Fish Stocks, Grazing Land, and Reviewers: Exploring the Usefulness of the Tragedy of the Commons for Understanding the Reviewer Resource Problem

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Fish Stocks, Grazing Land, and Reviewers: Exploring the Usefulness of the Tragedy of the Commons for Understanding the Reviewer Resource Problem

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Abstract:
Stafford (2018) presents the problem of finding reviewers in terms of the “tragedy of the commons”. While recognizing the very real scale of the reviewer problem, I suggest in this paper that focusing on the metaphor of the commons overlooks key assumptions in this work and risks distracting us from more solvable aspects of the reviewer problem, such as increasing the supply of capable reviewers (i.e., the commons is not necessarily as fixed as is the case for fish stocks and grazing land) and more proactively screening submissions (to avoid overusing reviewer resources).

Keywords: Tragedy of the Commons, Reviewer Development, Editorial Screening.


1 Essay

Thomas Stafford’s (2018) timely piece will resonate with anyone who has struggled to find qualified reviewers whether for a journal or a conference (e.g., Urquhart, Carte, & Heinzl, 2017). Effective peer-review processes uphold the integrity of journals and conferences and the quality of the individual papers published in them (cf. Safi, 2014). As Rai (2016) notes, a review should primarily focus on a paper’s contribution and consider major issues that would affect its publishability. Reviewers add value to research papers (and the academic field more generally) by providing feedback based on their areas of expertise, which might be domain, theory, or method knowledge.

Thus, any enterprise that wants to ensure a quality review process must contend with obtaining sufficient reviewers to review the submissions that they receive. As is the case in any dynamic academic field, the information systems (IS) field is growing rapidly. Information Technology and People, the journal I co-edit, for example, has received double the number submissions in the first half of 2018 compared to 2016 and will likely reach 500 submissions by the end of the year. Similarly, our leading conferences need to handle large (and growing) numbers of submissions. For example, Urquhart et al. (2017) note that ICIS 2015 received 1,198 submissions. The scale of the review process immediately becomes apparent. If each paper requires three reviews, ICIS 2015 could have involved over 3,500 reviewers. In practice, the conference “only” ended up using 2,500 people because many people reviewed more than one submission.

While Stafford’s (2018) piece responds in part to the challenge of managing the review process associated with increasing numbers of submissions, he chooses to view the issue from a particular perspective; namely, Hardin’s (1968) concept of the tragedy of the commons. Hardin’s analysis illustrates the mismatched incentives associated with “common” or shared resources. Typical illustrations include European-style common land that anyone can use to graze their cattle or natural reserves such as fishing stocks (Gordon, 1954). The tragedy, according to Hardin, is that, while individuals have incentives to consume more of the common resource (graze more cattle on the common land or catch more fish from the fish stocks), no mechanism often exists to manage the emergent effects of such actions. All farmers cannot sustainably graze more cattle on the same land, nor can all fishermen feasibly catch more fish.

In the context of submitting academic papers, there is a similar mismatch between the incentives to submit papers for review (because successful publication will have individual career-enhancing benefits) against the incentives for reviewing others’ submissions. The main benefits of quality reviews flow to authors rather than to reviewers.

Hardin’s (1968) paper begins with a quotation that suggests that the problem has no technical solution and that any solutions require a fundamental extension in morality. Certainly, journal editors and conference chairs typically handled early versions of the reviewer problem using moral measures and peer pressure. For example, in smaller conferences and journal special issues, many editors and chairs have expected submitting authors to act as the primary reviewers for other submissions. The scale (and review management systems (cf. Urquhart et al., 2017)) means that one could identify individuals who acted as free-riders and intervene using social pressures.

With larger, and more global, conferences and journals, simply identifying free-riding behavior can be difficult. Moreover, as Stafford (2018) notes, genuine reasons might limit researchers from performing reciprocal reviewing activities—including journal editing and conference organizing.

Nevertheless, I feel that the specific way that Stafford (2018) uses the tragedy of the commons to support his argument risks diverting our attention from other important interventions that can help maintain the quality and integrity of the review process. In order to avoid being diverted unnecessarily, we will need to explore briefly some of the insights around what drives the tragedy that have appeared since Hardin (1968) published his work.

A first distinction implicit in Hardin’s piece is between the rivalrous and non-rivalrous use of common resources. Using the common land for grazing is rivalrous because, if my cattle are grazing the land, yours cannot. Many digital goods, in contrast, are non-rivalrous: my consuming a digital music file does not prevent you from also consuming it (Lessig, 2001). The resources associated with a review are, however, rivalrous: the time spent reviewing a paper must either be allocated to paper A or paper B.

Rivalrous consumption is one way to exclude other consumers, but other mechanisms may also do so, such as price or eligibility that can also exclude particular consumers (Weber, 2004).
Another important dimension is the extent to which the availability of the common good is fixed. Clearly, the amount of land available for grazing is fixed as is the number of fish found in any particular location.

A final important characteristic relates to the intrinsic qualities of the common good. In Hardin's 91968) analysis, any part of the grazing land can substitute for any other (cf. Barney, 1996; Wernerfelt, 1984).

Exploring these extra dimensions provides greater clarity for the argument that Stafford (2018) makes. He suggests that the commons "have become overgrazed" and "we are running out of resources (i.e., reviewers)" (Stafford, 2018, p. 625). However, the cases he provides to illustrate the problem of the mismatch of incentives to submit papers and to do reviews quickly divert to the issue of the availability of reviewers with particular expertise in domain, theory, or method knowledge.

One can identify these potential reviewers because they have published high-quality research in their area of expertise in the leading journals and conferences in the field. That is, their status as experts results in part from the reviews their work has received. Stafford finds, however, that, all too often, these experts, with skills he would like to draw on in the review process, cannot or do not wish to do so and, thus, that he has to rely on reviewer resources from his social network, including academics who work in other, but related, academic fields.

Experts who do not wish to act as reviewers may well serve as an example of the tragedy of the commons: they have become successful, in part, due to other researchers who have reviewed their work. Institutional incentives, however, typically only reward publications, so these academics have no incentive to spend time on reviewing time that would be more (personally) productive if spent on research. Implicit in this cost-benefit analysis is the belief that the reviewer gains little in terms of domain, theory, or method knowledge refinement from the review process.

Stafford (2018), however, also provides alternative explanations for why these expert academics cannot review for him. First, in many contexts, successful academics have highly cited work. Highly cited work means that many other academics will study the same domain as the potential expert reviewer or will use the same theories or methods. Thus, when looking for reviewers for this subsequent work, it is not unreasonable for journal editors to look to the experts whose work inspired the subsequent paper, and many journals will look to the same, small number of experts.

A parallel effect can arise when one calls on an expert to fulfill other time-consuming roles including service and administrative roles or even as a mentor or co-author for junior colleagues because they have demonstrated their abilities in terms of research publications.

Although Stafford (2018) focuses on the challenges of finding expert reviewers, the criteria associated with Hardin’s tragedy of the commons suggest some ways in which we might address the potential problem of running out of reviewer resources.

First, just as the grass on common ground can regrow every year, as a thriving academic field, information systems has new potential reviewers joining every year (even if the demand for them varies over time (Frolick, Chen, & Janz, 2005; Glover & Goette, 2001)).

Simply studying for a PhD in information systems, however, does not mean that our junior colleagues can instinctively (telepathically?) become effective reviewers (Whitley, 2016). Most PhD programs do not offer specific sessions on what being a good reviewer involves or even what a useful review looks like (although many excellent online resources exist including (e.g., Davison, 2015; Lee, 1995; Rai, 2016; Sarker et al., 2015; Wilkinson, 2017), and our leading journals contain many helpful editorials).

For this reason, in the past few years, over 100 PhD students and junior faculty have attended workshops I have organized at conferences and universities on how to be an effective reviewer. The AIS and Emerald publishers have supported these workshops, which involve participants’ reviewing real papers and then making decisions on those papers based on the reviews received.

In the workshops, the participants learn about the pressures that review managers (editors, SEs, AEs, track chairs, etc.) face and come to appreciate, for example, why review managers appreciate a (quickly) declined invitation to review more than a late or poorly written review. They also come to understand the situations where the review manager might be prepared to wait for a review due to few suitable alternative reviewers and other situations where another reviewer may possibly substitute for the invited reviewer. While working on this response, I had two such invitations to review where my particular expertise was not easily substitutable, and the review managers have been prepared to wait longer than the norm for those journals for my reviews.
Although participating in such reviewer workshops will not automatically produce specialist reviewers of the type Stafford (2018) frequently talks about, it will help improve the average quality of the reviews provided for information systems. What Stafford seeks in many cases may not simply involve detailed expertise on a paper’s domain, theory, or method but also the ability to write a review that will help both the review manager (in deciding on how to proceed with the paper) and the author(s).

A second response to the general problem of running out of reviewer resources involves review managers and represents a form of exclusion from the review process. Not all submissions to journals and conferences have reached the stage at which it would benefit them to send them out for (full) review. In other cases, the genre of the submission does not suit the outlet (e.g., with the introduction of AIS Transactions on Replication Research, Information Technology and People no longer considers submissions that are replications or near replications of existing studies, such as technology adoption papers that simply involve a newer technology or a different respondent population). Similarly, in pre-screening a paper, one might find that it has fatal flaws that any reviewer would pick up.

In such cases, the review managers use their academic judgment to exclude the submission from the review process and “desk reject” it in order to avoid consuming valuable reviewer resources on what they deem to be unviable papers. The extent to which this review managers use this discretionary power, however, will vary from outlet to outlet: a developmental workshop for PhD students will likely include far more papers than a leading journal. Additionally, any such interventions need a strong element of reflectivity to ensure that scientific knowledge does not suffer as a consequence of the need to manage scarce reviewer resources (Alvesson & Spicer, 2012).

While journal editors and conference chairs can directly influence reviews’ quality and ensure they send only viable papers out for review, broader societal and institutional pressures influence the final factors that shape whether the field will run out of reviewer resources.

In an era where individuals and institutions are typically rated by both the quality and quantity of their publications, individual academics are increasingly adopting what amounts to a portfolio approach to managing the publication risk of their academic career. With uncertainty as to which submissions will be accepted (and which will be highly cited), many academics experience an increased impetus to submit many papers and “let the market decide” which ones will be influential (or at least highly cited).

Grey and Sinclair’s (2006) “fantasy” of a dean who decrees that no academic can produce more than one paper every five years and that the paper must focus on ideas important to people will not likely become reality. However, the issue of limited reviewer resources should provide an impetus (in academia more generally—this problem does not concern only information systems) to reflect on the purpose of academic research and privileges associated with (often publicly funded) academic posts and tenure (Whitley & Hosein, 2010). Doing so would involve challenging the increasingly dominant mindset whereby the goal of creating, preserving, and distributing knowledge ceases to become an end value for academia. Instead, tenure or promotion represents the ultimate goal, and the top journal publications represent the means (Lyytinen, Baskerville, Iivari, & Te’eni, 2007, p. 321).

Stafford’s (2018) paper raises important questions about the demand for and supply of reviewer resources in information systems. These are questions that we, as a field, need to reflect on and respond to.
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About the Author

Edgar A. Whitley is an Associate Professor (Reader) in Information Systems in the Department of Management at the London School of Economics and Political Science. He has a BSc (Econ) and PhD in Information Systems, both from the LSE. He is the co-editor of Information Technology and People, senior editor for the Journal of Information Technology and the AIS Transactions of Replication Research, and an associate editor for the Journal of the AIS. He has served as research co-chair for the European Conference on Information Systems, track co-chair for the International Conference on Information Systems, and as an associate editor for the European Journal of Information Systems and MIS Quarterly. He was the research coordinator of the influential LSE Identity Project on the UK’s proposals to introduce biometric identity cards; proposals that were scrapped following the 2010 general election. His recent research examines questions of privacy and consent in the context of open banking. In 2017, he was one of three people awarded the AIS Sandra Slaughter award. This award recognizes longstanding members of AIS who have provided leadership and service within the association. Further information about Edgar can be found at http://personal.lse.ac.uk/whitley/