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Chris Sauer

University of Oxford, chris.sauer@gtc.ox.ac.uk

Leslie Willcocks

London School of Economics and Political Sciences

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Commentary on “Information Systems Research: Thinking Outside the Basket and Beyond the Journal”

Chris Sauer

Green Templeton College
University of Oxford
chris.sauer@gtc.ox.ac.uk

Leslie Willcocks

London School of Economics and Political Sciences

1 Introduction

Fitzgerald, Dennis, An, Tsutsui, and Muchala (2019) present much to commend, admire, and agree with. In particular, we appreciate how they critically interrogate the evidence and their call for more research. The analysis they present signals that we should all carefully consume bibliometrics and not treat them as an easy alternative to independently evaluating journals and the research they publish. The authors refer to some researchers' desire for "objectivity" in bibliometric measurements. But, while one can achieve pseudo-objectivity through counting citations, reviews and editorial decisions always involve subjectivity. Building more complex metrics that weight citations according to where they appear also involves subjectivity. Such complex measures may in a sense carry more information than simpler measures, but they still embody a level of subjectivity that means that they will always remain open to challenge—bibliometrics should only ever aid judgment and never supplant it.

We offer various observations and reflections on Fitzgerald et al.'s (2019) paper in this commentary in our capacity as experienced journal editors—as such, they reflect that viewpoint. We address four main areas where we believe we have useful points to make: 1) the evaluation of research published in journals, 2) the value of impact factors, 3) the potential risks of altmetrics, and 4) the impact of editorial policy.

1.1 The Evaluation of Research Published in Journals

Fundamentally, Fitzgerald et al. (2019) argue that one should not treat the journal that publishes a paper as indicating the paper's quality. At best, the journal only probabilistically indicates the paper's likely quality, and the papers in any one journal vary too much from one another for the journal to serve as a reliable guide. Even publication in *MIS Quarterly* does not absolutely guarantee that a paper will receive citations. This accords with our own observations. Fitzgerald et al. conclude that one should evaluate research at the paper level. This is surely preferable because paper-level citation counts give more fine-grained information than journal-level means, medians, or more complex measures.

In truth, though, we in the information systems (IS) discipline have only partial interest in a specific paper's quality and usually more interest in the authors' quality (for the purposes of hiring, promotion, tenure, and research funding). When a paper only has one author, its quality says something about its author's quality. But when a paper has multiple authors (as most do), one cannot easily (or at all) distinguish each author's contributions. The co-author list would look the same for a paper that included a doctoral supervisor's name as a courtesy as it would for a paper that recognized that the supervisor played a substantial part in the research. So, while a shift to paper-level evaluation might represent a step in the right direction, much research evaluation would inevitably remain a matter of judgment.

We sound a note of caution regarding the premise that Fitzgerald et al. (2019) adopt in their paper: that quality is a matter of influence on subsequent research and that this can be adequately measured in terms of citations (i.e., that a paper's quality is a function of whether others have found it sufficiently useful to be worth citing. In principle, we would like to think that authors would only cite papers that said something material to the research they conduct. However, this is not always the case. First, we do know that some coercive citation occurs (Wilhite & Fong, 2012)—sometimes to benefit a journal's impact factor, sometimes to benefit a reviewer's or editor's personal citations. However, coercive citation introduces only minor bias compared to the bias that arises from the ways in which researchers access research. Authors often state in their literature reviews that they have limited their search for prior literature to a restricted set of journals. What influences the journals that authors consider? Most often, the journal's perceived ranking. Then the authors choose to cite all or most papers that address the same topic in those journals regardless of whether they materially assist their research. In the review process, we frequently have to ask authors to extend their reviews to take in highly relevant, high-quality papers that they omitted as a result of various kinds of search biases (e.g., they accessed only IS journals, cited only U.S.-based, and/or cited only high-impact factor journals).

We also note that different publishers have different institutional reach. If an institution does not subscribe to a given journal, then authors from that institution will be less likely to cite the journal's papers. While we like to think that the Internet has opened up the market for research papers as researchers can buy access to individual papers, in reality, the market has many flaws. Some scholars avoid reading and, therefore, citing papers that they cannot freely access online without charge. Thus, the market reach of a journal's publisher almost certainly influences citation counts to some degree. And that has nothing to do with any specific paper's quality.

Conversely, as editors, we often see good research that ploughs a lonely furrow. That is, its researchers conducted it well, but it covers an unfashionable (if important) topic. Further, some work may well be ahead of the discipline's immediate research interests or fashions and would require a much longer timeline for an adequate assessment of its quality. We should be, and as editors we are, very cautious of discounting such work. To do so would unnecessarily encourage risk-averse researchers to pursue established topics over new ones because their work would likely attract more citations. We see such reasons as justification for viewing research quality in a more multi-faceted way.

Fitzgerald et al. (2019) also mention (though could have expanded more on this topic) the importance of the filtering, selection, and revision process that journals provide. The quality of these procedures does have a material effect on the research quality of the final published paper. But, currently, none one knows whether journals with high impact factors and rankings always carry out these procedures well, though researchers often take high scores on bibliometrics to indicate that they do. We could have an interesting discussion around whether a different set of metrics on a journal's ability to carry out these procedures could represent a useful way forward.

1.2 The Value of Impact Factor(s)

The fact that journal-level metrics do not serve as a good guide to paper-level quality or authorial quality does not mean to say that one cannot ever use journal-level metrics such as impact factors. We make two points here: they may be helpful to librarians in their purchase decisions, and they play a part in institutional politics.

As editors for journals that an independent trust owns, we occasionally test the publishing market to assure ourselves that we get the best value from our chosen publisher. In talking with publishers, they clearly state that the two-year impact factor is the most important metric for them. Why? We speculate that they find it so important because of its value in selling subscriptions to institutional libraries. Notwithstanding Fitzgerald et al.'s (2019) reservations about using mean statistics, for a librarian it may not matter too much whether citations have a normal or skewed distribution. For the librarian, the more citations per paper a journal garners on average, the more likely that faculty at the librarian's institution will find useful papers in that journal. So, whatever conclusions we may reach as a discipline about the value of the impact factors for evaluating research, we can expect that, for as long as publishers sell journal subscriptions either individually or in packages, they will continue to post impact factors on journal websites.

Whatever conclusions we reach, if we consider our position as a discipline in the wider university context, we also need to think about the implications that those conclusions have for institutional politics and our ability to defend the IS discipline in competition with other business disciplines. For so long as impact factors, Eigenfactors, and the like remain currency in other disciplines, we will find it difficult to publicly abandon them. In not following other disciplines, we would court criticism and, potentially, scorn. Imagine the scene at the business school promotion and tenure committee where candidates from all other disciplines have included journal impact factors against their publications but the IS candidates have not—"Oh, so IS has given up on impact factors, has it? They're good enough for the rest of us. Is there something wrong with the publication norms in IS? The journals aren't reliable?". So, if we follow the evidence where it takes us as Fitzgerald et al. do, politically speaking, we need to take other disciplines along with us on this journey. If researchers conduct further research on the issue, it needs to analyze other business and management disciplines as well as IS so that we can make it clear to our peers across the university that we are not a lone, diseased discipline in an otherwise healthy business faculty.

1.3 The Risk of Altmetrics

We should not rush into adopting altmetrics. Quite simply, they have obvious scope for manipulation. For example, if paper downloads count towards a quality metric, then we can see immediate advantage in setting our own papers for discussion at graduate seminars (30 students, 30 downloads). Or, if I wish to be less crudely obvious in my manipulation, I can strike a deal, explicit or implicit, with colleagues at other institutions such that I set papers authored by them for seminar discussion (they benefit from the downloads), and, in return, they set papers I have authored (I benefit from the downloads). More generally, we know that individuals and companies widely manipulate recommendations on review websites. We find it hard to believe that such manipulation would not happen with some, if not all, altmetrics. So, before we include any altmetric in the evaluation of IS research, we advocate work that carefully assesses the metric and its likely operation ahead of thorough piloting.

1.4 The Impact of Editorial Policy

Fitzgerald et al. (2019) note that citation levels usually do not follow a normal distribution and that the means significantly differ from the medians. In saying this, they demonstrate the unreliability of mean and median-based journal-level metrics as indicators of individual paper quality. We endorse this concern not least because journals may differ in their editorial policies and this can affect citation distribution. We offer two examples from our own journal, the *Journal of Information Technology*. First, as editors for the journal, we have deliberately pursued a policy to develop and accept truly novel and adventurous research. Inevitably, we have made some high risk, high return editorial decisions. We accept that some will fail to take off and a handful will attract many citations. While we continue to pursue this policy, we would expect a non-normal citation distribution.

Second, Fitzgerald et al. (2019) do not clearly specify how they assembled the data for Table 6 and, in particular, what they counted as “a paper”. During the period they analyzed (i.e., 2001-2010), the *Journal of Information Technology* regularly published teaching cases. Such papers rarely receive citations since they fulfill a different purpose from that of normal research papers. If Fitzgerald et al. included them in their analysis, then they would have affected the results by increasing the number of papers with zero citations and, hence, accentuated the skew in the distribution. So, if we accept that editorial policies affect citation distribution, it is all the more reason to be cautious about inferring paper quality from the metrics of the journal that published it.

2 Summary

Broadly, we support the research that Fitzgerald et al. (2019) and thank them for the great service they have provided. If we have a single, dominant conclusion, we argue that the institutional politics will continue to be important. If we plan to develop this research direction, we need to analyze other disciplines. We need to be able to say to other disciplines that we all have this problem. If we position it as an IS problem, then we will shoot ourselves in the foot. The problem has sufficient importance that the Association for Information Systems should consider funding further work that embraces other disciplines.

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About the Authors

Chris Sauer is Joint Editor-in-Chief of the Journal of Information Technology and the Journal of Information Technology Teaching Cases. He retired from academic employment in May, 2018, after a career including positions at the Said Business School at Oxford University, the Australian Graduate School of Management at the University of New South Wales, the University of Western Australia, Griffith University, and the Open University. His core research interests have included the management of IT-based organisational transformation, project management, and the transfer, diffusion and adoption of IT. His work has been published in a range of journals including *Sloan Management Review*, *the Journal of MIS*, *the Information Systems Journal*, *Communications of the ACM*, *IEEE Transactions on Software Engineering*, and *the Project Management Journal*. He has written several books including *Why Information Systems Fail: A Case Study Approach*.

Leslie Willcocks is Professor in Technology Work and Globalization at the Department of Management at London School of Economics and Political Science. He has a global reputation for his work in robotic process automation, AI, cognitive automation and the future of work, digital innovation, outsourcing, global management strategy, organizational change, IT management, and managing digital business. He is co-author of 63 books on these subjects and has published over 230 refereed papers in journals such as *Harvard Business Review*, *Sloan Management Review*, *California Management Review*, *MIS Quarterly*, *Journal of Management Studies*. His work appears in major media outlets such as *Forbes*, *HBR Online*, he keynotes regularly at international conferences, and he has been retained as adviser and expert witness by major corporations and government institutions in the UK, USA, Europe, and Australia.

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