

Foregrounding Positive Research Culture

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Abstract

A key theme emerging across the International Research Culture Conference 2023 (IRCC 2023) was the detrimental effect of excessive competition. Funders, institutions, and individual researchers from across the research landscape recognised that some actions intended to promote collaboration, and some measures of research culture, may contribute to an overly competitive research context that is detrimental to the research endeavour.

This article reviews key findings from the conference that could combat too much competition. We highlight work on learning across the research landscape, and continuing developments in measurement and evaluation of research culture that are inclusive and adaptable across contexts. We suggest that these are key elements of progressing positive research cultures and that these should be prioritised for discussion at future conferences.

Keywords: research culture; interconnectivity; competition; measurement

Introduction

The importance of academic Research Culture has been rising to prominence over recent years and is due to become a significant factor in the next Research Excellence Framework (REF 2029). Work conducted by major bodies including the Wellcome Trust (2020), the Royal Society (2018) and UK Government Department of Business, Energy and Industrial Strategy (2021) provide evidence that academic research culture impacts on the wellbeing and motivations of the research workforce and has a significant impact on the research process and outputs.

This was one of the key messages from Pro-Vice Chancellor of Research at University of Warwick, Professor Caroline Meyer's opening presentation at the IRCC 2023, setting the conference tone as an opportunity to reflect and connect with work conducted on research culture at various levels of the research landscape, with contributions from institutions and funding organisations across the four UK nations. The need to support collaboration and avoid excessive competition has been a theme from our empirical research (Albaghli et al., 2021) and something that resonated across the conference. Here we briefly review some of the key contributions in this area.

Research Culture: What's the problem?

Dr Nicolay Ogryzko from UK Research and Innovation (UKRI) described the fluid construct of research culture in terms of five core aspects: equality diversity & inclusion, psychological safety, understanding the wider context of work, building connections, and rewarding more than publications. Individual higher education institutions and funding organisations have already highlighted issues within research culture relating to these core areas (Adams & Casci, 2019; Albaghli et al., 2021; Royal Society, 2018; Wellcome, Trust, 2020). These include bullying and harassment, challenges to mental health and wellbeing of researchers, lack of diversity and related problems with retention within the research workforce. Such issues negatively impact on the quality and productivity of academic research. Dr Ogryzko emphasised the need to think beyond the traditional hierarchy of PI, Post-doc and PhD roles in research, and to include the wider technical and professional staff who are key partners in the modern academic endeavour. He advocated the necessity for building diverse and collaborative research contexts, avoiding highly competitive 'monocultures' and creating a range of solutions that meet the requirements of different roles and contexts.

Taking Action

From the outset, the titles of the major themes and plenary sessions all included key words that conveyed a sense of action (promoting, developing, opening, contributing, embedding, decolonising, building). From the initial address by Professor Meyer to the final plenary session by Professor Marcus Munafo (Chair, UK Reproducibility Network (UKRN)) presenters and delegates conveyed a sense of dynamic optimism, suggesting we are engaging in a change process that is live and gathering momentum across diverse levels.

Dr Jemima Napier and Dr Fiona Armstrong (Heriot-Watt University) identified two universal issues that appear across all research cultures i) a lack of connectivity and ii) depleted time for research. These researchers employed a mapping process to create an action plan for an ideal research culture within their own institution. Their presentation linked to further discussions and reports of the impact of reducing opportunities for interdisciplinary interaction on the research landscape, the lack of opportunity to harness interdisciplinary research to address complex social issues, and the limiting of research agendas to safe topics within discrete disciplines. The wider discussion among delegates suggested there may not be any 'ideal' research culture, but rather many research cultures need to align to maximise the impact of research.

Inter-Connections: Equality, diversity, and inclusion

The idea of fostering multiple interconnected cultures that respect diversity and support inclusion appeared across many topics. Professor Caroline Boehm (Staffordshire University) provided examples of the systemic problems of 'invisible and uncontested whiteness'. She argued that colonial culture imbedded deep in our society shapes the social-cultural and intellectual structures within higher education, and impedes efforts to increase equality, diversity, and inclusion. We shared findings from our recent Research Culture Survey 2021 (**Albaghli et al., 2021**) showing how excessive competition is experienced differently across different demographic groups (**Craig et al., 2023**). For example, men favoured competition more than women, whilst also experiencing better collegiality, and younger groups felt more strongly that competition impairs research quality.

Professor Margaret Low and colleagues (University of Warwick) provided an example of how they had successfully achieved wider impact for an outreach programme intended to widen participation in STEMM (Science, Technology, Engineering, Mathematics & Medicine) subjects by pupils from state schools and lower socio-economic backgrounds. Increasing the diversity of staff, engaging technicians, and non-academic staff to become

involved in STEMM outreach enabled the development of resources and bookable activities to support teachers and pupils when discussing STEMM subjects, expanding the skills set of the research workforce and contributing to both the academic and wider communities.

Other parallel sessions and poster presentations provided examples of potential system problems that impede the development of positive research culture. Presentations by UKRN and UKRI pointed towards the impact of funding organisations and the role of overarching bodies in setting the tone of research cultures manifesting within individual institutions. Both speakers emphasised the need to support diversity and avoid creating research monocultures in relation to characteristics of individuals, and through recognition and reward for the range of professional roles involved in research.

Measuring Research Culture

There were general feelings that successful measurement of research culture is still at an early stage, and that the pressure of the next REF is catalysing progress in this area. Several delegates and contributors recognised the need to establish clear parameters of what we value within research culture and how we want to invest our resources to demonstrate these values.

Mining existing datasets for potential measures of research culture was one suggestion brought to life by Maria Prince (Ulster University). Maria explained how employing existing datasets such as HR systems, ethics databases, impact trackers and citation databases as a network rather than a hierarchy could provide holistic insights of the researcher's journey. The interconnected data has the potential to support researchers across all career stages, promoting diversity and inclusion, focusing on transparency, and identifying markers of trust.

The work of Dr Shareefa Fadhel and her team (University of Leeds) demonstrated how using the SCOPE framework (**International Network of Research Management Societies, 2023**) helped them to co-produce measures for assessing research culture. Dr Hannah Griffin-James, an independent researcher, highlighted that asking questions through different lenses can create a rich picture of how research culture is experienced. Quantitative measures provide a broad picture of the average experience, while additional qualitative measures capture the perspective of marginalised or small groups and provides additional information that can mitigate against creating impressions of success by 'gaming'. Several contributors proposed adopting action plans and toolkits as a formative approach to measurement of research culture, allowing institutions to understand how far they have progressed but also creating

awareness of areas where progress is still required. Professor Candy Rowe (Newcastle University) and Professor Karin Wahl-Jordenson (Cardiff University) discussed how research culture surveys could be a useful tool for institutions to measure their progress over time and use this data to identify and drive actions that will impact research culture.

The final keynote presentation by Professor Marcus Mufano (UKRN and University of Bristol) took the themes of trustworthy and transparent metrics beyond the level of institutions to consider how to build a transparent and trustworthy academic system. His suggestions included placing less of the burden of trust on individuals by creating a cross-institutional approach to ethics and governance to manage professional behaviours and research processes. He referred to Elizabeth Gadd's work on avoiding making research culture just another metric for competition (**Gadd, 2023**) but rather recognising positive research culture as a prerequisite to producing outstanding research.

Going Forward

We valued the conference emphasis on developing solutions, engaging across institutions to share learning, and the development of responsible approaches to measurement and evaluation. We offer some suggestions on how a very positive conference might progress in future.

The 2023 conference focused on higher level research culture 'expert voices'. Introducing a wider range of perspectives, including research culture voices from disadvantaged and minority groups would highlight experiences within the research ecosystem and offer more space to consider solutions beyond the common focus on metric and measurements (**Gadd, 2023**).

There were few opportunities for genuine round-table interaction between delegates. Structuring the conference activities to support interaction and discussion through 'speed-dating' approaches offer potential to facilitate discussions and knowledge sharing across the research ecosystem.

The high proportion of women taking part in the conference supported research findings that suggest women contribute more to the 'work' of research culture (**Albaghli et al., 2021; Ward et al., 2024; Wellcome Trust, 2020**). The question of how men might become more engaged in research culture work remains to be addressed.

Ensuring that outputs from the research community continue to be trustworthy, relevant and contribute to the common good, and that improvements in research culture are genuinely manifesting across all contexts are topics that could be expanded on in future conferences.

Funding is also a key topic influencing current and future work on research culture. Institutions in England can apply to Research England for funding for academic research culture while there are no allocated funds for NI, Scotland, or Wales. Despite this, the UKRN catalogue of institutional research culture projects (**UKRN, 2023**) shows that institutions across all four nations are progressing activities to improve academic research culture. Clarifying the impact of additional funding streams, such as the Wellcome Trust Institutional Funding for Research Culture (**Lewis-Wilson et al., 2023**) on the pace and direction of change will be interesting as these initiatives mature.

Finally, the impact of artificial intelligence (AI) on research culture and how it might be addressed will be an important discussion within the research community (**Holm et al., 2022**). Overall, this fascinating day emphasised a need for multi-level improvement of research culture, from individuals, through institutions, to the whole sector and looking outward to include internationally excellent practices.

Anne-Marie Craig has been a Research Fellow in research culture within the School of Psychology & Neuroscience at University of St Andrews since 2021, having previously worked with NIHR as part of the Outcomes Framework Development Team. Anne-Marie obtained a BSc from the University of Glasgow, and after a career in healthcare, completed her MRes (Social Policy & Research) at the University of Stirling before completing her PhD at the School of Management, University of St Andrews.



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