by Lily Kong

Shifting Research Paradigms: From 'Publish or Perish' to 'Purpose and People'[1]

Introduction

Organisations, of necessity, are concerned about clarity and coherence of mission, organisational structure, availability and allocation of resources, talent attraction and retention, and appropriateness of success measures. With the climate crisis, purpose and mission have informed the emphasis on triple bottom lines for many organisations, so that missions, structures and resources have been directed in support. With the COVID-19 pandemic, organisations have also come to pay more attention to the wellbeing of employees.

Universities are no different in this regard. While universities do hold a unique and privileged position in society, with a mission focused on shaping the next generation through their educational mission, and serving as the brain trusts of society, creating knowledge and stimulating innovation that drive the betterment of society, universities are also organisations. And as organisations, they need to focus on structure, resource, performance indicators, success measures, talent attraction/retention, and organisational health.

The focus on wellbeing in this volume is vital. The UK Research Excellence Framework (REF) has included 'research culture' as a component in evaluating the performance of universities, initially as part of the 'Environment' component of the assessment, and moving ahead, in more explicit terms. It is not yet entirely clear how previous measures will morph in the upcoming round of assessments, and whether selected metrics really tell a useful story. Some argue that the metrics themselves are part of a negative research culture. Be that as it may, examples of metrics that have been or could be tracked include gender pay-gap, the composition of research staff (including gender and ethnicity profiles, and contractual status – fixed-term or permanent), research ethics and integrity, a focus on quantity over quality in research outputs, lack of job security, exploitation, equality, diversity, inclusion, and mental health.

A Crisis of Direction?

How are universities responding to the need to create positive research environments and cultures, thereby supporting and enabling the wellbeing of faculty, researchers and research students? For a start, I pose the question of what universities are pursuing as their mission and goals, as this fundamentally shapes the environment. Some will believe the ensuing views to be provocative, while others may see them as clear-eyed: that academia has come to chase misplaced goals, which in turn creates a crisis of culture that impacts negatively on wellbeing.

1 Parts of this chapter draw on ideas previously developed in my S R Nathan Fellowship Lecture Three (Institute of Policy Studies, 2024), which has been published in Kong, L (2025) *Universities Reinvented: Shaping Legacy and Impact for a New World*.

At the heart of the problem are two phenomena in academia that have emerged over the latter half of the 20th century. The first is the 'publish or perish' culture, a concept attributed to Logan Wilson in his 1942 book analysing the sociology of the academic profession. It refers to the pressure to publish in order to progress in academic careers, failing which one has no choice but to leave the profession when the tenure clock is up. Publications in top-tier journals, defined as high-impact factor journals, with university presses, garnering high citations, better if they are 'home-run' publications, that is, with outsized citations, finetuned in analysis to h-indices and field weighted citation indices, and more – this is the dominant language of evaluation.

The reality for academics is that individual career progression is heavily influenced by these metrics, impacting tenure decisions, promotions, and funding opportunities. In a recent study surveying over 30,000 faculty members from ten top universities worldwide, most respondents admitted to using citation counts as a primary criterion for evaluating research candidates[2] (Ibrahim et al., 2024). This is used as a proxy for academic quality and impact. Journal impact factors are used as proxies for how good an article is. A paper published in a high-impact factor journal is assumed to be better than an article published in a lower-impact factor journal. Yet, this logic is clearly flawed. At its most meaningful, academic impact comes when research shifts understanding by advancing theory and method or when it changes received wisdom about something. Where we publish and how many cite us are, at best, imperfect proxy indicators.

The second phenomenon is the rise of university rankings, with arguably the most widely cited ones, such as Times Higher Education (THE) and QS, privileging research and, particularly, standardised metrics of research, such as citations. THE allocates more than 60% of its score to research (including research reputation), where publications and citations play a crucial role. QS allocates 55% to research and reputation. In the race for rankings, institutions have been willing to justify the imbalance in attention to teaching and research, thus:

"for students, the value of their credential is, in large part, a function of the prestige of the institution, which is driven by research as reflected in rankings and prizes. Every marginal bit of effort the university puts into research may be at the expense of a student's education, but ultimately benefits them in the long run"[3] (Bagshaw, 2023: 23).

The cultures of 'publish or perish' and the fixation with rankings have led to a range of malpractices and misdirections, to varying degrees of severity, all of which impact on institutional culture and faculty wellbeing. I will elaborate on three: mistreatment, misconduct, and manipulation.

Mistreatment: "Prestige does not prevent poverty"

The Stanford University Postdoctoral Association, in commenting on the conditions that confront graduate students and postdoctoral researchers, used the phrase "prestige does not prevent poverty"[4] (Benderly and Salzman, 2024). The reference was to the long reliance in American academia on "the cheap, skilled labor of graduate students and postdoctoral researchers" who struggle to make ends meet, even those in the elite institutions, working long hours "in the pressured atmosphere of competitive research" (Benderly and

2 Ibrahim H., Liu F., Zaki Y., & Rahwan T., (7 February 2024). Google Scholar is manipulatable. *https://doi.org/10.48550/arXiv.2402.04607*
3 Bagshaw, A. (2023). Higher imagination: How universities can collaborate and compete to solve the world's most pressing challenges.
4 Benderly, B. L., & Salzman, H. (2024). Scientific research needs a radical restructuring. The Chronicle of Higher Education.

Salzman, 2024:45). To "make academic science a good career again", it is said that "[r]esearch needs a radical restructuring" (Benderly and Salzman, 2024:45).

Setting aside the assumption that academic positions confer prestige, the discussion about poor work conditions and unhealthy research environments in the American context is certainly apparent elsewhere, too. For example, research from the University of Bristol has found researchers demoralised by a culture that disincentivises sharing and collaboration, encourages questionable research practices such as data manipulation, and increases the risk of bias. Researchers worried about their ideas being 'scooped', younger or less-experienced researchers not receiving proportional credit for their work, and fear discrimination in research assessment based on personal characteristics of the researcher, such as gender. The focus on traditional peer-reviewed papers is thought to be a major contributory factor to this malaise[5] (Hsing et al., 2023). A report commissioned by the Wellcome Trust (2020) further highlighted that the focus on "the quantity of outputs, and narrow concepts of 'impact', rather than on real quality" was causing "intense pressure(s) to publish, with too little value placed on how results are achieved and the human costs." Their study, based on literature reviews, qualitative interviews, workshops and a survey of over 4,000 researchers showed that competition was accepted to be a part of working in research, but that it had become "aggressive and harmful." The report reinforced the Bristol study regarding discrimination, and went further to highlight exploitation, harassment and bullying. These have dire consequences:

> "For researchers, poor research culture is leading to stress, anxiety, mental health problems, strain on personal relationships, and a sense of isolation and loneliness at work. For research, the perceived impacts include a loss of quality, with corners being cut and outputs becoming increasingly superficial, problems with reproducibility, and the cherry-picking of results and data massaging. For society, the dangers are seen as loss of talent from the sector and a reduction of real innovation and impact resulting from a narrow set of priorities, as well as a loss of trust from the public"[6] (Wellcome Trust, 2020:3).

Misconduct: Breach of Academic Integrity

As universities are increasingly drawn into quantitative standards of success, with metrics-driven incentives in competitive environments, ethical compromises have emerged. Breaches of academic integrity take various forms, from questionable practices at the margins to full-scale misconduct.

In the race to publish, researchers may use questionable research practices to yield publishable outcomes, which undermine the credibility of results. One prominent tactic is p-hacking (data snooping or data dredging). Researchers perform many statistical tests on data, but only report those that are statistically significant, resulting in an increased likelihood of false positives. P-hacking is generally viewed as a process whereby researchers pursue publishable results through trial and error, often neglecting the theoretical foundations of their work[7] (Lewis-Kraus, 2023).

More troubling than p-hacking is outright data fabrication, which can derail entire fields of study. A high-profile case in Alzheimer's research, where falsified data was used, led to wasted years of effort and substantial financial losses, setting back critical medical advances. A neuroscientist came under scrutiny for allegedly tampering with data, with hundreds of images showing unwarranted interference. Some were described as

5 Hsing, P.-Y., Tukanova, M., Freeman, A., Munafò, M., & Thompson, J. (2023). A snapshot of the academic research culture in 2023 and how it might be improved. Octopus. *https://doi.org/10.5281/zenodo.8165704*
6 Wellcome Trust. (2020). *What researchers think about the culture they work in.*
7 Lewis-Kraus, G. (2023). They studied dishonesty—was their work a lie? The New Yorker. October 9. *https://www.newyorker.com/magazine/2023/10/09/they-studied-dishonesty-was-their-work-a-lie*
8 Piller, C. (2022). *Blots on a field? Science, 377*(6604).
9 Tran, N. (2024). The publish or perish mentality is fuelling research paper retractions at an alarming rate. The Conversation. *https://theconversation.com*
10 Ibrahim et al., 2024

"shockingly blatant", combining images from different experiments, potentially altering results to better fit the hypothesis[8] (Piller, 2022). This is not an isolated incident. In 2023, more than 10,000 research papers were retracted globally[9] (The Conversation, 2024). This marked a new record.

As we move further into the age of generative AI, the issues will only exacerbate. Already, AI tools are capable of generating seemingly credible abstracts that can fool even experienced scientists or even produce full papers. Using this technology, a scientist can easily generate a 'scientific' paper, and plant citations as they see fit in the bibliography, for example, to themselves to boost their own reputations or to another scientist in return for a fee[10] (Ibrahim et al., 2024). The consequences of such breaches reach far beyond academic reputations; they can result in misguided policies and actions, for example, flawed public health policies, ineffective treatments, and even life-threatening outcomes.

What all these point to is the intense pressure to publish, leading to temptations to take shortcuts, sometimes to preserve jobs at risk.

Manipulation: The Dark Incentives of Metrics-Driven Research

A third area of concern is citation manipulation. While not amounting to data or textual fabrication, this is a troubling form of academic dishonesty that borders on fabrication. It is the practice of dishonestly citing sources to boost a paper's or journal's citation count. This often occurs when researchers or journals artificially inflate their citation metrics, in a bid to improve their standing within the academic community[11] (Mehregan 2022).

Citation manipulation may be done via coercive citation, that is, when editors pressure authors to add citations from the editor's journal on very thin academic grounds. In one study, 20% of respondents reported experiencing coercive citation, while over 50% admitted they would add unnecessary citations to improve their chances of publication[12](Fong & Wilhite, 2017).

In extreme cases, entire journals have been found to engage in citation cartels, where authors and editors collude to disproportionately cite each other's work to inflate their citation counts and impact factors. This exploitation of the citation system not only undermines the credibility of the journal but also warps the academic ecosystem by privileging researchers who play the metrics game, often at the expense of real innovation[13](Mehregan, 2022).

Such practices pose moral dilemmas for researchers even editors, and inasmuch as they impact on a larger sense of ethical wellbeing, they also point to a diseased ecosystem.

The Urgency to Rethink Research Impact

To address the challenges posed, universities urgently need to reflect and act. Tackling unhealthy work culture, and disincentivising malpractice, exploitation and inequalities are critical and to do so, universities need to reward ethical practices, or at least, not reward unethical practices inadvertently. Pairing that with open science practices will help. Initiatives like the Open Science Framework (OSF) advocate for openly sharing data, methodologies, and protocols, making research more accessible and verifiable. This commitment to openness allows scrutiny, ensures greater public accountability, and thus strengthens research integrity.

But more fundamentally, addressing work culture and disincentivising malpractices requires that we think differently about what research is for and how we evaluate it. A more holistic approach to research evaluation

11 Mehregan, M. (2022). Scientific journals must be alert to potential manipulation in citations and referencing. Research Ethics, 18(2). *https://doi.org/10.1177/17470161211068745*
12 Fong, E. A., & Wilhite, A. W. (2017). Authorship and citation manipulation in academic research. PLOS ONE, 12(12). *https://doi.org/10.1371/journal.pone.0187394*
13 Mehregan, 2022

could offer a path forward. Were we to consider research impact not only in academic terms, but also in societal terms, then the outputs, outcomes and impact measures broaden. If citations and their associated metrics, such as journal impact factors, mattered only, at most, as much as the qualitative impact of scholarship, such as improvement in the lives of those living with Alzheimer's, or the assurance of retirement adequacy for seniors, then citation fraud becomes disincentivised.

Various efforts around the world have sought to take a position to counter the 'metricisation' of research performance. I cite three examples. First, the San Francisco Declaration on Research Assessment (DORA) (May 2013) is a statement that "denounces the practice of correlating the journal impact factor to the merits of a specific scientist's contributions," given how it "creates biases and inaccuracies when appraising scientific research." It decries the use of the impact factor as a substitute for "measur[ing] ... the quality of individual research articles, or in hiring, promotion, or funding decisions." The Declaration seeks to raise awareness of the responsible use of metrics, to facilitate development of new policies and practices for hiring, promotion and funding decisions, to catalyse research assessment reform, and improve equity in research assessment.

Second, the Leiden Manifesto for Research Metrics (2015) similarly arose from a worry about "impact factor obsession," and advocates that research be evaluated based on broader contributions. This shift would allow institutions to emphasise the real-world implications of their work, aligning academic priorities with societal needs and mitigating incentives for unethical practices. Among the principles that underpin the manifesto is one around open, transparent and simple processes of evaluation, and ensuring that those evaluated can verify data and analysis. This builds trust in the system and contributes to wellbeing.

Third, the Responsible Research in Business and Management (RRBM) community encourages responsible research and invites scholars and others to imagine a world in which research is used to improve lives. Founded by Anne Tsui (the President of the Association of Management (AOM)) in 2015, the Fellows of AOM have evaluated responsible management research, using UNSDG as a framework, and have conferred RRBM awards to encourage and recognise such work.

As calls grow louder for universities to demonstrate clear societal benefits, a 2023 survey conducted by Elsevier highlighted a critical concern: while 68% of academic leaders, researchers, and funders anticipate an increasing public demand for government-funded research to yield tangible societal benefits, only half believe that existing evaluation systems sufficiently incentivise impactful work. At the same time, 72% of funders are advocating for a broader, holistic evaluation approach. Despite these calls for change, several obstacles remain, chief among which are a lack of standardised frameworks, institutional inertia, and limited resources.

Consequential Research: Assessing Impact Beyond Academic Metrics

Declarations and manifestos are a start. But what systemic effects do they have on reshaping the motivations and behaviours of researchers? And how exactly do they translate into different everyday practices in the workplace that are less cut-throat, more meaningful, and rely on collaboration more than competition? And how then do universities as organisations approach research assessment and evaluation, adopting what markers of excellence and impact? How might new ways of assessment mitigate or reduce problematic practices and positively impact the wellbeing of researchers?

Questions about alternative ways of assessing research, beyond the standard academic metrics, have occupied my colleagues and me for months now as we have sought to develop an integrated research impact framework

that recognises and celebrates both the academic and societal impact of research. Different databases have been considered as alternatives to the standard citation counts in Scopus or even Google Scholar. They may well become more useful over time to diversify the focus on citation counts in academic publications, though, no doubt, each will have its own need for cautious interpretation. Nevertheless, they broaden the possibilities and include, for example, Altmetrics, Overton and Lens.org.

Altmetrics tracks published research in social media, news outlets, policy and other appearances, thus recognising the broader influence of research, as it gets picked up in different discussions and fora, influencing policy, public opinion, and industry. However, Altmetric data needs to be interpreted with caution, given that they are drawn from a large number of sources, with inconsistencies between providers. It is also unclear how they are calculated, and they too, are susceptible to manipulation.

Overton is more targeted and claims to be the world's largest searchable index of policy documents, guidelines, think tank publications and working papers, collecting data from 188 countries. It tracks academic papers that are cited in such government consultation documents and reports, so that researchers can see where their ideas and publications are cited and how they are used, thus discovering how one's work may be "influencing or changing practice in the real world." Lens.org, on the other hand, tracks citations of academic works in patents, which shows how research enables problem solving.

A most recent effort reported in 2024 was helpful in our discussions. Undertaken by the Financial Times to assess Business Schools for the 'rigour, resonance and relevance' of their research, the rankings attempt to systematically measure each of these dimensions. First, it seeks to acknowledge the importance of rigorous high-quality research, assessed by established metrics such as field-weighted citation index and publications in journals highly regarded by academics. Second, it seeks to take into account 'resonance', defined as the way in which research engages with practice, where scholars' works are disseminated to policymakers and decision-makers in the public, private and non-profit sectors, and is "read and acted upon by those beyond universities." It does so by monitoring downloads by users identified as working in governments or companies; tracking citations of academic work in patents, government consultation documents and think-tank reports; tracking utilisation of textbooks and journal articles assigned by professors in other institutions; and tracking the most popular teaching cases. Third, it also seeks to measure 'relevance' by looking at how the content of publications aligns with the United Nations Sustainable Development Goals.

The architects of this new ranking recognise that not everyone will agree with the metrics and the weightages assigned to different measures, but offer them as a "starting point for a wider debate." They publish rankings using an aggregated measure, but also by each different criteria, thus paving the way, perhaps unintentionally, for a 'heterarchical' as opposed to a hierarchical approach[14](Lamont, 2012:211-12) to assessing research standing. What that means is that, when "multiple matrices of evaluation" are used, it offers an opportunity for more to "shine under different lights."

Even with these different approaches, challenges remain in accurately capturing societal impact. Determining causality and identifying a specific research output's contribution is challenging. A key distinction in evaluating impact lies between 'attribution' and 'contribution'[15] (Fong and Wilhite, 2017). Whereas attribution seeks a causal link between specific research outputs and societal outcomes, contribution considers how research practices support broader societal goals. This perspective is particularly important given the complex and often

14 Lamont, M. (2009). How Professors Think: Inside the Curious World of Academic Judgment. Cambridge, MA: Harvard University Press.
15 Fong, E. A., & Wilhite, A. W. (2017). Authorship and citation manipulation in academic research. PLoS ONE, 12(12), e0187394. *https://doi.org/10.1371/journal.pone.0187394*
16 Spaapen, J., & van Drooge, L. (2011). Introducing 'productive interactions' in social impact assessment. Research Evaluation, 20(3), 211–218. *https://doi.org/10.3152/095820211X12941371876742*

indirect pathways through which research influences change, and the different time spans between research and impact[16](Spaapen and van Drooge, 2011:211).

Conclusions

In the face of significant questions about how to evidence, document, and assess research with societal impact, at my own university, we have carefully studied the UK approach of adopting impact case studies and recognise the value of such qualitative assessments, while also being cognisant of the challenges of evidence-building in execution. At the same time, we acknowledge the value of different research outputs (such as white papers, consultancy reports, patents) and outcomes (such as citations in Overton and Lens.org), and we are developing guidance for colleagues on how they could channel their energies and what the university will recognise and reward. After rounds of engagement, a new integrated research impact framework will be rolled out for implementation as the university marks its 25th year of existence, a milestone that prompts self-reflection.

One may justifiably argue that, whether it is traditional academic metrics or new ways of assessment that take into account societal impact, the pressures on academics remain, if not intensify, with a danger of worsening impact on wellbeing as expectations grow. Thus, we recognise that any framework we devise must not simply multiply the number of ways by which expectations are made of researchers through still more assessment tools and metrics. This will simply fly in the face of efforts to create and maintain an environment that supports wellbeing so that researchers can perform at their best. Open and transparent engagement and communication are critical, a point which I will return to below. So, too, is making room for different pathways that researchers may take to reflect their strengths and convictions. For a university, a portfolio approach makes good sense: some colleagues are best at the known and established path of high-quality academic work with academic impact, evidenced through the standard metrics, and should be supported to pursue their best, in ethical, high-quality ways; others care about how their work gets taken up in the world of practice, whether through translational or direct-to-impact routes, and have the networks and talent to do so, and should similarly be encouraged, enabled, and recognised.

With the possibility of different pathways to impact, the pressures on achieving top-tier publications with high citation counts for everyone, in a one-size-fits-all approach, may be mitigated. The temptation to falsify data, engage in data dredging, publish rapidly, manipulate citations, exploit early-career researchers and so forth should lessen if we open up different ways of valorising research. This has the potential to make a difference to research environments and cultures.

Whichever path to excellence and impact, cultivating an open, collaborative culture is critical in supporting high-quality work and individual and community wellbeing, particularly in the face of ambitious visions and determined plans. Setting the tone from the top is crucial, but this needs to be coupled with unit-level leadership similarly engaged in open communication, and importantly, sharing the vision, values and directions.

At the end of the day, there is no getting away from acknowledging that systemic changes are necessary. But structure is not everything. There is agency. Just as the Hippocratic Oath sets out the values that guide medical professionals, and the Socratic Oath does the same for educators, perhaps a code of ethics and a commitment to a set of values would not be out of place for researchers. Might it be contemplated that an Aristotelian Oath might be worthwhile for researchers, in acknowledgement of the polymath philosopher scientist? Might we

contemplate an oath that commits individuals to ethical practices and institutions to creating and maintaining healthy research environments in support of the wellbeing of researchers? Concrete policy changes, systematic structural adjustments, individual commitment to a set of values – these are the bases on which paradigm shifts occur.

About the author

Lily Kong is President of Singapore Management University and Lee Kong Chian Chair Professor of Social Sciences.