

5-2018

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Thomas Stafford

*Louisiana Tech University*, [stafford@latech.edu](mailto:stafford@latech.edu)

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### Recommended Citation

Stafford, Thomas (2018) "Reviews, Reviewers, and Reviewing: The “Tragedy of the Commons” in the Scientific Publication Process," *Communications of the Association for Information Systems*: Vol. 42 , Article 25.

DOI: 10.17705/1CAIS.04225

Available at: <http://aisel.aisnet.org/cais/vol42/iss1/25>

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## Reviews, Reviewers, and Reviewing: The “Tragedy of the Commons” in the Scientific Publication Process

**Thomas F. Stafford**

J.E. Barnes Professor of CIS

Louisiana Tech University

*stafford@latech.edu*

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### Abstract:

Everybody *wants* to get a good review but not everybody is willing to *give* a good review. In my experience, this fact has resulted in a modern-day instance of “the tragedy of the commons” in which everyone seeks a precious common resource (in this case, the scholarship of peer review in scientific publication) but everyone less widely provides it. Editors face an emerging review culture in which many qualified colleagues often seem too busy, too disinterested, or simply too inaccessible to engage with for peer review purposes, and which leads to issues that are, indeed, tragic in the practice of science.

**Keywords:** Peer Review, Scientific Publication, The Tragedy of the Commons.

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This manuscript was solicited by the Department Editor for Debates, Karlheinz Kautz.

*The **tragedy of the commons** is an economic theory of a situation within a shared-resource system where individual users acting independently according to their own self-interest behave contrary to the common good of all users by depleting or spoiling that resource through their collective action. (“Tragedy of the commons”, n.d.)*

## 1 Introduction

In Hardin's (1968) classic “The Tragedy of the Commons”, the eponymous “commons” refers to a resource that many individuals share (e.g., the old English common green, where one and all could freely graze their flock). The “shared” aspect of the common resource means that individuals can use a portion of the resource for their own benefit and at no cost since it is a “common good”.

This notion represents a classic one in economics, philosophy, and rational human decision making. The concept describes the need for numerous individuals to wisely share and apportion a finite but prized economic resource that they all wish to use. The problem, though, lies in the base nature of humanity; we all want the maximum good (Hardin, 1968, p. 1244), but we all unwilling to share equally to reach that end. As is only typically human, some individuals might want to freely consume without considering the need to replenish the source (e.g., Barker, Barclay, & Reeve, 2012). Such seems often to be the case in scientific research reviewing. As I have written before (see Stafford, 2016), everyone wants to receive a good review when they submit their own research for potential publication, but not everyone who receives a good review also wants to provide a good review when asked to serve as a jurist on someone else's study. Such is the tragedy of the scientific commons so to speak.

## 2 Give and Get versus Get but not Give

As an economic problem, when every individual tries to reap the greatest benefit from a given resource without considering others' needs, and, when the demand for the resource overwhelms the supply, every individual who consumes an additional unit directly harms others who can no longer enjoy the benefits (Investopedia, n.d.). So-called “rational man” economic theories (Simon, 1955) speak to the underlying aspects of human economic rationality that are oriented toward the human tendency to seek to maximize personal outcomes against all other considerations in a given situation (Smith, 1937). However, while the classical assumption of the tragedy of the commons is that the overall effect of combined individual economic rationality would be the “invisible hand” of overall good, Hardin's classic essay pointed out the error in that presumption.

Such seems to be the case with peer reviewing in our modern practice of information systems research publishing. As an editor, I am frequently faced with reluctant denial in the face of urgent requests for expert review. Authors who have surely benefited from others' generous and considered review services—which their notable academic successes in the leading journals evidence—seem reluctant to lend their own expertise to others' work (a case of “get but not give”). As Hardin would put it, the commons have become overgrazed and we are running out of resources (i.e., reviewers).

## 3 Cases in Point

In terms of the availability of skilled colleagues for peer review, I suspect that, in a sense, success becomes its own worst enemy. I see a trend of young rising stars who often give when asked juxtaposed against established, eminent professors who cannot respond owing to the other duties that come with such eminence. I worry about the rising stars because success leads to busier itineraries and agendas, which have the potential to prevent them from continuing their generous contributions to peer review once they become eminent.

Consider the case of “A”, a young star with truly impressive methodological and authorial skills against “B”, an established scholar of even more impressive credentials. “A”, when asked to serve as referee on a highly specialized manuscript submitted to my journal, cheerfully agreed to add this review task to the additional burden of what I can easily see is an already considerable service load, whereas “B”, when reached in regards to a similar review request, indicated a willingness to assist if only I could wait until the end of the semester while the scholar dealt with other, more pressing duties.

As for “A”, I urgently needed theoretical expertise that one can rarely find in our field, and I asked “A” out of desperation since I only had one other qualified contact (not even a member of our field) that I could

call on for theoretical help (call this one “Z”) to substitute for the scarce resource “A” owned access to. As for “B” who could not respond in a manner that fit my timeframe, I did end up calling on my outside contact “Z” to fulfill my assignment—that is, editing an important theoretical contribution to the literature that required expert peer review from scholars who had rare theoretical expertise. “Z” agreed on the strength of our long-time friendship, I suspect, seeing that his role as a research dean tended to connote a rather heavy service load already.

“A” is on the way to great success, and, as such, will always (I hope given his considerable, rare, and prized theoretical expertise) respond in the affirmative when I ask for an increase to the already existing service peer-review load. “B” already has had great success but no longer has time for the review system that led to it; tragically, economic self-rationality has instantiated the tragedy of the commons in this case. “Z” is a theoretical genius but works in a different scholarly field that has its own commons to consider; nonetheless, and despite his busy administrative duties in the position he currently holds, he agreed to help me even though he gained little of practical value from it as a contributor to a non-allied scholarly field. “Z” is giving back to a commons he does not even graze.

The scientific tragedy of the commons resides in these details: those who will help despite the increasing load of work and the seeming economic non-rationality of scientific altruism and those who cannot be bothered and have reached the critical mass of stardom on the backs of the resource that the commons provides to facilitate such success. While an isolated example, I use it to illustrate the tragic outcomes that occur when people overconsume a finite and prized resource (peer review), but any reader here would readily recognize the latent and inherent tendencies in themselves as well. I am no exception: I hate when I find myself actually thinking, “I can’t do this review, I just don’t have the time”, when, in fact, I would not be where I am if it were not for some several other generous anonymous reviewers who decided, “What the heck, it’s a lot of work, but I’ll do it anyway!”. It’s a common tragedy among researchers these days to find the ones who say “I don’t have time” more often than we do the ones who will altruistically make the time for the sake of science despite the added workload. That said, we editors frequently acknowledge that the time it takes to secure capable reviewers for the papers submitted to our journals constitutes one of the key logistical and operational problems we face in “keeping the train running on time” (Brown, 2012). Anybody who shares a care for the “cycle time problem” of peer reviewing should recognize this scarcity of resources in considering the causes, effects, and solutions to the problem.

## 4 The Limits on Common (Research) Goods

One can justify the commons only in conditions of low population density (Hardin, 1968, p. 1248). As such, in early days of our admittedly still young field, it was endurable for authors to submit and expect reviews while not accommodating requests themselves for review service from publication venues. Those who consumed review services did not create an imbalance against those who might be willing to provide review services at that point. A relatively small number of authors and journals sought the field’s review services in its early days. However, as our field grows and an amazing new crop of journals arises to accommodate that growth, the economic “good” we as editors and authors seek in peer reviewing is in increasingly short supply as more and more authors and increasing numbers of journals all seek to serve peer-reviewed science. In the scenario with an overpopulated commons, those who consume without contributing inevitably denigrate the public good to the eventual point where it no longer represents a good at all.

I have mused on this conundrum for most of my editorial life, and I have found it problematic to one degree or another throughout that time, which means that the commons of peer review in our young field has long since been overgrazed so to speak. Some solutions have presented themselves to me, but none really fit well with the culture of scientific publishing in the information systems world, but readers should know that “pay for play” has worked superbly in other fields that are more established and further down the road of economic rationality in regard to the peer-review problem than our own.

Economics and finance researchers, for example, routinely expect to pay hefty submission fees when sending their best work to important journals in their field. It can cost an author hundreds of dollars to submit article paper to a journal of note in those fields and the same fee yet again each time they resubmit it in the revision process should one be so lucky. The editors in those fields share part of that fee in the form of honoraria for the reviewers who serve to support the research publication process. Interestingly, reviews in those fields come back to the editors quickly and are generally excellent. They are clearly getting what they pay for—as are the submitting authors. I stop short of proposing such a change for our

field because I have always felt that science was service and because we are all paid in advance in part for our service in addition to the teaching and research that we do. Hence, one could see that the bill accruing to our review work has already been presented and paid and that some of us simply do not earn our paycheck in that regard by shirking review requests.

But, perhaps, I tilt at windmills; conventional wisdom in our world is that service and teaching do not earn one tenure, though a significant lack of such might serve to prevent it. Publishing research constitutes the coin of our realm, and the increasingly scarcer willing peer reviewer serves as the necessary support for achieving that important tenure-yielding end.

## 5 The Work of the Editors, The World of the Reviewers

I feel that I myself am also an available good as it were. Even though I occasionally have initial thoughts of “I’m too busy” when asked to review, I always recover with a reminder to myself that, “If I don’t, then who will?”. But, my friends and colleagues, I am only an army of one in that regard, I fear. For some strange reason that I cannot even well rationalize to myself, I decided early in my career as a scientist that I wanted to excel at editing journals, and that is the direction to which I have devoted much of my energy and thought. For this reason, I have always sought to be an active reviewer based on the reasoning that my experience would be grist for the mill of my editorial ambitions. And it has been.

That does not make me a famous researcher, though; most of you would not even know me if I crossed your path at ICIS or AMCIS. It does, however, make me a highly experienced and uniquely insightful individual in regards to the vagaries of our scientific review process, and, for that purpose, I commend your attention to the issues of the tragedy of the commons in scientific publishing. I wish to instantiate a debate about where we go from here because I clearly see that our scientific commons cannot much longer support the rising demand for a scarce and valued resource in the form of skilled peer review. I am most interested in others’ views on this matter.

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## About the Authors

**Thomas F. Stafford** is Professor Emeritus at the Department of Information Processing Science, University of Oulu, Finland. During his career he has served as a professor at the University of Jyväskylä and at the University of Oulu. Before his retirement, he also worked for ten years as a part-time scientific head of INFWEST/INFORTE programs, which are joint efforts of a number of Finnish universities to support doctoral studies in IT. Juhani has also served in various editorial positions in IS journal, including *Communications of the Association for Information Systems*, *European Journal of Information Systems*, *Information Systems*, *Information Systems and e-Business Management*, *Information Technology and People*, *Journal of the Association for Information Systems*, *MIS Quarterly*, and *Scandinavian Journal of Information Systems*. His research has broadly focused on the theoretical foundations of information systems, IS development methods and approaches, organizational analysis, implementation and acceptance of information systems, and design science research in IS. He has published in journals such as *Communications of the ACM*, *Communications of the AIS*, *Data Base*, *European Journal of Information Systems*, *Information & Management*, *Information & Software Technology*, *Information Systems*, *Information Systems Journal*, *Information Systems Research*, *International Journal of Information Management*, *Journal of MIS*, *Journal of the AIS*, *MIS Quarterly*, and *Omega*.

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