A Post Publication Review of The challenges involved in establishing a research technique

Clarke, R. (2020). The challenges involved in establishing a research technique. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2515

Review

The progress of information systems (IS) as a discipline is reliant on the gaps that IS scholars identify and address, whom, in our view, can do so in a few notable ways.

Most often, IS scholars work with gaps that justify conceptual and empirical research (e.g., quantitative, qualitative), wherein gaps may emerge from either IS theory (e.g., Lim et al., 2019; Robinson, 2020; Soral et al., 2020), practice (e.g., Naqvi et al., 2020; Pereira et al., 2020; Warren, 2020), or both (e.g., Alhassan et al., 2020; Nayal & Pandey, 2020). Moreover, the maturity of the IS discipline has coincided with the emergence of systematic reviews (Lim, 2020; Mazaheri et al., 2020), which typically rely on a set of protocols and procedures to produce a state-of-the-art overview of existing knowledge and an agenda for future research to close extant gaps and drive the field forward (e.g., Aljaroodi et al., 2019; Chua & Zhang, 2020; Hacker et al., 2019; Hinton et al., 2019). More recently, Clarke (2020) brings to light of an underrated, and sometimes forgotten, form of review in IS—that is, critical reviews (and though Clarke did not mention "critical reviews" explicitly, we opine that "critical analysis of articles," "critiques of prior works," and "meta-discussions" may implicitly refer to "critical reviews").

Unlike systematic reviews, whose methodologies and variations have been well established (Hulland & Houston, 2020; Palmatier et al., 2018; Paul & Criado, 2020), the art of writing critical reviews has remained elusive. The seminal paper of Clarke (2020) sought to address this gap by elucidating the pertinent aspects of critical reviews and by presenting a guide that IS scholars can rely upon to produce critical reviews.

We agree with Clarke (2020) that critical reviews have an important role to play in advancing the IS discipline given that critical thought—which in principle, is refutable, provisional, and subject to testing, with the outcome leading to discovery and progress—is central to the notion of science. Yet, we empathize with the rejections encountered by Clarke (2020) in the pursuit of publishing critical reviews in IS journals, and we understand the "nervousness" that journal editors may feel when they receive manuscripts that are critical of published work, especially those appearing in their own journals. This "nervousness" may be due, in part, to the misconceived understanding of "criticism" that entails in critical reviews, as Clarke (2020) rightly pointed out, wherein "criticism", as a concept and practice, should draw attention to both the positive and negative aspects of a subject that may have been ignored, disregarded, or overlooked.

Nevertheless, we felt that the guide proposed by Clarke (2020) for critical reviews may have been, to a certain extent, biased by his negative experience of trying to publish critical reviews in the past. In particular, we found the guide to be very prescriptive, which in our view, is a positive criticism that we wish to highlight, as we believe that early career researchers and higher degree research students are more likely to benefit from prescriptive rather than superficial guides for independent learning.

Yet, we contend that traditional research techniques, such as the four-way classification of content analysis proposed by Clarke (2020), may not be necessary for critical reviews. Interestingly, Clarke (2020) did acknowledge the problematic issues of systematic research techniques that typify systematic reviews (e.g., undue constraints that limit dialogical interaction between the literature and the researcher, thereby limiting creativity and insights; Boell & Cecez-Kecmanovic, 2014; MacLure, 2005), which the proposed content analysis would reasonably fall under. We also found two papers that Clarke (2020) cited to demonstrate the application of the guide as useful exemplars to support our contention. In particular, we observed more critical thought and implications in Clarke (2015) as opposed to Clarke (2016), which we believe may be attributed to the choice of research technique employed, wherein the latter appears to be more rigid and systematic than the former, thereby supporting our contention to move away from traditional research techniques and to more actively engage in what critical reviews ought to be doing. That is, we believe that critical reviews should not try to replicate systematic reviews-be it in style or substance. Instead, we opine that critical reviews should be "courageous" and "purposeful," wherein "courageous" refers to picking out and interacting with conflicts, dilemmas, and paradoxes, whereas "purposeful" relates to consolidating and harmonizing insights for clarity and progress in the field.

More importantly, IS scholars must be aware of the different forms that critical reviews may assume, such as research articles and post-published reviews, and develop their critical reviews accordingly. For example, critical reviews submitted as research articles should deal with topical issues in a specific area in the IS discipline (e.g., Gupta et al., 2018; Lim, 2018; Namvar et al., 2018; Samhan, 2018), whereas critical reviews submitted as post-published reviews should deal with topical issues arising from a recent publication in the journal (e.g., Burmeister, 2020; Koh & Kwok, 2018; Poulsen et al., 2019).

To this end, we are happy to see that the *Australasian Journal of Information Systems* actively publishes critical reviews as part of the journal's commitment to curate constructive discussions leading to the strengthening of ideas and arguments in the IS discipline, and long may this valuable platform and practice continue.

Weng Marc Lim

Swinburne University of Technology lim@wengmarc.com / marclim@swin.edu.au / wlim@swinburne.edu.my

Tareq Rasul

Australian Institute of Business

Author response

I welcome the comments made in the Review. They lead me to offer some clarification of two aspects of the original article.

Project-Types that the Research Technique Supports

The scope of the research technique that I am endeavouring to establish is "the critical analysis of {the content of} published works" (p.2).

My intention is that researchers "apply the abstract principles in order to customise a research method appropriate to each particular project" (p.15). One part of the customisation process involves establishing an operational definition of relevant 'published works' and 'publishing

venues' (p.3). Further decisions each researcher needs to make relate to the population segment, sampling frame and sample selection (p.4).

As the reviewers note, the technique can be applied to projects of the nature of 'critical literature reviews', which by their nature involve "substantial bodies of prior research" (p.9). Although the critical technique naturally bears some similarities to 'systematic literature review', the differences are substantial.

However, the technique has application to collections of published works that do not represent 'a literature'. Examples provided in the article include "one or more journal special issues, narrowly-specialised conferences, or academic books", and publications that address a particular research domain, adopt a particular theoretical lens, or apply a particular research technique, and even, in rare instances, a single, specific work (p.4). Other categories are the complete oeuvre of a particular author, output of a particular research programme, or major works of a 'school of thought'.

All of these applications of the technique go beyond "exposition, application, or at most interpretation" (p.10). As the reviewers comment, critical analysis is appropriate only where the researcher is conscious of the challenges they are taking up, the research design is 'purposeful', and the researcher's demeanour is 'courageous'. I would add that the researcher's demeanour and expression need to be 'constructive' and 'not combative', and their disposition 'calm' and 'patient', in order to deal equably with any editorial or review comments that are not attuned to the approach, or are excessively defensive of the status quo.

Research Objects that the Research Technique Encompasses

The reviewers noted that critical analysis has application to various forms of publication, including research articles and post-published reviews. However, there is a further dimension that the original article may not have sufficiently emphasised.

The article distinguishes the approaches of positivism, interpretivism, design science and critical theory research (p.8), and asserts that "The scope of the critical analysis of published works research technique is intended to encompass [all of these] traditions" (p.13).

The guidance provided is intended to be sufficiently flexible that analysts can evaluate each work in its own terms, but incorporating an appreciation of the original author's own context. Their analysis can then be tailored to reflect, for example, the greater commitment of positivist research to rigour, the instrumentalist and hence 'agenda-driven' nature of design science, and the inherently value-laden exhortations of critical theory research.

Roger Clarke

Roger.Clarke@xamax.com.au

Roger Clarke is Principal of Xamax Consultancy Pty Ltd, Canberra. He is also a Visiting Professor associated with the Allens Hub for Technology, Law and Innovation in UNSW Law, and a Visiting Professor in the Research School of Computer Science at the Australian National University.

References

Aguinis, H., Ramani, R. S., & Alabduljader, N. (2020). Best-practice recommendations for producers, evaluators, and users of methodological literature reviews. *Organizational Research Methods*. https://doi.org/10.1177/1094428120943281

- Aljaroodi, H. M., Adam, M. T., Chiong, R., & Teubner, T. (2019). Avatars and embodied agents in experimental information systems research: A systematic review and conceptual framework. *Australasian Journal of Information Systems*, 23. https://doi.org/10.3127/ajis.v23i0.1841
- Boell, S. K., & Cecez-Kecmanovic, D. (2015). On being 'systematic' in literature reviews. In Formulating research methods for information systems (pp. 48-78). London: Palgrave Macmillan. https://doi.org/10.1057/9781137509888_3
- Burmeister, O. K. (2020). A post publication review of "Understanding the effects of compromise and misuse of personal details on older people". *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2839
- Chua, B. B., & Zhang, Y. (2020). Applying a systematic literature review and content analysis method to analyse open source developers' forking motivation interpretation, categories and consequences. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.1714
- Clarke, R. (2020). The challenges involved in establishing a research technique. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2515
- Clarke, R. (2016). An empirical assessment of researcher perspectives. Bled eConference, Slovenia.
- Clarke R. (2015). Not only horses wear blinkers: The missing perspectives in IS research. *Australasian Conference on Information Systems*, Adelaide, Australia. https://arxiv.org/pdf/1611.04059
- Gupta, G., Tan, K. T. L., Ee, Y. S., & Phang, C. S. C. (2018). Resource-based view of information systems: Sustainable and transient competitive advantage perspectives. *Australasian Journal of Information Systems*, 22. https://doi.org/10.3127/ajis.v22i0.1657
- Hacker, J. V., Johnson, M., Saunders, C., & Thayer, A. L. (2019). Trust in virtual teams: A multidisciplinary review and integration. *Australasian Journal of Information Systems*, 23. https://doi.org/10.3127/ajis.v23i0.1757
- Hinton, S., Wood, L. C., Singh, H., & Reiners, T. (2019). Enterprise gamification systems and employment legislation: A systematic literature review. *Australasian Journal of Information Systems*, 23. https://doi.org/10.3127/ajis.v23i0.2037
- Hulland, J., & Houston, M. B. (2020). Why systematic review papers and meta-analyses matter: An introduction to the special issue on generalizations in marketing. *Journal of the Academy of Marketing Science*, 48, 351–359. https://doi.org/10.1007/s11747-020-00721-7
- Koh, S. G., & Kwok, A. O. (2018). A post publication review of "An investigation into failure of Internet firms: Towards development of a conceptual model". Australasian Journal of Information Systems, 22. https://doi.org/10.3127/ajis.v22i0.1840
- Lim, W. M. (2020). A post-publication review of "Research directions in information systems field, current status and future trends: A literature analysis of AIS basket of top journals". Australasian Journal of Information Systems, 24. https://doi.org/10.3127/ajis.v24i0.2921
- Lim, W. M. (2018). Dialectic antidotes to critics of the technology acceptance model: Conceptual, methodological, and replication treatments for behavioural modelling in

technology-mediated environments. Australasian Journal of Information Systems, 22. https://doi.org/10.3127/ajis.v22i0.1651

- Lim, W. M., Lim, A. L., & Phang, C. S. C. (2019). Toward a conceptual framework for social media adoption by non-urban communities for non-profit activities: Insights from an integration of grand theories of technology acceptance. *Australasian Journal of Information Systems*, 23. https://doi.org/10.3127/ajis.v23i0.1835
- MacLure, M. (2005). 'Clarity bordering on stupidity': Where's the quality in systematic review? *Journal of Education Policy*, 20(4), 393–416. https://doi.org/10.1080/02680930500131801
- Mazaheri, E., Lagzian, M., & Hemmat, Z. (2020). Research directions in information systems field, current status and future trends. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2045
- Namvar, M., Cybulski, J., Phang, C., Wee, C. Y., & Tan, K. Y. (2018). Simplifying sensemaking: Concept, process, strengths, shortcomings, and ways forward for information systems in contemporary business environments. *Australasian Journal of Information Systems*, 22. https://doi.org/10.3127/ajis.v22i0.1654
- Naqvi, N., ur Rehman, S., & Islam, Z. (2020). A hyperconnected smart city framework. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2531
- Nayal, P., & Pandey, N. (2020). Digital coupon redemption: Conceptualization, scale development and validation. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2469
- Palmatier, R. W., Houston, M. B., & Hulland, J. (2018). Review articles: Purpose, process, and structure. *Journal of the Academy of Marketing Science*, 46, 1–5. https://doi.org/10.1007/s11747-017-0563-4
- Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717. https://doi.org/10.1016/j.ibusrev.2020.101717
- Pereira, R., Lapão, L. V., Bianchi, I. S., & Amaral, D. (2020). Improving emergency department through business process redesign. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2679
- Poulsen, A., Ulhaq, A., & Miah, S. (2019). A post publication review of "Emerging insights of health informatics research: a literature analysis for outlining new themes". *Australasian Journal of Information Systems*, 23. https://doi.org/10.3127/ajis.v23i0.2269
- Robinson, B. (2020). Towards an ontology and ethics of virtual influencers. *Australasian Journal* of Information Systems, 24. https://doi.org/10.3127/ajis.v24i0.2807
- Samhan, B. (2018). Revisiting technology resistance: Current insights and future directions. *Australasian Journal of Information Systems*, 22. https://doi.org/10.3127/ajis.v22i0.1655
- Soral, P., Arayankalam, J., & Pandey, J. (2020). The impact of ambivalent perception of bureaucratic structure on cyberloafing. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2087
- Warren, M. (2020). Fake news case study during the Australian 2019 general election. *Australasian Journal of Information Systems*, 24. https://doi.org/10.3127/ajis.v24i0.2803

Copyright: © 2020 Lim, Rasul & Clarke. This is an open-access article distributed under the terms of the <u>Creative Commons Attribution-NonCommercial 3.0 Australia License</u>, which permits non-commercial use, distribution, and reproduction in any medium, provided the original author and AJIS are credited.

doi: https://doi.org/10.3127/ajis.v24i0.3103

