1(4%) clinical research coordinator. A majority 15(60%) indicated that continuous sensitization of researchers would promote responsible conduct of research. A minority 1(4%) suggested mentoring young researchers promotes research integrity. Some participants 2(8%) proposed strengthening the existing Scientific and Ethics Review Unit, the body responsible for research regulation at KEMRI. Another 2(8%) suggested monitoring research projects and introducing rewards and sanction mechanisms. A total of 2(8%) respondents stated that there is a need for a research integrity office that oversees the conduct of research in the institution. Others, 1 (4%) each suggested a need to inculcate the culture of research integrity in the institution, include research integrity component in research activities, and formulate guidelines for research integrity.
Conclusion
Continuous sensitization of the wider research community on scientific integrity promotes good conduct of research. These findings from a training evaluation imply that the culture of research integrity can be inculcated by adopting preventive approaches like awareness creation.

PP-026: Ethical and Responsible Research Training for the Humanities

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The teaching of ethics and standards of professional conduct are cornerstones in our training for most advanced degrees in the United States. Students, studying to become doctors, attorneys, business leaders, and scientists, all take formal coursework and informal studies on the topic. The federal government (for recipients of taxpayer grant dollars) and professional associations (e.g. American Bar Association or the American Medical Association) have established requirements around research integrity training and the continuous education/recertification of its practitioners. Yet, despite the fact that over 13,000 Ph.D. are awarded every year in the humanities and social sciences (almost 25% of all PhDs awarded), most institutions do not require or maintain any formal ethics/research integrity training as part of the degree program for these students.

The studies of the humanities has dramatically changed in the last 20 years. Today, technology, in the form of digitized archives, enhanced imaging, machine learning and artificial intelligence, is radically impacting the way in which scholars go about their research. These technological advances are also upending traditional mentoring relationships, where students are knowledgeable and employ research tools that their mentors simply have never used and might not even understand. Consequently, there is an acute need to have conversations about the responsible conduct of research and the importance of personal and professional integrity in the humanities and social sciences.

We will describe our efforts towards creating a department certification program—the Research Integrity Stewardship Network (RISN), moving away from a one-size-fits-all approach towards a community of learners engaged in building an environment of trust. Individual departments will examine 12 major themes over one year, allowing for more discussion of relevant issues. Completion of the course of study will result in certification for a department. Once certified, departments will maintain certification for 2 additional years by preparing three training units of material per year on the major topics. This will provide a sustainable framework for continuous learning and consideration of emerging topics.

PP-027: The experience of women researchers during the Covid-19 pandemic: a scoping review

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The global response to the Covid-19 pandemic has disrupted the life of the world's population and exacerbated pre-existing inequalities. Women researchers have not been immune to these effects. The significant role that women undertake in both paid and unpaid care responsibilities have detrimentally influenced their research productivity, potentially hindering their professional advancement. Additionally, during the pandemic, female academics have experienced job loss, mental health concerns, and challenges resulting from the intersection of gender with other personal socio-demographic characteristics, thereby exacerbating existing gender inequalities within academia. This study systematically scopes the qualitative literature on the experiences of women researchers during the Covid-19 pandemic, and aims to elucidate how women navigated and responded to the challenges that the pandemic brought about. Through a qualitative meta-synthesis of the included studies, three overarching themes emerged: gendered professional expectations, conflicting identities, and coping strategies. These themes shed light on how gendered professional roles, linked with hierarchical and gendered task divisions, both at home and in the workplace, led women to feel inadequate and alienated as significant actors in the academic realm. Furthermore, the study reveals the importance of pastoral care, teaching and service work as the essential backbone of the academic infrastructure, especially in times of crises, and exposes how productivity focused researcher assessment criteria, rewarding mainly individual results and unrewarding of care and service work, can be viewed as perpetuating structural inequalities based on gender, parenting situation, contractual situation and background. In conclusion, this study exposes the need to proactively address the gendered practices and implicit biases which reproduce inequalities within academia and highlights how paying attention to the experience and needs of women researchers within the system is essential to improve the resilience and crises preparedness of the academic system.

PP-028: “What I did…”: Using local dilemmas to enhance engagement, relevance, and discussion in Responsible Conduct of Research courses

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Courses in responsible conduct of research (RCR) are an institutionalized way of establishing awareness and knowledge about guidelines and rules for proper conduct among early career researchers in many universities. Without learning elements that include training in actually ‘playing by the rules’ in an everyday practice full of dilemmas and grey zones, the success of such courses is often limited.

The purpose of this contribution is to share experiences from embedding learning sessions on real dilemmas, experienced by local senior peers, in RCR courses for PhD students at University of Southern Denmark (SDU). The overall goal of the learning elements is to enhance higher-order student learning through perceived high relevance and active learning.

The SDU course comprises four modules and runs in five versions, each tailored to one of SDU’s five faculties (Health, Natural Sciences, Engineering, Humanities and Social Sciences), all orchestrated and co-run by the university library. The course is mandatory (2 ECTS) and is, at all faculties, encouraged as one of the first courses for new PhD students.

We developed learning sessions comprising short videos on real dilemmas experienced by local researchers, along with teacher-directed suggestions for use in teaching in dialogic ways. Topics were selected based on perceived relevance by acting RCR teachers, along with ideas from the professors that we approached with invitations to take part. For each topic (for instance authorships or conflicts of interest), we recorded interviews where the professor shared their story on 1) the situation and the dilemma and, 2) how they dealt with it. The recordings were edited into short videos (approx. 1-4½ min) and cut into two separate parts, the first part finishing by a “What would you do?”. The materials were introduced for RCR teachers with suggestions for use (learning paths) that targeted both in-class and pre-class use, with follow-up.

The contribution will share experience from the first year of implementation in SDU RCR courses across the three faculties/main disciplines Health, Natural Sciences and Engineering, and will include systematized student feedback and advice on best practice.

PP-029: Developing an Effective Tool for Assessing Research Integrity in Japanese Research Institutions

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Objectives:
To effectively promote research integrity, it is crucial to gain a precise understanding of the current state of research integrity. We believe it is crucial for research institutions to conduct surveys on their initiatives. This is essential because different institutions face distinct challenges, and research integrity is a sensitive issue requiring careful handling of survey results. Therefore, we have undertaken the development of a questionnaire and an analysis tool to facilitate the assessment of research integrity within Japanese research institutions. The development of a prototype of the tool is expected to be completed by winter 2024, after which the tool will be used on a trial basis. In this presentation, we will provide details of the tool, as well as examples of its use and challenges encountered during its development.

Tool Development Requirements:
We prioritized the following aspects:
1. Creating an effective questionnaire survey for understanding research integrity realities.
2. Providing valuable analysis results for comprehending research integrity situations.
3. Ensuring the least expensive use possible.
4. Simplifying data analysis through semi-automation of post-survey data processing.
5. Enabling the tracking of changes in research integrity over time.

In accordance with these requirements, our developing tool features:
- Development of a questionnaire survey applicable to most research institutions.
- Utilization of cost-free platforms such as Google Form and Microsoft Forms.
- Data processing powered by Tableau, a widely-used and cost-effective Business Intelligence (BI) tool, which allows for easy data analysis with just a few clicks.
- Supplementary materials to understand how to use the tool and leverage the analysis results.

Challenges:
Through discussions with research integrity personnel, we have identified a strong demand for such a tool. Conversely, we have also found that many institutions are uncertain about the actions to take when specific research integrity issues are revealed. This is partly due to the absence of specialized roles like research integrity officers in Japanese institutions, with administrative staff often assuming such responsibilities only for a several years. In light of this context, it is crucial to provide useful resources to assist institutions in addressing identified research integrity challenges.

PP-030: INTEGRITY: results from a recent EU project

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This poster summarizes the outcomes of the recently completed EU-project INTEGRITY. We present the aims of the project, the major research papers, and the broad range of teaching tools developed by the project.
INTEGRITY ran from 2019 to 2022, and developed and tested teaching tools on academic and research integrity aimed at students at three different levels: upper secondary, BA and PhD. In addition, training tools aimed at senior researchers were developed. To ensure the relevance of these tools, the project surveyed existing literature, and conducted a major empirical investigation of students' perceptions and experiences with academic and research integrity. This work resulted in multiple research publications, supplementing the papers presenting the tools themselves. The paper provides a concise overview of this work with the aim of making it relevant and accessible to future users.

PP-031: Advancing research integrity: empowering higher degree researchers to navigate the complexities of responsibly using generative artificial intelligence.

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Objective: Training and mentoring higher degree researchers to conduct their studies with research integrity (RI) is paramount to fostering a culture of responsible scholarship. This is becoming even more important as higher degree researchers are presently producing research in a world of generative artificial intelligence (AI). This research project aims to address the absence of a comprehensive RI teaching curriculum for HDRs in a South African university. The specific research objective is to determine the readiness of the university to implement an AI-focused RI teaching curriculum by investigating both the challenges and the potential benefits envisioned in developing and implementing such a curriculum. The study will describe and analyze effective AI-specific teaching strategies that promote RI practices at Australian universities and aims to determine how these insights can be adapted to formulate an informed and contextually-appropriate approach for a South African curriculum.

Method: This study will employ an exploratory qualitative research design, involving both primary and secondary data sources. In-depth interviews will be conducted amongst academics and other key stakeholders at the South African university during late 2023 and at Australian universities during February to March 2024. In addition, document analysis will be conducted in both contexts. Thematic analysis will be used to analyze the collected data to identify recurring themes. Cross-case analysis will be used to compare findings from the South African and Australian contexts.

Results: Application for ethical approval is planned for September 2023 before primary data collection will begin in South Africa. The plan for the Australian fieldwork is at an advanced stage with hosting arrangements confirmed in four states: Victoria, Australian Capital Territory, New South Wales, and Queensland. The results are assured by the time of the conference.

Conclusion: The study holds significance for academia, policy development, the responsible use of AI for research as well as the greater RI teaching context. The results will enhance understanding of AI-enabled RI challenges and solutions amongst the academic community. The study will inform the development of AI-specific RI policies for South African universities as well as promote responsible AI-integrated research that aligns with global RI standards.

PP-032: Research Integrity and Ethics training from undergraduate to PhD students – an over 20 years' experience from the Faculty of Medicine and Life Sciences of University Pompeu Fabra in Barcelona

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The Faculty of Medicine and Life Sciences of University Pompeu Fabra (MELIS-UPF) in Barcelona launched in 1998 a Human Biology degree and a Biomedicine PhD programme, which from the outset included compulsory training in research integrity (RI) and Ethics using an innovative educational approach.

At the degree level, Human Biology students have a compulsory 4 ECT course in Bioethics with the aim of 1) having a basic knowledge of concepts, theories and problems in the field of bioethics; 2) analyzing bioethical problems; 3) arguing personally about bioethical issues; and 4) having an open and critical attitude towards bioethical positions and arguments. The course includes theoretical masterclasses and participatory sessions (seminars, cine forums and debates). In recent years, some innovations have been introduced into the degree to strengthen RI, such as interdisciplinary debates between humanities and science students, and RI sessions in the first and third years within the Planetary Wellbeing and Project Based Learning (PBL) subjects respectively.

At the post-degree level, PhD students from the Biomedicine programme take a compulsory course on good scientific practice called Science in Action (SiA) in their first year. The course aims to stimulate students to think critically about scientific practice and enhance their understanding of the challenges they might face during their research career, in order to act with RI. The course includes 6 online modules for self-study on RI, Data Management, Animal Research, Human Research, Conflicts of Interest and Publication practices; face-to-face interactive seminars on integrity dilemmas, data management, research culture and authorship; and a final case study. The SiA course is also compulsory for Masters students in Bioinformatics for Health Sciences and optional for other UPF Health Sciences related Masters.

Anonymous satisfaction surveys completed by students on each course are carefully reviewed by the teaching team and have enabled continuous improvement. Student satisfaction is always high, with last year's edition of the courses at 7,7 out of 10 for Bioethics and 8,8 out of 10 for SiA.

Overall, since its inception, MELIS-UPF has been strongly committed to training the future health sciences professionals in ethics and RI at all educational levels.

PP-033: Improving and Measuring Research Culture: A New Professional Development Program

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In the current STEM landscape, detrimental lab practices can foster lab working environments that can foster unhealthy competition by labeling “winners” (who produce desired data) and “losers” (who don’t), or, in the worst cases, incentivize research misconduct. In contrast, an intentionally and thoughtfully cultivated culture of excellence prioritizes not just what is produced, but also how the science is done. Cultures of excellence promote research that is responsibly conducted, in meaningfully inclusive environments, and with rigor and integrity. We introduce an innovative and comprehensive initiative aimed at fostering cultures of excellence in laboratory-based scientific settings, along with measuring lab cultures using our validated assessments of working environments.

Labs that Work...for Everyone (LTW) is a multi-part curriculum that develops skills that create and maintain cultures of excellence in lab environments through professional development over multiple modules, starting with the cultivation of leadership skills for both lab members and lab leaders. Module One is centered around a unique feature film, “A Tale of Two Labs,” that provides a rich and nuanced video case study that is engaging for media-savvy audiences. Its central storyline covers a troubled collaboration between a biology and a chemistry lab and is based on extensive interviews with working researchers. The film touches upon—and provides a way to discuss—topics including RCR, power dynamics, sexual harassment, identity-based dignitary assault (microaggressions), mental health challenges, data management, and more.

Along with LTW, we discuss our validated climate assessment tools that highlight areas where labs are strong and where they might need development.

We will present pilot results from the pre- and post-surveys of our lab culture assessment tools and discuss some of their implications for institutional leaders concerned about RCR education and inclusive working groups, as well as for the leaders of research groups and their members.

PP-034: A Comprehensive Approach: Research Integrity training at all levels in a biomedical research institute

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Objective: Research integrity encompasses a range of values and behaviours that promote rigorous and responsible research practices across the research lifecycle. In an era characterised by reduced public trust and increasingly complex methods, the importance of research integrity training cannot be overstated.
This presentation will cover the strategy, aims, and difficulties of setting up and delivering a multi-topic research integrity training programme for all levels of staff at a biomedical research institute.

Methods: I aimed to deliver training tailored to researchers at different career stages on the research integrity topics most relevant and useful to them, in formats that would maximise learning and engagement. A basic research integrity training session was mandatory for all new starts, other training was recommended but not mandatory. Sessions were advertised by email and on the internal intranet. I collected attendance numbers and feedback after every training session.

Results: Early career researchers (PhD students, post-docs) were more open to training compared to later career researchers. Attendance was 80-90% for PhD students, to as low as 40% for LCRs.
Technical staff had a good understanding of responsible behaviour in their specific areas of expertise, and were open to learning about other elements.
Framing the same topic differently for different career stage researchers increased engagement.
Different formats were useful not only for delivering different information, but also for promoting more informal and honest discussion.
Questions in sessions often centred around emerging challenges in research integrity, including generative AI, open science, and trusted research.

Conclusion: Training will continue to be developed at my institute based on these findings and feedback from the research staff.
Engagement is a substantial challenge and must be maintained in order to ensure learning and thereby responsible, reliable research.
Training must keep up to date with the evolving landscape in order to be relevant.

PP-036: Path2Integrity - Horizon2020 project

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With the European research landscape rapidly changing, it is becoming increasingly essential to emphasize research integrity and start handling new scientific techniques comprehensibly.

Research integrity is a constituent of more innovation, growth, and high-quality jobs. It leads to more efficient, appropriate, useful, and reliable scientific evidence for policy-makers and entrepreneurs, where decisions based on research results lead to a better future.

The poster shows Path2Inetgrity's results after three and a half years of

1. supporting formal and informal learning methods and establishing a culture of research integrity,
2. establishing excellent learning paths with research integrity role models and rotatory role-playing,
3. developing and disseminating a Path2Integrity handbook of instruction,
4. raising awareness of scientific facts about research integrity and role models in educational organizations through a widespread Path2Integrity campaign,
5. achieving a wide-spread implementation of excellent learning paths,
6. using existing and successful educational practices as a foundation and international collaborations across four continents, along with robust assessment methods,
7. creating units for learning research integrity that addresses everyone directly or indirectly involved in research, including secondary school students, undergraduates, graduates, and early career researchers.

PP-037: Toward a Comprehensive Framework of RCR Education in Taiwan

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Since 2011, Taiwan has been on a journey to develop local RCR education. This ongoing effort has evolved through the lens of four critical educational perspectives:

1. Educational Paradigm Shifts: We have witnessed a transformation from teacher-centered to student-centered education, shifting our focus from teaching-oriented to learning-oriented instruction.
2. Changing Learning Styles of Young Generations: Today's tech-savvy youth possess unique information processing skills, multitasking abilities, a preference for high interaction, and a thirst for enjoyable learning experiences.
3. Diverse Learning Environments: Our approach accommodates various learning environments, including in-person, online, and blended instruction. We also promote RCR learning beyond the classroom, encouraging informal learning and active RCR practice.
4. Evolving Technology Affordances: Rapid technological advancements have prompted us to integrate various media types (text, graphics, audio, video, animation) and channels (e-books, websites, social media, online audio and video sharing) into our instructional designs.

This holistic approach has yielded a comprehensive framework:

1. Learning Environments: We have identified three primary settings: online, O2O (online to offline and offline to online), and offline. These cater to diverse learner preferences and accessibility, with the online component involving the development of a large-scale platform, O2O incorporating flipped classrooms and blended learning, and the offline environment encompassing traditional in-person courses, guest lectures/workshops on special topics, and textbooks.
2. Types of Learning: Recognizing the importance of extending RCR education beyond traditional classrooms, we have categorized learning into formal and informal domains. The formal category includes teacher-centered and student-centered learning, while the informal type features e-newspapers, podcasts, guidelines, posters, checklists, associations, and international cooperation.
3. Learning Approaches: Within formal learning, we have classified approaches as teacher-centered and student-centered, aligning with evolving educational paradigms. The former comprises online courses, flipped classrooms, and traditional on-site courses, while the latter includes gamification instruction, case-based/problem-based/project-based/theme-based learning.

Our overarching goal with this comprehensive framework has been proven instrumental in engaging stakeholders, optimizing resource allocation, setting clear learning goals, designing effective activities, and enhancing RCR learning experiences. We believe this framework is valuable for the global RCR education community, and we intend to share detailed implementations to aid others in their endeavors.

PP-038: Lack of scientific integrity in Mexican universities

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Scientific integrity is an unknown topic in Mexico, a reflection of this is the absence, in educational institutions, of parameters or regulations for its compliance.
Since it is not considered a legal requirement or there is no administrative authority to monitor its compliance, it becomes a voluntary issue in institutions, laboratories or educational programs.
It is common to find conceptual confusion, even among bioethics scholars, since they use the same principles or parameters for research ethics as for scientific and academic integrity.
Another factor that works against it is institutional corruption in Mexico, it would be illusory to think that it is not also affected or influenced in scientific fields.
The lack of attention is reflected in the absence of studies, literature, research, and statistics.
There is no public policy in Mexico that supports scientific integrity, the government office of Science, Humanities and Technology (Conahcyt) does not have it institutionally established.
In the last two years there has been a crisis in Mexico that reflects the weaknesses regarding scientific integrity, thesis plagiarism scandals have been used as political attacks on relevant figures, a minister of the Supreme Court of Justice, two candidates for the Presidency of the Republic, the General Attorney of the Republic, and university rectors have found themselves in the situation.
This is a reflection of a lack of education or training at different educational levels, but also of supervision at all institutional levels.
In these cases, it has been shown that not even the Universities were prepared to initiate and conclude procedures to sanction fraudulent practices.
These cases seem to be just the tip of the iceberg, but they have not caused a structural change in the study programs of Mexican public universities in which adequate knowledge or practice is ensured. The related skills depend more on the skills of the teachers or tutors with respect to the students, but they are not institutional policies reflected in written or mandatory standards.
Although there has been progress regarding compliance with the requirements of research ethics in Mexico, scientific integrity remains a pending issue on the national educational agenda.

PP-039: Testing ChatGPT's and Bard's capacity to write essays on ethical dilemmas: A cross-sectional study

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Objective: The availability of large language models (LLMs) such as ChatGPT and Bard has raised concern regarding the future of academic essays in education. In response, we aimed to assess ChatGPT's and Bard's capacity for writing essays on medical students' experiences and ethical dilemmas during their studies.
Methods: Two independent researchers extracted keywords (n=12-14) from essays written by medical student at our University, which two other researchers used to independently generate partial (n=6-7) or full keyword prompts (n=12-14) for ChatGPT and Bard. We analysed and compared the essays' linguistic psychometric characteristics using LIWC2022 and conducted further sub-analyses for potentially AI-generated student essays based on scans by the Originality.AI and GPTZero tools.
Results: We collected 47 student essays and generated an equivalent number of ChatGPT and Bard essays. We found that ChatGPT essays used more higher-level, complex language than both Bard-generated and student-written essays, while this difference was reversed or non-existent between the two latter groups, suggesting that Bard produces more "human-like" essays. However, student essays still had a higher proportion of words related to cognition. Both groups of AI-generated essays had more words related to psychologically positive tone, moralization, and prosocial behaviour compared to student essays; this is reinforced by our finding that the student essays had less "authentic" words, which reflect guarded, distanced discourse. However, when comparing student essays we identified as likely to be AI-generated (n=16) with their Bard or ChatGPT-generated equivalents, these differences in language denoting positive tone, prosocial behaviour and moralization were not present, while the ones between fully original student essays (n=31) and their AI counterparts remained. A sub-analysis of student and partial keyword essays for Bard (where we observed some differences between partial and full keyword-generated essays) did not change our findings.
Conclusion: Despite the limited sample size, our findings suggest that the essay format could be challenged by LLMs' high capacity to generate convincing essays on personal, emotional topics. The worryingly high prevalence of AI use in our sample of essays highlights a need for regulations on AI-assisted writing at universities.

PP-040: Train the Trainer course: How to ensure the quality of teaching RI and GSP in a blended learning format for doctoral students, a case study

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Fundamentals of Responsible Research (FoRR) is a recently developed course for German medical doctoral students. It bridges a critical gap in the current curriculum by addressing underrepresented research topics such as research integrity and robust research methodology. The course is delivered in a blended learning format and thus well suited for upscaling to reach all annual doctoral students (app. 500) at Charité. To facilitate this expansion, we developed a Train the Trainer course. Here, we outline our training curriculum to prepare trainers with a scientific background but limited teaching experience to ensure the quality of teaching across different course groups. We based our training on Knowles principles for adult learning that emphasize co-creation of learning materials and experienced based learning. We thus involved participants from the outset in the planning of their teaching and gave the opportunity to tailor course format and content to their preferences and align it with students' needs. Furthermore, we reflected on trainers' learning experience through focused class visits coupled with feedback talks. To ensure the quality of the Train the Trainer course concept and thereby the teaching itself we implemented an feedback and assessment phase via three occasions. We a) used an anonymous feedback survey after the initial training to assess how well the teachers felt prepared for their role as trainers. We b) reflected on how the course content was delivered, based on an independent evaluation using implemented questionnaires that were administered to the students that completed the FoRR course at the end of the semester. And we c) organized an online meet up with the trainers at the end of the semester to collect qualitative feedback on the trainers' teaching experiences. We will present here preliminary results of training satisfaction and efficiency assessment. Following from this, we will present a concise improvement strategy for the next iteration of the Train the Trainer course.

PP-041: Making a Good First Impression: Lessons from designing a Research Integrity Focused Induction

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Objective: To unpack the process of developing and delivering a new Research Integrity-specific induction for scientific researchers at the Cancer Research UK Manchester Institute, and share ideas that may help others delivering similar training.

Method: The CRUK Manchester Institute created a dedicated Research Integrity and Training Adviser post in 2021. One of my first tasks in the role was to develop a new induction for researchers. Drawing on examples of good practice in pedagogy, I designed an interactive, group-based induction, shaped around the Universities UK "Concordat to Support Research Integrity".

Results: Our induction includes a mandatory online research integrity course which contains lots of useful information. However, it is not particularly interactive, and it is delivered at a time when researchers are processing lots of other information. The previous CRUK Manchester Institute in-person staff induction included research integrity elements, but these were a small part of a much larger presentation.

I developed a new research integrity-specific induction designed around group activities and discussions. Due to relatively low awareness of the UK-wide Concordat to Support Research Integrity among researchers, the induction is structured around the 5 commitments of the Concordat, with the aim of clearly demonstrating how they link to a wide range of common research activities.

Drawing inspiration from the work of Yeo-Teh, N. S. L., & Tang, B. L. (Research Ethics, 2021), participants work through case studies together (drawn from “On Being a Scientist”, National Academy of Sciences), to help develop moral and ethical thinking and 'inoculate' researchers against poor practices.

The induction also acts as an opportunity to build good group dynamics amongst new starters. Key takeaways include identifying points of contact researchers can turn to for support, and promoting critical thinking throughout the research cycle.

Conclusion: They say you never get a second chance to make a first impression. Feedback suggests attendees have a very positive view of this new induction. It adds additional value through providing opportunities to meet other colleagues and work through case studies together. Overall this is helping build a positive view of research integrity.

PP-042: Research Methodology Education: A cross-sectional survey on Practices and Attitudes across the European Context

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Objective: The objective of this study is to examine practices and attitudes regarding teaching research methodology in different European countries, across different disciplines and different training stages. As a secondary aim, we will identify the teaching techniques and use of educational tools in these different contexts, to determine the potential discrepancies in teaching practices.

Method: Survey content was partly based on the structure of the observed learning outcome (SOLO) taxonomy, which enables categorization of knowledge outcomes. Subsequently, we have revised and validated the survey for face validity and comprehension by soliciting critical review by research methodology and teaching experts from different disciplines. In a next step, the survey will be piloted among approximately 10 teachers in higher education. Finally, we will collect data on teaching practices and perspectives using the survey. These perspectives include the attitudes regarding perceived importance of research methods education for the specific research domain, their opinions about the integration of research methodology in other courses, and how prepared their students are after the successful course completion. We will disseminate the final survey online to both teachers of methodology and other teachers in higher education institutions. Using a combination of stratified and snowballing sampling, we will attempt to cover diverse disciplines, academic degrees, demographic backgrounds and countries. Our initial analysis will include a descriptive presentation of identified accustomed patterns and attitudes related to teaching research methodology.

Results: The findings will include comparisons of the different perspectives on research methodology education, on what topics should be included in the teaching of research methodology, as well as correlates of perspectives with relevant background, experience and perceived teaching success. Furthermore, for the teachers of research methodology, we will present course workload, teaching activities, used tools, and final course assessment across undergraduate, graduate, and PhD levels of teaching.

Conclusion: The results of this survey will identify patterns in perspectives on and approaches to research methodology teaching across different disciplines and European countries. This is a first step towards sharing best practices and agenda setting for development and evaluation of evidence-based research methodology teaching programs and formats.

PP-043: PATTERN – empowering open and responsible research and innovation

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PATTERN's general aim is to promote the practice of Open and Responsible Research and Innovation (Open RRI) by developing and piloting training activities for researchers at all stages of their careers. This 3.5 years, EU funded project has started in January 2023 with a multinational consortium of 19 partners in 13 countries. The project will design and pilot test activities to strengthen researchers' transferable skills, empowering Higher Education Institutions and research organisations to embrace a transformative process to bridge the gap between science and society.
One of the eight transferable skills, identified by the consortium is research integrity, as a vital element of open and responsible research and innovation. EARMA is the partner leading that topic and supporting the consortium with expertise on research ethics and integrity.
The training modules from the PATTERN project will be tested by 14 pilot institutions and will be openly available on an innovative platform.
The resources, trainings and policy recommendations developed by the consortium will improve the excellence of the science conducted, the capacity within the European Research Area (ERA) to tackle societal challenges and the interaction between science and society.

PP-044: The RCR reflection model to stimulate responsible conduct of research

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Objective:
Case reflections are quite common both in ethics education as in research integrity trainings. The H2020 project INTEGRITY, developed a specific model, namely RCR reflection model for RCR trainings to PhD students. In two pilot studies (van den Hoven et al, 2023; van den Hoven et al, in progress), the model was analysed and proven useful. In this study, case deliberations from mandatory trainings will be compared to the pilot studies (voluntary), namely in Lithuania and the Netherlands. Leading questions are a) is the RCR model used differently if it is part of a mandatory training; b)is the RCR reflection model considered useful and c) what could be improved to increase case deliberations using this method.

Method:
Data from online small private online courses on RCR (SPOCs) are collected in two mandatory training settings(one in NL, one in Lithuania), where we collect a comparable number of cases as in the pilot (n=87). The case deliberation assignments will be analysed, using the same rubric which was used in the pilot studies. The cases will be coded by two researchers independently, differences will be discussed in a meeting and decided upon. The coding will help answer the first two questions (usefulness and differences between mandatory and voluntary trainings). The third question will be answered by interviewing trainers, asking them about their experiences with the model and asking them for ways to improve either the model or the way it is used in trainings.

Results:
The results of the study are not ready, but all data have been collected and will be analysed before the end of January 2024. Interviews with trainers will be held in February 2024. Comparing the context of the setting will teach us something about the motivation of PhD candidates to engage in reflection on cases and how they deem the model useful to that purpose, the way it is presented (in an online course module) will be evaluated via the interviews with trainers.

PP-045: A mixed methods study assessing the impact of research ethics and integrity training

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In Universities, research ethics and integrity training plays a vital role in the continuous development of researchers. In 2014, an Open and Distance e-learning (ODeL) mega University in Africa incorporated formal research ethics training as a strategic imperative to prioritise responsible research conduct. Despite continuous success in delivering the programme, with 2289 individuals trained between 2016 and 2020, the programme's impact on the individual and the University has been unknown. Consequently, an explanatory, sequential mixed methods study aimed to describe the impact of the training through a cross-sectional survey involving purposive selected academic and professional employees who had undergone training from 2016 to 2020, followed by qualitative, in-depth individual interviews. This multi-phased approach provided a comprehensive understanding of the impact of research ethics and integrity training within an ODeL context underpinned by the Kirkpatrick model. In this presentation, we aim to share the consolidated findings from both phases of the research.
The quantitative data produced vital findings about participants' perceptions of the impact of the training. Most participants expressed satisfaction with the training, stating that the programme was relevant and motivating, prompting them to seek further ethics education. The finding revealed the importance of personalised learning experiences and interactive components, particularly in online or distance learning platforms, to enhance the effectiveness of research ethics training. The qualitative data collection has not yet been finalised; however, the preliminary data indicate the primary motivators as the enthusiasm and competence of the facilitators, the urge to learn more about research ethics and integrity after realising how much more there is to learn, the willingness to assist colleagues and postgraduate students, and newer developments in the environment, such as legislation changes and living conditions brought on by the COVID-19 pandemic. The research highlights the significance of using evidence to make informed decisions for improving research ethics and integrity training, particularly in ODeL institutions.
We hope the paper will stimulate discourse on how Universities could assess and improve the impact of research ethics and integrity training.

PP-046: The effectiveness of Research Data Management (RDM) Online training at Macquarie University

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Background: Poor data management can result in research integrity breaches, privacy concerns, and ethical issues. To address these risks, Macquarie University is implementing an extensive Research Data Management (RDM) Framework, comprising infrastructure and policy enhancements in conjunction with targeted education and awareness campaigns. To help researchers meet new requirements and influence institutional research culture, especially relating to data sharing, the RDM Online training module was developed and released.

Objective: Our study evaluates the impact and effectiveness of RDM Online training on researcher (including research trainee) awareness, understanding and research data management at Macquarie University.

Method: Researchers undertaking RDM Online complete anonymous pre- and post- training surveys relating to self-assessment of RDM skills and practices, re-use of others and own data, anticipated challenges to data management planning and data sharing, any required support or training, and evaluation of RDM Online.

Preliminary Results: Following training, 94% of participants improved their self-assessed RDM abilities, including efficient data management practices (55% of cohort), secure data storage (58%), good file naming and folder structures (60%), familiarity with sensitivity classification levels (64%), and associated metadata descriptions (68%) (n=551).
Close to 40% of respondents did not anticipate any challenges creating and implementing a Data Management Plan (DMP) but others raised key concerns, including that the plan might be too ambitious (27%), the plan may not be valid mid-term as the research might change (26%), or that there was not enough time to implement the plan (19%). Despite completing the training, 2% of participants remained unconvinced of the benefit in following a plan.
Completion of RDM Online training alleviated respondents' top concerns related to data sharing by ~10-20%, doubled the proportion of those who expressed no concerns with sharing data, and halved the proportion of those unwilling to share their data.

Conclusion: The quantitative results suggests this module is effective in building the knowledge and motivations to equip researchers to better manage research data and share their data more openly. Qualitative feedback on the module has been overwhelmingly positive, and survey results are guiding the development of further bespoke training to enhance research integrity and impact.

PP-047: Embedding open research training in an institutional context: an exploration of implementation of the UK Reproducibility Network Open Research Programme Train-the-Trainer project at King's College London

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The widespread adoption of open research practices is critically dependent upon the provision of training and appropriate support of these practices. A particular challenge for adoption is the existing institutional context. This poster explores the process of embedding the UK Reproducibility Network (UKRN) Open Research Programme (ORP) Train-the-Trainer project at King's and how it supported acceleration of work in both open research and research integrity at the institution.

King's is a research-intensive UK university committed to research integrity and as such became a member of the UKRN in 2020. The UKRN is a peer-led consortium working to ensure that the UK remains a centre for world-leading research. Through membership with UKRN via the King's Research Integrity Office (RIO), we contribute to the UKRN's ORP. This is a five-year programme, which began in 2021, that seeks to accelerate uptake of high-quality open research practices with aims of improving research integrity, quality and public trust in research. It is a collaborative programme between twenty institutions and project partners, funded by Research England, that will develop and deliver high quality training in open research; a framework for evaluation of institutional practice in open research; and share effective practice of open research across the sector.

A key strand of the ORP is focussed on training a consortium of trainers in open research practices through the Train-the-Trainer project. This workstream commenced by surveying participating institutions to identify current training provisions and understand which areas of open research should be prioritised for training to produce a schema. To supplement this programme view with the local context, King's also conducted internal assessments of the current breadth of training around research integrity, governance and ethics, as well as an initial reflection on wider training that related to open research.

With the ORP training schema and our internal assessments in hand, we developed an institutional strategy to ensure successful delivery. This outlined how we would enable coordination between central and faculty-based teams working in the open research space; establish processes of impact assessment; and build clear communication channels within the local research community.

PP-048: BEYOND BAD APPLES: Towards a Behavioral and Evidence-Based Approach to Promote Research Ethics and Research Integrity in Europe (BEYOND)

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The Horizon Europe project Beyond Bad Apples: Towards a Behavioral and Evidence-Based Approach to Promote Research Ethics and Research Integrity in Europe (BEYOND, 2023-2025) joins the ongoing work in Europe in supporting the research ecosystem in its adherence to the highest standards of research ethics (RE) and research integrity (RI) and in fostering public trust in science.

The main objective of BEYOND is to explore and advance individual and institutional responsibilities in research misconduct (RM) and in the promotion of RE/RI. This will be achieved through the following key activities:
• Charting the evidence on the causes and consequences of RM as well as institutional and individual needs in the realm of RM prevention
• Designing interventions informed by research in psychology and behavioural sciences to promote research integrity on individual and institutional level
• Developing methodologies to measure the impact of RE and RI training on attitudes and behaviours of students and researchers
• Developing and enhancing training materials and tools that supplement existing RE and RI trainings
• Co-creating with stakeholders a needs-and-case-based best practices manual, guidelines and a roadmap for preventing RM and promoting RE and RI.

This poster will present a general introduction of BEYOND, with additional focus on key results achieved by the midpoint of the project's timeline.
The BEYOND consortium is led by the University of Oslo.
More information: https://beyondbadapples.eu and http://www.linkedin.com/company/beyond-bad-apples.

PP-049: Prevention matters: developing a holistic Train-the-Trainer for research integrity. A community-based approach

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Train-the-trainer programmes, as a framework for preparing practitioners to pass methods and expertise on to others, can have a significant multiplier effect. The Austrian Agency for Research Integrity (OeAWI) chose this model in 2017 to address the training needs of its growing members' community.
OeAWI's Train-the-Trainer was successfully developed and implemented, with two sessions yearly, for members and non-members of diverse profiles, until the outbreak of the global pandemic in 2019.
Since then, the pandemic has generated new needs and opportunities for online and blended learning and training programmes, new technological developments have emerged (including, but not limited to artificial intelligence), open science has been established as a framework for many research and academic activities, the involvement of multiple stakeholders within the research landscape has been acknowledged and their role for fostering RI has been strengthened.
To address these new challenges, and to align with the revised European Code of Conduct for Research Integrity, the OeAWI initiated a process of internal quality assessment and an update of the Train-the-Trainer programme in 2023.
The revision process began with a systematic mapping and a comprehensive analysis of state-of-the-art existing programmes, resources, courses and tools, with special attention to the outcomes of relevant EU-funded projects. Learnings from the mapping will be integrated through mutual learning activities with selected representatives of the Agency's member institutions in early 2024.
Co-creation workshops will be used to identify strengths, weaknesses, opportunities and threats (SWOT analysis) for the existing programme, name gaps and consolidate existing knowledge on the best practices, tools, and resources. This will support the development of an innovative Train-the-Trainer programme, with a focus on transferable skills, and a discipline-sensitive approach.
The poster will present preliminary findings from the quality assessment and the co-creation phase of the OeAWI's Train-the-trainer programme revision. Main challenges will be discussed, like the fragmentation of resources and materials available, on both national and international level; the need for a systemic approach to the main topics to be addressed, including transferrable skills, responsible organisational culture, and the well-being of researchers, as well as the organisational and managerial aspects of promoting Research Integrity.

PP-050: Research Integrity Training for Students (RITS) – a pilot among undergraduate students in Nursing

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Objective: The development and design of a training program in research integrity with and for undergraduate students will be presented, as well as the experiences of the students and lecturers who attended the pilot of the Research Integrity Training for Students (RITS) project.

Method: Based on the literature, existing teaching materials and a focus group with nursing students, a training program about research integrity (RI) for undergraduate students has been developed at the HAN University of Applied Sciences in the Netherlands. The program is designed like a 'carrousel': cases and perspectives are rotated to stimulate reflection on a broader scope. After a pilot among nursing students, parallel to their applied research project, four participating students were interviewed to evaluate the content of the course material and their learning outcomes. The data has been analyzed with open coding in Atlas.ti.

Results: Participating students indicated that they learned about the scope and relevance of RI and how to analyze a dilemma from multiple perspectives. They feel able to identify and discuss dilemmas in RI with their supervisor, but they do not so due to their dependent and vulnerable position. The participating students gave also feedback on the content of the training such as the duration, timing of the training, assignments and the relevant role of the trainer.

Conclusion: An interactive training program in research integrity has been developed for and with nursing students. Based on the experiences of students and lecturers, the training program will be developed further during the coming months, also with an eye on implementation options in other fields of study, and the then latest design will be presented during the conference.

PP-051: Using an Interactive Approach for Mentoring Training

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In an institution, such as a university setting, research integrity and responsible research conduct should apply to all individuals including students and imbue a climate in which “high ethical standards are the norm, ongoing professional development is encouraged, and public confidence in the scientific enterprise is preserved.”1 (Institute of Medicine, 2002, p. 4)

At the individual level, research integrity implies the promotion of honesty, accuracy, and high ethical standards in research activities. The institution promotes those values and norms that define what is acceptable and unacceptable behavior1 (Institute of Medicine, 2002).

Most institutions create offices that integrate federal regulations and requirements into training programs1 (Institution of Medicine, 2002), they implement policies and procedures that define research integrity and research misconduct and publish this material on websites that are difficult to find and harder to implement at the individual level. Despite efforts made by the institution, individuals often claim that they have no knowledge of the information on the website and have received the barest of information following training sessions.

Research has indicated that the format for training should include face-to-face interactions2 (Pizzolato & Dierickx, 2021). Although some face-to-face interactions and electronic learning are the usual formats provided by college campuses much of the face-face interaction is lecture with little or no discussion or interaction. Face-to-face interactions should include an active interaction with participants rather than a lecture style format in order to encourage discussion and reflection2 (Pizzolato & Dierickx, 2021).

Stony Brook University has developed a series of nine interactive modules for research integrity. Currently, the “mentoring” module is being used throughout the institution for “train the trainer” purposes. The module uses case studies, role play, videos and question and answer formats in order to engage students in the learning process. Thirteen “train the trainer” sessions have been implemented. Two sessions with graduate students was conducted. Students participated fully and were involved in the case studies, role play as well as video. Students are generally required to complete 1-2 hours of in-person training annually. The “mentoring” module is now available to the campus for use as in-person training.

PP-052: The VERITIES Initiative: Virtue-based Education for Responsibility & Integrity To Increase Excellence in STEM

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The VERITIES Initiative is an NSF-funded ethical and responsible research (ER2) institutional transformation project that aims to cultivate ethical research culture through guided discussions that focus on the nature and development of moral character and judgement. Based on a vocational virtue ethical framework, VERITIES workshops explore the relation between excellence and responsibility in terms of the teloi, or central, guiding purposes, of vocational practices and the constitutive character virtues that should form the normative identity of disciplinary practitioners. For science, this includes curiosity, veracity, skepticism, humility to evidence, objectivity, and other scientific virtues. Discussion modules for face-to-face workshops on these values were crafted using the Toolbox Dialog method, which was originally developed to facilitate interdisciplinary collaboration by surfacing ontological and methodological disciplinary commitments. Scientific Virtue Toolbox modules were developed, implemented, and tested over a decade as part of the BEACON Science & Technology Center as part of a novel training approach that combined RCR and role-modeling ideals. The VERITIES Initiative is working to implement this approach at scale as part of a new university-wide RCR requirement. This talk describes the background, goals, and current state of the initiative.

PP-053: Integrating Values Clarification and Character Education for Teaching Research Integrity

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This paper explores the most effective method of values education for teaching research integrity, positing that research ethics education can be framed within the realm of values education. Drawing inspiration from the philosophy of education, this study addresses a fundamental question in values education: whether values can be instilled through reflective processes or by fostering an organizational culture that shapes character development.
Various theories of values education employ distinct concepts of value. The character education approach views values as virtues, character traits that possess intrinsic desirability and are worth cultivating for compelling reasons. In contrast, the values clarification method perceives values as beliefs that individuals consciously choose, take pride in, and publicly affirm among a spectrum of alternatives, free from coercion. Character education aligns with Aristotle's perspective on virtues as behavioral inclinations that become habitual through practice, emphasizing the synergy of cognitive, affective, and behavioral dimensions of character. In this context, research institutions play a pivotal role in fostering a culture of integrity that nurtures researchers' behavioral inclinations and virtuous character qualities, enabling them to perform morally required actions.
The values clarification approach adopts a pluralistic stance towards values, asserting that diverse value models coexist within pluralistic societies. Rather than prescribing specific values, proponents of values clarification have devised a process for elucidating and developing values. This approach encourages individuals to reflect on their values through various strategies, including rating value statements, completing unfinished sentences, employing discussion cards, and engaging in group discussions.
This paper critically evaluates the merits and limitations of both character education and values clarification approaches when applied to research ethics instruction. It posits that an integrated approach empowers learners to engage in reflective value exploration while concurrently fostering virtuous character traits. By harnessing the synergies between these two methodologies, research integrity education can be enriched and made more effective, thus contributing to the development of ethically responsible researchers.

PP-054: Assessing the Impact of Research Integrity Education Initiatives: A Study of UP Manila Office of Research Integrity's Caravans and Webinars

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Objectives: The primary objective of this paper is to explore the role of research integrity education caravans and webinars in promoting responsible research practices within the UP Manila (UPM) community and assess the impact of these educational initiatives in enhancing research integrity awareness among participants.

Methods: A series of research integrity education caravans were conducted at various UPM academic units, along with the organization of webinars open to the broader academic community. These events included RI lectures, interactive sessions, and case discussions. Participants were encouraged to engage in discussions and knowledge-sharing. Post-event surveys were employed to evaluate the effectiveness of the educational programs.

Results: Between 2020 and 2023, a total of four (4) Research Integrity (RI) webinars and seven (7) education caravans were organized, encompassing both online and in-person events. These initiatives engaged a diverse audience, with a combined total of 5,113 respondents from both UP Manila and other academic institutions. The post-event surveys conducted revealed significant insights into the impact of these initiatives. Notably, 88% of the participants rated the overall conduct of the webinars as excellent. Furthermore, a substantial majority (84%) reported that they had significantly increased their knowledge through the activity, while 9% indicated a moderate increase in knowledge. Qualitative feedback from participants further highlighted the value of these initiatives in fostering a culture of research integrity.

Conclusion: The findings emphasize the programs' positive reception and educational value, suggesting that research integrity education caravans and webinars serve as powerful tools for enhancing awareness and understanding of research integrity. Promoting responsible research practices is essential for upholding the credibility and integrity of academic institutions. Therefore, these initiatives represent crucial steps towards fostering a culture of research integrity within academic and research institutions.

PP-055: Red Cell: Using Red Flags to Develop an Affirmative Framework for Research Integrity

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Many research misconduct cases feature recurring “red flags”: behavior and practices that should have indicated the potential for falsification, fabrication, plagiarism, or other illicit behaviour. Building upon their varied experiences*, the authors seek to establish an affirmative framework for identifying these problematic signs before significant damage is inflicted on the research enterprise. Existing models provide a potential novel approach in the research integrity environment: namely, the techniques utilized in the national security field for granting clearances for access to classified information, the vetting process for professional licensure, and other forms of affirmative background investigation and clearance. The authors are in the process of developing quantitative research results that will be available by the time of the conference to evaluate and apply these techniques in the research integrity context. In addition, the authors intend to synthesize qualitative methods as well, to include insights from industrial psychology to more precisely develop profiles for perpetrators of research misconduct. The end goal of this research is to develop a practical set of tools for research institutions to affirmatively uncover research misconduct, rather than relying upon passive means of reporting.

*John Thomas brought the landmark Duke University grant fraud case, the largest grant fraud case in United States history. Joseph Thomas was the whistleblower in that case and has unique insights from the perspective of a scientific whistleblower. David Thompson is the President and CEO of RBX Solutions and a key player in the National Security Agency Centers of Excellence program, having served as an advisor to The White House and a host of U.S. government stakeholders on establishing Centers of Excellence programs in academia.

PP-056: Shedding light on a “hidden curriculum”: Designing engaging online content for graduate students

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Determining authorship of scholarly works may pose ethical dilemmas for collaborative research teams. Formal coverage of this topic in graduate education is limited given that even required training is often cursory, thereby leaving students to learn practices primarily through personal experiences. Thus, we developed an online course that aims to engage early career researchers in thinking critically about authorship.

Drawing upon research-based online instructional design techniques, our course employs a variety of student-centric modalities (video and podcast-style media, choice-based interactive simulation, and traditional case study activities) to help students develop skills for resolving the authorship-related conflicts that they may encounter throughout their careers. In Module 1, a narrated video serves to (1) introduce students to the concept of authorship, (2) familiarize them with the challenge of defining the kind of contribution necessary for authorship credit in collaborative projects, and (3) expose them to various approaches to authorship. Podcast-style media incorporates true stories of authorship conflicts shared by students and faculty, which immerse students in the nuances of authorship decisions and illustrate the necessity of ethical authorship practices in Module 2. Module 3 features a choice-based interactive simulation that offers students the opportunity to take an active role within a fictional authorship situation, encouraging them to exercise their own judgment and practice behaviors in a pressure-free environment. The course culminates with an introduction to our Authorship Agreement, as well as other beneficial resources, in Module 4. Assignments throughout the course require students to thoughtfully engage with the material in each module. Through careful scaffolding and the intentional pairing of each technique to specific learning objectives, our course aims to shape students’ understanding of ethical authorship practices in academia.

Our poster illustrates key elements of our Authorship Training Course, as well as positive feedback from participants. A small section also highlights a complementary course for faculty that we have developed.

PP-057: VIRT2UE: A European train-the-trainer programme for teaching research integrity

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The VIRT2UE project developed a train-the-trainer programme for teaching research integrity from a virtue ethics perspective. The project ran from 2017-2020 and has achieved sustainability through a continued offer of the programme by the project partners and embedding on The Embassy of Good Science.
The theoretical and conceptual approaches underpinning the programme are: (1) virtue ethics, (2) the ethos of science, (3) learning by doing and (4) learner-centred teaching.
Trainees follow e-learning modules on The Embassy of Good Science and participate in group sessions moderated by experienced trainers. In total, nearly 600 research integrity trainers have been trained: 470 during and 120 after the project.
A process evaluation conducted during the project revealed a high appreciation of the programme and its materials by the trainees: with 60% and 80% giving scores of >8 out of 10 for the e-learning and the participatory exercises respectively. A five country outcome evaluation for researchers taught in VIRT2UE based research integrity courses is currently being conducted in institutions which embedded the approach.
The VIRT2UE train-the-trainer programme continues to inspire trainers and researchers to reflect on what it means to do good research, be a good researcher and how to live their values in practice.

PP-058: Co-designing tools to empower funders for improved clinical trial transparency

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Background: Clinical trials are the cornerstone of evidence-based medicine and should comply with laws and guidelines for clinical trial transparency practices, such as prospective registration and timely results reporting. In previous work, we found widespread non-compliance with these requirements in the German science system, with many trials led by University Medical Centers failing to meet established registration and reporting standards. This lack of clinical research transparency distorts the medical evidence base, hampers evidence synthesis, and threatens the validity of medical decision making.

Objective: Funders are uniquely positioned to drive clinical trial transparency by setting policies, monitoring funded projects, and supporting compliance. However, funders often lack a comprehensive overview of grant recipients' adherence to transparency practices, or efficient workflows to assess compliance with their policies. In turn, meta-researchers have developed prototype tools to evaluate and support trial transparency; however, effective adoption requires institutional buy-in to design and assess the impact of these tools, and to embed them within sustainable workflows. Other stakeholders, including registries, publishers, regulators, and patient and transparency advocates, play a crucial role in supporting transparency and have independently taken steps towards this aim. A collaborative approach that incorporates the experiences of these stakeholders while leveraging the unique position of funders is a promising next step.

Method and Results: In this talk, we will present an approach to co-create and implement tools for funders to increase clinical trial transparency. The approach consists of two phases of engagement: 1) interviews with funders of clinical trials to explore existing policies, workflows, and needs for monitoring trial transparency; 2) co-creation workshops with stakeholders across the trial transparency landscape to develop prototype tools to drive trial transparency.

Conclusion: This work aims to increase awareness of trial funders' challenges and needs, foster knowledge sharing among stakeholders, and introduce novel tools for improving trial transparency informed by community input. Building on the interdisciplinary and cross-sector nature of WCRI, we will invite a broad range of stakeholders to engage with the collaborative research process, with the overall aim to empower funders to take sustainable steps towards improved transparency that align with their institutional aims and resources.

PP-059: Widening reproducibility in EU - Lessons learned from the award call for new Reproducibility Networks

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Reproducibility is an opportunity to improve the way research is conducted and the environment in which it is carried out. Researchers across domains believe that we are in the midst of a credibility revolution where insufficient transparency in reporting, questionable research practices and publication biases exacerbate the lack of reproducibility. Reproducible research and open science practices support the integrity and quality of research while increasing trust in the science and innovation ecosystem.

Recently, peer-led Reproducibility Networks (RNs) have formed across the world, working in parallel, to serve as national hubs advocating for rigorous, open, and high-quality research, facilitating interdisciplinary collaborations and discussions among scientists and other stakeholders (e.g., funders and publishers), and providing relevant training and infrastructure to build capacity for this research ecosystem change.

A widespread presence of Reproducibility Networks is crucial, as scientific communities across contexts (e.g., disciplinary, demographic, and geographic) face different challenges and barriers, and are at different stages of readiness to implement these practices.

Within the TIER2 - Enhancing Trust, Integrity and Efficiency in Research through next-level Reproducibility project, we identified an opportunity to increase the presence of RNs in Horizon Europe Widening participation (WIDERA) countries and created an open call to provide seed funding (5000€ each) to establish new RNs. Here, we reflect on our process and experience of awarding this funding and share lessons learned.

What are the lessons learned? 1.) Involving already existing and successful RNs in the establishment of new RNs ensures valuable input and guidance early on. 2.) Identifying and connecting with researchers in WIDERA countries that are active in reproducible research practices to form and join a new RN may be challenging. 3.) Building strong international connections amongst RNs facilitates the sharing of resources and best practices as well as the coordination and amplification of efforts. 4.) Establishing peer-led RNs promotes transparent and trustworthy research practices in the local research ecosystem, recognizing the local needs, geopolitical circumstances, barriers, and resources of researchers.

The TIER2 award proved a useful initiative to establish new RNs in WIDERA countries, further connecting RNs, to promote reproducible research activities and networks locally and internationally.

PP-060: Open science interventions proposed or implemented to assess researcher impact: a scoping review

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Background and Objectives:
Several open science-promoting initiatives have been proposed to improve the quality of biomedical research through, including initiatives for assessing researchers' open science behaviour as criteria for promotion or tenure. Yet there is limited evidence to judge whether the interventions are effective. This review aimed to summarise the literature, identifying open science practices related to researcher assessment, and map the extent of evidence of existing interventions implemented to assess researchers and research impact.

Methods:
A scoping review using the Joanna Briggs Institute Scoping Review Methodology was conducted. We included all study types that described any open science practice-promoting initiatives proposed or implemented to assess researchers and research impact, in health sciences, biomedicine, psychology, and economics. Data synthesis was quantitative and descriptive.

Results:
Among 18,020 identified documents, 27 articles were selected included for analysis. Most of the publications were in the field of health sciences (n = 10), and were indicated as research culture, perspective, commentary, essay, proceedings of a workshop, research article, world view, opinion, research note, editorial, report, and research policy articles (n = 22). The majority of studies proposed recommendations to address problems regarding threats to research rigour and reproducibility were multi-modal (n = 20), targeting several open science practices. Some of the studies based their proposed recommendations on further evaluation or extension of previous initiatives. Most of the articles (n = 20) did not discuss implementation of their proposed intervention. Of the 27 included articles, 10 were cited in policy documents, with The Leiden Manifesto being the most cited (104 citations).

Conclusion:
This review provides an overview of proposals to integrate open science into researcher assessment. The more promising ones need evaluation and, where appropriate, implementation.

PP-061: Mapping Clinical Trials Funders: An Exploratory Investigation in Germany

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Objective: Clinical trials are essential to inform medical decision-making. However, previous work has demonstrated a lack of transparency in clinical trial registration and reporting, leading to evidence distortion and research waste. Funders can drive trial transparency by setting policies and monitoring funded projects. Good governance of trial grants, as well as independent evaluation by researchers, requires an overview of trials at the level of funders. Yet, neither clinical trial registries nor funders consistently capture or report this information. This study aims to develop scalable semi-automated methods to identify clinical trial funders and the trials they fund.

Method: We built on an existing dataset of over 2,000 clinical trials conducted by German University Medical Centers (UMCs). Using the trials' registrations as well as matched results publications, where available, we developed and piloted a four-fold approach to identify trial funders and the trials they fund. We used automated methods to collect funding information from (1) trial registrations in clinical trial registries (e.g., ClinicalTrials.gov), (2) trial publication metadata via bibliometric databases (e.g., OpenAlex), and (3) trial publication full-texts (e.g., funding statement). For certain large-scale funders, we additionally gathered (4) lists of trials provided by funders through their websites or made publicly available under the Freedom of Information Act or by other researchers. We then cleaned, coalesced and manually screened the funding data to identify unique funders and trial grant numbers.

Results: We will present an overview of the funders associated with the German UMC-led clinical trial cohort and scalable methods to extract this information from various sources. We will also outline current challenges and opportunities around building assessments of clinical trial transparency at the level of funders.

Conclusion: This study leverages an existing dataset to develop methods to identify clinical trial funders and the trials they fund. These methods have the potential to be scaled up to other contexts to support the development of funder-specific trial cohorts, an essential first step towards monitoring and ensuring compliance with funder policies. A deeper understanding of the status quo can elucidate where to intervene and empower funders, policymakers, and researchers' efforts to enhance clinical trial transparency.

PP-062: An ethico-legal analysis of broad consent for biobank research in South Africa: Towards an enabling framework

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Biobanks preserve collections of human biological material and data for the benefit of medical research. Using and transferring human biological data and samples both inside and outside of South Africa is often a requirement of biobank research. Broad consent is allowed by the South African National Department of Health Ethical Guidelines but appears to be prohibited by section 13(1) of the Protection of Personal Information Act 4 of 2013. Additionally, the Act mandates that all personal data (including biobank sample data) be gathered for legitimate, specific, and clearly stated purposes. There is possibility for several interpretations because of this discord between the two instruments. Given the connection between the transfer of samples and data, the long-term nature of biobanking, which makes it impractical to provide too much or enough information because it is simply not available at the time of sample collection, and the various ways that the Protection of Personal Information Act 4 of 2013 have been interpreted, I aim to respond to the following question: How should South Africa's current regulatory framework appropriately permit broad consent use for biobank research where the transfer of samples and their associated data are contemplated? The research question is addressed by applying ethical principles and theories, as well as analysing and evaluating relevant ethico-legal frameworks and literature. No research participants and no collection or analysis of any new data was involved. Arguments for and against using broad consent for biobank research are discussed by demonstrating the potential for biobank research to do a great deal of good for humanity; the ambiguity in the current regulatory framework regarding whether broad consent is permissible for personal information/data; and the ethical justifiability of broad consent. In summary, the proposed regulatory framework amendments are those that would be required to allow for ethically justifiable biobank research broad consent use. These include removing regulatory ambiguity regarding broad consent use, ensuring adequate safeguards for research participants by specifying rules for data access and personal information processing, and incorporating consent form information requirements into the national Consent Template as specified in the National Department of Health Ethics Guidelines.

PP-063: Assessing policy citation impact - we need to start discussing risks and benefits

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Objective
This paper presents the approach taken by the European Commission's Joint Research Centre to assess the impact of its publications in comparison to other organisations in complement to qualitative assessments of policy impact. It explores the benefits of such assessments in helping to improve transparency and quality of the outputs. It also discusses the potential for perverse incentives that can have negative implications on the integrity of science and science for policy and approaches to mitigate these risks.

Method:
The empirical material for this paper consists of large-scale analyses of scientific publication and citation data complemented with an analysis of policy citations. A review of the research evaluation academic and policy literature coupled with expert opinion offers the basis for an analysis of the benefits, drawbacks and potential risks implied in these approaches. It proceeds by discussing these in the context of other impact assessment approaches adopted in the Joint Research Centre.

Results:
The analysis shows that the European Commission's Joint Research Centre performs very well in comparison to other research organisations in terms of its share of highly cited publications in its research outputs. It also outperforms most other organisations in terms of the number of EU policy citations to its publications per document produced. Given its geographical focus, its impact on policy reports from non-EU governments is less than for some US or international organisations.

Conclusion:
The drawbacks of bibliometric analyses and the research evaluation exercises that are based on them are well known. Some of these lessons apply also to the analyses of citations in policy documents that have become possible with the advent of new commercial tools. The paper concludes with an assessment of the relative benefits of using such quantitative approaches to inform and complement qualitative and expert based impact assessments. It also outlines potential strategies for mitigating the potential risks associated with the use of new approaches to policy impact assessment with an emphasis on preventing research integrity issues. There is a need to start this discussion before their large scale adoption. This debate can benefit from the inputs from research integrity experts.

PP-064: Publication Bias in Oral Health RCTs. What factors affect statistical significance of effect estimates?

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Objective: To record the proportion of Randomized Controlled Trials (RCTs) reporting significant (versus non- significant) effect estimates for primary outcomes, published across 12 high impact journals across 6 Oral Health domains. Associations with certain journal, publication and outcome characteristics were examined.

Method: We identified and included all RCTs published from January 1st, 2017 to December 31st, 2021 in the two journals with the highest impact factors (Clarivate Analytics, 2020) from each of the following domains: Periodontology, Endodontics, Restorative Dentistry/ Prosthodontics, Orthodontics, Paediatric Dentistry, Oral and Maxillofacial Surgery. The primary outcome was the proportion of significant/ non- significant effect estimates reported for the primary outcomes under study, while a range of characteristics such as: journal, year of publication, continent of authorship, journal impact factor, funding, registration, type of outcome (efficacy, saftey) and others, were assessed as predictors and tested for associations.

Results: A total of 474 RCTs were identified and included, with the majority reporting statistically significant outcomes (321/474; 67.7%). The multivariable model revealed significant effects of predictors related to specialty domain (p=0.01), continent (p=0.003) and registration (p=0.004). Compared to Periodontology, RCTs published in Endodontics (OR= 0.40; 95%CIs: 0.22, 0.76) and Orthodontics (OR= 0.41; 95%CIs: 0.23, 0.74) were less likely to present statistically significant effects. There was evidence of association between authors affiliated with non- American and non- European countries and reporting of statistically significant effects (e.g. Asia/ other vs America: OR= 2.49; 95%CIs: 1.48, 4.21). There was also strong evidence that registered trials presented lower odds of reporting statistically significant findings (OR= 0.52; 95%CIs: 0.34, 0.81).

Conclusion: Dissemination of research findings acquired from RCTs in Oral Health is likely to follow a path that is potentially affected by the authors', reviewers' and editors' beliefs on what would be regarding as interesting, attractive, of significance and importance. Trial non- registration is still prevalent and associated with reporting of statistically significant effect estimates.

PP-065: Support for responsible research practices among Brazilian graduate education programs in the life sciences

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Objective: This study aims to evaluate research integrity, transparency, productivity, and impact mentions in program proposals of Brazilian graduate education programs using CAPES's Sucupira Platform.

Method: We developed a core set of terms related to research integrity, transparency, and productivity (including Productivity, Reproducibility, Reporting, Peer Review, Open Access, Ethics/Integrity, Data Sharing, Core Scientific Skills and Preprints). Keywords for each of them were queried against the descriptions of a sample of 161 health and life sciences graduate programs in CAPES's Sucupira Platform, which contains public available data of all graduate programs of Brazil. Additionally, we searched for courses on core scientific skills (Biostatistics, Experimental Design, Ethics, Mentorship and Lecturing, Literature Review, Philosophy of Science, Methodology of Science, Dissertation/Thesis Writing, Scientific Writing and Science Communication. The study was pre-registered at: https://osf.io/z3hp8/. Each course was evaluated by two evaluators, and agreement was reached by consensus.

Preliminary Results: Terms related to Research Productivity appeared more frequently than all others. Mentions to Ethics and Core Scientific Skills were also common, while terms relating to Reproducibility, Peer Review, Data Sharing, Preprints were infrequent. Courses on Biostatistics, Methodology of Science, Mentorship and Lecturing, Bioethics and Ethics appeared more frequently. These were usually non-mandatory, and were more common in programs in the health than in the basic life sciences.

Conclusion: Descriptions of Brazilian graduate programs in health and life sciences emphasize numbers of publications, impact and novelty more than integrity or transparency. Courses on basic scientific skills are available, especially on biostatistics, but are usually non-mandatory. Further investigation is necessary to determine if this finding applies to other scientific fields in Brazil.

PP-066: How connected are research data management and research integrity?

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Research data management (RDM) is a big part of the daily life of researchers. And for us, as research integrity (RI) community, it is important, that research is conducted responsible. But how close are RDM and RI relate to each other?
To find out, I will compare the content of the European Code of Conduct for Research integrity (ECoC) (ALLEA 2023, DOI 10.26356/ECOC) with the content of RDM as shown in the Learning objective matrix for RDM (LOM) (Petersen et al. 2023, https://doi.org/10.5281/zenodo.8010617). Followed by this, I will elaborate, what we can learn from this comparison. By comparing training content of RI and RDM, the goal is to give an overview of the similarities and differences.
The comparison has not yet taken place. But the research so far looks like there are a lot of overlapping parts. For example, the FAIR principles are relevant for responsible research as well as for RDM. Or aspects like being open and transparent refer to both, research integrity and research data management. So, especially since research is (mostly) based on data, many similarities are to be expected. As for the differences, in the ECoC content regarding supervision is given, which seems to be missing in the LOM.
What we might learn from this is, that it might be helpful to connect with different communities. As for the RI community, it might be an opportunity to see what the RDM community is doing or what the data stewards are confronted with and learn from their experience and expertise to develop training material that is close to the daily life of researchers. Due to the large intersection of both topics, the paper argues for a closer and more explicit intertwining of RDM and RI. In this way, RDM could be based on RI principles from the ground up in the sense of a responsible RDM. On the other hand, RI could be more specifically adapted to the ever-growing needs for orientation in RDM.

PP-067: Easing the burden of creating and managing narrative CVs in academia

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In an attempt to refrain researcher assessment processes from heavily relying on performance indicators (like the h-index) and acknowledge a broader range of research activities, skills, and experience, many organizations are pushing for the use of narrative CVs [1], a format for academic CVs that includes structured written descriptions of a researcher's contribution and achievements. However, creating and keeping up-to-date narratives are tedious and time-consuming tasks for researchers and, currently, there is a lack of services that can facilitate these tasks.

In this presentation, we introduce the audience to the narrative CV creation and management functionalities of BIP! Scholar, a service that enables researchers to create and edit narratives that describe complete lines of research work, elaborating on the respective concrete outputs and the impact to the scientific community and the society. The service also allows combining selections of these narratives with metadata from scholarly metadata sources (e.g., the OpenAIRE Graph and ORCID) to create academic CVs that can be exported and shared in different formats. Finally, the service supports formatting academic CVs according to established assessment protocols tailored for different scopes and types of assessment events.

Keywords
research assessment, scientometrics, open science

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PP-068: Non-verifiable cell lines in cancer research papers describing human gene research

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Objective: Reproducible laboratory research relies on correctly identified reagents. We have described preclinical human gene research papers published between 2008-2019 that described wrongly identified nucleotide sequence reagent(s), including papers that studied the human miR-145 gene. This study aimed to verify the identities of nucleotide sequence reagents and cell line models in more recent miR-145 papers published from 2020-2022.
Method: Original publications studying miR-145 and referring to cancer were found through Web of Science. Nucleotide sequence reagent identities were manually checked using Blastn, BLAT and other alignment tools. Cell line identities were verified by querying Cellosaurus with cell line identifiers. Cell line identifiers were employed as Google Scholar search queries, either individually or in combination with similar cell line identifiers, and to search catalogues of cell line repositories. The terms “short tandem repeat” and “STR” were combined with cell line identifiers as Google Scholar search terms and used to search individual publication files.
Results: Manually verifying reagent identities in miR-145 papers from 2020-2022 found that 20/24 miR-145 papers described wrongly identified nucleotide sequence(s) and/or cross-contaminated human cell line(s). We also found 5 human cell line identifiers (BGC803, BSG803, BSG823, GSE1, TIE3) in miR-145 papers and a further 8 identifiers in other papers that do not correspond to recognized human cell lines. While many occurrences of unknown cell identifiers likely reflect cell line identifier misspellings, to date we have also found >200 publications that refer to BGC803, BSG823, GSE1, HGC7901 and/or MGC823 as independent cell lines. We could not find publications that describe how these 5 cell lines were established, and these cell lines do not appear to be indexed by claimed cell line repositories with external catalogues. While some publications stated that short tandem repeat (STR) profiles had been generated for the BGC803, GSE1 or MGC823 cell lines, no STR profiles have been identified.
Conclusions: Although publications have described using BGC803, BSG823, GSE1, HGC7901 and/or MGC823 cells in laboratory experiments, we have not been able to verify these cell lines’ identities. Non-verifiable cell lines therefore represent challenges to research reproducibility and require further investigation to clarify their identities.

PP-069: Ensuring the Research Integrity of Systematic Reviews

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Systematic reviews are high quality reviews which aim to be transparent, systematic and replicable in order to reduce subjectivity and bias, to produce trustworthy results which can inform practice, policy, theory and future research (Siddaway et al., 2019). However, many systematic reviews are not sufficiently transparent, systematic and replicable.

Therefore, the objective of my presentation is to outline the stages of conducting a systematic review, describing how to ensure the research integrity of systematic reviews by incorporating The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) 2020 checklist (Page et al., 2021). First, I will describe how to pre-register the protocol of the review to reduce methodological biases. Second, I will focus on the methods, especially how to carry out a)the search strategy such as the identification of studies from the databases, as well as manual searching from reference lists, citations and other sources, including grey literature to reduce publication bias, b)the selection process in the initial and full-text screening to include the studies based on the inclusion and exclusion eligibility criteria, and c)the critical appraisal of the included studies' quality to identify biases which may affect the validity of the review's results. The studies should be stored in a reference manager tool. Next, I will describe how to synthesize the included quantitative, qualitative and mixed methods studies using thematic analysis by coding the studies and generating themes. The coding of the included study characteristics should also be conducted. The screening, critical appraisal and coding of studies should be conducted by independent reviewers to reduce biases, and the inter-rater reliability calculated. Finally, I will elucidate how to report the results such as through tables and flow diagrams.

References:

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PP-070: Corpus Creation and Detection of CONSORT Elements in Randomized Controlled Trials

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Objectives:
The CONSORT guideline is an “evidence-based, minimum set of recommendations for reporting randomized trials”. These reporting guidelines improve the quality of reporting but form an administrative burden on authors and editors. Our objective is to support The Lancet to automatically check RCT’s for CONSORT elements in Methods and Abstracts.

Methods:
First, we created a gold standard dataset of RCT’s submitted to The Lancet annotated with CONSORT elements for Abstract and Methods sections. Second, we developed an NLP tool to automatically identify CONSORT elements within RCT submissions using three multi-label classification techniques: an SVC, MLkNN, and a fine-tuned SciBERT language model.

Results:
Regarding the dataset creation: A robust annotated dataset that represents an accurate sample of RCTs submitted to The Lancet and labeled with CONSORT elements was created, which has varying degrees of agreement among SMEs.

Regarding the NLP tools: In nearly all cases, the fine-tuned SciBERT model outperformed the SVC and MLkNN models for both datasets. This is sensible considering the success of BERT models in many areas of natural language processing, including text classification. This model was able to generate higher F1-scores, exhibiting a macro F1 score of 0.88 (SVC: 0.78, MLkNN: 0.68) for the abstract text and 0.79 (SVC: 0.71, MLkNN: 0.64) for the methods-based text. Using a pretrained model and further fine tuning retains the semantic patterns of scientific text in the early layers while tuning the later layers to better identify randomized controlled trial properties. We successfully integrated the tuned models to generate inferences within a manuscript evaluation tool to support editorial decision making.

Conclusion:
We created datasets that accurately represent the information detailed in the CONSORT guideline checklist and models that can automatically identify this information in newly submitted RCTs. Our models streamline this process which saves the editors time and improve guideline compliance which can improve the quality and impact of influential RCTs.

PP-071: Pre-Submission Checklists: help or hindrance? Implementation of the REAPPRAISED checklist in a higher education setting

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Objective
The project investigated whether using the REAPPRAISED checklist at the pre-submission stage reduces the potential for breaches of research integrity in a higher education setting, and improve the institution's confidence in the research it produces.

Method
The REAPPRAISED checklist was applied retrospectively to 100 health-related research publications available on the LSHTM Research Online repository that has data added into an online database. Both primary and secondary data projects were included. Non-human projects (eg pathogen genetic analyses, animal projects, statistical methodology), systematic reviews and modelling publications were excluded.

Results
Summary results include:

81% of publications noted that ethical approval was obtained for the study.
10% of publications had no mention of ethical review in the manuscript.
5% stated that ethical review was not required, but according to institutional regulations, would have been required, for example, as data was not fully in the public domain or had been collected for other, unrelated projects.

3 of the 16 (19%) randomised controlled trials reviewed were not pre-registered in a publicly accessible database, as required by ICMJE criteria.

Of the 100 publications reviewed, 6 raised sufficient concerns during the retrospective application of the REAPPRAISED checklist, that further discussion or review with the research team would have been necessary, if used at the pre-submission stage. For example, a cluster randomised trial, not pre-registered, had no mention of ethical review, was not listed in the LSHTM Ethics Online database, scant details of field teams, no mention of informed consent, and contained data errors.

Analysis is ongoing and the full results will be available in June.

Conclusion
The REAPPRAISED checklist contains valuable questions that researchers should consider prior to undertaking any research project. The retrospective review highlighted issues across several publications, issues ranging from minor errors in calculations to questions raised on ethical conduct of the research. In an ideal world, the checklist would be deployed prior to commencing any research project to ensure ethical conduct, alternatively, institutions could implement the checklist as a safeguard prior to submitting manuscripts.

PP-072: Registered Reports Funding Partnerships: lessons from the UK's largest RRFP consortium to improve research quality, transparency and reproducibility

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Objective:
Registered Reports (RRs) are a revolutionary academic publishing format, in which a journal peer reviews and accepts a study based on the strength of its protocol, before the study is run. Because the journal promises to publish the eventual study regardless of the results, this combats publication bias. Because the protocol is registered, this increases transparency.
Whilst currently over 300 journals use RRs as part of their regular submission option or as single special issues, anecdotally in the UK, awareness, understanding and uptake by researchers remains low.
Funders and journals have started partnering together to incentivise researchers to adopt the RR format. The UK's largest Registered Reports Funding Partnership between the funder Cancer Research UK (CRUK), 12 journals (from PLOS, Springer Nature, Wiley) and University of Bristol was set up in 2022.
This talk will outline the rationale, model and progress of this partnership, sharing lessons learned and available resources to encourage others to pilot this novel, collaborative approach to improve research quality, transparency and reproducibility.

Method:
We gathered quantitative and qualitative data from grant applicants opting into our pilot, to assess how well it is meeting its goals to encourage RRs and improve research quality. We contextualise these findings within qualitative semi-structured interviews conducted as part of a feasibility study of earlier partnerships, as well as insights from the partnership partners.

Results:
We will start by outlining the many possible partnership models. We then highlight our partnership model, which offers researchers a wide range of choice in where to submit their RR via opting-in to the scheme at application stage.
We next present applicant feedback and uptake numbers; uptake has been encouraging, with approximately half of applicants opting in.
We conclude with lessons on set up, uptake and streamlining processes.

Conclusion:
More funders and journals are interested in RRFPs following the UK's 2023 Science Innovation and Technology Committee report on reproducibility and research integrity recommendation to develop such models. Our experience and learnings provide a useful model and guidance with the ultimate aim to increase uptake of RRs across relevant areas of research.

PP-073: Preregistration in Psychology: Empirical Evidence on its Effectiveness

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Objective: While preregistration has been lauded as one of the solutions to the replication crisis in psychology, not much empirical evidence is available about its effectiveness. In this set of studies, we aimed to assess whether preregistrations in psychology are sufficiently producible (i.e., they can be conducted based on the information provided in the preregistration) and sufficently in line with the corresponding publications. We also assessed whether preregistered studies include a lower proportion of positive results than non-preregistered studies, which would be an indication of a preventative effect on questionable research practices like p-hacking and HARKing.

Methods: We assessed 459 preregistered studies that either won a Preregistration Challenge prize or earned a Preregistration Badge. We custom-made checklists to assess preregistration producibility and preregstration-study consistency. More than 30 coders used these checklists to assess the studies in our sample. We selected our control group of non-preregistered studies based on the 'related records' function of Web of Science.

Results: We found that there is room for improvement for preregistration in psychology. Hypotheses, statistical models, and inference criteria were typically not very well described in preregistrations. Moreover, we found that the consistency between preregistrations and papers was low, mainly for data collection procedures and statistical models. More comprehensive preregstration templates did lead to more producible preregistrations. When comparing preregistered and non-preregistered studies we found no difference in the proportion of positive results, but preregistered studies were typically of higher quality and had more impact than non-preregistered studies.

Conclusion: There is room for improvement with regard to the effectiveness of preregistration in the field of psychology. Although it could be that preregistrations, especially when they are based on a comprehensive template, prevent some questonable research practices, the practice of registered reports may be more promising.

PP-074: Improving interoperability and addressing data sharing concerns: lessons from Cochrane reviews

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Background:
The evolution of data management and sharing has raised novel ethics and integrity concerns. Recent research (Page et. al. 2022) has unveiled that only 29% of randomly sampled systematic reviews incorporate a data availability statement, with just 4% offering downloadable data. Within Cochrane, substantial strides have been made in making its review-related data more accessible through publications on the Cochrane Library, including data on included studies, analyses and references, with an emphasis on user-friendly, reusable formats

Objective:
This presentation will provide a detailed look at how changes with Cochrane reviews improve data interoperability in the evidence ecosystem in a way that addresses researcher's apprehensions about data sharing.

Main Content:
Cochrane's commitment to producing reliable synthesized evidence, readily accessible to all, remains a cornerstone of its mission. Recent enhancements in data management and sharing practices for Cochrane reviews bolster this objective. They not only foster collaboration but also combat research waste, streamline systematic review workflows, and fortify transparency and quality. This, in turn, facilitates data reuse not only within Cochrane systematic reviews but also in guideline development and meta-research utilizing Cochrane review data. The manner in which this data is shared also addresses data sharing concerns raised by researchers, e.g. through automatic data curation for authors and an obligatory agreement to terms and conditions for those downloading it to safeguard authors' rights. Moreover, modifications to data structures within RevMan, Cochrane's systematic reviewing platform, bolster interoperability across the evidence ecosystem. This novel data flow connects data extraction tools like Covidence and Excel to RevMan, and RevMan to tools for summarizing findings such as GRADE Pro. Along with other recent RevMan developments, this enables the automatic creation of included studies tables and populates analyses, better facilitating the production of timely and living systematic reviews.

Conclusion:
These transformations are poised to revolutionize the efficiency of producing and reusing underlying data from Cochrane reviews. They mark another milestone in Cochrane's journey towards embracing the FAIR data principles—Findability, Accessibility, Interoperability, and Reuse—, opening up prospects for collaborations that will propel data flow across the evidence ecosystem and invigorate innovations based on Cochrane evidence.

PP-075: A case study: The benefits of the EQIPD Quality System for a research lab

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Objective: The EQIPD Quality System (QS) is one of the earliest interventions to improve research quality and is implemented in our lab at the Central Institute of Mental Health (CIMH). We present a detailed case study and experiences from a research lab with 30 researchers.

Method: The implementation process and the effect of the EQIPD QS is described based on personal experiences and conducted surveys among members of the research lab, aimed to investigate the impact of the EQIPD QS in our research unit. The surveys included questions of qualitative and quantitative nature.

Results: This case study shows several examples from the research unit, including a step-by-step implementation of the EQIPD QS, the hurdles that needed to be overcome and the benefits for the research unit. The surveys and interviews identified the aspects which needed to be improved and built the basis for tailoring the implementation of the EQIPD QS. For example, the often-observed issue of insufficient findability of research data in notebooks from colleagues due to individual documentation practices was one of the processes that was improved during the implementation of the QS. The systematic documentation of research data with the support of an electronic lab notebook was accompanied by specific training sessions and additional meetings, as well as organization of lab resources. The resources were structured according to a new proposal to overcome issues with naming of resources in different languages. Altogether, these measures led to an overall improvement of the lab environment and an increased awareness of good research practice among members of the research team.

Conclusion: The implementation of the EQIPD QS in our research group at CIMH highlights both the challenges and successes in promoting best research practices in a preclinical research lab. This case study shows that improvements on research data integrity need to start in the research process at the level of data generation. Our study also underlines the importance of gradual adoption of quality practices and cultural shifts in research institutions towards enhancing data quality and integrity.

PP-076: Proposing a New RO-Crate Profile for Enhanced Reproducibility in Computational Experiments

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Reproducibility is a cornerstone of scientific research, especially in the domain of computational experiments where methodological decisions are complex and not well captured by traditional publication approaches [1]. RO-Crate is an approach to package and aggregate research artefacts with their metadata and relationships and RO-crate profiles are a set of types and properties that one minimally can require and expect to be present in a domain-specific subset of RO-Crates [2]. In this presentation, we first explore the various types of RO-Crate profiles that have been introduced in the past. Then, we propose a new RO-Crate profile designed to enhance the reproducibility of computational experiments.

The proposed RO-Crate profile encompasses essential metadata such as machine-readable descriptions of the workflows executed in the context the experiment, locations and configuration of the used Docker images, locations of the used data assets (e.g., on open data repositories like Zenodo), server specifications, computational time, and consumed resources (e.g., RAM). This profile addresses the challenges of reproducibility by providing a comprehensive framework for documenting the intricacies of computational experiments.

The introduction of this new RO-Crate profile aims to pave the way for virtual lab platforms to streamline the creation and sharing of comprehensive RO-Crates for computational experiments that will be ready to be re-executed by researchers using only the contents of the respective packages. This new RO-crate profile proposal will contribute to the research reproducibility, especially in computational experiments.

PP-077: Completion and Publication Rates of Total Knee Arthroplasty Studies over time: An Observational Study on Registered Trials

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Objective:
A well-designed, executed, and published trial increases efficient resource management, replicability, high-level evidence-based guidelines, and daily patient treatment. This study assesses the successful finalization(within 5 years), timely finalization(within 7 years), and consistent publication of preregistered primary outcomes of total knee arthroplasty(TKA) studies registered between 2000-2015 over time.

Methods:
We extracted required and optional data elements, including the preregistered primary outcomes, from ClinicalTrials.Gov for TKA studies registered between 2000-2015. We searched several bibliographic databases to identify published literature on the included studies, including the published primary outcomes. We used descriptive statistics, Kaplan-Meier curves, and Cox regression analyses.

Results:
1,014 registered TKA studies(816 interventional; 198 observational) were included, of which 634 unique references were found. 45,6% (91) observational studies and 60,5% (494) interventional trials were successfully finalized, increasing over time: observational studies from 20,0%(1) in 2001-2002 to 61,2%(158) in 2014-2015; interventional trials from 9,1%(1) in 2000-2001 to 61,2%(158) in 2014-2015. Of the total included observational studies 33,8%(67) consistently published their preregistered primary outcome within 7 years, which increased over time: from 0.0%(0) during 2000-2001 to 38.9%(7) during 2008-2009, and 43.3%(23) during 2014-2015. Median publication time was 42.0 months during 2008-2009 and 45.0 months during 2014-2015.
Of the total included interventional trials 46,6%(380) consistently published their preregistered primary outcome within 7 years, which increased over time: from 0.0% during 2000-2001 to 41.1%(46) during 2014-2015, and 52.3%(135) during 2014-2015. Median publication time was 48.5 months during 2008-2009 and 49.0 months during 2014-2015.
Non-industry observational studies and interventional trials had a higher likelihood of timely and consistent publication. Compared to procedure-focused trials, device-intervention trials showed a lower likelihood(HR:0.8; 95%-CI 0.6 to 1.1) to be timely and consistently published, while drug intervention trials were more likely to be timely and consistently published(HR:1.4; 95%-CI 1.0 to 1.9).

Conclusion:
Despite that in the last decades, guidelines, recommendations, and studies focused on improving successful completion and publication of newly initiated trials, finalization and consistent publication of trials hardly improved over time. This underscores the need for more feasible trials, better researchers' adherence to reporting progress, and prespecified outcome compliance.

PP-078: Do authors care about abstracts of clinical trials? Completeness of reporting in abstracts of dental medicine randomized clinical trials published in high-ranking dental medicine journals, 2015-2023

Nensi Bralić[1], Livia Puljak[2], Barbara Ćaćić[3], Israel Junior Borges do Nascimento[4], Marija Šimundić Munitić[5], Marina Krnić Martinić[6], Tonia Škoprc[7], Andrija Babić[8], Jelena Zekan[9], Ivana Vukičević[10], Tina Poklepović Peričić[11]

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Objective: Many randomized controlled trials (RCTs) are still not immediately available in open access, particularly in high-impact journals, and readers often decide whether or not to read the full text based on the information provided in the abstract. More importantly, they may even evaluate the findings of the trial based only on the information available from abstracts. We will analyze the completeness of reporting in abstracts of randomized controlled trials (RCT) in dental medicine using the CONSORT for Abstracts (CONSORT-A) checklist, which was introduced into CONSORT in 2008.
Method: In this cross-sectional, methodological research-on-research study, we searched PubMed for RCTs published in Quartile 1 journals from the "Dentistry, Oral Surgery & Medicine" category of the Journal Citation Reports (JCR) from August 2015 to August 2023. Sample size calculation returned a minimum of 309 abstracts; a random sample of 400 abstracts was included in this analysis. We used a data extraction form with 16 CONSORT-A items to assess the completeness of reporting and correlate it with dental medicine speciality and type of RCT.
Results: Two authors will score individual items independently as 1 if reported adequately, 0 if inadequate, and 0.5 if the reporting was partially adequate. We will use descriptive statistics to report frequencies and percentages to summarize adherence to CONSORT-A items. We will also analyze changes in reporting completeness over time. If feasible, subgroup analyses will be performed for different study designs and dental medicine specialities. We will continue with data extraction and have complete results at the time of the conference.
Conclusion: Our study will be important for understanding whether the quality of abstracts of RCTs published in high-ranked dental medicine journals changed over time with the availability of a relevant tool.

PP-079: Data quality assessment in publicly registered trials databases

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Objective:
Accurate data entry in clinical trial databases improves the utility, validity, and replicability of research results, which contributes to evidence-based daily medical practice and future research. We aim to outline systematic and practical procedures for defining, assessing, and identifying data quality irregularities in publicly available trial registries.

Methods:
We searched ClinicalTrials.Gov(CTG) for interventional total knee arthroplasty(TKA) trials between 2000-2015. We extracted required and optional elements and used the CTG's variables' definitions. We searched several bibliographic database to identify the included trials' published literature. Based on a literature overview, we identified the following data irregularities: inconsistency, inaccuracy, incompleteness, and timeliness.

Results:
According to our inclusion criteria, we included 816 interventional TKA trials, registered between 2000-2015. Treatment(76.8%) was the most common intervention evaluated, followed by prevention(11.4%). The study design was primarily a parallel model(83.6) and a randomized allocation(88.1%). The extent of data irregularities varied widely, from 0% to 100%. Inconsistency ranged from 0% to 35.5%, with the highest level of inconsistency being caused by non-randomized labeled allocation combined with a "single group" assignment trial design. Inaccuracy ranged from 0%(all trials reporting on biological or dietary supplements) to 100%(all trials reporting on a combination product or genetics). Incompleteness ranged from 0.0% to 60.9%. There were no missing values in "allocation" and "model" trial design, 60.9% finished TKA trials did not report the outcome. Irregularities in timeliness ranged from 0.0% to 48.5%. All trials reported the completion date after the start date, 48.5% were registered more than 3 months after the trial's start date.

Conclusion:
Data quality in registered trials varies widely. Clinical trial sponsors should be committed to ensuring information they provide is reliable, consistent, up-to-date, transparent and accurate. This is essential for making informed-decisions about published trial outcomes, treatment protocols, replicating, and improving trial designs.

PP-081: Knowledge Production Modes: The Relevance and Feasibility of 'Reproducibility'

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Reproducibility or replication do not refer to just one practice or epistemic function, but there is a conceptual mess concerning these terms. Hence, they imply an immense variety of different practices and functions. Furthermore, research is not just one activity and notions of the scientific method, or some other ideals of scientific monism do not represent the reality of research which seems to be characterized by epistemic diversity. Epistemic diversity captures the diversity in kinds of knowledge claims and modes of knowledge production across the research landscape. The conceptual mess and epistemic diversity have to be considered when installing reproducibility or replication policies. Universal demands or incentives for reproducibility or replication can potentially systematically disadvantage researchers, research approaches, and kinds of knowledge for which reproducibility and replication are irrelevant or unfeasible. Hence, whether reproducibility and replication are contributing to or are even relevant for research integrity depends on the kind of research and the research situation. Consequently, a reproducibility culture change or reform might improve the integrity of some kinds of research, but it can impair the integrity of other kinds of research. Therefore, we attempt to provide a framework that allows to assess the relevance and feasibility of different types of reproducibility and replication in the realm of epistemic diversity. We distinguish between the relevance based on epistemic considerations and the feasibility based on practical aspects of the specific research situation.

PP-082: What is the preferred future of reproducibility: Results from 4 future study workshops

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Objective: Reproducibility is increasingly considered a cornerstone of research quality and integrity, at least in some areas of research, however, there is still a desirability to enhance it in some fields. Some discourse on reproducibility tends to promote blanket policies and procedures across areas of research neglecting crucial variation in knowledge production models. We therefore challenge current frameworks and commonplace assumptions towards reproducibility. To this end, we suggest sketching desired and undesired future scenarios for reproducibility as they can provide fundamental information retaining the necessary steps for the realization (and avoidance) of future scenarios. We believe looking at these alternative futures of reproducibility can inform key stakeholders (researchers, funders, publishers) to respond to challenges and to achieve their preferred future for reproducibility.

Method: We conducted four workshops with different stakeholder groups (funders, publishers, machine learning researchers, and qualitative social scientists, N=19). The workshops employed future studies as their methodology, consisting of the following sections: stakeholder mapping, scenario planning, and backcasting. We member-checked our results with the participants through a validation workshop. Using Nvivo we coded all the research materials and developed themes to conceptualize the future scenarios for reproducibility and the enablers and barriers towards these futures.

Results: We have identified core themes forming the preferred future of reproducibility: 1) culture, 2) definitions and standardization, 3) incentives and recognition, and 4) guidelines and infrastructure. The network between these themes is described as representing a non-static motion for the future of reproducibility. Enablers and barriers towards this future are discussed based on the following categories: 1) cultural and social, 2) systemic, policies, and institutional, 3) technological and infrastructures, 4) financial and economic, and 5) training and education. We finalize the taxonomy of our study by the time of WCRI2024 allowing us to present our study's full results, conclusions, and implications.

Conclusion: In our first preliminary analysis, we concluded that a research culture that rewards reproducibility is essential in making a change across contexts and disciplinary domains. This gives a deeper understanding of how we can reform the reproducibility debate and of enablers required for the preferred future.

PP-083: The HYBRIDA project: Embedding a comprehensive ethical dimension to organoid-based research and resulting technologies

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The aim of the “Embedding a comprehensive ethical dimension to organoid-based research and resulting technologies” (HYBRIDA) project is the development of a comprehensive regulatory framework for organoid research and organoid-related technologies. HYBRIDA initiated in February 2021 by studying the existing conceptual, epistemological and regulatory uncertainties in organoid research. The results of these studies provided the bedrock upon which the main outputs of HYBRIDA -currently under the final phase of their development - have been developed. These main outputs are the following:

1. A Health Technology Assessment for the vision of developing personalised medicine through organoid technology
2. A set of Operational guidelines for organoid researchers, entitled “Minimal Information about Organoid and its Use for Researchers” (MIAOU) that streamlines certain working procedures, according to best practices that safeguard transparency and replicability
3. The Evaluator checklist for organoid ethical studies (EChOES) that describes how to evaluate the quality of organoid descriptions in a grant application for reproducibility, replicability and rationality of the proposed organoid research.
4. A set of Operational guidelines for Research Ethics Committees (RECs) and Research Integrity Offices (RIOs), the Research Integrity Committee Organoid checklist (RICOCheck) intends to provide a tool to ensure transparency and anticipate ethical issues
5. A Code of Responsible Conduct for organoid researchers that provides ethical standards of good practice and a guide on how to operationalise the principles of the European Code of Conduct for Research Integrity (ECoC), i.e. Reliability, Honesty, Respect, and Accountability.

The relevance to research integrity is based on the fact that HYBRIDA's outputs provide a comprehensive guide across the inherent uncertainties of the field of organoid-related technologies and increase the reliability of the organoid research, at large, at relative immature level that currently is. As a result, they provide the necessary safeguards to industry and society for a smooth and responsible translation of organoid-related research.

PP-084: The XR4HUMAN project: For equitable, inclusive, and human-centered extended reality technologies

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eXtended Reality (XR) technologies – a term that encompasses Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), Diminished Reality (DR) and Modulated Reality (ModR) technologies – have the potential to be applied to an ever-widening area of applications in research and innovation (including, but not limited to, Engineering and Manufacturing, Food industry, Defense) and services (Education, eCommerce and Retail, Real Estate, Travel and Tourism, Entertainment and Gaming). This clear trend does not come without potential risks that include a multitude of challenges, related to safety, privacy, security, interoperability, and research integrity. These challenges need to be tackled now, at a time when the European Research Area strives to achieve a place in the world market of XR technologies by integrating into the development of XR technologies the human-centered approach. The "Equitable, Inclusive, and Human-Centered eXtended Reality" (XR4HUMAN) project aims at co-creating living guidance on ethical and related policy, regulation, governance, and interoperability of XR technologies. XR4HUMAN's outputs, listed below, will provide safeguards for the protection of personal data of XR technologies' users (via the European Code of Conduct) and achieve transparent processes for the development of responsible regulation and governance of XR technologies (via a wide co-creation exercise with all relevant stakeholders). The operationalisation of XR4HUMAN's main aim is going to be achieved with the development of the following outputs:

- Guide companies and regulators through (i) Interoperability Guidance Document; (ii) a European Code of Conduct for Equitable, Inclusive, and Human-Centered XR Technologies; (iii) recording and demonstrating the practical application of the XR Code of Conduct.
- Equip companies and regulators with an online repository of test cases to allow developers to demonstrate evidence of adherence to best practices.
- Equip and guide end users through a rating system and educational materials.
- Engage companies and other stakeholders (i) to enhance the uptake of the XR Code of Conduct, the Guidance for Interoperability, and the empowerment of end-users; and (ii) to establish a permanent digital European Forum to facilitate stakeholder dialogue on issues of ethics and interoperability.

PP-085: Ten Top Tips to efficiently pre-register a preclinical systematic review protocol on PROSPERO4animals

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Synthesizing evidence from in vivo experiments is an essential element in the research pipeline. Systematic reviews are a robust methodology to identify, appraise and combine evidence. They are increasingly used in preclinical research. Pre-registration of a protocol is an essential part of systematic review methodology to enhance the rigor of the planned methods and analyses.
As many researchers do not receive formaltraining in systematic review methodology, we have formulated ten expert tips on how to efficiently register a protocol on PROSPERO4animals, the international registry for preclinical systematic reviews protocols. These tips are based on our experiences as administrators of PROSPERO4animals submissions.
The top ten tips encompass a wide array of insights. We include a description of the PROSPERO4animals registration process and guidance on how to be transparent during the submission process, and how to realistically estimate the time needed to complete the review. We go into detail regarding what stage of the review process researchers are still eligible to publish their protocol on PROSPERO4animals, how to design a research question with an appropriate structure and we underline the importance of a comprehensive search strategy. We give direction on how to formulate and prioritize complementary inclusion and exclusion criteria, as well as tips on clearly defining study characteristics and outcome data to be extracted. Critical to the systematic review methodology is the appraisal of study quality for which guidance is given. Finally, adequate synthesis of the outcome data using appropriate methods is addressed. We hope that these tips will help all researchers aiming to conduct a systematic review.
Protocol pre-registration is a cornerstone of the systematic review process, and by implementing these tips authors can foster straightforward registration of their protocol on PROSPERO4animals. Our aim is to inspire researchers to prioritize this essential step, as it can preempt potential hurdles in the systematic review process, particularly for those who may be new to the methodology. We also stress the importance of comprehensive education and training in systematic review methodology.

PP-086: Balancing Innovation and Research Integrity in Translational Tissue Engineering: A Focus on 3D Printed Scaffolds

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Objective: In response to the growing demand for organ transplants worldwide, the field of Tissue Engineering (TE), is witnessing an unmatched need for translational research. The primary objective of this study is to propose approaches aiming to ensure the reproducibility and integrity of the results presented, regardless of the intensive demand for innovative solutions.
Method: The current study is based on the transformative technology of Additive Manufacturing (AM), which has accelerated the development of biomaterial-based structures with intricate geometries (scaffolds) for guiding 3D cell cultures. The behavior of the printed scaffold itself, in standard cell culture conditions (37 °C, 5% CO2, 95% humidity, pH=7.4) (degradation, swelling) or when it is co-cultured with cells (viability, attachment, proliferation) has been selected as the key performance indicator in the development of 3D structures.
Results: By comparing our study's results to relevant research studies we were able to reveal critical aspects of research that demand careful assessment when developing 3D cell cultures in order to be reproducible. With regard to biocompatibility, the hurdles we encountered (cell attachment, contamination) are commonly withheld from being published compromising the fundamental principles of Research Integrity. We also emphasized studying the results interpretation and presentation that might hinder the fact that the rapid generation of such scaffolds does not automatically guarantee effective scaffold-cell interactions. This study highlights the persistent sensitive issues during the routine of handling biomaterials and particularly bio-printed materials that are usually not even reported, acting to the detriment of the integrity of the conducted research.
Conclusions: Thus, the requisite information to be presented along with the published study is described, introducing the necessity of publishing raw data (images, algorithms) and characterization outcomes (diagrams) obtained straight during the experimental procedure, for evaluating the effectiveness of the results presented. Also, when it is feasible, blinding and randomization of the results, through validation and rotation throughout other research groups, would ensure the correctness of any possibly biased result. Emphasizing the need for reproducibility, this study aims to strike a crucial balance between innovation and Research Integrity in the pursuit of advancing Bioprinting to meet the unmet demand for transplants.

PP-087: Is replicability predicted by complexity? A pre-registered test of Information-Compression Theory, based on data from the Brazilian Reproducibility Initiative

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One of the fundamental goals of Metascience is to identify and correct factors that hamper the reproducibility and replicability of published findings. We hypothesise that complexity may be an important variable, and in this pre-registered study we test distinctive predictions about how the complexity of phenomena and methods should relate to replicability.
Predictions were based on the equations of "Information-Compression Theory" (ICT), a candidate theory and methodology for Metascience. ICT posits that knowledge can be measured and explained in terms of information compression, and relevant properties of knowledge systems can be measured, explained and predicted using a standardized metric of information compression.
Quantitative predictions will be tested on the replication results by the Brazilian Reproducibility Initiative (BRI). Started in 2018, the BRI is a large effort to evaluate the reproducibility of Brazilian research, following the blueprint of previous multicenter efforts. BRI aimed to have up to three independent laboratories replicate one of 60 published experiments based on one of three methodologies commonly used in Brazilian biomedical research: MTT assay, RT-PCR and Elevated Plus Maze.
The key prediction tested in this study is that, controlling for the sample size and P-value of the original study, as well as for other confounding effects, the replicability of results should depend on the complexity of the methodology of the replication protocol.
To quantify protocol complexity, we parsed the text of each protocol according to a general scheme, which allowed all protocols to be re-described as multilevel graphs, with a common high-level structure and individual lower-level differences. The complexity of each graph, derived as a function of the number and diversity of its nodes and relations, was used as a proxy for the complexity of the corresponding protocol.
At the time of writing, methods and predictions have been pre-registered (https://osf.io/432kq) and the BRI experiments have been completed, but their results have not yet been analysed; thus, the results of this study are not yet available. Replication results are expected to be available by the end of the October, and the study should be complete at the time of the congress.

PP-088: User testing the RIVER recommendations: a qualitative study

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In vitro experiments comprise a significant proportion of biological research, yet research publications often lack information enabling readers to assess a study's rigour and reliability [doi:10.3389/fphar.2019.01484, doi:10.1038/s41598-021-83006-5]. To address this, the NC3Rs convened a working group to develop reporting standards (now available as a preprint) [doi:10.31222/osf.io/x6aut]. We are now assessing the value of this guidance for the design, conduct and reporting of in vitro experiments.

Objective:
The purpose of this study is to gather feedback on the recommendations from prospective users and to revise them accordingly.

Method:
10-15 in vitro researchers will be recruited – this number is sufficient to identify 80-90% of the issues in usability testing [doi:10.3758/bf03195514]. Purposive sampling will be used to select participants from a variety of countries, research fields and career stages, who use diverse types of in vitro experimental models. Data will be collected via study forms and semi-structured interviews. It will be transcribed and anonymised, and an inductive iterative process will be adopted to identify themes and develop a coding strategy to classify responses. Ethical approval for this work has been granted by the Royal Veterinary College (URN SR2023 – 0120).

Results:
This study will evaluate whether each recommendation (and its accompanying explanation) is clear, helpful, and easily understood in practice by in vitro researchers, and whether it prompts researchers to change their experimental design and conduct and to add relevant information to their manuscripts.

Conclusion:
We plan to produce accessible guidance for in vitro researchers on how to maximise the rigour and reliability of their experiments and accompanying manuscripts. The findings of this study will be used to revise the recommendations, which will then form the basis of a new resource for in vitro researchers. Our aim is to work closely with funders and journals to promote the resource and improve the quality of in vitro publications.

PP-089: Ghanaian academics' views on research misconduct in Public Universities in Ghana

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The root cause of research misconduct (RM) among Ghanaian academics are complex, but little is known about them. Using an exploratory descriptive case research design, institutional policies reviews on RM and 30 in-depth interviews of Ghanaian academics in 2 public universities were done. A thematic analysis of the academic's perspectives on RM causes, enablers/inhibitors, and preventative efforts constituted the approach for data analysis. A regulatory definition of fabrication, falsification, manipulation, and plagiarism (FFMP) and a professional definition of failing to fulfill scientific norms without falling under FFMP were two crucial perspectives on RM that emerged from the study. The investigation found that while the university's rules offer recommendations for doing research responsibly, these policies made no express mention of what constitutes RM or its associated repercussions. The academics on the other hand believed that RM existed in Ghanaian public academic institutions because of the "publish or perish" phenomenon which is pushing many academics to publish at all costs so as to secure their carrier progressions in academia. The investigation emphasizes how important it is for the university administration and management to make a sincere effort to stop RM in order to avoid damaging academic reputations and that of the universities where they work.

PP-090: Retraction due to informed consent: an empirical study using the Retraction Watch Database

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Objective: To investigate the relationship between informed consent, article retraction, and breaches of ethics and research integrity.
Method: We conducted a search using the Retraction Watch Database. We searched for all articles, published between 1983 and 2023, for which the word “consent” was reported as a reason for retraction. Using these criteria, we identified a corpus of 179 articles. For each article we analyzed several parameters, including the year of publication and retraction; the scientific field associated with the article; the article type (survey, systematic review, etc.); and the reported reasons for the retraction. For each article, we also retrieved and analyzed the associated retraction note, if present, to reconstruct the specific role of informed consent.
Results: We found that for 50 articles (28%) informed consent was the only reason for their retraction and that biomedicine was by far (137/179) the most impacted disciplinary field. In the vast majority of the cases (162/179) the retraction involved some breach of research integrity related to the fabrication and/or manipulation of the informed consent. However, a second result of our analysis is that in several cases (17) articles were retracted not because of a breach of research integrity, but because of the intentional withdrawal of participants’ consent after publication for privacy reasons.
Conclusion: Our results confirm that securing a valid informed consent represents an indispensable condition not only for conducting but also for publishing studies involving human participants. Furthermore, based on these data, we formulate a series of practical recommendations to maximize the chances of publication and minimize those of retraction due to reasons related to informed consent.

PP-091: Perspectives of Supervisors towards Scientific Merit in Research: A case study of department of Educational Foundations at University of Botswana (UB)

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Perspectives of Supervisors towards Scientific Merit in Research: A case study of department of Educational Foundations at University of Botswana (UB)
Basutli Ramontshonyana, Gabriel Faimau, Bagele Chilisa.

Objectives
To investigate perspectives of supervisors towards scientific merit in student's research proposals.
To explore the perspectives of research supervisors regarding ethics review process as facilitated by Office of Research and Development.
To find out issues that supervisors encounter when their students' research proposal goes through ethics review processes

Method
The study was carried out at the University of Botswana (UB) and the primary sampling units for this study were the UB Educational Foundations Departments that specialized in human research. This study employed qualitative method where data was collected using a one-on-one interview. Ten participants were interviewed, and the data was analysed thematically.

Results
The supervisors recognised the need for scientific merit in a research protocol and the need for the protocol to go through ethical review process. They believed that scientifically sound proposals will produce good quality in research output. In addition, they agreed that the assessment of the scientific merit validates the quality of the research proposal especially when the study poses high risks. Further, they showed a concern regarding the delays of the process which end up frustrating the students and sometimes preventing them from graduating at the stipulated time. Finally, they requested for more research ethics training and the capacity for ethics review process to help supervisors and researchers better understand and appreciate research ethics.

Conclusion
Ethical review processes that assesses the scientific merit of the proposal are still at infant stage in Botswana; therefore, it is crucial to explore perspectives of relevant stakeholders so that their understanding and knowledge can be known and capacitate them where there is need.

PP-092: ROSiE project – Responsible Open Science in Europe

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ROSiE has identified and analysed the potential for misconduct in various areas of Open Science practice and in different scientific disciplines, as well as current ethical, social and legal approaches to responding to questionable practices. ROSiE consortium adheres to the idea that with such an analysis the European science system can effectively ensure that Ethics and Research Integrity become structural components of Open Science. ROSiE has developed practical tools that safeguard Ethics and Research Integrity in Open Science and Citizen Science. The outputs of ROSiE have been heavily based on wide consultation and stakeholder engagement and they have been streamlined along the following activities:

• EXPLORE: A comprehensive inventory of (a) Ethics, Research Integrity, social, and legal implications and challenges of Open Science and (b) existing technologies and platforms that safeguard responsible Open Science has been compiled during the early phases of the project.
• GUIDE: A strategic policy assessment for promoting responsible Open Science has been performed and operational guidelines for relevant stakeholders, including a complement to the European Code of Conduct for Research Integrity, have been developed.
• EQUIP: An Ethics and Research Integrity Knowledge Hub for Open Science and training materials for Ethics and Research Integrity aspects of Open Science have been co-developed with the engagement of stakeholders.

All ROSiE outputs are freely available from the project's website (https://rosie-project.eu/).

PP-093: Navigating the intersection between academic and research integrity: A research integrity administrator's experiences at an Australian University

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I will present the outcomes of a workshop exploring the intersection between academic integrity and research integrity at an Australian university. In policy and practice, academic integrity has focused on students whilst research integrity has applied to academic staff. Differentiating the two understandings of integrity in this way has resulted in confusion and ambiguity for administrators and academics alike. This presentation offers some redress to that problem.
The method employed was to workshop the problem with the key professional and academic areas of the University, including academic integrity and research integrity administrators, administrators of postgraduate research students, legal experts and researchers. With a view to generate, thematise and analyse novel ways of approaching the matter.
The approach, something akin to a community of practice, whilst not new, yielded fresh insights that challenge established orthodoxy in the space where integrity concerns and investigations play out. First the context was narrowed to a focus on integrity investigations concerning postgraduate research students. Key findings of the discussions included the idea that improved outcomes, when managing academic and research integrity concerns and investigations, are best achieved in a "partnership" of academic and research integrity processes and practices. Another related idea centred on a more nuanced visualising of responsibility within research student/supervisory teams. In particular, an understanding characterised by shared responsibility whilst also capturing such elements as weighting of responsibility and primary versus other responsibilities. In support of this idea it is proposed that a new term (in this context), of a "responsible investigator" be considered to compliment the traditional terminology of principle and co-investigator, for research student projects. Finally, discussion also explored how a "partnership" model can also bring fresh perspective to a perceived tension between educative approaches versus those that emphasise compliance.
The narrative remains a work-in-progress and questions remain including whether the "partnership" approach aligns with external regulatory environments. However, the findings, whilst preliminary, indicate that greater clarity and practical recommendations for policy and practice are achievable by re-conceptualising the relationship between academic and research integrity as a partnership; together with re-thinking responsibility in the context of research student and supervisory teams.

PP-094: Attempts to standardize ethical review for clinical research in Japan - Role of Certified Research Ethics Professionals (CReP)

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Objective

When conducting clinical research, approval of ethical review is mandatory for the protection of human subjects and the fair conduct of research. A high level of expertise is required to confirm that the research protocol conforms to the relevant guidelines. A professional group of experts has been established to ensure that ethics reviews are conducted properly and expeditiously.
The role of the CReP is to confirm the conformity and applicability of the research protocol to laws, regulations and guideline. Currently, research proposals range from health care to behavioral sciences. The decisions of ethical review committees vary greatly depending on the members of the committee. CRePs extract the points of discussion at the ethics review committee and IRB from the ethical and scientific viewpoint. For the standardization of ethical review, Best Practices of ethical review are proposed through the CReP network. The purpose of this paper is to report on investigation related to CReP.

Design and Setting

Expertise is tested by multiple-choice questions on research ethics and ethical review. Exam questions are created by the CReP Certification Committee. After conducting the test, the committee will review the suitability of the questions again. Those that meet the passing criteria will be certified as CReP for three years. Renewal of accreditation is determined by credits earned through participation in academic meetings, training seminars, and study of teaching materials.

Result

CReP system started in January 2019, and so far 268 people have been certified. Of the institutions to which the CRePs belonged, 73.8% were universities, 5.6% were national centers, 10.1% were hospitals and clinics, and 7.1% were companies. So far, we have held information exchange meetings 25 times, with about 30 to 120 participants. Satisfaction was 80 to 90%, including those who were satisfied and those who were somewhat satisfied.

Conclusion

The established CReP system has produced 268 CRePs. At the information exchange meeting where CRePs gathered, they discussed the revision of the guideline and confirmation of compatibility, and the satisfaction level was high. It is believed that this will contribute to the standardization of ethical review.

PP-095: Aligning Scientific Values and Research Integrity: A Cross-Cultural Analysis of Researchers' Perceptions and Practices

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Objective: While the value-based approach to addressing research misconduct is gaining increasing attention, empirical evidence concerning the relationship between scientists' adherence to scientific values and their research integrity behaviors remains scarce. This study seeks to examine researchers' perceptions and practices regarding research integrity across diverse countries.

Methods: An online survey was formulated and administered in four countries: Belgium, China, the Netherlands, and Vietnam. Three key variables were computed and subjected to analysis:(1)value adherence, denoting participants' subscription to Merton's scientific ethos; (2) the level of acceptance of research misconduct; (3) the level of misbehavior, as indicated by participants' self-reported transgressions. Statistical analyses were executed to examine the relationships among these variables and to discern differences within specific groups.

Results: A total of 765 valid questionnaire responses were collected. The findings revealed significant correlations among these three variables, with the most robust correlation detected between the level of acceptance and the level of misbehavior (correlation coefficient of 0.510, $p < 0.001$), and a negative correlation between value adherence and the level of acceptance. Among the four scientific ethos posited by Merton, universalism gained the highest recognition. Substantial consensus was reached among participants from all four countries concerning the most egregious research misbehaviors, namely, falsification, fabrication, plagiarism (collectively referred to as FFP), and non-compliance with research ethics regarding human participants, which also reported the lowest frequencies by participants themselves. Cross-cultural comparisons revealed noteworthy disparities among countries in these three variables. Notably, Chinese participants exhibited the lowest level of value adherence, while those from Vietnam showed the highest degree of acceptance of research misconduct and self-reported misbehavior, significantly exceeding the other three countries.

Conclusion: The observed correlations between perceptions and behaviors underscore the importance of aligning scientific values and research integrity in RCR education. The inter-country variations underscore the fact that, although research integrity has been predominantly examined in developed countries and internationally prolific developing nations (e.g., India, China), certain developing countries have received inadequate attention in the context of research integrity. Thus, much remains to be done by the global scientific community to foster enhanced transparency, rigor, and ethical conduct in research.

PP-096: The Open Science Learning Gate

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✴ The Problem
Although the UNESCO Open Science Capacity Building Index serves as a perfect node, higher education lacks accessible, trustworthy, reliable, and tailored OPEN SCIENCE learning resources for different stakeholders in the scientific community, including students, researchers, educators, data curators, librarians, policy-makers, research infrastructure professionals, research software engineers, data scientists, and EOSC enablers.

✴ The Mission
NERQ's sample collection promotes research integrity as an overarching umbrella, recognising that while openness is vital, only high-quality and legally allowed things open are reliable and reasonable. In the Artificial Intelligence (AI) era, NERQ screens the learning materials for the intersection of AI and Open Science from an ethical standpoint.

✴ Poster
To address these challenges, we present NERQ's Sample Collection, the so-called Open Science Learning Gate, at the conference.
On the poster, we show
a) how the Open Science Learning Gate was established:
1. Activating diverse representatives for the ten open science target groups (European Commission, Directorate-General for Research and Innovation, Manola, N., Lazzeri, E., Barker, M.et al., Digital skills for FAIR and Open Science – Report from the EOSC Executive Board Skills and Training Working Group, Manola, N.(editor), Lazzeri, E.(editor), Barker, M.(editor), Kuchma, I.(editor), Gaillard, V.(editor), Stoy, L.(editor), Publications Office, 2021, https://lnkd.in/eXJwgcGi, p.17).
2. Collecting and screening learning material examples for each target group in the workshop on September 20th 2023.
3. Final research integrity and ethical screening of the examples/materials and publishing the results in our poster.
and b) where to find the screened and high-quality learning material.
With this poster, we create a comprehensive and dynamic sample of ethical and responsible Open Science learning resources that will immensely benefit our scientific and educational community.

PP-097: Conceptual and methodological foundations for innovative changes in research ethics review -the CHANGER project

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Trust in science and technology and the acceptability and adoption of innovative outcomes is crucially dependent on the ethical qualities of the research. The EU-funded project CHANGER aims to promote changes in research ethics reviews, to strengthen the capacities of researchers to incorporate ethical judgements in the project design and implementation, as well as to support Research Ethics Committees in addressing new challenges posed by new developments in research. This paper will address two crucial questions motivating CHANGER: First, why do we need to update research ethics reviews, and second, what tentative tools can support such processes? As to the "Why" question, current research practices have moved to new forms of ethical challenges. For instance, biomedical research operates with pluripotent stem cells stored in commercial biobanks which can be used to produce human organoids. What kind of consent can cover these aspects? Big Data challenge our usual assumptions when they involve data produced by individuals in some other, not-research related context. Ethical challenges are raised by Artificial Intelligence (AI) technologies (bias, privacy, impact on human rights and values, etc.) and will continue to evolve as technology advances (i.e., Generative AI raises the issue of identifying human action in the production of texts, images etc). Transformative research often takes the form of transdisciplinary research where ethical issues cannot be identified from the outset but emerge during the process. CHANGER argues that a new paradigm for ethics reviews is required to meet these and the constantly evolving ethical challenges. As to the "What" question CHANGER will explore the notion of moving from an ex-ante review model to a process-oriented model of learning by doing and ethics in dialogue, adaptive across all research phases, utilising various tools: narrative based scenarios in projects to help anticipate challenges in research; iterated ethics assessments, and differentiation into primary and secondary uses of personal data; and institutional capacity building in project preparations to account for ethics-by-design and upstream assessments. Finally, CHANGER will explore policies for the adoption of novel ethics review approaches and facilitate sustainable human rights-embedded ethics in the European Research Area to foster trust.

PP-098: Effectiveness of Institutional Review Boards (IRBs) in Promoting Research Integrity and Accountability

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Background

Institutional Review Boards (IRBs) can play vital roles in observing, monitoring, and responding to research integrity (RI) issues among researchers, yet many questions remain concerning whether, when, and in what ways these boards, in fact, adopt these roles. The purpose of IRB review is to assure, both in advance and by periodic review, that appropriate steps are taken to protect the rights and welfare of humans participating as subjects in the research, as well as adhere to ethical guidelines and principles. IRBs also review research proposals, assess potential risks to the study population/participants, evaluate the informed consent process, and monitor ongoing studies to ensure compliance. However, this is not always the case.
The purpose of this research is to investigate the effectiveness of Institutional Review Boards (IRBs) in promoting research integrity and accountability. Particularly how effective IRBs are in maintaining ethical standards in research, protecting the rights and welfare of human research participants, and ensuring responsible conduct of research.

Method
The study will use in-depth interviews by adopting a mixed approach, combining both qualitative and quantitative techniques. This study will interview key stakeholders, including researchers, members of IRB, administrators, and regulatory authorities. Thematic analysis will be adopted to extract meaningful themes and patterns from interview responses. (We hope to finish data collection and have the first draft before the end of the year; results will be ready in time for the conference next year)

Result
The study is expected to identify how IRBs contribute to the promotion of research integrity and accountability, key factors influencing the effectiveness of IRBs in ensuring ethical research practices, and best practices and strategies employed by effective IRBs to enhance research integrity and accountability. In the case of less-resourced countries like Ghana, do they always monitor to ensure compliance at all stages of project implementation.

Conclusion
The outcomes of this research will contribute to the body of knowledge on IRBs and provide practical implications for policymakers, institutions, researchers, and IRB members.

PP-099: SOPs4RI (Standard Operating Procedures for Research Integrity)

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This poster presents the main approach and results of the European project SOPs4RI (Standard Operating Procedures for Research Integrity): www.sops4ri.eu. SOPs4RI has built a research integrity toolbox with 131 easy-to-use Standard Operating Procedures and Guidelines that Research Performing and Funding Organisations can use to develop their own Research Integrity Promotion Plans.

The basic idea behind SOPs4RI is that all research performing organisations (RPOs) and research funding organisations (RFOs) should have a Research Integrity Promotion Plan (RIPP). The RIPP should outline the steps that the RPO or RFO will take to promote research integrity, taking its mission and disciplinary focus into consideration. The RIPP should address a number of RI topics and outline policies for how these topics will be handled. Building on this core idea, the SOPs4RI project has defined the topics that should be addressed by the RPOs and RFOs in their RIPPs – and created relevant guidelines, templates, and a free, online toolbox: www.sops4ri.eu/toolbox that the institutions can use when creating their own RIPPs.

SOPs4RI has used a mixed-methods, co-creative approach to the development and empirical validation of the content of the toolbox. Among other elements, the empirical methods and activities of the project include a three-round Delphi survey, 20 expert interviews, 30 focus group interviews across academic disciplines, a survey of researchers across all disciplines and 31 countries, co-creation workshops engaging relevant stakeholders, and pilot testing in 15 institutions.

The project started in January 2019 and ended in December 2022. It involved 13 partner organisations in 10 European countries and was coordinated by Aarhus University in Denmark. The project was funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 824481.

PP-100: The value of the appeals process to evaluate the efficacy of a newly developed integrated research integrity management system: North-West university, South Africa

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Having developed a new Integrated Research Integrity Management System there were excitement from some researchers and management that RCR will be ensured further but there was also resistance and questioning the need thereof from others. Having the option to appeal during an investigation of a breach in research integrity is not a compulsory process and left to the institution to decide whether to include an appeals process available to the alleged during an investigation. The NWU decided to include an appeals process for the alleged should he/she have the need to use this option. However, going through a first appeals process in a newly developed integrated research integrity management system can be a daunting experience unless viewed from an optimistic and positive perspective of evaluating this new system.
It can serve the purpose of evaluating the appeals SOP and whether it was effective and comprehensive enough. However, it could also afford the opportunity to evaluate the correctness, efficacy and fairness of the various processes followed for the investigation. It could thus evaluate whether the investigation process could and will "stand the test of time". During the research integrity investigative process there are so many factors to consider, people to include, as well as the protection of the research integrity of the research, the research entity and the institution. At the same time the alleged should have a fair chance to first give his/her side of the story before being found guilty.
Insight can come from what it is that the alleged is appealing but also to see whether the appeals panel decides that there was 1) procedural fairness, 2) sufficient substantive evidence to make the finding that the investigative committee made, and 3) the sanctions/corrective interventions were developmental/restorative in nature and matched the findings.
It allows for true open and honest reflection whether processes are sufficient or can be improved and whether the new system is giving the results you expected from it. An open reflective mind allows for growth and change if needed. This presentation focuses on some of these reflections.

PP-101: Scaling up image screening for Reviewed Preprints

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eLife reviews preprints in the life sciences and medicine, and is committed to improving peer review to better convey the assessments made by editors and reviewers. We launched a new publishing model in January 2023 in which we no longer make accept/reject decisions after peer review, and where instead all the papers we send for review are published as Reviewed Preprints, with public reviews and an eLife assessment. In the previous model, ending in acceptance/rejection, image integrity checks were performed when we received a revised submission. To ensure we continue to maintain rigorous checks for new model submissions, we screen the integrity of images when they have been sent for review. In the new model we screened 388 submissions from 1 March to 30 September, and have a goal to gradually scale up our efforts to screen approximately 40% submissions per month by the middle of 2024.

Here we compare 300 submissions under each of the models that were screened for image integrity, and we report the key differences and similarities observed between the two models. Reassuringly we observed no major difference between the two models in terms of the proportion of papers that were identified with image integrity issues and that required further follow up (11% or less).

PP-102: Integrating Integrity: A framework and assessment methodology for University integrity and ethics structures, in an evolving research landscape

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This paper will focus on the development of a framework and assessment methodology at the University of Bristol, to restructure its internal research ethics infrastructure. Adherence to Research integrity principles is vital in ensuring trust in the knowledge we generate and disseminate. Central to embedding this integrity, lies the need for robust and rigorous research ethics review processes. By creating the space for Research Managers and Administrators (RMAs) to evaluate the ethical frameworks facilitating the conduct of research within an organisation, researchers and institutions can identify potential weaknesses in the ethical review process to successfully address ethical challenges, and bolster institutional commitment to responsible research practices. In an ever-evolving research landscape, standards and emerging ethical complexities, a proactive approach to reviewing internal research ethics and integrity processes is essential for fostering a culture of ethical research and maintaining the public's trust in research.

Most research institutions have well established research ethics review processes in place that have evolved and developed over time. It is very easy for research ethics review processes to become overly-bureaucratic, complex and unwieldy. As a result, it is vital that research institutions support RMAs to proactively engage in improving processes.

The authors of this paper are undertaking a ground up, systematic restructure of their internal research ethics infrastructure, reviewing legacy processes and engaging key-stakeholders to develop an agile, fit for purpose research ethics review process that adheres to research integrity requirements and meets the needs of a sector in flux. This will involve an open-minded and pragmatic assessment of the benefits and challenges of current and potential review processes and frank discussions with key-stakeholders.

By implementing this process, we hope to produce tangible benefits across the institution including, but not limited to, reduced risk of non-compliance of research ethics and integrity, increased engagement, streamlined and equitable review processes for our global partners, auditable evidence of consistent decision making, reduced risk of delays, and improved relationships.

The purpose of this session will be to provide a forum for sharing the benefits we identified during this process, and most importantly, the lessons we have learned throughout.

PP-103: Indigenous Research Ethics in Canada

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Canadian universities and the country's human ethics governance system have made great strides in addressing not only oversight of research involving Indigenous peoples, but also on including Indigenous approaches to ethics in the research review system. This presentation looks at the developments across the country and in federal legislation. It then describes in greater depth an effort undertaken at Simon Fraser University, a Pacific NW school embedded in the traditional territories of nine First Nations, to overcome historical inequities and foster a deep appreciation of Indigenous values and ways of knowing in university ethics staff, and to translate that effort into an effective process that would protect participants and communities, while upholding values such as "Ownership, Control, Access and Preservation" (OCAP). The resulting 'Indigenous Dialogues on Ethics' provided an opportunity to consider issues such as embedding fundamental interpersonal relationality in a review system based on objective assessment and eschewing conflicts of interest.

PP-104: Reproducibility by Design: Creating a Quality Assurance Framework for Academic Life Sciences

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The University of Bristol is devising a novel a quality assurance framework for life sciences which spans every stage of the research process. The “Reproducibility by Design” programme incorporates the concept of “Quality by Design”, a key tenet of pharmaceutical research and development. Quality by Design is an approach based on gaining a deep understanding of the process before research activities begin, and is intrinsically linked to quality risk management whereby controls are implemented in a risk-proportionate manner.

The framework applies a systematic approach to the design, conduct, analysis, publication and retention of research. It has basic components which underpin all aspects of research and are common to the majority of life science disciplines, such as data management planning and bias minimisation. These are supported by more detailed discipline-specific guidance, training and tools. The design is modular to enable continuous improvement processes to be applied to ensure that the content can be evaluated and improved as needed.

The framework has three key principles:

(1) Research data should conform the high possible standards of data integrity.

(2) Quality by Design principles will be applied to ensure that research is designed to the highest possible standard, incorporating open science principles from the outset wherever possible.

(3) Quality risk management will be applied proportionately to identify and minimise risks to the integrity of research data, the ethical conduct of research and to research participants and the environment.

This presentation will present case studies on how quality risk management processes and ALCOA data integrity controls (the extent to which data are attributable, legible, contemporaneous, original and accurate) can be applied life sciences research in academic settings. It will address the common constraints of time and resource limitations often experienced in academic research by demonstrating how risk proportionate approaches can help researchers identify and mitigate the factors which will have the greatest negative impact on the reproducibility and overall quality of their research.

PP-105: Current questions in regulating research misconduct - A research funder's perspective

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"FFP" - Fabrication and Falsification of data, Plagiarism - are the main matters of research misconduct. The Rules of Procedure of the German Research Foundation (Deutsche Forschungsgemeinschaft – DFG) have recognised additional facts as research misconduct – for example honorary authorship, the neglect of supervisory obligations or misconduct by reviewers and committee members.

We would like to present recent topics discussed in the current revision process of the DFG - Rules of Procedure.

Plagiarism:
Classic matters of research misconduct are plagiarism and – closely related – idea theft in academic publications or grant proposals. But whom do these offences protect: the individual whose achievements are appropriated or the functioning of the scientific/academic discourse as a whole? Should a consent exclude these forms of research misconduct?

Misconduct of reviewers:
Besides the obvious and severe cases where reviewers misuse others' achievements for their own purpose, we see some cases of misconduct where reviewers – acting in good faith – involve fellows of their own institute in order to provide a balanced and timely review. However, organisations like the DFG require a permission to include a third person – an infringement constitutes misconduct. Another important aspect in the peer review process is the disclosure of conflicts of interest: While it is the responsibility of the funding agency to establish clear guidelines on what circumstances may constitute a potential conflict of interest, it is the responsibility of the reviewers to reveal any facts that could be grounds for a conflict of interest on their part. Non-disclosure is also sanctioned as research misconduct.

Time limitation for the investigation:
Can and should there be a time limitation for the investigation or sanctioning of research misconduct? This question is discussed in particular when it comes to misconduct in connection with the revocation of an academic degree. Research integrity forms the basis of trustworthy research and the verification of research results should be possible without restriction. However, from a legal perspective, the indefinite prosecution of research misconduct is exceptional, since even criminal offences are no longer prosecuted after a certain period of time.

PP-106: Ethical Governance in Chinese Universities: An Overview of Research Ethics Committees

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This study aims to provide an overview of Research Ethics Committees in Chinese universities, encompassing both medical and non-medical studies. The primary objective is to identify major challenges faced by RECs in Chinese universities and draw meaningful implications from the findings. The investigation focuses on 42 comprehensive Chinese universities. The results reveal that while all universities have implemented RECs in various forms, only 28.6% explicitly stipulate ethical review requirements for non-medical disciplines. Furthermore, RECs in Chinese universities encounter various challenges, including insufficient attention to research ethics review, inadequate ethics review systems and regulations, and a lack of education and training in this area. This paper proposes recommendations for establishing robust RECs in Chinese universities, seeking to enhance ethical governance in research. By addressing the challenges identified, these recommendations aim to strengthen ethical oversight, foster a culture of responsible research, and uphold the highest ethical standards across diverse academic disciplines.

PP-107: Activites, motivations, benefits of and barriers to responsible research: Results of a European-wide survey among researchers

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• Objective:
I would like to present results from a Europe-wide survey of scientists on responsible research that we recently conducted as part of the EU-funded research project Super-MoRRI. In the survey we analyzed scientists' activities, motivations, perceived benefits of and barriers to Public Engagement, Gender Equality, Open Science, and Ethics.

• Method:
In the survey we identified and contacted more than 100,000 scientists at 122 randomly selected universities in 29 European countries between November 2022 and January 2023. In total, we received (after data validation) 4,180 valid responses, which were then statistically analyzed.

• Results:
The survey shows diverse commitments to responsible research. With regard to the four areas of activity the scientists show strongest commitment to Gender Equality, followed by Ethics, Open Science, and finally Public Engagement. The activity mostly mentioned overall was "I consider ethical issues when designing my own research" with a value of 3.47 on a scale from 1 ("never") to 4 ("yes, in all projects I have been part of"). The motivation for the RRI engagement varies, depending on the field of activity. However, the strong motives to engage in responsible research practices are mostly of normative and intrinsic nature, whereas the motivating force of institution-al or other external rewards remains rather limited. Engagement in responsible research practices is linked with a multitude of perceived benefits. A higher social relevance of scientific outputs and an increased social impact of research are mentioned most fre-quently. Ultimately, the survey has helped to identify a wide range of obstacles RRI. High article processing charges for example are considered the largest barrier to Open Sci-ence, followed by the absence of institutional incentives to reward these activities - which also holds true for Public Engagement. Public Engagement as well as ethical activi-ties are also mostly hampered by bureaucratic complexity or time-consuming (approval) procedures.

• Conclusion:
The survey data provide a focused analysis of the activities, motives, benefits, and barriers reported by European researchers in relation to responsible research. It is the first comprehensive survey of scientists at (selected) scientific institutions throughout Europe explicitly on their attitudes toward responsible research.

PP-108: Comparison of experiences of two new research integrity advisers

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Objective
To compare and contrast the experiences of two new research integrity advisors in different institutions and identify common themes and approaches that might benefit others starting in similar roles.

Method
As relatively new research integrity advisors we will present experiences in these roles. Our two institutes – The Francis Crick Institute and the Cancer Research UK Manchester Institute – are different in scale and areas of research, as well as in their administrative structures and their prior engagement with formal research integrity roles and policies.

Results
We will present our different approaches to the following areas of activity:
- Getting started and exploring the existing research integrity infrastructure
- Making connections with current Institute researchers and staff
- The value of one-to-one and group introductions
- Communication and the importance of utilising a variety of channels
- Building engagement with researchers at different career levels
- Increasing visibility and allowing for serendipitous conversations
- Identifying gaps and areas of future activity
- Increasing coherence in existing policy and training, and shaping this around research integrity
- Prioritising and conducting change at an appropriate pace

Due to the differences in scale and reach of our two organisations, these approaches necessarily vary, so we will highlight similarities and differences in our approaches. From this approach we aim to identify and present ways of working which may have application beyond the specific structures and practices of our Institutes, and instead represent common challenges and opportunities that may face anyone starting in a similar role.

Conclusion
We have identified similarities in our approaches to change management and culture building which we feel would be useful for others to apply in their own situations when starting in a new research integrity position.

PP-109: Fostering Research Integrity in Europe: Bringing Together EU-projects Working on Research Integrity and Research Ethics

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Objective Capitalising on the momentum created by the last ENRIO congress in September 2023, the French Office for Research Integrity supported by the European Network for Research Integrity Offices organised a precongress session to foster collaboration and crosspollination between EU-funded consortia on research integrity (RI) and research ethics (RE). This event aimed to encourage attendees' reflexivity on ways to improve the sharing of results between projects and to create a space for dialogue on RI/RE in the European context.
Methods The session (September 6th) brought together around 45 ENRIO members and representatives from 22 key RI/RE EU-projects. In four workshops groups (8 to 12 participants each), a specific topic was suggested for discussion: 1) How to better foster collaboration between EU-projects & ENRIO; 2) How EU-projects comply with the European Code of Conduct for Research Integrity (ECoC); 3) How EU-projects supplement the ECoC; and 4) Main priorities for research integrity in Europe. The first part was dedicated to the identification of challenges. The second part was devoted to the formulation of recommendations. All discussions were recorded with the participants' consent and transcribed using Trint software. The verbatims were analysed following an inductive analysis with NVivo software.
Results. Analysis of the results will be summarised in a report due in early 2024. Our initial observations allow us to identify a few examples of challenges (e.g. artificial intelligence and RI; how to integrate/reach out to research players in the private sector; how to adapt the main recommendations of each EU-project to different scientific disciplines), and recommendations (e.g. systematize the organisation of event giving visibility to EU-projects on RE/RI; use CORDIS to identify more easily EU-projects of interest for RI/RE; clarify what is expected from the relationships between ENRIO and EU-projects on RI/RE).
Conclusion To date, there have been few opportunities to maximise efforts and mutualise knowledge from projects working on RI/RE funded by Horizon Europe. This event enabled us to bring together for the first time many of these projects, to think about how optimise effort and to collectively identify some of the key challenges for RI/RE in Europe.

PP-110: Ethics managers in research projects: Roles, responsibilities and experiences

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The legal and operational requirements for the responsible conduct of research and innovation are ever increasing, especially for research projects that receive public funding. For example, Horizon Europe is the EU's 2021-2027 key funding programme for research and innovation with a budget of €95.5 billion. The governing Regulation requires that its funded projects comply with ethical principles stemming from legislation (EU, national and international), the EU's Charter of Fundamental Rights, European Convention on Human Rights, European Code of Conduct for Research Integrity (ALLEA), among others.
Additional requirements foresee that each beneficiary receives all required ethics committee opinion, notification or authorisation, before the beginning of an activity raising an ethical issue. Furthermore, individual beneficiaries such as research centres or universities may also have their own ethics review processes related to professional bodies or departmental/faculty affiliation. Navigating these requirements and continuously monitoring and ensuring compliance over the lifetime of a research project can be a daunting task. Nowadays, it is common (or required) for a project to establish its own ethics committee, and/or an ethics manager, a role that is often considered secondary, and allocated to non-experts. Sometimes, the ethics manager role is sometimes with specific expertise from outside the project consortium, in the form of an external ethics expert but recruiting for this role brings its own challenges.
In addition to reporting, the ethics manager is tasked with dealing with ethical issues that may arise during the research process, such as informed consent, data protection, privacy, etc. Other tasks may include liaising with other relevant projects on ethics matters, ensuring consistency in ethics practices and policies across the project consortium, and developing and sharing enduring principles and practices for ethical research conduct.
We present examples of common considerations and challenges for ethics managers across several multi-disciplinary collaborative research projects, such as low awareness of research ethics requirements by (some) consortium partners, especially regarding ex-ante approvals, data protection requirements, technical challenges when storing information, and others.
Practical advice for existing and new ethics managers is provided, especially on understanding their role and responsibilities, and dealing with researchers from diverse scientific domains.

PP-111: There is no such thing as The Integrity of Research

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There seems to be a general lack of understanding about the actual realities of research. Research integrity is often framed as just the absence of misconduct and questionable research practices or as a combination of broad supposedly general principles like transparency and honesty. Instead of outlining what research integrity itself actually means for specific kinds of research or a study. Furthermore, it is often treated as if it were just one thing or one specific combination of criteria that research or researchers have to fulfill. However, the actual reality of research comprises, among other things, of the various conditions under which research takes place, the actual diverse practices, the different subjects of investigation, and the unique opinions and motivations as well as experiences of the researchers. Importantly, these factors are usually not constant, but vary across the research landscape affecting what research integrity means. Hence, we have realities of research resulting in a diversity of what it means for research to possess integrity. If we want to change or even improve the status quo of research, then we first need to understand what the actual research realities look like. Otherwise, we might do more harm than good to certain kinds of research under specific research conditions because some notions of responsible or good research might not fit into some realities of research. Therefore, I argue that there is no such thing as the integrity of research, not because research cannot possess integrity but because we lack the understanding to specify what research integrity actually means for specific kinds of research and researchers under certain research conditions.

PP-112: Conflict of Interest: A data driven approach to categorisation of COI statements

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Objective: Properly declaring conflicts of interest (COI) is essential to assessing potential bias in scholarly articles. Authors have an ethical obligation to transparently disclose their involvement in research to avoid misleading COI statements. This study presents a comprehensive analysis to identify and categorise how authors declare their conflicts of interest in academic articles.

Methods: To achieve this classification, we: 1. Employed the Dimensions database to extract COI statements from 2,966 research papers; 2. Utilised a combination of natural language processing tools and manual reviews to categorise and determine the types of COI statements; 3. Manually annotated a subset of approximately 10% of these statements to create a gold standard for automatic recognition and classification; and 4. Analysed the manually annotated statements for keywords related to each COI category, subsequently used to annotate 33,812 COI statements automatically.

Results: The team initially classified the COI statements as either present or absent. We then identified six major categories of COI statements: None Declared, Membership or Employment, Stakeholder/Shareholder Ownership, Funds Received, Personal Relations, and Donations. Among the 33,812 COI statements, authors declared no conflict of interest in 94% of cases. Approximately 2% of the time, authors disclosed receiving funds or their affiliation with an organization as a member or employee for each category. Declarations of authors' involvement as shareholders or stakeholders were present in COIs in only 0.32% of cases. Personal relationships with shareholders or stakeholders and receiving donations were rarely declared, accounting for 0.02% of cases. Several declaration methods existed, including one author making multiple declarations, multiple authors having different declarations, and multiple authors making multiple declarations.

Conclusions: While COI declaration is vital for upholding research integrity, verifying statements and identifying missing declarations are crucial next steps. Currently, our focus is on checking affiliations, but the concept can be expanded to analyze grants and patents resulting from the research. Future research will explore whether author-organization affiliations significantly influence research outcomes. The importance of transparency in declaring conflicts of interest is growing, given the substantial influence of research and scholarship on policy, practice, and law.

PP-113: Resources to Aid Ethical Review of Clinical Studies: Gaps and Opportunities

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Objective: Research Ethic Committees (RECs) safeguard the ethical, legal, and methodological standard of clinical research. However, complying with all requirements and professional expectations while maintaining the necessary scientific and ethical standards can be challenging for applicants and members of the REC alike. There is a need for easily accessible and clear guidelines and resources to help medical researchers and REC members navigate the legal and ethical requirements and the process of their review.
Methods: We employed an explorative search for resources on the websites of relevant stakeholders including 12 national umbrella associations (six German-language and six English-language), three international umbrella associations, and 16 national REC's of major university hospitals (eight German- and eight English-language). We mapped the identified resources onto the guiding principles of ethical clinical research and 35 related checkpoints. To describe the content of the resources we conducted a thematic analysis.
Results: We extracted a total of 233 resources, including templates (n = 134, 58.5%), guidelines/recommendations (n = 62, 26.6%), checklists (n = 23, 9.9%), tools (n = 5, 2.2%), flowcharts (n = 5, 2.2%), glossaries (n = 3, 1.3%), and one (0.4%) software program. We extracted 101 German and 132 English resources created between 2004 and 2023. The majority (n = 204; 87.6%) could be assigned to one checkpoint. The remaining 29 (12.5%) resources were considered unspecific (e.g., a checklist which documents to be submitted for a German drug trial). The specific resources are discussed per checkpoint.
Conclusion: While much support is available for some aspects such as participant information and informed consent forms, it is lacking in other areas such as study design, analysis, and biometrics. More support should be provided in these areas to ensure that research projects are methodologically sound. A more detailed analysis of the quality of available resources could help identify other areas of need.

PP-114: Development of Thailand Research Integrity Network (TH-RIN)

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Research integrity continuously receives attention from many countries. Due to the recent threats to research integrity, especially buying authorship in research, universities, research institutes, and academic community in Thailand begins to emphasize the importance of research integrity and prevention of research misconducts. Sharing knowledge and experiences about research integrity among universities and institutes helps to create a positive culture and environment for research and foster responsible conduct of research (RCR). Therefore, the main objective of this project is to develop Thailand Research Integrity Network (TH-RIN) through various activities, such as establishing committee, conducting the meetings, and creating or sharing resources about research integrity. TH-RIN committee was established for supporting and giving advice to universities about research integrity and creating cooperation at both the national and international levels. The regular and annual meetings were held to discuss and consider the important issues about research integrity and research misconducts. The 2023 annual meeting was held on 14 July 2023 at Miracle Grand Convention Hotel, Bangkok, Thailand, and through online platform. There were 128 participants including researchers and executives from universities, research institutes, and funding agencies (e.g. vice president, dean, and director of the institute). The participants were also asked for providing an opinion on the “Principles of Research Ethics: Application to Thailand”. These principles were developed in order to announce an intention about Thailand research standards and ethics. Apart from that, a guideline on research integrity was also created. The guideline consists of suggestions for promoting research ethics and RCR, research misconduct prevention measures and investigations, as well as interesting case studies with solutions. Currently, there are 98 universities and institutions that are participating in TH-RIN. Then, all documents will be published and distributed to them to be used as guidance for their organization. In addition to the provision of clear policies and strategies for encouraging research integrity, building a strong relationship of academic network on research integrity is also important. The existence of TH-RIN provides a space and opportunities for exchanging views and opinions that will lead to the development of research integrity in Thailand.

PP-115: Ethical provisions for research activities of undergraduate students in Lithuanian colleges

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Undergraduate students are expected to acquire skills enabling them to pursue research (scientific) activities to some extent; however, the development of ethical skills is overlooked particularly in the undergraduate college studies. To address this gap, it is aimed to present research-related skills that professional bachelor (undergraduate) students need to acquire in Lithuanian colleges. Following the approach of conventional content analysis research-related learning outcomes (learning skills) for undergraduate students were identified in 29 descriptors of study fields; research-related ethics norms and their breaches applicable to undergraduate students were identified in 16 codes of ethics of colleges in Lithuania.

The findings demonstrate that undergraduate students should acquire research skills in most of study fields; however, the compliance with research ethics is less explicitly related to the conduct of scientific research. The codes of ethics even less explicitly address research-related activities of students than the descriptors of study fields. Most of them (15 out of 16) provide that academic (college) community including students should adhere to the general ethics principles, values and/or norms related to research. The breaches of academic ethics principles (e.g. responsibility, integrity, fairness) and/or research misconduct (fabrication, falsification, plagiarism) or other violations of good research practice (e.g. unethical authorship, bias, use of personal information without consent, organising research without permission of authority institution) are indicated in 10 out of 16 codes of ethics. In addition, some student-specific breaches may be linked to the research activity (e.g. plagiarism, fabrication and/or falsification in all codes of ethics); and/or occasionally refer to ethical norms on research activities; or research integrity/ethics breaches are indicated as a form of academic integrity/ethics breaches.

The findings suggest that the development of research skills of undergraduate students is anticipated unevenly among study fields. Similarly, the development of ethical research skills is less emphasized in the descriptors of study fields. In the code of ethics, the research activities of students could be more clearly detached from study activities. The findings also suggest that although undergraduate college students are expected to be involved in research activities, they are not well recognised as a part of research community.

PP-116: Move from Guidelines to Platforms in Post-Pandemic Research Ethics: Call for Universal Registration and Accreditation Platforms

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Following the aftermath of World War II, the emergence of Research Ethics Committees (RECs) marked a significant milestone in the field of research ethics. These committees were established in response to the Declaration of Helsinki and drew inspiration from influential documents like the US National Research Act, the Belmont Report, and guidance from scientific journals and international organizations, including the World Health Organization (WHO). Over time, RECs became an indispensable global fixture for ensuring the ethics and integrity of research practices. However, their efficacy has faced persistent criticism regarding issues related to their effectiveness, consistency, workflow efficiency, and real-world impact. The COVID-19 pandemic placed immense stress on biomedical research systems, including RECs. Despite previous calls for enhanced ethical preparedness and streamlined review processes following the Ebola outbreak, it became evident that the existing research ethics infrastructure was ill-prepared to respond rapidly to global health emergencies. This inadequacy became particularly apparent when conducting large-scale global and multi-country clinical trials, as underscored in a recent resolution by the World Medical Assembly. The challenges encountered in executing such trials and the prevalence of research misconduct in reporting outcomes highlighted the urgent need for innovative solutions.

In light of the successful implementation of global platforms for registering human clinical trials, such as clinicaltrials.gov and ICTRP registries, this study advocates for the establishment of parallel global platforms dedicated to the registration and accreditation of RECs. This proposed platform would also maintain an index of their approvals, which could be seamlessly integrated into the global scientific publishing system. As an illustration of this concept's viability, I will explore a similar system implemented in Iran in detail which was implemented between 2014-2018, and its advantages during the COVID-19 pandemic.

The primary objective of this approach is to facilitate comprehensive tracking of research from its inception, thereby enhancing the accountability of RECs. This proposed system not only lays the foundation for effective global research ethics oversight and REC governance but also streamlines the execution of international clinical trials. This proposal would help better integration of RECs in the research integrity atmosphere.

PP-117: For a favourable framework for responsible and ethical research: The French National Research funding agency code of Ethics

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The National Research Agency – ANR - funds and promotes the development of basic and targeted research, technological innovation, technology transfer and public-private partnerships. ANR organizes competitive calls for proposals and conducts rigorous selection processes based on peer review, in compliance with international standards: impartiality, equal treatment, confidentiality, ethics, scientific integrity and transparency. Research integrity is a keystone of the French national research funding organisation's missions.

The agency published, in 2023, its code of ethics that describes its operational features on research ethics. It presents (i) the principles of the agency, (ii) the responsibilities for each stakeholder and (iii) the agency's management procedures in case of a breach in research integrity during the evaluation process or in a submitted or funded project. This valuable code aims to support the scientific community and to empower all research stakeholders (researchers, evaluators, applicants, organisations…) by clarifying individual responsibilities.
The poster presents the main contents of the code. It sheds light on how the agency manages any suspicion of a misconduct or breach of integrity by describing the different procedures in place when a report is received by our research integrity officer. The poster shows how the agency deals with conflict of interest between evaluators and funding applicants. It states the agency policies and procedures, and it details the measures in place to guarantee equality in the project evaluation. Finally, the poster explains the roles of every stakeholder facing a misconduct.

ANR promotes for an honest and responsible conduct of research and these transparent guidelines should reinforce the society bond of trust in science. ANR supports for research integrity and research ethics requirements. Considering the major role of the funding agencies in the research system they must contribute to deploy a favourable framework for responsible and ethical research.

By sharing our principles, we hope to inspire international researchers and organisations for better practices and to enhance trustworthiness of research.

PP-117b: The prevalence of image duplications in pre-publication journal submissions

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Objective: Inappropriate image manipulation in an article can be an indication of potential research misconduct or unreliable results and is an important consideration for research integrity. Previous research found that the prevalence of published articles in biomedical journals containing problematic images is approximately 4% [1], with recent studies estimating a higher prevalence of image duplication in published articles, 16% in a single journal [2] or 12% in the field of rhinology [3]. However, many problematic figures are identified before publication. The prevalence of image irregularities in accepted, unpublished manuscripts has been reported as 14.5% and 30% in previous work [4, 5].
Additionally, many problematic images are identified during the review process. Manuscripts containing duplications may also be rejected for unrelated reasons. Therefore, the prevalence of inappropriate image duplication in manuscripts at the point of submission in journals in the health sciences is not well known.

Method: As part of routine screening of submissions using Imagetwin image integrity software, the presence of image duplication within the manuscript and duplications with published articles is recorded. The duplications are manually verified by the presenter and identified duplications are categorised based on the appropriateness of the duplication in two journals.

Results: The results of this study will give an estimate of the prevalence and nature of inappropriate image duplication within submissions to two journals in the health sciences and between submissions and published articles.

Conclusions: The prevalence of inappropriate image duplication at the point of submission may be an indicator of the rate of research misconduct or questionable research practices in health sciences, prior to detection in the peer review process. These results will capture a snapshot of this phenomenon in two journals in the health sciences.

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PP-118: Instructing corporate researchers and leadership on ethics and good research practices

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Increasingly, research is conducted in public private partnerships and by companies themselves. In doing so, business researchers and leadership need to stay up to speed with the evolving research landscape as well as the evolving rules and regulations regarding research integrity and ethics. Business researchers, however, are usually not part of an active research community and thus may not be aware of the latest developments regarding research integrity and ethics. How can they be informed and instructed adequately on these developments in research integrity and ethics and adjacent queries, without over-asking them? We aimed to address this matter in our handbook on business research methods in three systematic ways.
(1) Each chapter of the book ends with a moral dilemma. These realistic dilemmas pertain to the subject matter of the chapter, apply the learnings to a real-life case, and put the ethical dilemma forward clearly. These dilemmas may e.g. pertain to the trade-offs that one may have to make in a for-profit environment when it comes to the good research practices or research participant (customers or employees) needs.
(2) We included a dedicated chapter on ethics in business research where we addressed issues regarding ethics at each relevant stage of the research process.
(3) Our continuous effort was to attend to the interests and capabilities of (aspiring) business researchers and their leadership while introducing them to the highest standards of good research practices. We thus balanced thorough instructions regarding research on human subjects and research integrity with the business setting, e.g. by introducing them to the notion of Institutional Review Boards without going into details about how to set such a board up.
Our handbook is widely used and cited in both academic and business settings, and the feedback is very positive, also on the above components. Our presentation is therefore intended to explain why and how we included the aforementioned ways of addressing ethics and research integrity, in order to share best practices for others to potentially include similar learning materials in their books or teaching, as well as to learn from their feedback.

PP-119: Fostering a responsible research culture through national guides for institutional self-governance

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Research performing institutions (RPOs) have a central role in facilitating the translation of trustworthy research to different stakeholders in society. Because of differences in legal frameworks and cultural values, each country has their own specific structures and systems of support. It is also important to balance national styles, institutional autonomy and individual academic freedom. This can be challenging for each institution, and we argue that it is helpful to develop a national framework to secure harmonization and adherence. This could be done by e.g. national academies, scientific societies, or research funding organizations (RFOs). However, it is important also to involve the research community and relevant stakeholders.

In our talk we will present Fostering research ethics: A guide for research performing organizations, developed by the National Research Ethics Committees in Norway (NREC) and published in September 2023. The aim of the publication is to provide a framework for institutional self-governance for Norwegian RPOs. The guide is holistic, highlighting nine different topics the institutions should focus on: 1) Education and training, 2) Supervision and mentoring, 3) Research community, 4) Administrative support, 5) Research leadership, 6) Research ethical boards, 7) Ombudspersons, 8) Institutional management and 9) Investigation of misconduct.

The guide was developed with broad involvement of different RPOs and stakeholders. It emphasizes the institutional responsibility for developing a responsible research culture (RRC), especially the importance of a proactive and bottom-op approach. Involving the research community is important for developing responsible conduct of research (RCR), for instance in training and supervision. Both RRC and RCR are prerequisites for catalyzing the translation of research into trustworthy policy and innovation.

Hopefully the Norwegian guide can serve as inspiration for other initiatives, providing specific solutions to institutional challenges in a national context. However, each country or different regional networks must develop guides according to their own regulatory framework. The harmonizing of different national initiatives could be facilitated by the World Conference of Research Integrity (WCRI).

PP-120: The Nexus between Obligatory Monitoring by Research Ethics Committees and Researcher Integrity at South African Universities

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Non-medical research has increased over the past decade; especially as South African universities have become more research-intensive. Non-medical research ethics committees are obligated to monitor research they approve as part of statutory requirement and compliance. Monitoring has often been seen as a tick-box and policing exercise and often not done with careful ethical consideration by researchers.

Monitoring holds great potential for improving and aiding in creating a research integrity culture within universities to ultimately produce researchers that are ethical. Through a dedicated monitoring system that is both educational and directed at non-medical nuances, it will change the negative lens on monitoring. This paper emphasises the benefits of leveraging research ethics committee monitoring in fostering ethical, transparency, responsibility, and accountability among researchers.

Methodology: This paper will present a monitoring framework, suitable for South African universities based on risk level and appropriate monitoring framework to be implemented. This monitoring framework incorporates research integrity as part of the monitoring system that aids as an educational tool that is incorporated at Honours level of study. A paper presents a system that emphasises research ethics and integrity more prominently in preparation for ethical clearance and ethical monitoring. Aligning the two aspects promotes a culture of research integrity and changes the perceptions of ethics committee monitoring.

In conclusion this monitoring framework creates a suitable framework for monitoring non-medical research that is ethical, transparent, accountable, and responsible. This monitoring framework will reflect the impact of monitoring and conducting research ethically to promote and enable research integrity.

PP-121: A pilot test of red teams to foster the epistemic responsibilities of universities: A multiple case study in three countries

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Introduction.

Red teams are commonly used to test the defenses of cybersecurity systems. Recently, red teams have been tried and tested to improve research integrity (i.e. to criticize and improve studies prior to their conduct). In our previous co-creation study the idea of red reams was postulated to critically reflect on universities. Specifically, to reflect on and improve the realization of epistemic responsibilities (ERs) of universities, which concerns the creation, exchange, dissemination and safeguarding of knowledge and other epistemic goods. The main task of a red team is to identify gaps in knowledge and governance of, and find inconsistencies in values related to ERs in a university. Fostering research integrity is considered one of six important ERs. In this study we seek to pilot test red teams in different universities.

Methods.

To pilot test the 'red teams of universities' we will conduct an exploratory multi-case study at 3 sites in the Netherlands, Germany and Malaysia. We aim to answer the question: 'how can red teams be successfully embedded in universities with the aim of fostering specific ERs?' At each site we will collaborate with co-researchers to formulate specific research aims, the type of field data to be obtained (e.g. through focus groups, observations, interviews, document analysis), and how to tailor red teams to each institutional context. In at least one of the case sites, Malaysia, we will focus specifically on research integrity.

Results.

The pilot test will start late 2023, and we will report results of the ongoing pilot test at the WCRI 2024. Tailoring of the red teams to each context likely leads to different embedment processes. Nonetheless, we expect to recruit 'red team members' at each site and to set up regular red team meetings. At the start of the study perceptions and expectations on the red team will be researched. After the pilot test we will conduct an evaluation of the experiences and lessons learned.

Conclusions.

The lessons learned in this pilot test can highlight how research integrity can be fostered using a red team, and which factors are barriers and successes to embedding a red team.

PP-122: Prevention of co-authorship conflicts in health and medicine

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The National Commission for the Investigation of Research Misconduct and The National Committee for Medical and Health Research in Norway are working closely together to give ethical advice to researchers, institutions, and authorities to promote good ethical research practice and prevent research misconduct. Through the years, we have seen that research collaborations among professionals in health and medicine sciences often result in conflicts related to co-authorship both before, during and after publications. These conflicts may range between trivial arguments to misconduct allegations and act as unnecessary barriers by delaying the progress in research projects, publication of research results etc.

As co-authorship is important for earning merit and has academical, social and financial implications, it is vital for the institutions to have good authorship and publication practices and prevent potential conflicts at the earliest possible stage. The Vancouver recommendations and other informative materials, e.g. from The Committee on Publication Ethics (COPE), give them a recognized basis to prepare institutional-based guidelines to ensure good authorship practices.

Our aim with this poster is to discuss an advisory research ethics committee role in fostering good authorship practice, and how we may aid researchers and institutions in their work to build a good authorship practice and thus prevent co- authorship conflicts. By preventing conflicts at an early stage, one of the barriers for translation and implementation of trustworthy research findings will be removed.

PP-123: Research integrity guidelines and safeguards in Hungary

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Introduction: The absence of well-defined institutional guidelines on scientific integrity can be a significant factor leading to research misconduct. Several countries acknowledged the significance of promoting awareness around the integrity of research and developing effective methods to address scientific misconduct. However, the development of guidelines and safeguards on research integrity demonstrates essential differences among these countries. This research seeks to gather and scrutinize guidance materials related to research integrity from research performing organizations (RPOs) in Hungary.
Method: We searched for official documents on research integrity, guidelines, or codes of conduct for best research practices, as well as documents addressing possible sanctions in cases of misconduct. The collection process involved the sampling of all Hungarian universities and searching their websites. Subsequently, email confirmations were performed with the institution's administrators. Documents that encompassed best research practices, explanations and examples of malpractice, ethical codes, and protocols for investigating misconduct were included.
Results (pending): We selected 30 research institutions that produced a total of 82 documents meeting our selection criteria. The analysis of these documents utilizes inductive content evaluation. The document coding process is currently underway and is projected to conclude by December 2023.

PP-124: Ranking the norms of scientific conduct: a numerical appraisal of chapter 3 of the Dutch Code of Scientific Conduct in a cross-sectional survey study

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Introduction
The Netherlands Code of Conduct for Research Integrity 2018 - not unsimilar to the European Code of Conduct (ALLEA) - lists 61 standards for good research practices. Non-adherence to a selection of these can amount to scientific misconduct. The impact of the code and it's norms may be diminished when researchers perceive inconsistencies in clarity, relevance, or seriousness. This study examined the perceptions of PhD candidates of these 61 standards.

Methods
PhD candidates at Leiden University participated in an anonymous survey related to the code's standards. This was part of a mandatory research integrity course with an option to share data. Respondents assessed standards' clarity and relevance on a 1-5 Likert scale, from "not at all clear/relevant" to "completely clear/relevant." A similar scale ranging from "Never" to "Whenever possible" was used to assess how often participants had experienced someone not adhering to the standard. Seriousness of non-adherence was categorised into "Minor shortcoming," "Questionable Research Practice," and "Research Misconduct." Before evaluating the code's practices, participants formulated three they deemed most crucial.
Results
74% (n=334) of PhD candidates who participated in the workshop shared their data. Average clarity and relevance scores were high with 4.4 and 4.2, respectively. Yet, some were less clear or relevant, with up to 27% and 33% of participants scoring <3. Additionally, frequent experiences non-adherence with scores >3 were reported up to 34% averaging at 2.1. Interestingly, only 15% of participants scored "Research Misconduct" on a standard considered plagiarism. Moreover, four standards labelled "Minor Shortcoming" in the code appeared among the participants' top 10 rankings for "Research Misconduct" violations. The following essential research practice values were identified: "Honesty," "Transparency," and "Reproducibility."

Discussion
Early-career PhD candidates at Leiden University generally perceive the standards for good research practices in the Netherlands Code of Conduct for Research Integrity as clear and relevant. There are areas, however, perceived as less clear or relevant, indicating potential for refinement. Topics from self-formulated good research practices offer a foundation for enhancing future training, educational content, and evaluations. The code can benefit from more precise definitions and robust educational measures to optimise its effectiveness.

PP-125: Training Fieldworkers to Research Sensitive Subjects: What are we really doing to minimize interviewer bias?

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Sexual and reproductive health and rights (SRHR) research functions in a challenging context as many of the experiences and behaviors that are most important to understand better are stigmatized: contraceptive use among unmarried individuals, pregnancy termination, sexually transmitted infections prevention and treatment, and gender-based violence, among others. Additionally, stigmatized populations (including people with marginalized sexual identities (LGBTQI+), sex workers, and those who are HIV) are key populations of interest.

Fieldworkers hired to collect primary data have often never collected data on sensitive and stigmatized topics. Being members of the community themselves, they might also hold stigmatizing attitudes. This may influence the quality of the data collected, which in turn could have an impact on the effectiveness of policies and programs that are based on such data.

The objective of this project is to provide guidance to researchers on how to train fieldworkers to minimize bias in data collection.

By soliciting examples of training materials from peers in the fields of demography, public health, sociology, anthropology, and any adjacent fields engaged in primary data collection on SRHR that can be deemed sensitive, we are compiling and assessing training materials with the end goal of identifying best practices to train fieldworkers in collecting data on stigmatized topics and/or populations.

We are currently in the early stages of collecting training materials. In the months ahead, we expect to receive additional resources for review. To evaluate the effectiveness of these training tools, we are developing an assessment rubric. Furthermore, we are engaged with experts at the Karolinska Institute who specialize in designing educational training materials. Pending the permission of relevant colleagues, we will share the best practices identified among the existing tools that have the potential to minimize interviewer effects when collecting data on SRHR.

In an effort to learn more about stigmatized behavior or populations, it's imperative that we do not perpetuate stigmatization because it both harms respondents and can bias the information that respondents are willing to share. Training data collectors with the strongest tools possible has the potential to minimize harm and increase the validity of the data collected.

PP-126: PREPARED

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In Horizon Europe Project PREPARED we are developing an operational ethics and integrity framework for times of crises. By framework, we mean a code of conduct, policy briefs, case studies and training materials which, taken together, will help us address the ethics and integrity challenges which are experienced during crises.

Our project is underscored by three pillars:

Recognize the broader perspective of a crisis;
Global crises affect all aspects of humanity. We therefore cannot ignore human, social, economic and political contexts in our research ethics and integrity framework. A crisis reaching all of humanity needs everyone to tackle it.

Motivate to action with values;
Rules alone do not motivate to action, but values do, which is why we develop a values-based framework for global crises.

Keep values understandable;
Clear and simple values in an organization are proven to improve the motivation for ethical conduct at work, which is why we aim to align our framework with common sense moral values.

The framework is currently in develpoment. In 8th World Conference on Research Integrity, we are presenting the findings, identified and validated during the first year of the project, regarding the challenges and specific risks that the times of crisis pose to research integrity.

PP-127: A Taxonomy of Retractions: Enhancing Trust Assessment in Scholarly Research

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Objective:
This study aims to classify retractions into distinct subcategories and assess the potential utility of this taxonomy in enhancing the assessment of trust in scholars and their research.

Methods:
We initiated this study by compiling a comprehensive list of reasons provided in retraction notices or expressions of concern drawing from the RetractionWatch taxonomies and database and workshops at the Association of Learned and Professional Society Publishers
(ALPSP) and CrossRef. From the experiences of the authors, we systematically categorised the listed items. For instance, if a retraction was attributed to "manipulation," we grouped such cases, regardless of whether the manipulation pertained to images or results. The taxonomy will be publicly discussed as a community from late October 2023.

Results:
Our initial analysis yielded four principal categories: Author Integrity, Research, Organizational Processes, and the overlay category of "Status." "Author Integrity" encompasses issues stemming from or impacting an author's actions, such as a lack of third-party study approvals or the involvement of all listed authors. "Research" pertains to issues related to the scholarly content, including contamination of cell lines, tissues, materials, or reagents, and includes a subcategory for "errors." The third category, "Combined Processes," covers retractions from problematic practices by entities such as publishers (e.g., copyright or data ownership issues). The "Status" category provides additional contextual information about an article but does not directly impact trust in the research, author, or combined.

Conclusions:
The development of a taxonomy for retractions provides a more nuanced understanding of how trust in research can be evaluated. For instance, a paper retracted due to a publisher error should not cast doubt on the author or the research. In contrast, a paper relying on contaminated cell lines, unbeknownst to the researcher, may call into question the reliability of the research hypothesis, but the author's integrity may remain intact. By unpacking retracted papers using this taxonomy, we contribute to a more equitable and insightful approach to assessing the trustworthiness of journal articles.

PP-128: National RI and RE resources: Ensuring responsible and trustworthy research

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Aiming at ensuring responsible and trustworthy research, the National Research Ethics Committees in Norway (NREC) build research integrity (RI) and research ethics (RE) framework and structures within all research fields. A substantial part of NREC's work is to make resources that may be used by research institutions, researchers etc. in ensuring RI and RE in research, in training and teaching, and in establishing a sound research culture.

We believe that there are particularly three characteristics of good RI and RE resources; they should be: 1) based on norms and standards in the research community; 2) field and area specific; 3) case driven.

1) Good and responsible research are based on a core set of scientific and ethical norms and values within the research community. To ensure RI and RE in research, the framework should take its starting point in self-regulation by the research community. Therefore, our resources are advisory and based on recognized norms and standards within the research community.

2) Some norms and practices are alike across disciplines, others are not. The NREC experience that there is a need for field and area specific guidance on research ethics to cope with issues that are particular to each field.

3) Open reflections and assessments of RI and RE issues are important factors to establish a sound research culture. Many of our resources are therefore case driven; they identify relevant factors that researchers should consider and reflect upon, present cases, serve as starting point for discussions etc.

NREC resources consist of guidelines, guides, opinions and resolutions issued by our independent committees consisting of researchers. We also have other resources that have been created especially for teaching, and which are intended as starting points for discussions about research ethics, such as the Research Ethics Library (FBIB) and Suggestions for teaching (based on FBIB).

The aim is that the RI and RE structures and resources will work in such a way that research is both responsible and trustworthy when communicated out to a broader society.

PP-129: Designing an interoperable framework for qualitatively rich case study reporting and monitoring

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This presentation will evaluate the methodological challenges encountered in obtaining qualitative analytical depth during a research exercise to collate and review real-world case studies of Research Misconduct (RM) as part of the Horizon Europe-funded BEYOND project. These challenges affected the possibility of following the remit of the research activity to analyse complex social, political and economic factors related to the research environment, as well as to identify new and emerging trends in the REI field. It will then use this discussion as a basis to propose the need for a more qualitatively rich framework for recording and monitoring cases of RM that is both interoperable and practical to implement, and provide a prototype for what this might look like. This framework will incorporate qualitative detail and 'thick(er) description' of RM cases to better account for the complicated mix of institutional, individual and systemic factors, and multiple and intersecting types of RM, present in most cases. Rather than presenting this framework as a finished product, my presentation will propose it as a starting point for co-design and innovation in how RM is monitored, analysed and contextualised.

PP-130: Scientific understanding and provision of an enhanced and robust monitoring system for RRI (SUPER MoRRI): A project presentation

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• Objective:
The “Scientific understanding and provision of an enhanced and robust monitoring system for RRI” (SUPER MoRRI) project contributes to monitoring Responsible Research and Innovation (RRI). It is concerned with promoting openness and responsibility in research and innovation through the provision of a monitoring framework that can support learning and organisational change.

• Method:
The project developed and implemented a comprehensive monitoring framework to colect quantitative and qualitative data from different levels across EU member states and selected non-European countries. The data collection procedures is supported by a network of national correspondents (EU 27/28 and non-European).

• Results:

The project examined research performing organizations, specifically a sample of European universities, assessing their policies and strategies in different areas of open and responsible research and innovation. The study involved 122 European universities and revealed varied results regarding the coverage of these areas and their status as strate-gic priorities. A survey among over 100,000 researchers at these 122 universities analyzed scientists’ activities, motivations, perceived benefits of and barriers to RRI. Another study focused on research funding organizations (RFOs), exploring how they exerted responsibility pressure through priority setting, funding instruments, and research assessment. Over 50 European funders participated. Additional data sources include RRI indicator-relevant H2020 projects and data generated in SUPER MoRRI’s self-assessment tool. Besides, various secondary R& I data sources were included. Notably, new Euroba-rometer data on EU citizens' attitudes towards science and technology became available.

• Conclusion:
The results of SUPER MORRI show how complex, slow, dynamic, and multifaceted transformative change is: Research funders are picking up on these aspects in their policies, whereas HEI’s are adjusting slower. Researchers do see benefits of open and responsible practices, but recognition and reward need further support to allow them to build research careers on non-traditional processes and outputs.

PP-131: Building a responsible research security program at a large university in the US

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In response to the White House Office of Science and Technology Policy (OSTP) release of the Guidance for Implementing National Security Presidential Memorandum 33 (NSPM-33) on National Security Strategy for United States Government Supported Research and Development, as well as the Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022 (CHIPS Act), the University of Tennessee-Knoxville formed a campuswide ambassador program to build a research security program. This presentation will cover the development and deployment of an institution's research security program. Although the training materials will be specific to the US, globally all research enterprises benefit from the lessons learned from these institutional efforts.

The goals of the program are to protect research security at one institution and reinforce adherence to research responsibilities, transparency, and equity, while also preserving the open and collaborative nature of the US research enterprise. The topics covered in the research security program relate to aspects of research integrity and research ethics applicable in any research setting: (1) cybersecurity; (2) foreign travel security; (3) research security; and (4) export control.

Cybersecurity includes topics related to authentication, protection of organizational communications, network security, protection of scientific data, and others. Foreign travel security involves a review of existing international travel policies dictating sponsored travel protocol with respect to conflict-of-interest disclosure, security briefings, and electronic device security (smartphones, laptops, etc.). Research security covers threat awareness and identification, including insider threat training, as well as responsible and ethical conduct of research trainings and research security breach preparedness and response. Export control emphasizes requirements and processes for reviewing foreign sponsors, collaborators, and partnerships, and for ensuring compliance with U.S. federal export control requirements and restricted entities lists.

The research security program will be launched in the Spring 2024, and therefore the development and deployment process, lessons learned, and a roadmap forward for other institutions will be ready to share at the conference. The presenters represent multiple colleges and domains to provide their perspective and recommendations for others to create trainings related to these topics.

PP-132: How do research ethics review structures at a UK and South African university shape REC members' agency to facilitate ethical and responsible research?: A Critical Discourse Analysis

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Objective: The presentation will offer a critical discourse analysis of experiences and perspectives shared by REC members at a UK University and a South African University regarding institutional factors that enable or constrain their agency to facilitate ethical and responsible research.

Method: Semi-structured interviews were conducted with 8-10 REC members from Coventry University and Stellenbosch University. Using critical discourse analysis, the interviews will be coded and analysed for important themes, insights and contrasts with the current literature.

Results and Conclusion: Currently I have conducted three interviews and will proceed with conducting additional interviews in November-December 2023. I will have completed my preliminary analysis by 31 January 2024.

PP-133: The Status of Research Integrity Policy Development on Artificial Intelligence in South African Public Universities: A Case Study to Better Inform Development and Training in the SADC Region

Caryn (Caz) Mcnamara[1], Marike Kluyts[1], Eleni Flack-Davison[1]
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The Higher Education landscape has changed drastically over the last 5 years, with both Covid-19 and the developments of the capabilities of Artificial Intelligence (AI) acting as catalysts. During the pandemic, institutions found increased instances of contract cheating and ghost-writing, while institutions fear that AI may make it possible for students or researchers to outsource their thinking work to non-human agents. Institutional policies are seen as a base from which to counteract issues of misconduct, but also as a foundation on which to build local and regional communities of practice around research integrity.

Our research endeavours to provide a comprehensive assessment of the state of integrity in South Africa's (SA) 26 public universities, with a particular focus on the role of developed policies and their integration into AI-related teaching and/or research processes. Our initial desktop study maps the 26 South African public universities policies for AI linked to ethics, research and academic integrity, and misconduct, by searching their institutional websites, and thereafter distributing an online questionnaire to the University Research Offices (UROs) for additional research integrity and uptake metrics. We aim to establish the scope of each URO's responsibilities, their perspectives on the use of AI in research, and whether they have specific policies governing AI use in research. The analysed results identify AI policy trends and uptake across the sector.

We share some of our findings, touching on (i) gauging the readiness of institutions to adapt to technological advancements, (ii) how institutional AI policy has, or has not, kept up with the changing higher education landscape, and (iii) whether there is a pressing need for sector wide change and/or additional training support. Support would be offered through membership organisations and/or inclusive communities of practice (CoP's) in the research integrity space in the Southern African Development Community (SADC) region.

PP-134: Bioethics and scientific integrity in assessing the quality of clinical research data: Scoping Review Protocol

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Objective: The main objective of this study is to evaluate the quality and integrity of clinical research data in accordance with the manual of good clinical practices.

Introduction: The life expectancy of Brazilians has increased in recent decades and consequently the incidence of diseases, thus increasing investment in new therapies and treatments, strengthening Brazil in the field of clinical research. Public and private institutions are being hired by dozens of pharmaceutical companies to develop experimental studies with vaccines and medications. As a social practice, they find their ethical foundation in the principle of social beneficence, with the aim of placing the research participant as a priority, which is above the scientific result, therefore, it advocates the promotion of the social good.

Inclusion criteria: will be selected articles from the last 5 years that address issues related to bioethics and scientific integrity in the assessment of clinical research data quality. This may include the analysis of ethical problems, scientific conduct violations, conflicts of interest, scientific misconduct, informed consent, research ethics committees, among other relevant topics.

Methods: To achieve the proposed objective according to the research question, we employed the scoping review methodology, which is a type of systematic review that maps concepts and findings related to the topic of interest, available in the main data sources. We utilized the knowledge synthesis approach. Scoping review encompasses all types of evidence across various levels.

conclusion: In progress, will be presented at the congress

PP-135: An Exploration of Institutional Research Integrity: Finding Synergies and Best Practices that Work

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This comparative study aims to explore the practices promoting responsible and ethical conduct of research followed by three universities located in different time zones and continents (NTUA in Greece/host of the 8th WCRI, Wits University in South Africa/host of the 7th WCRI, KAUST in Saudi Arabia), and see how these institutions fare on the world stage of Research Integrity and how they could exchange their lessons learned.

We will explore the established practices and the challenges experienced by our institutions regarding the promotion of research integrity, and the potential synergies that could come up from this comparison. In particular we will compare the national laws or guidelines governing specifically research integrity, as well as the extent to which our institutions rely on WCRI statements and other international guidelines and best practices.

The preliminary results of the study show that our universities face challenges in having research integrity high on the research agenda and promoting research integrity realistically, primarily driven by a research management function. This may be due to a shortage of funding or capacity. There may be different levels of training among the different stakeholders. Another challenge is the efficiency in handling research misconduct when it arises. Again, this may be due to a lack of resources and understanding and appreciation for the adjudication of research misconduct matters. In Greece, it seems that research ethics and research integrity overlap but are kept separate, whilst in South Africa and Saudi Arabia ethics and integrity are integrated together and are not separate as the one is tied with the other.
By the time of the conference the results of the extensive comparison of the three institutions will be available and this collaboration initiative will have also explored the possibility of updating the results for the 9th WCRI, establishing a continuous comparative study.

It will be shown that when it comes to Research Integrity the geographical location of the institution does not matter but instead one should consider how Research Integrity is interpreted and implemented at any institution conducting research with the motivation for such research to translate into policy and innovation.

PP-136: Public Integrity Resources adaptated in a Research Integrity Program for Scientific Institutions – An inovative proposal in development

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The Adolfo Lutz Institute, located at the city of São Paulo, a renowned Brazilian scientific research institution responsible, for example, for the first laboratory identification of the SARS-CoV-2 pandemic virus in Latin America in February 2020, among other important achievements that contribute to the construction of knowledge in science, has always valued integrity and ethics in its scientific community. In order to establish an institutional research integrity framework, a strategy was devised to adapt existing Public Integrity resources to be used within an innovative Research Integrity Program. This proposal is based on a structured system that has the commitment and support of top institutional management; that has a body responsible for managing research integrity (RI); that carries out educational and preventive actions on responsible conduct in research; that promotes a culture of RI; that establishes RI guidelines supporting researchers in decision-making; guiding responsibility in scientific research practices; that is able to monitor and follow up on institutional RI through risk management and compliance in RI; that establishes mechanisms and procedures for communication, training and follow-up measures and, if necessary, disciplinary action for research misconduct; to promote, monitor and carry out continuous evaluation and improvement of the program itself. Finally, that it dialogues and includes new ideas and positive international and national experiences that deal with the promotion of integrity. The foundations for the implementation of this new program are currently being laid at the institution, for example: the implementation of the body responsible, regulations for its operation, initial educational and preventive activities, the establishment of guides, directives and the institutional RI policy. This proposal is innovative and could help other scientific institutions that have not yet established measures to deal with RI issues by bringing together experiences in the area of public integrity and compliance with other experiences that have been established in measures to deal with the issue by the international scientific community that studies RI. The program is also characterized by its openness to introducing good and new ideas inside, such as those presented at this event. The feedback from this congress will be used to improve it.

PP-138: The teaching-learning process about ethics and scientific integrity in the light of film narratives

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Objective: Develop an educational proposal directed to members of society in general that addresses ethical conducts in research and integrity in studies with human beings, supported by the incorporation of movies narratives. Method: The research adopted a mixed approach, of an exploratory-descriptive nature, using excerpts from five cinematographic productions as an active methodology strategy. The study sample was defined in a non-probabilistic way, including 30 participants, aged between 12 and 54 years old. The information was collected through the application of an evaluation questionnaire, with responses in Likert scale format, and for analysis and interpretation, the data was broken down into categories. Results: The preparation of the educational proposal provided greater dialogue between research participants and promoted dense discussions and a critical perspective of the topics covered, establishing connections between the domains of ethics, the construction of citizen identity and social commitment, demonstrating agreement in all aspects presented. The findings pointed out that the issues discussed were relevant to the audience and significant for the training process of individuals, who cited the contribution of the educational proposal in changing behavior and attitude. This is a crucial factor considering the current controversial practices in the scientific context. It reinforces the importance of adopting the developed strategy that seeks to promote individuals' awareness and intellectual autonomy, to intervene, seeking to strengthen of science and social advancement. The feasibility of using cinematographic productions to address complex issues, such as scientific integrity and bioethics, was also verified, allowing to stimulate discussions and understandings of the matter by students, researchers, and the society in general, it is worth noting that such methodology has resulted in successful experiences in the field of teaching and learning. Conclusion: It is essential to stimulate critical reflections in relation to the subjects that permeate technical-scientific production. In this sense, this research enables the training of people with conduct based on and fortified within bioethical principles, making deviant practices less frequent, in the face of apparent conflicts, and favoring the equitable expansion of scientific knowledge, regarding ethics and scientific integrity.

PP-140: Preserving the Integrity of the Scholarly Record: Insights from the Crossref Community

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Scholarly record, which refers to the published outcomes that arise out of scholarly inquiry, has traditionally included outputs such as journal articles or book chapters [1]. However, in the recent past, the scope and complexity of the scholarly record has grown substantially to include a diversity of other research outcomes such as data sets, preprints, conference presentations, peer reviews, and the relationships between each of these components [1].

Scholarly communications infrastructure needs to keep pace with this rich diversity of published outputs, as it provides an opportunity to increase transparency of the network of relationships between scholarly objects, actors, institutions and actions, leading to the availability of a greater context for any given work. This rich context can serve interpretation, supporting the scholarly community to assess the impact and integrity of the scholarly output. Therefore, preserving the integrity of this scholarly record is a key component of research integrity.

Working with the community to preserve, connect and make the scholarly record openly available has been the focus of Crossref since its inception. In this presentation, we will begin by presenting Crossref's vision of how the metadata deposited with us can aid assessment of research integrity. Then, we'd like to bring insights from our community on this topic, gathered at the recent community roundtable meeting. There, we facilitated discussions with a diversity of stakeholders that include research integrity specialists at publishers, editors, funders, and institutions, to understand their inputs and mutual dependencies and challenges in the process of capturing, preserving and using metadata in assessment of research integrity. We hope that these insights will be helpful for the community for identifying opportunities to contribute and leverage rich metadata for research integrity.

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PP-141: Public consultation on research ethics, integrity and misconduct: Insights from BEYOND project

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It takes the whole community to cultivate a good research culture. Despite the obvious consequences for the public, research misconduct issues and cases are mostly addressed within the scientific community and inside scientific organizations. It raises questions about public engagement, transparency and trustworthiness. At the same time, the 2021 Eurobarometer on European citizens' knowledge and attitudes towards science and technology shows that one-third of citizens believe that public opinion should be seriously taken into account when making decisions about science and technology. The public has been acknowledged as a crucial stakeholder in the context of research ethics and integrity also by the European Commission calling to align the research process with the expectations, needs and values of the society.
To promote a dialogue between the scientific community, public and different groups of stakeholders, and to emphasize the importance of public and stakeholder engagement, the Horizon Europe BEYOND project is implementing bottom-up and solution-oriented public consultation on public and stakeholder perspectives on scientific misconduct and research ethics and research integrity interventions for addressing research misconduct. The public consultation takes place from October 2023 to February 2024 and it includes closed and open questions, vignettes and qualitative interviews with stakeholders - representatives of non-governmental, civil society and industry organizations, social media activists and journalists. We aim to collect and analyze public and stakeholder views on the impact of research misconduct on society, investigation of research misconduct cases, the role of the general public and citizens in the prevention of research misconduct, risks of research misconduct in the context of citizen science etc.
In our presentation, we will present the results of the public consultation.

PP-142: From the Researcher to the Integrity of Knowledge Production

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This study is part of the ETHOS - Exploring Research Integrity Policies and Practices in "the Houses of Science"project, which aims to investigate how to better align research practices, researchers opinions, and integrity guidelines. Here I present preliminary results of an ethnography of the cognitive sciences in three European countries (Germany, the Netherlands, and the UK). The Purpose is to capture the research realities of cognitive scientists in different national contexts and to understand the perspective of actual researchers. Specifically, the results stem from semi-structured interviews, focus groups, and participant/ lab observations. The participant/ and lab observations are from lab meetings, journal clubs, open science communities, meetings between researchers discussing different aspects and stages of their research, and numerous experiments. Topics captured range from, among other things, preregistration and registered reports, replication and reproducibility, as well as transparency and open science to time pressure, workload, authorship, and literature practices. If our aim is to improve research, then we do not only have to understand what conditions affect the conduct of specific research practices, but also what are the motivations and reasoning behind the practices that are actually carried out. Therefore, my contribution could complement the current research integrity discussion by providing insights into actual practices and motivations as well as reasoning behind certain practices that are relevant for the integrity of the scientific process and the production of knowledge. Moreover, the results might shed some light on how current proposed improvements to science (reforms) fit into the actual practices of researchers, why cognitive scientists engage with issues related to research integrity (e.g., open science or reproducibility), and what might be potential tensions between norms, rules or guidelines and the actual research reality.

PP-143: The Embassy of Good Science: your online platform for research integrity and ethics

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The Embassy of Good Science is an online wiki platform dedicated to research ethics and integrity (https://www.embassy.science). The platform showcases relevant guidelines, educational materials, country reports, cases, and scenarios. Resources are described in a way that is easy to understand and, due to the platform's wiki structure, related resources are linked across the platform.

The platform has recently launched new functionalities allowing users to develop their own courses directly on the platform. Users can add over 35 types of interactive eLearning exercises to their courses using H5P open-source content. Educators can also integrate H5P content developed on The Embassy in learning management systems such as Canvas or Moodle, aiding the reuse and dissemination of content. There are numerous benefits to making courses on The Embassy of Good Science, the most obvious being that it is free to users logged in with their ORCID researcher id. Content can also be easily edited to ensure the continued relevance of materials.

The platform has also launched a new initiatives page, increasing the visibility of the research integrity and ethics community and allowing larger projects to be visible for the whole community and smaller projects to easily develop an online presence. The Embassy continues to enable researchers to find useful guidance, rules and tools to conduct research responsibly.

PP-144: Human Intelligence and AI Tools for Maintaining Research Integrity in the Age of Generative AI

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Generative AI tools, such as ChatGPT, have the potential to revolutionize the scholarly publishing industry, but they also pose new challenges for maintaining research integrity. These tools can be used to generate highly plausible but inaccurate content, and they can be difficult to detect with AI-powered tools alone.

The authors argue that human intervention is essential for maintaining research integrity in the age of generative AI. The authors propose a hybrid approach that combines human intelligence with AI tools to detect and prevent the publication of fraudulent content.

Human intelligence is more effective than AI tools for tasks such as reviewing manuscripts for contextual scope match and checking for logical fallacies. AI tools, on the other hand, can be used to automate some of the more tedious aspects of research integrity review, such as plagiarism, checking for inappropriate citations, and image duplication.

The authors argue that a hybrid approach that combines human intelligence with AI tools, is the best way to scale research integrity review without sacrificing quality. The authors also discuss some of the challenges of implementing this approach and suggest possible solutions.

This topic is relevant to a wide range of stakeholders in the scholarly publishing community, including publishers, editors, researchers, and policymakers. It provides a timely and thought-provoking analysis of the opportunities and challenges posed by generative AI for research integrity.

PP-145: Requirements for Data Management and Sharing Plans in Biomedicine: a scoping review

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Objective: A Data Management Plan (DMP) is an important component of research data management. Many research funding and performing organizations now include DMPs as a requirement or expectation in their research mandates. While there is consensus on the basic elements of a DMP, requirements, templates, and examples vary across funding agencies and universities. Our aim was to conduct a scoping review to identify existing DMP templates and examples, guidance, and requirements from research funders, universities, and other research organizations.
Methods: Using the Joanna Briggs Institute (JBI) methodology, the scoping review will identify and collect DMP templates and examples from multiple sources by two approaches. First, we will identify documents from research funding organizations through funders' websites and supplemented with Google searches. We will collect the DMP requirements from major global funding bodies with the largest documented health research expenditures sampled from the curated Health Research Funder's list (www.healthresearchfunders.org). We will then identify the relevant documents from research-performing organizations. For that, we will perform a stratified random sampling of the organizations with public DMPs available on the three major platforms: the DMP tool (https://dmptool.org/); the DMP online (https://dmponline.dcc.ac.uk); and the DMP assistant (https://assistant.portagenetwork.ca/).
The search will be independently conducted by two researchers. We will extract the following information: (1) whether the organization has DMP requirements; (2) Whether they provide researchers with templates to use, and if those are tailored for a specific study design (e.g., RCT, Systematic review, or a general template).; (3) The evidence base underlying the elements required or suggested for the DMP (e.g., data standards, privacy and confidentiality issues, data organization, sensitive data, data access, etc.); (4) When provided, information on how the DMP template was created (evidence; who, when, and the methods used). We will use NVivo to upload the records and data collection and analysis. The study is still in progress, but we are committed to delivering the results to present at the conference.

PP-146: Evaluating Severity in Cases of Research Misconduct: Finland's new RI-Guidelines

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Evaluating Severity in Cases of Research Misconduct: Finland's new RI-Guidelines (2023).

The new version of Finnish Research Integrity Guidelines (TENK 2023, p. 16-18) presents a quandary: severity is introduced as a necessary variable, the evaluation of which is required for every type of classification of research misconduct. If insufficiently defined, severity assessments pose the challenge of excessive impact of subjective valuation. This presentation aims to address this problem by: 1. presenting a tool for severity evaluation, 2. a call for international cooperation.

A Research Integrity (RI) violation implies "serious intentional activity" harming RI, RI being "seriously neglected due to indifference or carelessness", or RI being "seriously neglected due to ignorance". Thus a sufficient level of severity is needed for addressing a violation as misconduct, regardless its type. Practical knowledge concerning misconduct cases is still based on the old version of the guidelines. What instruments could TENK utilize to conduct evaluations of severity more analytically and thus objectively?

An evaluation matrix is prepared for further development: Four criteria are used to assess level of severity in TENK 2023 (p.17, Fig. 2). These are: 'scope', 'recurrence', 'significance' and 'consequences'. These are used as separate categories on the x-axis. A notable amount of concern regarding at least one of these categories should be present for research misconduct to be in question. This amount of concern is represented on the y-axis, with the three-level scale: negligible-minor-major.

The evaluation matrix is compared with previous examples, including that of Yeo-Teh & Tang (2022).

Finally, feedback is called for from international colleagues in form of know-how and experiences of best practices.

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PP-147: Research Integrity Officers' Responsibilities and Perspectives on Data Management Plan Compliance and Evaluation

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This study presents findings from interviews with US Research Integrity Officers (RIOs) on their overall responsibilities as well as perspectives on Data Management Plans (DMPs). DMPs are formal documents describing the roles and activities for managing data during and after research. DMPs are now a required by many funding agencies globally. A purposive sample of Research Integrity Officers (RIOs) from the top ten US private and public universities were recruited for interviews using an open-ended questionnaire related to their job duties and perspectives on data management plans implementation and evaluation. Responses from twelve participants were conducted, transcribed, anonymized, and coded in NVivo.

RIO backgrounds, duties, and perspectives varied. The mode number of staff/faculty people dedicated to the RIO role at these institutions was a halftime appointment. All RIOs had some responsibilities related to Authorship, Publication, and Inventorship and Integrity and Information with 11 participants also responsible for offering some Responsible Conduct of Research (RCR) training. Most RIOs assumed that Principle Investigators are responsible for DMP compliance during sponsored projects as well as the long-term data management after a project ends. None of the twelve participants has received any Research Data Management training. Given the sea change in research practices, RIOs should have more training as data-intensive research emerges and DMPs become commonplace.

PP-148: Improving Research Ethics Expertise and Competences to Ensure Reliability and Trust in Science (irecs)

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The emergence of a new and emerging technologies can pose challenges for Research Ethics (RE) and Research Integrity (RI), as these technologies have a huge impact on society as well as on researchers. This is particularly true at the global level. While research is becoming increasingly global, ethical standards often remain a national issue. In addition, new technologies tend to emerge more quickly than the ethical issues associated with them can be addressed. One risk is that citizens of countries with the fewest safeguards will be exposed to science that does not meet ethical criteria. As a result, the research ethics process faces new challenges on a global scale. These challenges can lead to an erosion of public trust in science because good science depends on ethical research practices, and maintaining the highest ethical standards is crucial to gaining the public's trust in scientific research.
The irecs project is a Horizon Europe project that aims to raise awareness among researchers of the ethical challenges of new and emerging technologies in research. The project has selected the technologies of AI in health, extended reality, gene editing and biobanking as technologies of focus and will train researchers, students and ethics reviewers to anticipate and mitigate ethical issues in these new and emerging technologies on the individual level. By developing and pilot-testing a RE and RI governance model for research performing and higher education institutions, combining guidance and educational elements, irecs aims to strengthen the reliability of science by increasing research ethics expertise and competencies and building capacity on the institutional level. To this end, irecs will develop case studies and training materials to train at least 600 researchers, students and members of research ethics committees. Irecs will also create a horizontal community of research ethics practitioners, policy makers and other stakeholders building on the European Network for Research Ethics and Research Integrity and the Embassy of Good Science.

PP-149: Lifting of embargoes to data sharing in clinical trials published in top medical journals

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Objective:
To evaluate whether clinical trials published in top medical journals with a data sharing statement that mentions an embargo towards data-sharing eventually lift the embargo and allow sharing of the data.

Methods:
We revisited 158 clinical trials published in JAMA, Lancet, and NEJM between July 1, 2018 and April 4, 2020 that had claimed a data-sharing embargo. Data retrieval involved searching for individual participant data (IPD) in various mechanisms and contacting authors or relevant entities for trials if IPD were not readily found. Three reminders were sent between July and August 2023.

Results:
Out of the 158 studies analyzed, 104 (65.8%) had lifted their data-sharing embargo by April 2023. There were no major differences according to type of funding. However, 44 (27.9%) did not respond after three email reminders, and 10 (6.3%) explicitly refused data sharing for various reasons. Among the studies that permitted data access, the most common method to share IPD were data repositories (48/104 (46.2%)) and direct requests to authors (29/104 (27.9%)). Industry-funded trials used primarily repositories and company requests, NIH funded trials preferred repositories and requests to authors, and other trials preferred requests to authors. The declared data sharing methods in the initial statements were consistent with actual practices in 74% of the trials.
Out of 28 datasets with a specified end-date for the data sharing, 13 had end-dates post-September 2023. For the rremaining 15 studies where the window for sharing had ended before September 2023, for 10 we received no reply and for 5 we received a reply that the data were nevertheless available.

Conclusion:
Five years post-ICMJE's data sharing requirement came into force, gaps between policy and practice still exist. Despite a substantial percentage of lifted embargoes, many trials still refuse to share data or cannot be accessed. Strengthened monitoring mechanisms and fostering a culture of openness are imperative for maximizing the potential of data sharing in advancing medical research.

PP-150: Research Ethics and Research Integrity challenges in accelerated clinical trials, an interview study

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Objective: The COVID-19 outbreak pushed researchers to deliver results quickly. This affected both pre-existing clinical trials as well as new accelerated clinical trials for COVID-19 treatments or vaccines. Although the acceleration of clinical research can be beneficial, it can also generate research ethics and integrity challenges that require special attention. By interviewing clinical trial experts and policy-makers, this study aims to identify and explore such challenges.
Methods: Through purposive sampling, we recruited 25 participants, including representatives of pharmaceutical companies, the European Medicines Agency, the World Health Organization, European national authorities, non-governmental organizations and key opinion leaders from research and clinical development organizations. Research ethics and integrity challenges were identified using thematic analysis.
Results: Four main challenges were identified: the tension between maintaining high standards of review and the need to speed up protocol assessment experienced by Research Ethics Committees; a lack of collaboration and coordination among stakeholders; poor scientific communication and a lack of public trust in science; and the exacerbation of existing distributive injustices in clinical research when accelerated. According to the experts, Research Ethics Committees need training and improved resources to accelerate processes whilst ensuring the safety of clinical trials participants. The coordination of the research response is necessary to avoid unnecessary duplication, underpowering of studies, and the waste of economic resources. Experts cautioned that an uncoordinated research response could affect public trust in science and highlighted the importance of researchers' communicative skills, especially in crises which require quick research results. Our findings also indicate that the acceleration of clinical trials can exacerbate pre-existing inequalities in research. Experts described an unequal distribution of acceleration efforts across infectious diseases, with greater efforts for diseases affecting high income countries. Furthermore, accelerated trials can lead to lack of diversity in clinical trials research participants, resulting in unrepresentative samples.
Conclusion: Increasing and improving collaboration and coordination among all clinical trial stakeholders is essential to safeguard ethical and integrity standards. Further efforts must be directed towards developing mechanisms and policies that can address these challenges for future emergencies.

PP-151: When Research Collaboration and Equitable Partnerships go wrong: The case study of a South African indigenous community and an international collaboration

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Stellenbosch University received unfortunate global attention when it came to light via a whistleblower that human tissue collected from an indigenous population for research purposes only, was used for commercialisation purposes by an external organisation. One such highlight read: DNA samples being returned to Africa after consent row - Research Professional News.

This presentation will give insight into the underlying principles of equitable partnership, research integrity, ethics, human tissue legislation (and more importantly understanding the difference in view of what constitutes DNA), research purposes vs. commercialisation activities, patient consent, material transfer agreements, contractual terminology, research data management, and the importance of understanding the differences in jurisdictions. Each of these aspects will be discussed within the context of this case study. Most importantly, the responsibility towards human participants cannot be neglected.

A thorough analysis of the factual information will shed light on how the unfortunate situation came about, how it could have been avoided and what international research partners should take cognisance of when entering into collaborative research projects, especially where legislative frameworks differ. Emphasis will again be placed on the importance of honouring the agreement with the human participants and ensuring that the exploitation of disadvantaged communities is prevented.

Recommendations to partnering institutions will be forthcoming, where healthy equitable partnerships are balanced with the required ethical and legislative compliance requirements, honouring the human participants throughout the study.

PP-152: EU-funded VERITY project: Towards a new ecosystem of trust in science

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Objective: This poster presentation aims to present the EU-funded VERITY project focused on the question of trust in science. The skepticism surrounding the vaccine rollout echoed the hostility to climate science we have seen in recent years. These events beg the question: Are we living in a post-science society? Not necessarily. People are not anti-science, we just disagree on who is the legitimate expert and who has the right science. A serious cause of the hesitancy or resistance to follow science-based recommendations is eroding trust in scientific institutions. While trust in science is much greater than trust in politics and economy, nowadays science is inevitably intertwined with politics and economy, exacerbating power relations and affecting trust in science. Furthermore, the traditional eco-system of stewards of trust is broadening with companies, education and knowledge platforms (e.g. Wikipedia, Coursera), social media, influencers, art and museums, peers, friends, colleagues and many more.

Method: VERITY combines multidisciplinary expertise, both from the social sciences and engineering, to synthesise existing knowledge to evaluate tools and methods for enhancing trust in science through original research and small-scale participatory activities, before producing the VERITY Protocol of Recommendations for "stewards of trust". VERITY brings forward interdisciplinary expertise to perform network analysis and execute interventions on social media, to validate the VERITY Protocol and alleviate practical barriers for its uptake in practice by different stakeholders. VERITY findings will be widely disseminated to different "stewards of trust", such as policymakers, research funding and performing organisations, higher education institutions and other research and innovation actors, to enhance societal trust in science and facilitate science-society co-creation.

Results and Conclusion: The VERITY project seeks to rebuild the relationship between science and society. VERITY overall approach is guided by three questions: (1) what people trust, (2) whom people trust and (3) how trust is built. VERITY focuses on re-defining the eco-system of trust and stewards of trust and connecting them with effective methods of enhancing trust in science through connecting five machines of trust, namely research ethics, research integrity, co-creation, technology assessment and benefit sharing.

PP-153: Expanding the notion of Indigenous Knowledge Recognition in the Cape Town Statement on Fostering Research Integrity through Fairness and Equity

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International research collaborations are a vital source of intellectual capital for strengthening Higher Education Institutions (HEIs) in Africa's research profile. The Cape Town Statement on Fostering Research Integrity through Fairness and Equity provides an international framework for promoting fair research partnerships. As an aspirational Statement, it supports Goal 17 of the Sustainable Development Goals (SDGs) of the United Nations, which urges nations to "revitalise the global partnership for sustainable development". Many HEIs (particularly in the Global South) continue to experience an upheaval regarding fairness and equity in international research collaborations. The statement is aspirational and provides 20 recommendations associated with five values. Indigenous knowledge recognition has been identified as one of the fundamental values to foster epistemic justice in collaborative research between Low and Middle-Income Countries and High-Income Countries. This value underscores the importance of ensuring that knowledge production should not be tainted by biases related to gender, race, ethnicity, culture and socio-economic status. In this study, I contend that the three recommendations proposed in the Statement to promote Indigenous Knowledge recognition need to be developed further to provide clear action guides necessary to localise the value in various settings. The African Charter on Transformative Research Collaborations, launched on 5 July 2023 in Windhoek, is proposed as a valuable resource to expand these recommendations, mainly by providing action guidelines to address multi-layered power imbalances in global knowledge production.

PP-154: Research Integrity in University Foundational Documents in developed and developing countries

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Ensuring the integrity of research is paramount in maintaining the credibility of scientific knowledge. This study aims to identify and compare the components of research integrity outlined in foundational documents of universities in both developed and developing countries.
The research methodology employs a descriptive-comparative approach, involving the analysis of the foundational documents from universities, including codes of ethics, codes of conduct, strategic plans, missions, visions and values, and other specific policies. To determine which documents would be included in the analysis, six developed countries and six developing countries were chosen based on the classification provided by the "World Economic Situation Prospects 2022". In total, 24 universities were randomly selected representing all continents.
Through the preliminary analysis, it can be observed that the foundational documents frequently highlight the importance of responsible conduct and the protection of human subjects (56.7% y 55.8%, respectively). Conversely, components such as peer review (8.3%), animal welfare (10.8%) and conflict of interest (16.7%) are mentioned less frequently, which means they tend to receive less attention.
Furthermore, the study reveals that research integrity components associated with responsible conduct (56.7% in both cases) and the protection of human subjects (53.3 and 58.3%) are similarly present in both developed and developing countries. The common emphasis suggests the significant importance of these components across diverse academic settings.
However, significant disparities in the components also emerge between developed and developing countries, particularly in mentoring (55 and 43.3%) and collaborative research (35 and 21.3%). Developed nations consistently emphasize these aspects with a comprehensive approach, including recommendations, consequences and protocols for addressing research misconduct. Conversely, developing countries often lean toward a deontological perspective, which may lead to vagueness and potentially hinder researchers' ethical decision-making.
In conclusion, this study underscores the critical role of research ethics in academia and exposes disparities in scientific progress between developed and developing nations. It also emphasizes the vital role of universities in promoting ethical conduct and highlights the responsibility of developed countries in supporting other countries and institutions, advancing global research integrity and collaborations. For developing nations, the consideration of established best practices from other universities can be invaluable.

PP-155: POIESIS: How Research Integrity and Open Science affect Public Trust in Science

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While societal dependence on sound scientific research and responsible innovation has become increasingly visible, concerns about public trust and mistrust in science have simultaneously been mounting. The debate about societal trust in science is characterised by two intuitively appealing assumptions: First, that trust depends on scientists' capacity to demonstrate high standards of research integrity and ethics, and that breaches to research integrity will lead to mistrust. Second, that citizen and civil society's involvement in co-creating research agendas and contents makes research more relevant and responsive to society, consequently strengthening trust.
The POIESIS project sets out to study these assumptions. Despite the assumptions' plausibility and frequent use as motivation for addressing research integrity and open science issues, they are understudied and hitherto provide little guidance for practitioners to foster public trust. POIESIS addresses this through an extensive empirical programme, including an assessment of international public surveys on public perceptions of science, as well as elaborate primary data, collected through expert interviews, focus groups, public deliberative workshops and policy workshops. It aims to provide recommendations for tackling societal mistrust in science, research and innovation, as well as for strengthening the co-creation of research and innovation contents by society. In particular, it will have a strong focus on 'chains of mediation', i.e. channels that support the communication of research findings and practices to non-academic actors. This will lead to better understanding of the role of science communicators in fostering public trust in research through research integrity and open science practices.
The POIESIS project is currently ongoing and will be in its second year by the time of the WCRI. At the congress, we will present early findings from the analyses of international survey data, including the state of play on public trust in science, particularly in connection to covid-19 and climate science, and in the aftermath of misconduct cases. This work identifies an initial set of indicators affecting public trust in science. Second, we share findings from public deliberation workshops, expert interviews and institutional focus groups conducted in seven countries, on the effects of research integrity and open science on public trust.

PP-156: About re4green

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Problems like climate change, environmental degradation, and the loss of biodiversity pose major challenges for research ethics (RE) and research integrity (RI) frameworks to address the ambitions of the European Union for transformative change towards sustainability as stated in the Green Deal, Twin Digital, and Green Transitions, as well as environmental ethics and climate ethics. The latter demand to expand the scope of concern and protection for RE and RI, e.g. because they operate on longer time scales, considering intergenerational justice, but also to deal with a plurality of environmental values. Research and Innovation (R&I) has often been part of the problem in this respect, and the development of an appropriate framework of RE and RI is necessary to support the transition to a sustainable economy and society.

Based on a bottom-up methodology, including social labs, RE4GREEN, a Horizon Europe project, will integrate the fields of RE and RI and environmental and climate ethics, design and operationalize a framework of RE and RI, and promote uptake through trainings to support effective, responsible advancement of green transition in the European Union. The project aims to map environmental and climate ethics in the context of R&I and identifies key ethics and integrity challenges in the green transition, which will be addressed by operational guidelines, including the European Code of Conduct for Research Integrity. During the project, a scientific community will be built through the organization of several social labs to raise awareness for the issues addressed. This will also be fostered by the development and implementation of training programs concerning climate and environmental aspects of R&I.

PP-157: Advancing international collaborative research and promoting research integrity: An analysis of stakeholders' perspectives between Sweden and Japan

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Objective:
The primary objective of this study is to identify emerging challenges in conducting collaborative research and promoting research integrity in Ageing, Materials Science, Sustainability, Artificial Intelligence, and Innovation and Entrepreneurship in an international collaboration project (MIRAI 2.0; 2020-2023) between Sweden and Japan.

Method:
This study utilizes a qualitative research method with two research frameworks (collaborative research and research integrity) to analyze the interview data of the primary stakeholders (institutional leaders, researchers, project coordinators, and project managers) of 11 Swedish universities and 9 Japanese universities.

Results:
With the approval of the Ethics Committee for Research on Human Subjects at Sophia University in Japan, the primary investigator conducts interviews and analyzes the interview data based on the two research frameworks. First, the primary investigator utilizes the four primary dimensions (national research systems) such as (1) the organization and funding of research, (2) legal and normative environments, (3) regulatory and publication oversight, and (4) graduate education and postdoctoral training (Anderson, 2011). Second, primary investigator applies the four qualitative research aspects (research integrity) such as (a) research integrity and institutional management, (b) climate assessment, (c) performing research misconduct investigations, and (d) RCR training and education (National Academies of Sciences, Engineering, and Medicine, 2017).

Structural differences (courses and credit-earning) in graduate education could be refined to promote the student mobility. Curriculum structure and policies of graduate education in Sweden is organized more flexible in comparison to those of the Japanese graduate education.

Research integrity and institutional management in Sweden and Japan could be refined as the guidance to promote international research collaborations. Institutional efforts on research integrity should not be defined by the nation an institution locates to or the access level to research integrity policies and other resources at the institutional and national levels.

Conclusion:
The study results indicate two suggestions to refine the international collaboration project between Sweden and Japan. First, stakeholders need to harmonize policies of graduate education in promoting the mobility of graduate students. Second, institutional leaders need to advance the broader stakeholder engagement on research integrity at the institutional, national, and international levels.

PP-158: Scientific Integrity activities at the US Department of Agriculture

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The U.S. Department of Agriculture (USDA) has been a leader in Scientific Integrity policies in the U.S. government. The USDA has twenty nine (29) subordinate agencies and staff offices with diverse missions and nearly 100,000 employees. USDA has actively worked to raise the visibility of Scientific Integrity where the goal is to increase public confidence and public trust in federal science and science-based decision making. This presentation will describe the challenges, successes and opportunities of administering a large scientific integrity program with a diverse audience.

PP-159: Strategies for fostering research integrity through community co-creation

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TIER2 – enhancing Trust, Integrity and Efficiency in Research through next-level Reproducibility, an EU Horizon Europe project that aims to broaden our knowledge and understanding of reproducibility, co-create and test tools, engage and grow communities, and implement high-quality policies. TIER2 actively engages with researchers from different research areas (social, life, and computer sciences) and two cross-disciplinary stakeholder groups (funders and publishers) to enhance reproducibility across contexts.

Eight pilot projects within TIER2 focus on the development and implementation of new reproducibility tools and practices targeted towards our stakeholder groups. These include tools for reproducible workflows and a reproducibility checklist (researchers), workflows to review data/code (publishers), dashboards to monitor policies linked to reproducibility (publishers and funders) as well as reproducibility promotion plans (funders).

Co-creation is a form of active and inclusive stakeholder engagement to collaboratively ensure the selection, prioritization, design, and implementation of new tools and practices which deliver value for their end users. Co-creation sessions also serve to explore opportunities for closer collaboration within and across stakeholder communities and sharing of resources and expertise.

Planning and designing a fitting co-creation activity depends on several aspects. 1.) Stakeholders have differing needs and face specific barriers when it comes to implementing reproducibility tools and practices. Conducting appropriate co-creation sessions ensures that generated outputs are impactful and useful. 2.) Tools and practices are at different stages of development and implementation. Assessing which level of feedback and engagement is needed at the current step in the process, co-creation techniques vary to generate the desired outcome. 3.) Organizational aspects (e.g., size of organizational team, number of potential participants, time required to organize activities) influences activity selection.

Various co-creation activities can be employed to suit needs: Hackathons are used for tool development or improvement, asynchronous virtual brainstorming events and BarCamps to create whitepapers and capture diverse perspectives, co-working calls and “Collaboration Cafés” are more informal ways for tool improvement and community building, while focus group-interviews facilitate needs assessment.

We present our implementation of a variety of co-creation strategies tailored to the readiness of the stakeholder communities and to the tools and practices.

PP-160: Perceptions of Research Integrity among Professionals at the Oswaldo Cruz Foundation: Insights from a Brazilian Public Research Institution

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Objective: This study aims to assess the perception of research professionals at Oswaldo Cruz Foundation (Fiocruz), a prominent public health research institution in Brazil, regarding Research Integrity.
Methodology: A descriptive and cross-sectional study is currently being conducted employing a structured written and virtual questionnaire via the Research Electronic Data Capture (REDCap®). Eligible volunteers are research professionals at Fiocruz, aged 18 or older, who have provided informed consent. Data collection is expected to occur from July to December 2023. Ethical approval from the institution's Ethics Committee has been obtained before the volunteers' invitations.
Results: Between July and August 2023, 2,295 invitations were sent, and 231 (10.1%) eligible volunteers responded to the questionnaire. Most respondents were public servants (84.4%) and professionals with over 10 years of research experience (87.0%). Regardless of age, employment status, gender, faculty roles, or research experience, most participants demonstrated familiarity with Research Integrity (50.2%) and understood research misconduct definition as "Fabrication, Falsification, and Plagiarism (FFP) in proposing, performing, or reviewing research, or in reporting research results" (73.6%). However, it is noteworthy that Research Integrity was reported to be partially familiar to public servants (42.1%), professionals with over 10 years of research experience (40.8%), and faculty members (39.1%). Additionally, nearly 20% of respondents of each one of these groups reported partial knowledge of the FFP research misconduct definition. Furthermore, a minority of respondents have indicated a complete lack of familiarity with Research Integrity (5.6%) and a lack of knowledge of FFP research misconduct definition (0.4%), including public servants, professionals over 10 years of research experience, and faculty members.
Conclusion: Overall, our data suggests that research professionals at Fiocruz are generally familiar with Research Integrity and recognize FFP as research misconduct. However, the reports of partial familiarity or complete unfamiliarity with Research Integrity, along with limited knowledge of research misconduct definitions, indicate the existence of a gap in the research integrity culture at Fiocruz. Addressing these gaps is essential to strengthen the culture of research integrity at Fiocruz. Following data collection and analysis, we expect to provide valuable insights to support initiatives for fostering Research Integrity at Fiocruz.

PP-161: Working with a consortium to help establish a baseline of good research integrity practice across the Republic of Ireland

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In 2018, Epigeum's (a part of SAGE Publishing) Research Integrity online programme was integrated as a fundamental strand within the National Forum for Research Integrity (NRIF) in the Republic of Ireland's strategy to establish a coherent standard level of knowledge and thereby practice in the area across the whole of Eire. The key driver behind this research integrity training was a requirement from Irish funding bodies to achieve this baseline of good research practice. Alongside the Irish funding agencies, a number of traditional universities, technological universities, and research performing organisations were involved in the project. An objective was set of training 15,000 research active staff in research integrity within three years, and this target was achieved in the early months of the fourth year (the contract was renewed for a further three years, and at the time of writing was due to be continued for a further three or five years from January 2024).
This session will look at the impact of the training and at how both Epigeum and the member institutions managed to ensure that key user engagement targets were met. For Epigeum it was the first time that we had collaborated so closely with such a large group of institutions, and we gained much insight into how best to manage an agreement of this type. We also learned a lot about the research integrity context in Ireland, and this fed into a country-specific version of the Research Integrity programme, for which we consulted various academics in the Irish research communities, who kindly gave us their guidance in this endeavour.
The rollout of the project involved many initial (and ongoing) on-campus visits and online meetings by the Epigeum implementation team, supplemented by two user group meetings per year, in which best practice was discussed by the members. Held pre-Covid in Dublin and thereafter online, the late 2023 meeting was hybrid and hosted in Dublin. This meeting featured a presentation by an expert in academic integrity for the first time – a reflection of how the overlap between research and academic integrity is becoming ever more apparent and relevant.

PP-162: The ethics associated with reusing patient data: An assessment of patient registries

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Objective: As patient data have become increasingly accessible over the years, more and more attention has been directed at the ethics surrounding the use of such data. While ethical guidelines are presented frequently in research papers and institutional documents, it is currently unknown how patient registries implement the ethics components from these guidelines in practice. In this project, we assessed to what extent a sample of 70 patient registries provides information about a range of normative ethics practices.

Method: We searched for patient registries in the resource database of the European Network of Centres for Pharmacoepidemiology and Pharmacovigilance (ENCePP). Our assessment checklist was based on three sources: REQueST, a tool for the assessment of registry quality, AHRQ's guide for good registry practices, and a systematic review of the principles and norms related to health data sharing (Kalkman et al., 2019). In the end, the checklist included 38 questions about five ethics components: governance, conflicts of interest, informed consent, privacy, and use-and-access.

Results: We found substantial heterogeneity in the way patient registries provide information about ethical aspects: some registries rarely provide information, others touch on all relevant aspects and more. In general, informed consent documents often lacked relevant information, while information about privacy and use-and-access policies was typically available but not very concrete. Patient registries often mentioned their governance structure and any conflicts of interests but typically did not describe the responsibilities and rights of relevant stakeholders. More detailed qualitative coding is in progress.

Conclusion: While ethical guidance about studies using patient data is abundant, this guidance is currently not yet incorporated into the infrastructure of patient registries. The checklist we designed to assess this could be helpful for ethical assessments of patient registries and other types of registries in the future. However, we had to make a compromise between theoretical relevance and practical feasibility, which means that some theoretical ethics components might not be included sufficiently.

PP-163: Communities for Open Research Synthesis - integrating preclinical systematic reviews into the research pipeline

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Our project Communities for Open Research Synthesis (COReS) develops a targeted framework to initiate systemic change in how preclinical evidence from animal studies is translated into improved human health outcomes. Systematic review and meta-analysis are research synthesis tools that act as an evidence-based bridge when translating scientific findings. In preclinical animal research these techniques allow us to clearly identify what we currently know, how reliable evidence is, and where future research is needed, thereby increasing the possibility for successful translation. We employ a three-pillar approach to integrate preclinical systematic reviews into the research pipeline.

Education: As a foundation, comprehensive education grows awareness of the benefits of preclinical systematic review and builds capacity. In addition to live workshops, we have developed a suite of freely available eLearning modules in Moodle and H5P covering the full introductory curriculum. Widespread, accessible systematic review education increases methodological competence of researchers. Further, we present a “train-the-trainer” programme to enable qualified trainers to educate other researchers at their institutions, to effectively deliver education at scale.

Infrastructure: To carry out preclinical systematic reviews, appropriate infrastructure and support is required. We build on existing software, the Systematic Review Facility (SyRF), expanding to support local helpdesk enquiries, and optimise user experience and documentation. We develop new features in collaboration with diverse user groups and integrate novel automation tools into SyRF to reduce the resources associated with carrying out systematic reviews.

Community building: Forging communities to address the disconnect between primary research and evidence synthesis is instrumental in promoting an integrated research pipeline. A digital hub brings together resources, tools, and support in one place. We have created an online open community forum that facilitates the sharing of standards and discussion of methodological questions with experts, allowing for new collaborations to be formed on projects. Ongoing joint events spark new connections and dissemination of approaches.

Four partner institutions across Germany are piloting this community blueprint for initiating communities to ensure adaptability to different institutions and biomedical research fields. COReS creates interdisciplinary networks to address the challenges of preclinical and translational research, which facilitates decision-making in research prioritisation.

PP-165: A National collaborative approach to promoting Research Integrity from an Irish perspective

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Ireland's National Research Integrity Forum (NRIF), founded in 2015, brings together stakeholders from across the research landscape – Research Performing Organisations, funders, agencies and policymakers. The NRIF works collaboratively to promote Research Integrity and good conduct of research in a collegial approach. One of the key activities was to deliver a national training programme available to all across the research landscape irrespective of the scale of the RPO. The online research integrity training is now routinely delivered in all the RPO's in Ireland as a result of this successful initiative.

The NRIF is a strategically important element of the research landscape in Ireland and provides a forum whereby Research Integrity matters are discussed in a holistic environment. The forum members were instrumental in formulating and revising the National Policy Statement on Ensuring Research Integrity in Ireland in line with ALLEA European Code of Conduct. A current initiative led by the NRIF in conjunction with National Open Research Forum will deliver a workshop focused on "Advancing a shared direction on research assessment" in November 2023. The joint initiative will address the landscape in the context of CoARA, allow a shared platform and provide a strategic direction on the reform of Research Assessment nationally in a cohesive manner.

A key element of the NRIF is a group entitled "The National Research Integrity Community of Practice (CoP)" consisting of representatives from Ireland's state-funded research performing organisations, national funders and Ireland's national bodies interested in promoting good research practices and research integrity principles across the research communities nationally. This CoP provides a forum to share best practices in Research Integrity training, policies and procedures nationally and invites expert speakers both from the European and international research landscape.

The format of this presentation will provide an overview of the evolution of the National Research Integrity Forum and its Community of Practice over the last 8 years. The presentation focuses on key strategic research outputs that have emerged following various collaborative national initiatives with Irish government bodies and funding agencies and how these collaborative initiatives impacted on embedding a holistic National Research Integrity culture in Ireland.

PP-167: European Network of Ombuds in Higher Education

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ENOHE is a network in Europe dedicated to ombuds in higher education. It is an independent non-profit organization and has members at higher education institutions all over the world. The purpose of ENOHE is to connect people working as ombuds in higher education as well as people interested in supporting their work. Its aims are promoting the ombuds concept in higher education, supporting activities relating to the role and function of ombuds in higher education, developing professional standards for ombuds in higher education, sharing information about good practices, cooperating with other institutions, associations and networks, and many more.

ENOHE organizes a conference each year in Europe dedicated to its aims. In addition, the association holds regular webinars, provides newsletters, and supports its members in implementing standards and principles for the work of ombuds in higher education. Recently ENOHE approved its “Values and Principles” document, which covers the core values of the ombuds profession.

Research integrity and all its aspects are often also present in the work of ombuds in higher education. Some are working exclusively in the context of possible scientific misconduct and represent a point of contact for whistleblowers and defendants. Ombuds in higher education work with students as well as faculty. Especially in complex cases, a cooperation between ombuds and research integrity offices can be fruitful. There are many ways in which ombuds in higher education can contribute to the questions revolving around research integrity - for example in cases that involve power imbalances, difficult personal relationships or discrimination. The organization of higher education ombuds offices and contact points for research integrity issues vary from country to country. In some cases, institutions that deal with research integrity are explicitly not intended to be responsible for students. In these cases, a working relationship with ombuds offices is especially important.

Two major organizations in Europe, ENRIO and ENOHE, already have an informal cooperation agreement in place. Therefore, we would like to present ENOHE and its work at the WCRI to identify further ways of collaboration.

References:
Information about ENOHE can be found on their website at: https://www.enohe.net/

PP-168: 20 years of commitment to integrity. The weight of the performative discourse of the International Institute for Research and Action on Fraud and Plagiarism in Academia (IRAFPA): Coimbra 2024 Conference, LinkedIn and Newsletter, Web-TV, Summer Schools, scientific publications, books, etc.

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All countries and all disciplines are affected. The numerous scandals of recent years are fueling civil society's distrust of our profession.

Since March 31, 2004, the date of our first newsletter to the academic community, 20 years have passed during which, through trial and error, we have learned to publicly express the "sciences of integrity".

The audience is vast: professors and researchers, as well as heads of institutions, editors of academic journals and books, journalists, and observers from civil society. Considering the urgency of academic integrity issues, it was therefore necessary to adopt a performative approach. By "performativity" we are referring to the work of Austin (1991), for whom performative statements are those which accomplished by their very utterance, what they designate. A statement is performative because it is based on an institution. These performative acts modify reality, beyond the thought they express. So, IRAFPA naturally emerged because, little by little, our word had become performative.

With more than 18,000 newsletter subscribers and IRAFPA's LinkedIn page subscribers, self-criticism in terms of expression is permanent: the aim is to gain acceptance for a message that, at least until today, ran counter to the institutional omerta on academic misconduct.

Today, IRAFPA's activities are:

- To develop theoretical and empirical research in the specific field of academic integrity.

- Publish collective works, notably through IRAFPA's Publications Department: Books in English and French. Les Cahiers de l'IRAFPA is the scientific journal of IRAFPA, created in 2023.

- Provide mediation services to assist individuals and academic institutions affected by fraud or plagiarism.

- Train "Integrity Advisors" in specific skills during its Summer School.

- Develop and disseminate a recognized methodology of expertise in academic fraud and plagiarism.

- Deliver "Responsible Institution" and "Responsible Doctoral School" institutional certifications.

- Manage a WebTV space and a LinkedIn page offering free access to video capsules and TV programs dedicated to integrity.

- Every two years, the International Colloquium in Coimbra, Portugal, enables participants to make a major contribution in a friendly, studious atmosphere. The next Colloquium: June 20-22, 2024.

PP-169: Declaration of conflict of interest in published reports on health technology assessment

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Objective
Health Technology Assessment (HTA) represents a methodology used in ensuring informed healthcare decisions, as well as optimal resource allocation in healthcare settings. Having in mind the importance and influence of HTA reports, ensuring that those reports are transparent and unbiased is of utmost importance. One of the modalities to ensure unbiased assessment is also management of the author's conflict of interest (CoI). Our aim is to assess the prevalence and comprehensiveness of CoI statements in published HTA reports.

Methods
Our data source includes the International HTA database (https://database.inahta.org/) comprising over 3,000 records about HTA reports, mini HTA reports as well as rapid reviews. Using automatic web scraping methods, all relevant data will be extracted using Python programming language. The primary measure will be the prevalence of the reports containing the CoI statements while the secondary measure will be the quality of those statements defined according to the ICMJE Disclosure of interest form.

Results
The current work is focused on developing the Python scripts which will be used for data extraction. Full results will be available for presentation at the World Congress of Research Integrity in June 2024.

Conclusion
The results of this research will aid in ensuring that published HTA reports remain unbiased and transparent. The influence such reports have in healthcare systems as well as upcoming EU regulation that puts HTA as a mandatory part of the decision-making process provide all the more reasons for such robust assessment of the HTA reports.

PP-170: The European Code of Conduct for Research Integrity - 2023 Revised Edition

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The European Code of Conduct for Research Integrity provides the research community with a framework for good research practices to uphold the quality, robustness, and trustworthiness of research and its results. Since its original publication in 2011, the European Code of Conduct has become firmly embedded in international research activities and policies.
The 2023 Revised Edition of the European Code of Conduct for Research Integrity has been updated to ensure that the European Code of Conduct remains fit for purpose and relevant to all disciplines, emerging areas of research, and new research practices. The European Commission recognises the European Code of Conduct as the primary standard for research integrity across all research projects funded by the EU, and it increasingly serves as a model for national and institutional codes of conduct, funding guidelines, training initiatives, and discipline-specific standards.
To arrive at this revised edition, the ALLEA Permanent Working Group on Science and Ethics consulted with a broad range of stakeholder organisations, including representative associations and organisations for academia, publishers, industry, policymaking, and broader societal engagement. The changes in the 2023 revision reflect an increased awareness of the importance of research culture in enabling research integrity and implementing good research practices and place a greater responsibility on all stakeholders for observing and promoting these practices and the principles that underpin them. It also takes account of changes in data management practices, the General Data Protection Regulation (GDPR), and recent developments in Open Science and research assessment.
The 2023 edition of the European Code of Conduct for Research integrity, including translations and details on the stakeholder consultation process, can be found on www.allea.org/code-of-conduct.

PP-171: Research waste in Nepal: scenarios and problems for funding agencies

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Objective: Maintaining and establishing the research integrity in higher educational institutions is one of the greatest challenges for funders in low and middle income countries. In Nepal, the research budgets are allocated to university and research institutes through University Grants Commission, National Academy of Science and Technology, Ministry of Science and Technology and other several international funding sources. The practice of research works end with black book binding and submission to the funding agencies. The funding agencies just approved the research work with the experts' comments. The main objective of the study is to investigate on which areas Nepalese research funds are wasted.

Method: In order to investigate the magnitude of research waste in Nepal, four different category of funding agencies have been created. Various parameters such as report publication, datasets management policies, databases for searching the completed research work and easy access of the research have been checked from the websites of the particular funding agencies.

Results: The study discussed that the results of the research findings are supposed to be published in peer reviewed journals. Besides, there are thousands of fake/predatory journals in India and all over the world where Nepalese scholar pay the specific amount and published the work in the name of peer reviewed journals. This is the waste of research work and investment. This is also one way of wasteful research, since the results and reports are just confined in the funding agencies library in the form of hardcopy where rarely people can access it. One interesting findings was that, one of the universities department, had already decided that their research reports and theses and project works black books to be sent for recycling process.

Conclusions: The study concluded that most of the funding agencies do not publish their research report in any form either extended abstract or full report in their websites. Government should monitor the quality of published reports. Furthermore published work should have appropriate design and unbiased results to the scientific communities. Finally every academic and research institute must have to establish the office of research integrity to maintain research integrity.

PP-172: Improving the integrity of research data: building an institutional data archive

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Keeping data secure and safe from loss post-publication is an integral part of maintaining research integrity. One way to do this is to have an institutional archiving system for all raw data and processing files (e.g., computational code) associated with publications. This can be a closed system if necessary to bypass issues of confidentiality. In addition to allowing reproducibility of research, having data stored unaltered in an archive also is of benefit where questions about the integrity of research methods or findings of a publication are raised.

This poster presents the process of setting up the data archive at the Francis Crick Institute, uptake and feedback from users, and potential future integrations such as linking it with an internal repository for promoting open research, as well as making it more user friendly and quicker to use for researchers by adding automaticity to the process.

PP-173: Peer reviewers' conflicts of interest in biomedical research: scoping review

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Objective: Peer review may improve the quality of research manuscripts and aid in editorial decisions, but reviewers may have conflicts of interest that impact their recommendations. Our objective was to systematically map and describe the extent and nature of empirical research on peer reviewers' conflicts of interest in biomedical research.
Method: In this scoping review, we searched MEDLINE, Embase, The Cochrane Methodology Register (up to May 9, 2022) and other sources based on a preregistered protocol (https://osf.io/sg5wh). We included studies investigating peer reviewers' conflicts of interest in journal manuscripts, theses and dissertations, conference abstracts, funding applications, and clinical guidelines. Two authors independently included studies and extracted data on key study characteristics and results, and we organised data into emerging themes. We only included studies explicitly investigating peer reviewers' conflicts of interest in our primary analysis.
Results: After screening 38,979 references, we included 68 studies, of which 38 were included in our primary analysis. Sixteen (42%) of the 38 studies investigated peer reviewers' conflicts of interest as their primary aim. Twenty-seven (71%) studies investigated journal manuscripts, one (3%) conference abstract, four (11%) funding applications, and six (16%) clinical guidelines. Thirty-four (89%) studies were quantitative, two (5%) qualitative, and two (5%) mixed methods. Nineteen (50%) studies investigated both financial and non-financial interests, six (16%) solely financial interests, four (11%) solely non-financial interests, and nine (24%) did not report it. Twelve (32%) studies investigated stakeholders' experiences with peer reviewers' conflicts of interest, 16 (42%) conflicts of interest policies, five (13%) availability of peer reviewers' conflicts of interest declarations, seven (18%) prevalence of peer reviewers' conflicts of interest, and two (5%) conflicts of interest as reasons for declining to peer review. Only one (3%) study investigated the impact of peer reviewers' conflicts of interest on reviewers' recommendations.
Conclusion: There is a considerable amount of empirical research on peer reviewers' conflicts of interest in biomedicine, with most studies investigating journal policies and stakeholders' experiences. However, there is little knowledge on the impact of peer reviewers' conflicts of interest on reviewers' recommendations and on how reviewers' conflicts of interest are managed.

PP-174: Research Data Management - Progress in Canada

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Is the mismanagement of research data unethical? Most research is driven by data, and replicability is a cornerstone of physical science. Improvements in Research Data Management (RDM) can provide huge benefits to the research enterprise. The Canadian approach to RDM has been under development for several decades, but has recently made considerable leaps forward. Driven initially by librarians primarily concerned with repositories, efforts have accelerated of late - including a federal policy, mandatory data management plans for a range of grants and, most recently, mandatory university strategy documents to guide local RDM. This poster/talk details the history and current state of RDM in Canada, and covers the research integrity issues that proper RDM is intended to ameliorate. The author is a former researcher in data management issues and current Research Integrity Officer, experienced in investigating data management misconduct.

PP-175: Publication literacy as a strategy to promote research ethics and integrity in article writing

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Objective: This presentation argues that publication literacy should be part of research ethics and integrity training to improve the quality of publications. Publication literacy refers to the knowledge gained from Editors' and Editorial Teams' advice on articles. This knowledge basis can identify specific ethics and integrity challenges that the training should focus on.

Method: Mixed methods were used to identify similarity and to interpret the reasons for this based on a cohort of 118 articles submitted over four years (2019 – 2022) to a South African journal. Reports were based on Turnitin software similarity detection. Content analysis was used as the coding categories originated directly from the text data.

Results: The similarity benchmark was set at 15%, excluding citations and references, as this is regarded as acceptable in similarity. From the 118 reports, similarity higher than 15% was detected in 63% of the submissions. Relevant to publication literacy for research ethics and integrity training, four observations are useful:

(1) Publications are often based on completed postgraduate studies already posted in a university's institutional repository. As a result, the similarity detection reports are often high. Two interpretations are that the difference between a formal study and a publication may not be well explained or the art of presenting new research results is lacking.

(2) Similarities are higher in some disciplines compared to others because of formulas, phrases, or standards used in specific disciplines. Authors need to be mindful of the requirements of their disciplines, how similarity reports should be interpreted, and how to present their own voice.

(3) Poor science writing or proper interpretation of already published research can also result in high similarity detection. Instead, articles should reflect on results that are either not in the public domain or present a new perspective or interpretation.

(4) Integrity questions relate mostly to the quality of postgraduate training, including scientific writing, how to write for publication and the standard of a journal's editorial process.

Conclusion: High similarity reports cannot be attributed alone to novice researchers. The detection reports suggest that mid-career and established researchers can also benefit from publication literacy training.

PP-176: Open Data Commons for Stroke: a free community platform to share research data and facilitate synthesis

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Objective: Despite actions to raise awareness of open data and the availability of general repositories, uptake remains limited and shared data are often not easy to find and reuse. Open Data Commons (ODC) is a cloud-based community-driven repository to store, share, and publish primary research data. ODC aims to support the FAIR data principles in translational biomedicine.
Importantly, ODC can support evidence synthesis, including systematic reviews and meta-analyses. Current barriers to effective synthesis include locating and extracting relevant information. Additionally, many null or negative results remain unpublished and cannot contribute to decision-making processes. This can lead to a distorted understanding of current knowledge, failure to translate findings, and research waste.
ODC repositories currently exist for spinal cord injury (ODC-SCI) and traumatic brain injury (ODC-TBI) research. Here, we present the development of ODC-Stroke, tailored to preclinical and clinical ischaemic stroke data.

Method: Structurally, ODC includes a database and web-based user interface accessed via a secure login system. Different account types regulate researcher permissions to upload, share, and publish data, while different data spaces provide control over when data are made public. ODC supports data collection from single or multi-laboratory studies and published data are assigned a DOI.
We have established and are currently optimising this infrastructure for ODC-Stroke, through co-creation with stroke researchers. This includes working with the community to enhance usability; creating a network to develop ischaemic stroke common data elements (CDEs); and identifying ways to integrate primary data collection with evidence synthesis pipelines.

Benefits: Co-creation ensures a tailored resource built by the community, for the community. The implementation of consensus-derived CDEs means that related data can be synthesised across multiple studies or relationships can be investigated between unrelated datasets.
Access to curated individual subject data can improve the efficiency and accuracy of systematic reviews, and allow the application of more sophisticated statistical approaches. By ensuring that data from every subject and outcome is available, ODC can help address reporting and publication biases, key to research integrity.
ODC can improve data management, facilitate analysis and reproducibility, and support collaboration, ultimately lowering the barrier to sharing and reusing data.

PP-177: Commitment to ethics and integrity in Brazilian health journals in the SciELO Brazil collection

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Objective
Scientific journals in Latin America have been strongly encouraged by SciELO to adhere to best publishing practices. Considering that health journals represent a considerable part of the SciELO Brazil collection, we aim to map the journals that make ethical and integrity concerns explicit in their instructions to authors and editorial policy.
Method
We selected all health journals from the SciELO Brazil collection to evaluate the instructions to authors and editorial policy by searching for the following terms: ethics, integrity, plagiarism, similarity, publisher, and similarity system. It was also recorded how many times and in which section they appeared. The data were then organized into tables and analyzed using descriptive statistics, such as the mean, median, or percentage.
Results
It analyzed 100 scientific journals from the health area, representing 31,34% of the SciELO Brazil collection. The authors' instructions were updated in 2022 (43%) and 2023 (57%).
Related to the responsibility for the editorial process, 12% are affiliated with a research institution, 58% with a scientific association, and 30% with a university.
These journals were mainly based in South and Southeast Brazil, with 14% and 76%, respectively. West Central (6%), Northeast (3%), and North (1%) were the host regions for 10% of the studied journals.
"Ethics" was present in 99% of the journals, in the instructions to the authors, and in the journal sections, whereas "integrity" was mentioned in 41% of the studied journals in the instructions to authors section. The mean of the "ethics" and "integrity" terms used was 7.4 and 0.95, respectively. Plagiarism was used more frequently than similarity (81% and 38%, respectively). Regarding similarity detection software, 80% of the journals reported using some software, 42% cited the Similarity Check or iThenticate system, and 20% did not mention any software.
Conclusion
Most journals explicitly present ethical and integrity concerns in their instructions to authors. The use of the anti-plagiarism tool indicates that plagiarism is considered by most journals. The results indicate that health journals in the SciELO Brazil collection are committed to the best practices in scientific publishing.

PP-178: A Data Management Plan Template for Randomized Clinical Trials

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Every year, there is a substantial global investment in biomedical and health research. For clinical trials, the projected annual global spending will reach $68.9 billion dollars by 2025. While this investment is essential for advancing healthcare knowledge, a significant part of this investment ends up as research waste, due to methodological flaws, poor reporting, and unnecessary duplication of research efforts. Good Research Data Management (RDM) practices can help reduce research waste by providing transparency in the processes for the collection, documentation, storage, sharing, and preservation of research data. A Data Management Plan (DMP) is an important component of RDM and has been included as a requirement or recommendation by some research funders and academic institutions. While there appear to be common elements of a DMP, the available DMP requirements, templates, and examples vary significantly across funding agencies and institutions. In addition, the idea of a “one size fits all” DMP is confusing and might be a barrier to the effective implementation of these practices.
Our goal was to develop a DMP template for Randomized Clinical Trials (RCTs), with guidance and examples. The template included the following items tailored for RCTs: (1) Data collection; (2) documentation and metadata; (3) storage and backup; (4) preservation; (5) sharing and reuse; (6) responsibilities and resources; (7) ethics and legal compliance. This template and its development methods can be used as a blueprint for other study designs.
In this report, we describe the main elements of a DMP for RCTs and the results of a pilot study. For the pilot test, we will invite participants familiar with RCTs and RDM. We will provide them with the DMP template and instruct them to complete the DMP to apply for the Canadian Institutes of Health Research’s spring grant call. Participants will be asked through a survey about the clarity of the DMP and its relevance, acceptability, completeness, and overall usefulness. Survey data and completed DMPs will be analyzed, and we will implement the necessary changes to the template. The study is still in progress, but we are committed to delivering the results prior to the conference.

PP-179: Reporting quality of quantitative polymerase chain reaction (qPCR) methods in scientific publications

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Researchers across disciplines employ quantitative polymerase chain reaction (qPCR) to quantify gene expression, but despite the 2009 MIQE (minimum information for publication of quantitative real-time PCR experiments) guideline, a 2013 study revealed widespread deficiencies in reporting. This continues to be a concern for research integrity, necessitating targeted feedback to enhance reporting standards.

To examine the transparency of qPCR reporting practices, we systematically assessed articles published during a 1-2 month period in the top 20 journals in genetics and heredity and plant sciences that used qPCR. Each paper (genetics and heredity: n=186 articles; plant sciences: n=246 articles) was assessed by two independent reviewers, following a pre-registered protocol that assessed reporting of key MIQE guideline elements (pre-registration: https://osf.io/9zp5m).

Our preliminary findings in 200 papers (genetics and heredity: n=96, plant sciences: n=104) indicate that vital details for replicating and assessing qPCR experiments are often either entirely missing or insufficiently specified to precisely identify the agents or methodologies used.
Measuring RNA integrity and quality ensures the integrity of the starting material and the reliability of the results. However, 91% of the papers in our sample did not report the RNA's integrity or quality, and from those that did 85% did not specify the instruments or method used.

For RNA-to-cDNA conversion, 58% mentioned the reverse transcription (RT) kit, 30% omitted it entirely, and merely 12% provided both the name and catalog number for unambiguous reagent identification.
While 90% of original research publications included the primer sequence, only 12% reported the catalog number of the PCR kit, and more than 40% did not mention the kit at all.
RNA quantification in qPCR necessitates normalization against a reference gene. Notably, 50% reported the normalization method, 61% mentioned housekeeping gene names, and 30% additionally provided accession numbers.
Complete results will be available at the conference.

Our findings underscore the need to improve reporting practices, particularly regarding quality measures, reagent identification, and analysis transparency. However, lack of reporting doesn't necessarily indicate neglect, as the frequent use of shortcuts complicates the assessment of result robustness. Addressing these issues is imperative for enhancing research integrity in the field of qPCR-based studies.

PP-181: Promoting Open Science in times of Artificial Intelligence: Do we grasp the interplay?

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While generative artificial intelligence (AI) tools are being adopted with increasing frequency across society, professions, education, and research despite limited empirical experience and research, the advancement of Open Science (OS) offers the potential to broaden the dissemination of scientific findings. However, at the intersection of AI and OS, maintaining research integrity (RI) and research ethics (RE) must be a major priority when incorporating AI into higher education.

Opening up scientific publications implies that AI tools will increasingly process scientifically produced and peer-reviewed data, while their functionality is not fully transparent to us. The poster aims to raise awareness regarding the initial implications of OS in times of AI, particularly emphasizing Large Language Models (LLMs). It aims to stimulate a discourse on their operational mechanisms and ways to ensure RI and RE principles are maximally unfolded and OS promoted.

A salient concern for OS is LLMs' inherent reliance on predictability, meaning they tend to favor data that predominates online. However, this functionality contradicts RI's endeavor to prevent the redundancy of research outcomes and publications. Initially, this principle could make scientific (reliable) data under-represented for both AI training and selection compared to non-scientific internet data, which lacks consistent quality assurance (unless specific literature has been prompted by users). Furthermore, it is important to recognize that commercial LLMs process both OS and non-scientific data and thus potentially alter the scientific quality to an unknown level, given their black box nature and the lower presence of scientific data. Other challenges, such as model collapse resulting from training on artificial rather than human-generated content, are discussed in the literature.

It is essential upon developers, policymakers, and the scientific community to deliberate on strategies to avoid undesired fragmentation of OS sources or their contamination with unsuitable data. This is essential to prevent potential misinterpretations, misuse, or biases knowing that promoting OS as widely as possible could overcome the current underrepresentation, thereby refining the quality of knowledge that is freely accessible.

PP-182: iRISE- improving Reproducibility in SciencE

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Improving Reproducibility in SciencE (iRISE) is a new project co-funded by the European Union (EU), the UK Research and Innovation (UKRI) and the Swiss State Secretariat for Education, Research and Innovation (SERI).

The challenge of reproducibility, defined here as the ability to obtain results consistent with an original finding, is complex and multifaceted. Despite numerous proposed solutions to irreproducibility, few interventions have been subjected to rigorous testing. iRISE aims to address this gap with two overarching objectives: firstly, to provide a richer and deeper understanding of drivers of poor reproducibility of scientific research; and secondly, to conduct a detailed evaluation – including primary research – of the effectiveness of interventions to increase reproducibility.

iRISE will use an evidence-based approach, with systematic integration of equity, diversity, and inclusion practice and enhanced research culture. We will establish contemporary understanding of reproducibility and take a multifaceted approach that includes systematically evaluating and assessing existing evidence, engaging with stakeholders to prioritise and adapt practices and tools, and testing interventions to improve reproducibility.

A significant outcome of iRISE will be the creation of a “framework” designed to guide the development, assessment and implementation of interventions. Alongside this, we will establish a “toolbox” that includes both theoretical and empirical evidence describing the effectiveness of specific interventions. We will also provide comprehensive implementation guides for interventions, best practice guidelines for embedding equity, diversity, and inclusion considerations, and evidence-based policy recommendations. Other outputs will include valuable resources for the research community including a systematic online living evidence summary (SOLES) of existing interventions and training resources to facilitate implementation of interventions. To ensure the relevance and effectiveness of the solutions identified, we will engage with a diverse range of stakeholders.

The iRISE project, led by Charité – Universitätsmedizin Berlin, brings together 15 European partners with stakeholders from across the globe. With a duration of three years (2023-2026) and a budget of €2.6 million, iRISE is committed to making a significant contribution to elevating the quality, reliability and reusability of scientific evidence while fostering a positive research culture.

For more information, please visit our website: www.irise-project.eu

PP-183: Ethical aspects in MonkeyPox publications: An analysis of case reports in Latin America

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Objective: Realize an analysis of case reports and case series published in Latin America during Monkey Pox outbreak.
Method: A systematic search was developed on Scopus, SciELO, and Academic Google using keywords related to monkeypox, case reports, case series and country of authors. Data collected was related to aprovement by an Ethical Comittee, informed consent, photos published, personal data and data about sexual behaviour, gender, and others that can leave to a stigmatization. Results: 20 reports were added, nine published on 2022 and eleven on 2023. Patients were from six countries, most frequently from Brazil and Peru. 75% non were aproved by an Ethical Board and 65% non reported any informed consent process (for publishing report or publishing photos). Majority of reports have shown aspects related to indicate as HIV infection, sexual orientation, number of sexual partners or sexual behaviour as risk factors of Monkey Pox infection. Conclusion: Most of case reports about Monkey Pox outbreak on Latin American patients non have previous review by an Ethical Board or informed consent by patients. Additionally, the reports contents aspects which can leave to estigmatize cases by sexual orientation or sexual behaviour.

PP-184: Unveiling the shadows: Glimpse into Indian Researcher's perspective on publishing negative results

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Introduction:
Critical, unpublished negative findings in clinical research are often overlooked due to publication pressure, undermining healthcare decision-making and scientific integrity. This study aims to gauge Indian researchers' perceptions and barriers to publishing negative results, emphasizing the importance of transparency and balanced reporting.
Methods:
A cross sectional questionnaire survey was conducted among medical and dental faculties in September 2023 with ethical approval. Informed consent was obtained. Questionnaire consists of 31 close ended questions in 3 parts, demographic data, perceptions on publishing negative results and assessed the barriers. Data was collected and analyzed using SPSS.
Results:
A substantial portion of the medical (94.3%) and dental faculty (95.6%) recognize the potential value of publishing negative results as a means to prevent the wasteful allocation of resources. However, 23.8% of medical and 57.7% of dental faculty perceive the publication of unfavorable study outcomes as a personal failure. Surprisingly, the practice of such results remains somewhat limited to only 35.2% of medical and 16.9% of dental faculty. This hesitance to share such findings can be attributed to several factors, including the perceived embarrassment of a study that did not yield expected results, the financial burden associated with research that doesn't yield publishable outcomes, and disagreements among co-authors regarding the publication of negative data. The pressure to produce exclusively positive research outcomes is a pervasive concern, acknowledged by 100% of dental and 89.5% of medical faculty. Furthermore, 85.9% of dental and 47.6% of medical faculty lack personal interest in sharing unfavorable findings with 52.1% of dental and 58.1% of medical faculty fearing career consequences. Additionally, 67.6% of dental and 23.8% of medical faculty note limited journal acceptance for negative results, citing low citations and low impact journals as deterrents, hindering knowledge sharing.
Conclusion:
Concerns about personal and career implications, coupled with limited journal acceptance, hinder the dissemination of valuable findings critical for scientific progress. The significance of publishing negative results lies in fostering scientific integrity, reducing biasm optimizing resource allocation and promoting global collaboration. By sharing unsuccessful findings, we advance knowledge, improve research efficacy and contribute to a more transparent and robust scientific community.

PP-185: Integrating Publication Ethics and Research Integrity into your editorial submission and peer review workflows: tips and techniques to achieve effective communication, education and compliance

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It is well known how important Publication Ethics and Research Integrity is to maintaining the scientific record, ensuring published research is transparent, trustworthy and accurate. Keeping up with standards, guidelines and best practice can be resource heavy for editorial offices and publishers. Plus, the journal submission process is a key point in the research timeline where we can engage stakeholders and perform checks; it's not just about being the last chance to check for downfalls, but also an opportunity to promote why the checks and standards are necessary. We need to be confident that our processes and systems are working as hard as they can to help keep manual checks to a minimum whilst retaining the standards required, and minimise as much as possible the need for post-publication corrections and investigations.

We present some considerations for an editorial office who want to review their information pages, template letters and electronic submission form questions to check that they are effectively communicating the standards and policies they require authors, reviewers, editors, and readers to know about and/or comply with. We also highlight some features available on two widely used submission systems that can spot and monitor potential issues, e.g. author changes, and integrate subsequent processes into the audit trail of a paper.

Finally we suggest an audit framework for reviewing a journal's PERI practices and identifying areas for improvement.

PP-186: Facilitating the publishing of reproducible and high-quality research

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The CRUK Scotland Institute has established a mandatory pre-submission review of manuscripts to support researchers to publish their research with the highest standards. The objective is to raise publishing standards, increasing the clarity and transparency of papers and consequently the reproducibility of research findings.

The pre-submission manuscript review is conducted by the Institute's senior research integrity adviser, an experienced and PhD qualified scientist. The review process follows an integrity checklist, devised from field standards, journal reporting guidelines and issues pertinent to preclinical cancer biology research, to evaluate the reporting of the entire research process.

Supporting researchers at the Institute is a dynamic and iterative process, and the reviewing of manuscripts prior to submission to a journal or posting on BioRxiv aligns with our targeted research integrity training; research policies; guidelines and checklists for publishing and conducting responsible research; FAIR data archiving; and an online research integrity toolkit. The pre-submission manuscript review starts with a check for text plagiarism using iThenticate software. Details pertaining to the authors, such as their funding, affiliations and contributions to the paper, are also scanned. The abstract and introduction are then read with a view to increasing communication and accessibility to a wide readership as well as for being informative and accurate. The methods are scrutinised for depth and detail and for compliance with field reporting standards. Attention is paid to the accuracy and representation of the data in the results text, figures and figure legends. Figures are checked by eye to ascertain the quality of the data, appropriate data presentation and for responsible processing of images. This review is not intended as peer review and as such the discussion is not checked. Recommendations and advice on manuscripts are communicated with the authors for inclusion in the final version of their manuscript.

We have been conducting mandatory pre-submission manuscript reviews for 10 years and have seen widespread adoption by our researchers of the reporting practices we have introduced. We have anecdotal evidence of the benefits of this process, which is appreciated by researchers for the support it offers them, but have not formally measured its impact.

PP-187: Cooking up insights: Unearthing the data fabrication attitudes in dental and medical faculties of India

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Introduction – Researchers under pressure to publish in high impact journals, may resort to data fabrication, impacting transparency. This study compares dental and medical faculty attitudes towards data fabrication in India.
Methodology
In September 2023, a cross sectional questionnaire survey was conducted among all the dental and medical teaching faculty members of an institute after obtaining the ethical approval and consent from the participants. The questionnaire consisted of 25 close ended questions in five sections: demographic details, research ethics education perception, gifted authorship perception, attitude towards data misconduct and perception of plagiarized authorship. Data was collected and analyzed using SPSS.
Results-
In this study, it was found that a significant portion of both medical and dental faculty believed they had prior knowledge of research ethics education, with 80% in the medical field and 66.2% in the dental field. However, despite their knowledge, the practice of gifted authorship was relatively common, especially in the medical faculty, where 68.6% admitted to it compared to 60.6% in the dental faculty. Interestingly, a higher percentage of dental faculty (71.8%) were willing to accept gifted authorship when compared to medical faculty (33.3%). This indicates variations in ethical perspectives between the two groups. The frequency of observed data cooking was also notable, with 48.6% in the medical faculty and 64.8% in the dental faculty. Dental faculty were more commonly involved in data cooking than their medical counterparts. In terms of consequences, a high percentage of both medical (89.5%) and dental (95.8%) faculty believed that punishment should be imposed for data cooking suggesting a strong commitment to research integrity. Fortunately, none of the faculty members agreed to engage in data fabrication in the future. The results were statistically significant ($p<0.05$) highlighting the need for tailored interventions to address these variations in ethical practices and perceptions within the two fields.
Conclusion
This study reveals common occurrences of data cooking and gifted authorship among researchers. Global criminalization of data fabrication is unlikely. Ensuring ongoing research ethics and prevention is crucial. Institutions must offer comprehensive training and nurture an integrity-driven culture to build researchers ethical foundation for responsible, trustworthy practices.

PP-188: Constraints, consequences and barriers experienced by researchers' engagement in the promotion of science for the use in public policy: A qualitative exploration of Australian researchers

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Objective: The active and consistent role of researchers in the policymaking process can be beneficial in the creation of effective, evidence-based policy and innovation practices. This engagement can be achieved through science communication which at times may cross into advocacy. While often considered effective science communication, at times advocacy engagement may be misconstrued, misunderstood or distorted as supporting a particular narrative or political opinion, leading to potentially negative outcomes for the researcher or policy development. Consequently, despite a recognition of the value and importance of researchers' engagement in these types of communication, not all researchers are willing to participate in these activities. The purpose of my research was to understand researchers' engagement in science communication, particularly communication that borders on advocacy.
Method: Thematic analysis within an interpretive phenomenological analysis framework was the applied method used to explore the lived experiences of 33 researchers (M age = 49.9, SD = 9.6). A total of 15 females and 18 males within the STEM (n=20), Public Health (n=7) and social science (n=6) disciplines were interviewed using semi-structured interviews.
Results: Findings show that while researchers see the benefit of their engagement in all forms of science communication, often science communication which encroaches into highly politicised topics is viewed as advocacy and can have substantial ramifications. These include, some researchers being unwilling to engage in advocacy style communication, science messages getting distorted by the media and even personal threats towards individual researchers. These impact upon researchers' willingness to engage in all forms of science communication and can negatively affect the trusted voice of science in the eye of policymakers and the public.
Conclusion: These findings provide insight on the considerations researchers will need to make when engaging in science communication and potentially affect their willingness to participate in the promotion of evidence-based science for the use in policy.

PP-189: Publication strategies of paper mills: a case-study from the Tanu.pro paper mill/brokerage company

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Objective
Paper mills are an increasing challenge in scientific publishing, not yet enough explored in scientific literature. The knowledge on paper mills often stems from the analysis of retracted papers related to paper mills which pertain to medicine and microbiology and are often associated with China. The objective of the study is to investigate another type of a paper mill using the case of the international brokerage company/paper mill Tanu.pro, targeting clients from Eastern Europe and Central Asia and specializing in various disciplines.

Method
Tanu.pro creates unique emails to submit papers, often leading to the lack of correspondence between the country of the domains and the authors' affiliation countries. Papers that contain suspicious email domains like tanu.pro (that gave the title of a paper mill in the literature), nuos.pro also included other problematic emails. Employing a snow-ball method, the study identified over 50 suspicious emails. To retrieve published papers submitted by the brokerage company/paper mill we conducted a full-text search in Scopus on identified email domains.
Results
The study detected 1,397 papers published in scientific literature and submitted with suspicious emails. These papers are associated with scholars from 43 countries representing over 460 universities. While a problematic email is not a definitive proof of malpractice there is evidence that some papers exhibit poor empirical analysis, irrelevant citations, data fabrication, errors, and translated plagiarism.
The publication strategy of Tanu.pro is oriented towards publication of special issues with scientific editors from Tanu.pro without a PhD degree, violation of peer review, creation of fake identities of peer reviewers. Papers submitted by Tanu.pro are published in at least 310 journals indexed in Scopus, affecting all major publishers.
Conclusions
The current knowledge on paper mills is very fragmented. This study adds another piece to the puzzle. On one hand, the identification of papers originating from paper mills and their retraction is crucial to maintain research integrity. On the other hand, the proliferation of paper mills is linked to publication pressure and research evaluation systems based on publications indexed in international bibliographic databases. Thus, further actions are necessary to reduce the demand for fabricated papers.

PP-190: Evaluation of Publication Ethics Knowledge, Practice, and Attitude Among Faculty Members in Iranian Universities of Medical Sciences

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Objective: The primary objective of this study is to assess the knowledge, practice, and attitude of faculty members in Iranian universities of medical sciences regarding publication ethics. By evaluating their understanding and commitment to ethical responsibilities, this research aims to identify areas for improvement and promote a culture of ethical responsibility in scientific publishing.
Method: In this KAP (Knowledge, Attitude, Practice) study two separate questionnaires were developed and validated by the research team and were sent to potential participants' email addresses registered in the official portal of the Ministry of Health and Medical Education of Iran.
Results:
677 responses from a wide range of clinical and non-clinical disciplines were received including 384 people who responded to the first questionnaire (consisted of 70 questions for authorship issues such as authorship criteria, responsibilities, order, and composition) and 293 faculty members who responded to the second questionnaire (Consisted of 77 questions, one for submission and publication such as organizational affiliation, citing sources, submitting and publishing manuscripts in journals, and conflict of interest). The study findings reveal critical insights into publication ethics within Iranian universities of medical sciences.
Conclusion: Enhancing publication ethics awareness and practice among faculty members in Iranian medical universities is essential. Knowledge and attitude are crucial factors influencing ethical compliance. Efforts to bridge the gap between knowledge and practice are vital to ensure the integrity and credibility of scientific publications in this academic setting.

PP-191: Research Article Image Duplication Detection Based on Computer Vision

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In recent years, the phenomenon of academic image duplication in the withdrawal of research articles has continued to increase, posing a serious threat to research integrity. However, there are three challenges in solving image duplication detection using traditional computer vision models: 1) images used in research articles are mostly composed of multiple sub-images, and plagiarism often occurs in sub-images rather than the entire one; 2) current image duplication detection methods based on Siamese Network necessitate the specification of input image pairs for detection, rendering them ill-suited for large-scale image screening task. 3) Improper duplication of image content in papers often involves image tampering(local manipulations), such as scaling, rotation, and so on, which significantly diminish the accuracy of detection.

In order to deal with the technical difficulties mentioned above, our team has taken the following actions: 1) implemented a sub-image recognition and segmentation model. We have built a dataset of over 200,000 images from journals in the fields of medicine and materials and annotated the coordinates and categories of sub-images. We further trained a sub-image recognition model based on the object detection algorithm. The experimental results on the test set show that our model achieves an accuracy of 84.80% and a recall rate of 86.50%. 2) By introducing the self-supervised pre-training approach of contrastive learning, we trained different visual feature embedding models for each sub-image category, realizing high-dimensional feature space representation for those sub-images. We store the representation vectors of sub-images in a high-performance vector retrieval database and utilize L2 distance to measure vector similarity to retrieve duplicate sub-images. We are continually collecting data to expand our vector database, and have already inserted over 20 million sub-image samples. 3) To address the impact of image tampering on the performance of our duplication detection method, we utilize a mature image-matching algorithm that has rotational and scale invariant to generate a feature point matching map as the final output.

Based on the above methods, our team has integrated with the literature resources of Wanfang Data Company to construct a research paper image reuse detection service and has carried out preliminary commercial operations.

PP-192: The fate of rejected manuscripts: a cross-sectional assessment of different biomedical disciplines

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Objective: This study aims to evaluate the fate of rejected manuscripts in different biomedical disciplines after resubmission to other journals.
Method: A search of the PubMed database was conducted on August 15, 2023 to identify relevant articles. The following keywords/Boolean operators were applied to the database: "rejected manuscript" OR "rejected manuscripts" OR "rejected articles" OR "rejected papers". Further articles were sought from the reference lists of the included articles. Article characteristics, quality measures, and data regarding manuscript rejection and further publication were extracted.
Results: Of the initial 95 articles found in PubMed, 24 were included in the study, with an additional nine articles found in the reference lists (total of 33). The average rejection rate for all biomedical disciplines was approximately 60% (mean=0.59; median=0.66; SD=0.21, IQR=0.3). "Original articles" were the most commonly rejected. Little over half of the manuscripts initially rejected (mean= 0.54; median= 0.55; SD= 0.19; IQR= 0.25) were subsequently published, typically after 16 months (mean= 16.02; median= 15.5; SD= 3.53; IQR= 4.42). The mean impact factor (IF) of the journal to which the articles were first submitted was 3.59 (median = 2.52, SD = 2.42, IQR = 2.05), whereas the IF of the journals that ultimately published the articles was lower (provided mean: mean = 1.97, median = 1.8, SD = 0.55, IQR = 0.50 // provided median: mean = 1.61, median = 1.57, SD = 0.50, IQR = 0.86). The quality of the included studies has room for improvement. Nine articles (27%) reported a possible COI, and eight (24%) provided information on sponsorship. None of the studies were registered, provided a research protocol, defined eligibility criteria, trained selection, and data extraction beforehand nor performed selection in duplicate. Only one study (3%) reported data extraction in duplicate. Based on limited data, the three most prevalent reasons for rejection were lack of novelty, methodological flaws and not fitting the scope of the journal
Conclusion: Manuscript rejection is a common occurrence, and not all manuscripts are subsequently published. Rejected manuscripts are commonly published in journals with an IF lower than the IF of the journals of the first submission.

PP-193: Understanding the patterns and magnitude of life science publication retractions in the last two decades using an evidence-based approach

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The rate of “Retractions”, a correction mechanism to remove unreliable published literature to maintain academic integrity, has increased (~10-fold) significantly since the late 1970s. Often it is unclear higher retraction rate is due to an increase in the publication frequency of fraudulent articles or an enhancement of the journal’s ability to detect flawed articles. Thus, it is timely important to explore pattern and drivers of retractions to formulate effective mitigation strategies.

We have obtained retraction data from the Retraction Watch database. The data was further filtered with detailed exclusion and inclusion criteria (e.g., studies focused on life sciences). “Tidyverse” packages in the R platform were used for data wrangling, exploration and “ggplot2” for visualisation of the pattern.

We have analyzed 13,567 entries in the Retraction Watch database and found that China has the highest (39.42%) retraction in life science articles followed by the United States (15.81%) and India (5.03%). Most of the retractions were found in Cell Biology (11.85%), Biochemistry (9.61%), and Genetics (9.36%). Publication integrity was found to be the biggest reason (18.95%) followed by study quality issues (14.81%). Additionally, conflict of interest, regulatory compliance and disagreement among authors also led to retractions. We have found a large volume of retracted articles (approx. 10%) were published as conference proceedings as well as peer-reviewed international journal articles (e.g., PlosOne, Journal of Biological Chemistry). Our analysis also indicated publications with 4-5 authors were retracted more frequently than publications led by a single or large consortium of authors. We are also exploring network analysis among authors of retracted articles to understand if the incident of retraction is also linked with the nature and extent of collaboration among scientists.

Our results revealed a spatiotemporal pattern and magnitude of retracted articles in Life Science around the globe. Furthermore, our results also highlighted that apart from typical research misconduct-related issues, various other factors such as conflict of interest, and noncompliance with regulatory guidelines also contributes significantly to the overall burden of publication retraction. Thus, academic integrity curricula needs to incorporate all major contributing drivers of retraction in training and capacity building programme.

PP-194: Identifying Preferences for a Journal Transparency Tool: A Delphi Survey of the Scholarly Publishing Community

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Objective: To inform the development of an automated journal transparency tool (JTT) that would allow users in the scholarly publishing community to assess the transparency practices of biomedical journals, helping users evaluate a journal's credibility and determine whether to interact with it.

Method: Participants sourced from STM, OASPA, and DOAJ completed two rounds of Delphi surveys. Items were ranked on a 9-point scale, with consensus achieved if ≥80% of responses were in the top or bottom tertile. Participants had the chance to suggest novel items for voting on in subsequent rounds. Open-ended question responses were thematically analysed.

Results: 86 and 43 participants completed Round 1 and Round 2, respectively. Regarding potential metrics of transparency, consensus was achieved on including metrics of whether a journal: uses DOIs (Round 2, 88.1%), describes its approach to publication ethics (Round 1, 87.2%), lists its editors (Round 1, 82.6%), uses fake DOIs (Round 1, 84.9%), reports misleading scholarly metrics (Round 1, 81.2%), and has verifiable contact information (Round 1, 87.1%). Consensus was not achieved on a broad range of other items, including journal indexing (in Scopus, Web of Science, DOAJ), membership in other organizations (COPE, CrossRef), use of ORCID, clarity of website information, reporting TOP factor score, and openness of peer review reporting. Some recurrent suggested metrics included evaluating journal funding models, peer review policies, and citation measures. No consensus was achieved on journal transparency preference items, including whether the tool should be (Round 1 percentage, Round 2 percentage): designed as website versus plugin/API (58.0% pro-website, 76.7%), fully automated (48.2% pro-automation, 55.8%), requiring registration for tool use (38.8% pro-registration, 39.5%), or charging a fee for tool use (61.2% unwilling to pay, 76.2%). Recurrent themes included wanting to prioritize the tool's user-friendliness/accessibility and opposition to paying tool fees.

Conclusion: Consensus was reached on a minority of preference items. A Round 3 Delphi virtual consensus meeting is planned for participants to discuss and re-vote on the remaining items. Study limitations include the exclusion of non-English speakers and the exclusion of other relevant publishing stakeholders (e.g., governmental representatives) due to time and resource constraints.

PP-195: Emerging trends in how guidelines address research misconduct

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Background: An overarching aim of research ethics (RE) and research integrity (RI) is to establish a research environment that promotes and strengthens responsible research conduct thereby reducing the likelihood of research misconduct (RM). Increased attention has been given to preventing RM by changing focus from only sanctions to building more resistant and integral research cultures and infrastructures.
Aims: What are the emerging trends in terms of preventing and addressing RM in RE/RI guidelines?
Methods: Thematic analysis of RE/RI guidelines, frameworks, and standard operating procedures (2010-2023) from EU countries, UK, Switzerland and global/international.
Results: Overall, guidelines cover responsibilities that – while overlapping – can be assigned to the individual and institutional levels as well as the wider research ecosystem. On the institutional level, emphasis is placed on promoting and safeguarding good research practices. This includes an emphasis on providing (consistent and comprehensive) training, education, and support about RE/RI as well as ethical supervision and leadership. On the individual level, the emphasis is on conforming to the codes of good research practices. Guidelines for dealing with breaches of RI include varying amounts of information on which factors contribute to RM, including organizational pressures, and how this can be counteracted. Codes of conduct may increasingly promote inclusivity (e.g., gender equality, underprivileged economic regions) or include information on how to foster a safe and healthy working environment, more broadly. This, in turn, may have a positive effect on easing external as well as internal pressures. At the same time, there may be themes identified in academic literature and in stakeholder engagement that are not or may only be partly reflected in the codes. Analyses are in progress and additional findings and trends will be presented at the conference.
Implications: Guidelines for RI and RM are evolving and reflect ethical challenges and emphasis in the contemporary context. More effort needs to be placed on prevention of RM and counteracting internal and external pressures. What is still to be investigated is to what degree these guidelines are implemented and to develop models to support adherence.

PP-196: Drivers of Research Misconducts and Strategies to Foster Thriving Research Integrity among Young Scholars in Nigeria

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Background: Research misconduct tarnishes the reputation, credibility and integrity of researchers and research institutions. The validity and reliability of scientific research depend on research integrity and responsible conduct of individual research in a safe and ethical manner. Globally, desire to report positive results that answered the developed hypothesis, efforts to generate results that aligned with donors' objectives and desire to publish perceived quality work that is acceptable in reputable journals were some of the recognized drivers of research misconduct.
Objectives: The focus of the study is to determine the drivers of research misconducts and identifying the right mix of evidence -based fostering plan among young scholars in Nigeria. Currently, fostering a good research culture among Nigerian young scholars has no laid down blueprint even though regulatory body have been established to investigate this area, but they are still setting up various regulatory frameworks and committees.
Methods: The study adopted a descriptive cross-sectional survey study design. The Leslie Fischer's formula: n = Z2pq/d2 was used to calculate the sample size. The study assessed four hundred (400) young scholars undergoing masters and PhD program across Nigeria Universities. Data was analyzed with SPSS version 22.
Result: Publication's pressure and competitive work environment top the list of the drivers among the respondents (85%) followed by desire to graduate/get promoted within the record time (81%) while lack of mentorship (60%) and lack of access to quality databases for a thorough literature reviews (52%) ranked third and fourth respectively. The desire to report positive results that answered the developed hypothesis (15%) and sponsored interest to answer specific research questions of interest (11%) were the least because there are not even enough sponsors/grants available for young scholars in Nigeria. Mentorship to guide the young scholars and course-based post-graduate research experiences (CUPEs) were identified as the two major approaches to foster research integrity among the respondents.
Conclusion: Institutions should develop a mix of mentorship programmes and course-based research focused experiences to address the drivers of research misconduct and foster a thriving research integrity culture among young scholars.
Key words: Drivers, Research Misconduct; Integrity; Young Scholars and Postgraduate.

PP-197: Examining a university's promotion policy: The rewarding of quantity over quality as a research integrity dilemma

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This case study of a South African university aims to progress the debate around publishing and promotion versus academic integrity. I argue that, to convince researchers to engage in responsible research practices, is a challenging task for universities in South Africa largely due to two main reasons, the first being that researchers receive a direct financial reward for research output in South Africa. The second (and related) reason is that universities in South Africa are heavily dependent on substantial government subsidy that they receive when their affiliated researchers publish in journals accredited by the national Department of Higher Education and Training (DHET). My first hypothesis is that this form of reward system has resulted in promotional policies being designed to steer researchers towards publishing a high number of outputs, rather than focusing on the quality of research output researchers produce. My second hypothesis is that such policies are likely to increase the tendency among researchers to publish output that is rejected for subsidy (in particular, output in predatory journals) and therefore lead to a loss of a considerable amount of potential government subsidy for the universities with which the researchers are affiliated. Using a mixed method approach, my study involves a quantitative content analysis of a South African university's DHET research output reports, as the first, quantitative strand. In-depth interviews conducted with researchers whose publications had been declined or rejected for subsidy purposes, constitute the second, qualitative strand, which explores two main themes among researchers at the university studied: (1) experiences of pressure to publish in order meet criteria for promotion; and (2) perceptions of the weight of recognition accorded to their publications, compared to their other work, for promotion. Based on the results of this study, I recommend to the university ways in which it could reconstruct its promotion policy to better align with its researchers' overall academic role performance and steer those researchers towards producing quality outputs.

PP-198: Research Misconduct in China: An Analysis from Institutional and Emotional Perspectives

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OBJECTIVE: The research examines how institutional and emotional factors increase the likelihood of breaching research integrity in Chinese academia.
METHOD: The data was collected through in-depth interviews conducted in three selected Chinese universities in Beijing (approximately thirty interviews per university) and by analyzing the universities' internal documents. The data was manually analyzed without using any software to mitigate privacy risks.
RESULTS: The results indicate that due to the nature of Chinese universities as governmental-affiliated organizations, the governance strategy follows the party-state's setting. In particular, the universities are focused on producing knowledge and training scholars, as well as responding to national academic demands. The universities deliver the demands through a top-down bureaucratic system to faculty and individual faculty members. During this process, universities often implement overwhelming policies (such as focusing on the number of publications in the top academic journals) to compel grassroots scholars to publish in top academic journals. This places significant pressure on the scholars and harms their emotions, leading to depression, insomnia, and even sudden death in extreme cases. In order to meet the university's requirements fast, faculty members feel compelled to be "creative." Consequently, engaging in research misconduct, including plagiarism, fabrication, and falsification, may become normalized as these behaviors are seen as effective means to get publications. Meanwhile, due to the influence of guanxi, many faculty members have little interest in reporting research misconduct to the university to protect their colleagues; this significantly threatens the effectiveness of the regulation of research integrity.
CONCLUSION: This study highlights that institutional and emotional factors can be significant but omitted causes of research misconduct. It emphasizes the importance of considering the institutional and emotional factors in studying research integrity. However, limitations include a narrow focus on one city, a small participant sample of around 90 faculty members, and a primary focus on the natural sciences.

PP-200: Tackling the flood of paper mill manuscripts: a journal perspective

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Like many other journals, the International Journal of Cancer (IJC) was and still is experiencing a high number of manuscript submissions with suspected falsified or fabricated data, most likely from so-called paper mills.
To prevent the publication of fraudulent articles, we therefore apply very stringent quality control measures to screen out suspect papers at the time of submission. While the IJC has had several quality measures in place for years, such as cell line authentication[1] and image checking, we have adapted our routine checkpoints at submission to effectively identify suspect papers. Since April 2021, we keep track of newly submitted articles that per our assessment might originate from paper mills or contain fraudulent data. While we observe variations in the number of submissions of these papers over the year, in the range of about 5-25% of the total decisions, we unfortunately do not see a decrease so far. Instead, since the last quarter of 2022, we have noticed that we receive fewer papers containing the 'classic' images of paper mills, but rather suspicious papers with similar computational analyses containing typical images or even just numerical results.
Based on our own experiences[2] and that of many other research integrity experts, we also initiated a study to systematically identify potential paper mill or fabricated articles published in the IJC from 2014 to 2022 in order to correct the published record. We identified a subset of papers that we subsequently scrutinized for image integrity problems using an image checking software. We observed a peak in problematic papers published in the IJC between 2017 and 2019 in which we were able to detect image problems, several of which involved images used in or from other publications. We will describe our approach, the results of the study and the ongoing follow-up of the cases.
In the experience of our journal, both careful cleaning up of the published record and critical monitoring of new manuscript submissions, with continuous adjustment of quality control procedures, are essential to counteract even rapidly adapting paper mill activities.

(1) EMBO J. 2022 Jul 18;41(14):e111307
(2) Int J Cancer. 2021 Aug 1;149(3):492-493

PP-202: A threat to research integrity: A mapping overview of studies assessing predatory journals and conferences within the biomedical sciences

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Objective: To map predatory activity in biomedical sciences through the analysis of review-type studies assessing predatory journals and conferences.
Method: We searched three databases (PubMed, Scopus, and Web of Science) for review-type studies on predatory journals and conferences within the biomedical sciences. Furthermore, references of included articles and articles retrieved from the “similar articles” filter in PubMed were checked. The methodology of the reviews was investigated using items of the AMSTAR-2 checklist (item 3-6) and advice of the Cochrane Handbook for Systemic Reviews of Interventions (Chapter 1.5 and 5.5.3).
Results: Forty-nine articles on predatory journals and only one on predatory conferences met the inclusion criteria. Review-type studies on predatory publishing were published from 2015 and more than four-fifths of the studies were published from 2018 onwards. Most authors of the reviews were from North America, the most prevalent study type was an overview.
In total, studies investigated studies in over 14 different disciplines, with the most prevalent field being biomedical sciences in general (13/50), followed by nursing (10/50), and orthopaedics (9/50). The median of databases assessed was 2 (IQR 2-4). Nearly half of the studies used Beall’s list to identify predatory journals.
The most frequently assessed characteristics by studies were the existence of peer review process (33/50), rapid time to publication (30/50), the amount of article processing charges (26/50), and the type of strategies used by predators to contact potential authors (20/50). Uncommon approaches towards characteristics were made by five studies that assessed the physical address of the headquarters of predators.
Two studies stated they feared legal consequences and did not report presumed predatory journals' names. Concerning the methodology, 22 studies fulfilled at least one, but none met all suggested criteria. Around forty studies did not meet the suggestions concerning the selection and extraction process respectively.
Conclusion: Predatory publishing practices became a topic of interest in the scientific literature during the last few years. Following our criteria, the methodological quality of review-type studies in predatory journals has room for improvement. However, the number of studies on predatory conferences is scarce in relation to the studies focused on predatory journals.

PP-204: Concerns about data integrity across 263 papers by one author

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Objective: Dr. A.M. Abbas, Assistant Professor of Obstetrics and Gynaecology at the University of Assiut, Egypt (ORCID iD 0000-0002-2359-2729) has had three papers retracted due to concerns that some of the data presented had been fabricated. We aimed to discover if similar data integrity concerns existed in other papers co-authored by Dr. Abbas.

Method: We investigated the integrity of all papers reporting on prospective clinical studies co-authored by Dr. Abbas. We assessed the feasibility of study methodology, baseline characteristics, and outcomes. Study periods were graphed to determine activity over time. We conducted pairwise comparisons of text, tables, and figures to identify duplicate publications, and checked for consistency between conference abstracts, interim analyses, trial registrations, and final manuscripts. Where indicated, we recalculated p-values from the reported summary statistics.

Results: We identified 263 papers by Dr. Abbas that claimed to enrol 74,667 participants between January 2009 and July 2022. Of these, 112 (43%) reported on randomised studies. Dr. Abbas was first author on 60 (23%) publications. The number of active studies per month was greatest between 2016 and 2019, with 88 simultaneous ongoing studies in May 2017. We found evidence of data integrity concerns in 125 (48%) papers, 43 (34%) of which contained concerns convincing us that they could not be based on data reliably collected from human participants. The most common concerns were deviation from expected baseline characteristics (n=35, 13%), statistical mistakes or inconsistencies (n=29, 11%), and unfeasible recruitment (n=27, 10%). Most concerning were 20 duplicate publications and 17 papers that differed from a conference abstract or published protocol of the same study. We have informed Dr. Abbas and his institute but not received a serious response. We have informed ten journals.

Conclusion: Our investigation finds evidence of widespread integrity concerns in the collected work of Dr. Abbas. Together, our findings suggest academic misconduct. We recommend that journals collaborate in a formal investigation by requesting that Dr. Abbas provide individual participant data and governance documents.

PP-206: A critical review of the role of the editor-in-chief and associate publisher in a case of alleged identity stealing that is more than a dispute between authors

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During June 2023, two PSI employees found a recent publication in a technical journal by authors of a non-European university (NEU), in which they were named as co-authors. They did not know about this publication, nor did they know the other authors. The names were linked to ETH Zürich and not directly to PSI. However, there were several points that seemed odd: The ETH Zürich institute did not exist, and the two names were linked to the PSI authors via Scopus, and not to the NEU. For the two PSI employees it was obvious that their identities were misused by the other authors. They immediately reached out to the editor-in-chief (EIC) and the associate publisher (AP), to initiate an immediate retraction of the paper, a removal of their names from the authors list or at least of the Scopus link. The AP acted thoughtful, but slow and cautious for a case that seemed crystal clear to both PSI employees and EIC (to date, Oct. 2023), claiming that internal procedures had to be followed. One of the authors (not the corresponding author) answered that he and the other author with European name were students having visited ETH for some months, where they got the idea for the paper. And they had the exact same names as the PSI employees. While one issue (using a prestigious affiliation without having been supervised) could be related to lack of experience, the other (stealing identities to improve the review process) could be seen as clear fraud. This could be clarified by a simple proof of identity, which – obviously – the AP did not get. Until then the case is treated like a dispute between authors and not as a special form of papermill. Although this case is not yet concluded, we will use it to review the different roles of publisher, AP, EIC and authors, in particular, if there is a lack of communication and potential conflict of interest. From a RI point of view, the process from complaint to retraction needs more transparency, and a ORCID registration should be mandatory for all researchers.

PP-208: Identifying Fabricated Networks within Authorship-for-Sale Enterprises

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Objective: To determine if detecting a 'papermill' coauthorship signal in the literature is possible, we first identify unique coauthorship network shapes, as these shapes differ from common research collaboration patterns.

Methods: Detecting unusual collaboration signals in the Academic literature
We analysed the researcher, their network, and the network shape using Dimensions.
Researchers were also allocated approximate career stages based on their publication age. We used two measures to describe the shape of their immediate collaboration network.
The number of researchers (nodes) in their network
The density of the network is calculated as the number of edges in the network divided by the number of possible edges total / ((n*(n-1))/2)
We calculated a uniqueness value for each shape based on the number of researchers that had the same shape network in the same year. A low-density, unique network indicates suspicious collaborations.

Results:
Analysing early career researchers with unique networks (repeated <10 times) shows that the population identified by this group remains reasonably steady at 0.10% from 2010 through 2018. After 2018, early-career researchers' percentage rose sharply to 0.16%.
For publication year 2022, only 1.6% of early career researchers have low-density network shapes repeated <10 times.

Conclusion:
Authorship for sale occurs in research papers that would otherwise be considered legitimate. Although the research network from the point of view of the contributing researchers will look 'normal,' the networks of the researchers who have purchased authorship spots will still be highly egocentric. This paper shows the possibility of identifying a 'paper mill' coauthorship signal distinct from standard research collaboration.
This presentation demonstrates that papermill activity can leave a unique and detectable coauthorship signal in the literature. We will also cover suggested internal investigation protocols that can be followed based on this information.

PP-210: Knowledge, practice and attitude towards research among undergraduate medical students in India

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INTRODUCTION:

Research in medicine has an impact on prevention, diagnosis, and newer treatments for medical ailments. It paves way for evidence-based medicine. Involvement of undergraduate in research was less, so this study was to determine the factors and their perception towards research.The medical students should be aware of the methods in carrying out research as it's helpful in professional academic work and help in resident career decisions to practice evidence-based medicine in patient care. The study was to assess knowledge, practice and attitude towards research among undergraduate medical students in India.

METHODS:
This a cross-sectional questionnaire based study, conducted at ACS Medical college and hospital Chennai, India. Total 577, undergraduate medical students from first to final phase gave their consent to participate. Assessing the knowledge, practice and attitude were questioned among the undergraduate medical student.

RESULTS:
Totally 577 were participated in study, among them 63% females and 37%males. They have very poor knowledge about the research funding provided by the Indian council of medical research(ICMR). About ethical clearance only (20.7%)has said ethical clearance is important to do any type of research. (87%) students were understood research is necessity for career growth and development. However only (8.4%)were actively involved in research.(94.6%) students have suggested to include research in medical school curriculum.

CONCLUSION:
Research is more important in health science in India, only Allied health science and other health courses doing research as a part of curriculum, but in undergraduate medical student doesn't have any research exposure. It is important to encourage medical students towards the scientific research, which shows a high grade performance in their clinical knowledge and practice, it can be achieved by conducting research workshops, presentations and involving them in journal club. These measures provide adequate knowledge about research, it may also improves their practice and attitude towards research.

PP-212: Toward identifying mis-citations in scientific papers

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Objective. Inaccurate citations in scientific publications are detrimental to science and are difficult to detect. We present various methods to automatically evaluate citation reliability by measuring the correlation between citation context and the cited paper. We report the first results of automatically detecting mis-citations in scientific literature.

Method. We hypothesized that a reliable citation context would be “semantically” close to a textual sequence in the cited work. We restrict our study to cited paper’s abstract considered either as one piece or as a set of sentences. Using language models, semantic similarity is measured by a cosine-based similarity or a paraphrase classifier-based methods. We collect a dataset of mis-citation contexts to evaluate the efficiency of these methods.

Results. The collection of mis-citations is divided into 2 categories: reliable citations and mis-citations. Among the mis-citations, we identified different levels of inaccuracy and thus divided them into two subcategories: in-domain mis-citations and out-domain mis-citations. The latter when the cited paper is from a completely different topic and nothing appears relevant to justify the citation. The former captures more subtle cases like overgeneralization, mis-understanding, errors in numbers… We annotated 64 citation contexts manually: 31 are annotated as reliable (thus in-domain) and 33 as mis-citation. Among these mis-citations, 21 are in-domain and 12 are out-domain. The cosine similarity method considering the abstract as one piece correctly predicted 39 out of 64 citations (61%), based on segmented abstracts, it correctly predicted 43 citations (67.1%). The paraphrase classifier method considering the abstract as one piece correctly predicted 39 citations. The best result comes from the paraphrase classifier method using segmented abstracts achieving a rate of 75% citations correctly predicted. For this configuration, further analysis on subcategories of mis-citations reveals an improved prediction of in-domain citations: 37 were correctly predicted as in-domain compared to 28 when using the abstract as one piece.

Conclusion. We investigate automatic detection of citation accuracy. We built a dataset of citation context with different kinds of mis-citation. We tested two methods based on text vector representations, and suggest that large language models are promising to address this task.

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