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A Reflection on "Information Systems Research: Thinking Outside the Basket and Beyond the Journal"

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1 Introduction

In their paper, Fitzgerald, Dennis, An, Tsutsui, and Muchala (2019) present different analyses in which they apply various forms of citation analyses to the AIS Senior Scholar's Basket of eight journals, three "close contenders", and six "randomly selected" journals from a Web of Science list of IS journals (17 in total). The authors express concern over journal rankings' insufficient validity and reliability and use these analyses to demonstrate key empirical claims; notably, that different citation metrics produce different rank orders for the journals and that few statistically meaningful differences among the journals' citation metrics exist. The authors highlight the eight basket journals in each table to illustrate that these journals do not consistently "rise to the top" of the rank-ordered lists, though *MIS Quarterly* fares well in most analyses. They further argue that journal citation metrics are subject to power distribution effects, so that a small number of highly cited papers inflate a journal's impact factor (JIF), which relies on the arithmetic mean versus the median. These and other empirical results support the authors' conclusions that no valid and reliable metrics to objectively and conclusively rank-order journals' quality (excepting *MIS Quarterly*) exist, that the expert opinion-based basket list "does not serve as a reliable measure of journal quality" (p. 128) and "we should stop using the journal basket" (p. 128), and that, instead, we should evaluate quality at the paper level, not at the journal level. Fitzgerald et al. end with a call to work towards more precise citation-based metrics at the paper level and to incorporate "altmetrics" based on leading indicators (such as paper downloads) and direct indicators (such as social media mentions).

I do not argue with Fitzgeral et al.'s (2019) empirical findings, but I question what purposes (whether intentionally or unintentionally) this extensive data-analytics exercise serves. I do not find it surprising that the 17 journals sort out differently when one applies different citation metrics to them as each journal serves different constituencies and occupies somewhat different niches in the broad IS discipline. Research has widely acknowledged and documented the fact that highly cited papers skew journal impact factors (as Fitzgerald et al. themselves acknowledge). Nor would I dispute their claims that the quality of a publication is not synonymous with the quality of the journal that publishes it. However, do we need tables of rank-ordered journal listings to make these points? What will university regents, administrators, deans, and tenure committees make of such lists and the authors' conclusions based on them? A conscientious and informed reader could understand the nuances in the statement that the basket list is not a "reliable measure" of quality or impact, but a less benign interpretation could be that *MIS Quarterly* alone merits our consideration as a "quality journal". Will external university evaluators or colleagues in other disciplines dismiss other basket journals as arguably no better than "randomly selected" IS journals? Will even more IS scholars pound on the doors of *MIS Quarterly* regardless of whether or not this outlet makes sense for their manuscript in the hope that they will gain admission to the IS discipline's only (somewhat) certifiable quality journal?

Perhaps my concerns are overblown. And I am confident Fitzgerald et al. (2019) do not intend that their analyses lead to these outcomes. However, my discomfort with this citation data analytics tour de force lies in its performativity since such papers "can help bring into being what they also discover" (Law & Urry, 2005). Here, the authors maintain that no reliable and valid metrics to rank-order IS journals based on their quality exist as they nonetheless rely on these same metrics in their analyses. Their conclusion that more precise (paper-level) metrics can achieve the elusive validity and reliability they seek embraces rather than critiques the preoccupation with rankings and its consequences for the IS academic community. Thus, Fitzgerald et al. avoid critiquing the realities that rank-ordering universities, disciplines, journals, publications, and scholars creates. They also fail to engage with strategies to alter these realities so as to improve the quality of IS scholarship and instead focus on more accurate measures of quality.

Fitzgerald et al. (2019) rely on a one dimensional view of quality as "utility" and a single operational definition of utility to tap into that dimension:

> *Citations almost always indicate research's positive utility: a citation means that a researcher found something useful in a paper for their own research…. Thus, citations represent a good way to measure research that researchers widely see as true and, thus, indicate quality.* (p. 113)

They acknowledge that citations are a noisy indicator and mention briefly a few well-known issues, such as journal size and reputation, that influence papers' citations. Nonetheless, they embrace citation counts, in one form or another, as the arbiter of paper quality through their many analytics exercises and displays. Even the more recent PageRank metric relies on citations to build the analytical network.

Citing someone's work represents a *social* action that indicates that the citing author saw some utility in taking that action. However, one can interpret this action in various possible ways, and only in some cases should we interpret this action as indicating a publication's scholarly quality. I would argue instead that citations constitute an increasingly *meaningless* indicator of quality while having many other possible meanings. For instance, many researchers have encountered editors who insist a submission to the journal include citations to other publications in that journal (the "self-citation" effect that Fitzgerald et al. (2019) examine). Determining whether self-citations indicate true engagement in a discourse in the journal (a legitimate and positive meaning) or merely an attempt to artificially boost the JIF requires nuanced and detailed examination and merits discussion of the ethical implications for IS scholarship. As an editor, I have observed some authors making gratuitous citations to the journal in hope of showing some relevance to the journal or even to my own unrelated work as a form of flattery (a cynical form of "utility"). I have also observed authors cite papers I know very well in ways that made me wonder if they had even read the title or the abstract much less the paper. Reviewers and editors should call out such actions. Some highly cited papers become ritual citations (DiMaggio, 1995) that researchers misuse and misconstrue (which diminishes the paper's utility). Others mention but do not actually engage with the content in the papers they cite (Davidson, 2006) (superficial utility). With electronic journal indices readily available and with Google Scholar, researchers need not spend much time or thought to find papers to support a particular argument, which contributes to citation inflation (Varela, 2013)[1]. Recognizing and correcting such behaviors might improve scholarship's actual quality in the IS discipline. Moreover, whether one cites different papers on the same topic (or not) may reflect the ease of access to the paper versus either papers' utility. Some researchers (and journal publishers) market a paper through social media or other channels. That is, the cited paper's impact may reflect marketing more than the quality of theory, findings, and implications. Does this type of utility improving the quality of IS research?

Fitzgerald et al. (2019) rightfully point out that we could improve the precision of citation metrics through weighting the cited paper's use in the citing paper and applying citation counts to individual papers rather than to journals. They also suggest that we could use various alternative metrics (altmetrics) as leading indicators of a paper's impact, such as Twitter or blog post mentions. I agree that, with the digitized bibliometric data available today, more precise citation analytics are possible and would be perhaps helpful. However, I question to what degree more precise metrics would necessarily produce more valid and reliable measures of quality given the many reasons why one author cites another. Moreover, what behaviors would we elicit by placing even more importance on a paper's citations? Humans are adept at figuring out how to game any ranking system to work it to their own advantage, and many citation-attracting behaviors (such as click-baiting behaviors in online news and social media) will not improve the quality of scholarly knowledge. Altmetrics would be particularly susceptible to gaming given that one could program social media bots to post comments, retweet, or otherwise boost attention to the paper[2]. Will IS researchers then be in a race to become better self-promoters rather than better scholars in order to help peers notice our own work?

Second, Fitzgerald et al. (2019) conceptualize quality (assessed via citation) in a way that undervalues the constructive interplay of journal and paper quality and, at the same time, fail to critically examine the adverse implications of this intermingling. They state:

> *The journal primarily has a selection or curation function; in some cases, the journal adds value to the paper during the review process. By focusing on the journal and not the paper, we measure quality in the wrong place.* (p. 114)

They substantiate this conclusion by empirically demonstrating through various citation analyses that not all papers published in a journal will reach that journal's citation rate and that some will exceed it. They do note that papers in prestigious (also known as "quality") journals are more likely to receive citations than similar papers in less prestigious journals, but they do not pursue an explanation for this effect.

[1] While writing this statement, I wondered if "citation inflation" was the right term to use. It took me 30 seconds to locate a publication via Google Scholar (Diego, 2013), which judging from the abstract, supported my point. Since I did not have a subscription to the journal, I did not read the whole paper. Should we argue that this paper had utility for my thinking that indicates quality? It is likely a very good paper, but my citation to it is not a reasonable measure of its quality.

[2] This phenomenon is not new. Rather, one can more easily do it with Internet bots. For instance, in a notorious case in the mid-1990s, a well-known academic reverse-engineered *The New York Times* best-seller algorithm to boost his popular press book to "best seller" status by having colleagues and friends strategically buy books at key bookstores.

Fitzgerald et al.'s (2019) argument that no basis in logic exists to associate journal and paper quality ignores a basic premise of quality management; namely, that a high-quality production process can improve the quality of what that process outputs. In my experience as an author, reviewer, and editor, I have found that papers develop significantly through the review process such that they become clearer and sharper than their initial versions and, thus, more likely to have utility for others' research. Moreover, through a high-quality editorial process's selection and curation function, the journal's editorial staff sorts out lower-quality papers and tries to attract higher-quality papers, which results in more higher-quality papers than random selection could produce. Of course, these processes have flaws. Many authors experience at least one review process gone wrong in their careers that results in a Frankstein manuscript, a late review round rejection, or publication in a secondary outlet where the paper achieves many citations. However, if journals adopt consistent internal reviewing practices and if practices differ across journals, one has some logical reason to assume that journal quality and paper quality relate to (if not perfectly correlate with) each other.

Fitzgerald et al. (2019) make a valid argument that the publishing journal does not serve as the arbiter of a paper's quality and that journals outside the Senior Scholar's basket publish high-quality papers. Indeed, researchers might instead view publishing in *MIS Quarterly* or one of the other basket journals as an initiation ritual necessary to gain admissions to a prestigious insiders club (scholars who publish in top journals). Not all supplicants survive this rite of passage, and some do not even receive an invitation to the hazing (e.g., desk reject rather than full review). However, I would argue that many junior scholars become better researchers through peer-review processes (and by participating as reviewers) even in the painful processes that top journals inflict. At least, we might agree they become better at publishing their research in ways that may attract citations and, thus, demonstrate impact.

All told, journals with reliable, high-quality review processes should reliably produce a greater number of high-quality papers, whereas journals with lower-quality processes could produce high-quality papers but not as reliably. This logic should be true for any aspects of quality that the review process focuses on—whether novelty, creativity, criticality, or citability. Thus, I would argue that the problem is not that we measure quality in the wrong place but that quality of a collective endeavor such as a journal structurally differs—even if remains functionally similar (having the same or similar meaning)—at the individual paper level (Morgeson & Hofmann, 1999). Thus, we need different ways to assess the quality of the collective (journal). For instance, we might assess a journal's quality based on its editorial staff's qualifications, how reliably the review process develops and improves a manuscript, the quality assurance measures that the journal practices (e.g., evaluating reviewers or providing them feedback), or the novel research disciplines the journal may open (e.g., through special issues).

At this point, the value of expert opinion-based lists such as the Senior Scholar's basket comes in. If we assume that a list relies on insiders' knowledge about and experience with a range of journals, then we could have some confidence that experts can assess journals on such dimensions and their lists have some validity even if citation metrics do not reproduce their judgments. Journal citation metrics may play some role in assessing overall impact of a journal, but these other measures could provide a more well-rounded assessment of the journal's capacity to attract, help develop, and publish high-quality publications. Of course, if the journal evaluation process suffers from political self-interest rather than a merit-based review, then one could rightfully question such lists. Moreover, we have little public information about the reliability of journals' peer-review processes, and most researchers have experienced variable quality even in the same journal. Thus, I sympathize with Fitzgerald et al.'s (2019) desire to validate such lists.

Given that many papers take two to four years from first submission to acceptance and then an additional number of years to attract citations, a junior scholar who faced a five-, six-, or even seven-year tenure clock would be hard pressed to demonstrate the quality of their research based on citation counts alone or even Altmetrics. Thus, journal quality serves as a proxy, albeit one with many flaws, for a paper's quality and future impact. As I recall, the Senior Scholars originally created the basket to recognize more journals as high quality to address this sort of issue. By arguing that, aside from *MIS Quarterly*, little exists to differentiate quality among IS journals (given that they selected six journals randomly), Fitzgerald et al. (2019) may be correct in their empirical analysis but nonetheless have made tenure and promotion actions more difficult for some junior scholars.

Ranking lists such as Senior Scholars' basket have positive aspects, but they have adverse consequences as well for individual scholars, for journals in or out of the basket, and for the IS discipline as a whole. Designating a journal as a "top journal" is performative as editors, editorial boards, reviewers,

and potential authors act accordingly. The prestige that a journal receives when the research community designates it as a top journal usually means the journal gains resources such as willing reviewers and board members and the most promising research from potential authors. It may also cause the journal to become risk adverse and to publish only papers that match standard expectations. Thus, I believe that ranking lists deprive other journals of these limited resources, which contributes to substantive problems with reviewing processes in the IS discipline (see Chua, Thatcher, Niederman, Chan, & Davidson, 2018) and impacts other important dimensions of research quality, such as timelines, variety, and creativity. This critique differs in substance from Fitzgerald et al.'s (2019) criticism of the reliability of the Senior Scholars basket list based on citation analysis, and the implications for assessing quality at the journal level differ as well. Instead, I am arguing the "rich-get-richer" effect of journal ranking lists limits access to and respect for a broader range and diversity of journals, which can diminish the quality of research in the field generally.

Fitzgerald et al. (2019) conclude the IS discipline has two possible paths forward: 1) to continue as is with journal-level metrics and 2) to move to paper-level metrics (the innovation they propose). I suggest that, at best, these two paths lead to the same destination—an uncritical acceptance of highly abstracted data analytics as the arbiter of quality IS scholarship and an emphasis on measuring, rather than improving, quality. I posit further that relying on paper-level metrics (leading or lagging) could stimulate the types of self-promotion we see in social media today, which have little to do with enhancing quality or truth but much to do with creating "impact". Does such a position make me an enemy of innovation that the authors, quoting Machiavelli, warn of? I hope not. As the editor-in-chief of one of the so-called "near contender" journals (*Information and Organization*), I can affirm the journal has not benefited from and faces challenges in accessing community resources due to the realities that the Senior Scholars' basket engenders. Thus, I find it ironic if I find myself defending, at least in part, this IS "institution". Rather than rejecting innovation, I suggest that innovation may also lie along other paths or through different steps that the IS community could take to enhance the quality of IS scholarship and strengthen the IS academic community.

First, rather than abandoning attempts to assess journal quality, the process by which opinion-based journal lists assess quality could be more transparent and open. Who performs the evaluation? How do they characterize and evaluate the quality of the journal reviewing process? Do they use qualitative and quantitative assessments? What responsibilities do both expert evaluators and journals have in these procedures? Second, journals could better share best practices for a high-quality editorial process among themselves in order to enhance the quality of all journals. The citation analytics Fitzgerald et al. (2019) present could serve as a stimulus to critically look for opportunities to improve journal quality. Of particular concern, the Association of Information System's flagship journal (*Journal of the AIS*) appears near the bottom of many of their tables. Does that finding suggest problems with the journal's quality, the need to better promote its publications to attract citations, or perhaps something else altogether?

Third, researchers need easy and inexpensive access to IS publications not only to garner citations but also to spread ideas and stimulate creativity. The cost of journal subscriptions for libraries continues to skyrocket, which limits scholars' access to some journals and access overall to scholars in developing economies. The AIS e-Library represents one promising initiative to promote access to IS intellectual content. What other initiatives could the IS discipline develop or support? Fourth, facilitating publications that summarize and re-present key research can enhance the utility of earlier publications, such as theory and review papers, *MIS Quarterly*'s research curation project, or *Information and Organization's* research impact and contributions to knowledge section.

Fifth, we might question whether social media has begun to transform academic scholarship itself as newspapers and other information industries have changed. Rather than seeking enhanced ways to measure a publication's citations, as a discipline, we might explore new methods and new channels to validate and disseminate the knowledge we seek to produce. Investigating and sharing practices for disseminating research findings, for peer assessment in new channels, and for publicizing papers through social media channels could be a first step to help all IS scholars to become more effective knowledge entrepreneurs.

Finally, as individual scholars and as a community, we could act as if the premises that Fitzgerald et al. (2019) highlight are true. We could read papers closely to evaluate their quality rather than assuming quality (or lack thereof) based merely on publication outlet. We could seek out a variety of sources to read, absorb, and cite rather than scanning only the basket journals or skimming a Google Scholar list. We could agree to serve as external reviewers for our junior colleagues and then to evaluate them based

on the quality of their research rather than the journals that publish their papers. We could argue for and support our own colleagues when deans or tenure committees demand publication in select journals.

These steps do not conflict with the steps that Fitzgerald et al. (2019) propose, but they would, I hope, provide a more critical, innovative, and balanced agenda to deal with questions about quality research in the IS discipline.

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