

# THE IMPACT OF METRICS ON SCHOLARLY RESEARCH AND PUBLISHING

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# Exhibit A: Swinburne

**Subject:** 2015 HERDC PUBLICATIONS COLLECTION

**Importance:** High



## Message from the Associate Dean, Research & Engagement - Prof. Heath McDonald

I would like to remind staff to submit their recent publications to Research Bank [webpage](#). The cut-off for HERDC inclusion is **April 30th**, but please do this as soon as you can.

Publications in unranked (ABDC, IS or Law rankings) outlets, either journals or conference papers, should not be submitted. Reporting these publications to HERDC has a negative impact on our ERA rankings."

Regards

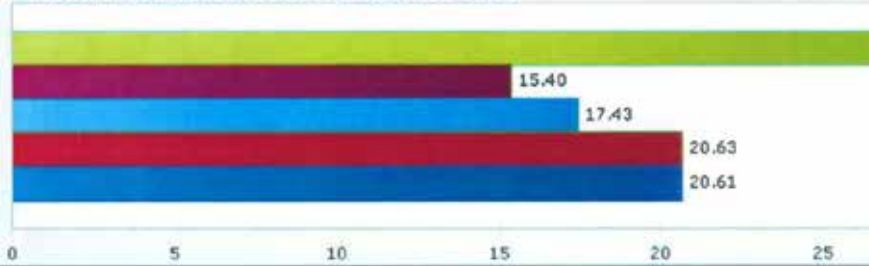
*Heath*

Associate Professor Fred Nurk  
 Associate Professor  
 Historical and Philosophical Inquiry  
 Level D T&R (Continuing - Full-Time)

The Q-index scores are to be considered in context, taking into account discipline-specific factors and personal circumstances. It is not a comprehensive nor definitive measure of performance, and should only be used to inform discussion during performance appraisal processes.

# Exhibit B: UQ: The Q-Index

Qr-Index: Personal Score vs Mean Scores



Faculty	Lev el A	Lev el B	Lev el C	Lev el D	Lev el E
Humanities and Social Sciences	4.31	8.84	18.28	22.99	32.03

Qt-Index Comparison: Personal Score vs Mean Scores - Q8 Overall Ra



# Journal rankings

- ERA list 2010
- ERA list 2012
- ARC withdrew 2012 list, discourages further use
- Business Deans' list, UQ list, IS, etc.

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## Scientific research

# Looks good on paper

A flawed system for judging research is leading to academic fraud

Sep 28th 2013 | BEIJING | From the print edition

DISGUISED as employees of a gas company, a team of policemen burst into a flat in Beijing on September 1st. Two suspects inside panicked and tossed a plastic bag full of money out of a 15th-floor window. Red hundred-yuan notes worth as much as \$50,000 fluttered to the pavement below.

Money raining down on pedestrians was not as bizarre, however, as the racket behind it. China is known for its pirated DVDs and fake designer gear, but these criminals were producing something more intellectual: fake scholarly articles which they sold to academics, and counterfeit versions of existing medical journals in which they sold publication slots.

As China tries to take its seat at the top table of global academia, the criminal underworld has seized on a feature in its research system: the fact that research grants and promotions are awarded on the basis of the number of articles published, not on the quality of the original research. This has fostered an industry of plagiarism, invented research and fake journals that Wuhan University estimated in 2009 was worth \$150m, a fivefold increase on just two years earlier.



## Offline: What is medicine's 5 sigma?



"A lot of what is published is incorrect." I'm not allowed to say who made this remark because we were asked to observe Chatham House rules. We were also asked not to take photographs of slides. Those who worked for government agencies pleaded that their comments especially remain unquoted, since the forthcoming UK election meant they were living in "purdah"—a chilling state where severe restrictions on freedom of speech are placed on anyone on the government's payroll. Why the paranoid concern for secrecy and non-attribution? Because this symposium—on the reproducibility and reliability of biomedical research, held at the Wellcome Trust in London last week—touched on one of the most sensitive issues in science today: the idea that something has gone fundamentally wrong with one of our greatest human creations.



The case against science is straightforward: much of the scientific literature, perhaps half, may simply be untrue. Afflicted by studies with small sample sizes, tiny effects, invalid exploratory analyses, and flagrant conflicts of interest, together with an obsession for pursuing fashionable trends of dubious importance, science has taken a turn towards darkness. As one participant put it, "poor methods get results". The Academy of Medical Sciences, Medical Research Council, and Biotechnology and Biological Sciences Research Council have now put their reputational weight behind an investigation into these questionable research practices. The apparent endemicity of bad research behaviour is alarming. In their quest for telling a compelling story, scientists too often sculpt data to fit their preferred theory of the world. Or they retrofit hypotheses to fit their data. Journal editors deserve their fair share of criticism too. We aid and abet the worst behaviours. Our acquiescence to the impact factor fuels an unhealthy competition to win a place in a select few journals. Our love of "significance" pollutes the literature with many a statistical fairy-tale. We reject important confirmations. Journals are not the only miscreants. Universities are in a perpetual struggle for money and talent, endpoints that foster reductive metrics, such as high-impact publication. National assessment procedures, such as the Research Excellence Framework, incentivise bad practices. And individual scientists, including their

most senior leaders, do little to alter a research culture that occasionally veers close to misconduct.

Can bad scientific practices be fixed? Part of the problem is that no-one is incentivised to be right. Instead, scientists are incentivised to be productive and innovative. Would a Hippocratic Oath for science help? Certainly don't add more layers of research red-tape. Instead of changing incentives, perhaps one could remove incentives altogether. Or insist on replicability statements in grant applications and research papers. Or emphasise collaboration, not competition. Or insist on preregistration of protocols. Or reward better pre and post publication peer review. Or improve research training and mentorship. Or implement the recommendations from our Series on increasing research value, published last year. One of the most convincing proposals came from outside the biomedical community. Tony Weidberg is a Professor of Particle Physics at Oxford. Following several high-profile errors, the particle physics community now invests great effort into intensive checking and re-checking of data prior to publication. By filtering results through independent working groups, physicists are encouraged to criticise. Good criticism is rewarded. The goal is a reliable result, and the incentives for scientists are aligned around this goal. Weidberg worried we set the bar for results in biomedicine far too low. In particle physics, significance is set at 5 sigma—a p value of  $3 \times 10^{-7}$  or 1 in 3.5 million (if the result is not true, this is the probability that the data would have been as extreme as they are). The conclusion of the symposium was that something must be done. Indeed, all seemed to agree that it was within our power to do that something. But as to precisely what to do or how to do it, there were no firm answers. Those who have the power to act seem to think somebody else should act first. And every positive action (eg. funding well-powered replications) has a counterargument (science will become less creative). The good news is that science is beginning to take some of its worst failings very seriously. The bad news is that nobody is ready to take the first step to clean up the system.

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## Publishers withdraw more than 120 gibberish papers

Conference proceedings removed from subscription databases after scientist reveals that they were computer-generated.

Richard Van Noorden

24 February 2014 | Updated: 25 February 2014

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The publishers Springer and IEEE are removing more than 120 papers from their subscription services after a French researcher discovered that the works were computer-generated nonsense.

Over the past two years, computer scientist Cyril Labbé of Joseph Fourier University in Grenoble, France, has catalogued computer-generated papers that made it into more than 30 published conference proceedings between 2008 and 2013. Sixteen appeared in publications by Springer, which is headquartered in Heidelberg, Germany, and more than 100 were published by the Institute of Electrical and Electronic Engineers (IEEE), based in New York. Both publishers, which were privately informed by Labbé, say that they are now removing the papers.



Among the works were, for example, a paper published as a proceeding from the 2013 International Conference on

Nature/  
News

# The Metric Tide

Report of the Independent Review  
of the Role of Metrics in Research  
Assessment and Management

July 2015



HEFCE (UK)  
Wilson et al.

<http://www.ascb.org/dora/>  
<http://www.leidenmanifesto.org/>



[Leiden manifesto for research Metrics](#)

# Drivers of “metric tide”

- ERA and rankings
- New management régimes – from discipline-based departments to content-free line management
- “New public sector management” culture – quantified KPIs and pseudo-markets

# What doesn't get counted

- Peer-refereeing of journal articles
- Book reviews
- Editing
  - | Books
  - | Journals
- Research “eco-system”

# UNSW 2025

## Statement of Strategic Intent White Paper

p.8:  
Objective No.1  
[in research]:  
To establish  
UNSW as one of the  
top 50 research-intensive  
universities worldwide.  
UNSW will have  
leading researchers  
across all faculties and many  
of our staff will be amongst  
the world's most highly cited  
researchers. The number of  
publications appearing  
in leading journals  
will have doubled  
[by 2025].