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The Future of Academic Publishing: Application of the Long-Tail Theory

Print academic research journals are dead.

This is already known among our younger academic researchers. It ought to be known by all academic library acquisition staffs that struggle annually to meet the ever-rising academic database archive fees charged by large publishers. These very same academic publishers fear it, most sharing the same worries (and readership data) that haunt owners of traditional journalism outlets, such as newspapers and magazines. We are in the midst of a paradigm shift from print to digital in all phases of our research, from collection of data to its analysis and sharing, and to the final published product.

And, whatever the direction of this shift, the academic publishing landscape will never be as it has been. Except as an oddity, research will never be presented on a printed page. Online academic research journals will never be a source of great income or great cost. Publishing operations and decision-making will cease to reside in a shadowy world of elites. New journals will be online, free, and transparent. The current print journals will be re-created online, very likely under new or redefined ownership.

But these outcomes of this shift in publishing—probably the most significant change the field of academic publishing has ever faced—are only the tip of a much larger arena of possible changes. Many of these outcomes are unsettled: the economics of online publishing; the standards for peer review, rank, and tenure; and the very nature of scholarly publishing itself. As the focus of future research publishing shifts to universities and, most likely, to their libraries, other decisions lay ahead, such as the form and nature

of peer review, the role of journal editors and editorial boards, and the value universities

will place on these journals and their staffs.

[Insert chart one]

One way of deciphering the change that is upon us—a heuristic that we might

employ to visualize the nature of future academic publishing—is the recently proposed

Long Tail Theory (Anderson 2004). Applied to academic publishing, this economics

model may help predict the changes in approach and thinking that will be necessary in a

purely online journal environment. This essay will discuss four of the major issues facing

this new form of academic publishing: the economics of online journals; the future of

peer review; the ranking of online journals; and the role of universities and authors as

publishers. What actions major journals take to remain relevant to a new, demanding

group of researchers who expect their sources of information to be free, open, and

quickly accessible? What can new online journals do to overcome the low, but still

significant, economic barriers to publishing? What might happen to the culture of

publishing, the role of peer-review, as well as the previous assurances that only the

"right" research would be made public? And, what role does a university have in

fostering the creation of online journals that are related to their missions, in rewarding

faculty who spend time managing these new publications, and in assuring the long-term

viability of the journals? Each of these questions is worthy of careful consideration. The

author will add comments based on his own experiences in starting and maintaining an

online academic journal. The issues involved with each can only be outlined here, with

the expectation that more detailed discussion of each will follow in future works.

The first domino has already fallen, though: print academic journals are dead.

The Current Situation

The migration of print journals online is already taking place. The Association of Research Libraries (ARL) has tracked the presence of online publications, including the method of delivery (print or online), since 1991. That first report counted 110 journals online. By 1998, that number had jumped to more than 6,000 (Mogge 1999). By 2007, the ARL reported that 60% of the 20,000 peer review journals were available in some form online (Johnson and Luther 2007).

Some of the issues outlined at a Stanford University Libraries colloquium in 2006 addressing the online journal movement included:

- The rise in cost of academic journals of 215% between 1986 and 2003;

- 73% of all articles in economic journals and 100% of the articles in the top four economic journals could be found free online. (Palmer 2006)

Varian cites the costs of a quarterly, special-purpose, non-technical academic journal publication as estimated by some researchers at $120,000 per issue, with an estimated per subscriber non-profit fee of $200 and for-profit $600 (Tenopir and King 1997). Add to that, he notes, the estimated annual increase in cost for this journal of between 48% and 93% projected over a ten-year period (Lesk 1997), together with an estimated per reader cost for some journal articles of $200, and you have an economic model that is difficult to maintain.

(Insert chart two)

So, as noted earlier, existing print journals have moved online or are in the process of doing so. But more important than that, new journals have been generated as solely online journals by interest groups, university committees, academic departments, and individual researchers. This shift defines more than just a change in journal ownership, but a significant redefinition in the culture of publishing by the "haves" to the perhaps "not-so-haves." And, given the new economies of online publishing, these new journals no longer need a broad appeal to generate a sufficient number of "readers" or to require subscribers. Taken as a pattern of publishing, these new journals might fall into the right side of Anderson's Long Tail (Anderson 2004): small readership, low-cost, and self-defined. What is remaining on the left of the chart will be an ever-decreasing number of "mass" journals covering many different areas of a larger research area, such as that covered by *Journalism and Mass Communication Quarterly* (JMCQ).

Moreover, if we think of the Long Tail as extending to infinity, the farthest reach of the tail would include the appearance of lone research articles. Individual articles housed within a library's *e*-reserves would be just as accessible to researchers as those within online journals. The information and formatting of the materials would be identical. The differences would be some form of editing and review, peer or otherwise, that ranks the value of the published research, which we will discuss later in this article.

The Preference of Online Research

While concerns may exist as to the viability and sustainability of online journals, researchers, especially younger researchers as mentioned earlier, prefer the ease of access of online materials. And, despite the effort by some print-only journals to make their

holdings accessible via subscription or "free registration" models, newer open and direct access journals are proving to be the preference of the next generation of academicians (Dillon and Hahn 2002).

With off-campus log-ins to university libraries available to researchers working from a distance along with such online research support tools as Google Scholar, the need for an individual to subscribe to print journals clearly is minimized. In the case of this author, eliminating old, dusty print copies of mass communication journals now available online immediately called into question the need to subscribe to these publications in the first place. It is not a long reach to consider that the ease of access to online research will lead inexorably to the ability of many in academia to drop print journal subscriptions altogether.

And, as Johnson and Luther point out, the trend since the 1990s also includes a shift away from publishers offering both print and online access, to a strictly web-based publishing system. The authors go on to cite research that reinforces the notion that not only are the economics in favor of online publishing, but that users prefer electronic to print. "Scholarship, particularly in science, is becoming increasingly born-digital and networked digitally" and younger users of library and other research sources overwhelmingly prefer electronic access to journal research compared to print (Ware 2005 cited by Johnson and Luther 2007). Ware quotes a conversation with a librarian at a large research library: "The librarian concluded [from a study he had conducted] that on present trends, there would be little demand for print journals within five years."

A study by researchers at Drexel University showed a significant preference among graduate students, but less adoption among faculty, for electronic materials over

print journals (Dillon and Hahn 2002). Two other researchers, tracking acceptance among

faculty, found a much higher rate, due in large part because of the 24/7 availability of

research materials.

> Our in-depth interviews with faculty indicate a high degree of comfort
> with electronic access to journal literature. The scholars we spoke with
> clearly recognized the convenience of 24/7 access from home or office.
> Like many librarians, most faculty would prefer to retain print just in case,
> but when confronted with forced choices, the overwhelming majority
> either supported more electronic access at the cost of print retention or felt
> unequipped to make this choice. (Palmer and Sandler 2003)

And, in the midst of this movement to online research sources, the National

Institutes of Health (NIH) instituted in 2008 a policy requiring that all research using its

funds provide access to the resulting published materials (and the data related to these

materials) in an open access format within one-year of publication in a private journal

(*The Origin of the Scientific Journal* 2008). The impact of this rule cannot be overstated.

It is very likely that, over time, all publicly funded organizations, as well as many private

non-profit groups will adopt this standard. The standard could be extended to include all

past research created using public funds. And, while not a part of this discussion, changes

in access to published materials spanning the past 20 to 30 years—research held now in

massive databases by large private publishing houses—is a source of great concern to all.

New publications may resolve access and budgets going forward. Yet, these new

innovations do nothing to address open access to existing databases and archives held

privately.

The signs could not be clearer: Academic research will be sought online, created

online, and migrated to online repositories and archives. The Long Tail model presents a

pattern of this activity, predicting that more and more research will be generated in the

right region than in the left. What remains to be determined are the economics to support

online-only, open access journals, the methods employed to ensure only the "appropriate"

research is published, and the role of the university in sustaining journals they might

come to host.

The Economics of Online Journals

In "The Future of Electronic Journals," Varian proposes a supply and demand

model for publishing scholarly work, concluding that, for most universities, "The

ability…to attract top-flight researchers depends on the size of the collection of the

library. Threats to cancel journal subscriptions are met with cries of outrage by faculty."

However, over the past few years, the merging of major publishing houses has resulted in

extreme increases in the cost of subscriptions. For example, after one major publisher of

academic research, Elsevier acquired several smaller publishers, the fees for subscriptions

for both their journals and those acquired in the deal shot up.

> According to these empirical estimates, each of these
> mergers was associated with substantial price increases; in
> the case of the Elsevier deal the price increase appears to be
> due to increased market power. For example, compared to
> pre-merger prices, the Elsevier deal resulted in an average
> price increase of 22% for former Pergamon titles, and an
> 8% increase for Elsevier deal titles. (McCabe 2002)

Varian concludes that to reduce the cost of academic communication, the

manuscript-handling process would require re-engineering. Using electronic distribution

could cut costs within the editorial system by 50%. Add to this the reduction of shelf

space in libraries, the costs to monitor holdings, the ease of online searches, and the

ability to store accompanying support documents, such as images, data sets, and, though

not mentioned by Varian, audio/video files, and cost savings could be significant. "When everything is electronic," Varian notes, "publications will have much more general forms, new filtering and refereeing mechanisms will be used, [but] archiving and standardization will remain a problem" (Varian 1998).

Had the Long Tail model been available to Varian, he might have used it to explain how hard costs (capital outlay) would drop to near zero on the right side of the curve. The Long Tail predicts the smaller journal in number of articles published annually, the lower the cash outlays required to establish and operate. New software created in recent years to assist online journal editors has been lowered the time necessary to manage a journal. This software allows editors to establish reviewers, provides for easy article uploads from authors, and manages the interaction of editors with the entire editorial team, all in online formats. A cursory search for such software packages found a dozen free and open source options:

- CLEO: The University of Provence and The University of Avignon. http://cleo.cnrs.fr/

- DiVA: Electronic Publishing Centre at Uppsala University Library. http://www.diva-portal.org/about.xsql

- DpubS: Cornell University Library and Pennsylvania State University Libraries and Press. http://dpubs.org/

- E-Journal: From Digital Publishing Systems. http://drupal.org/project/ejournal

- ePublishing Toolkit. The Max Planck Gesellschaft. http://www.mpg.de/

- GAPworks. German Academic Publishers (GAP). http://developer.berlios.de/projects/gapworks/

- HyperJournal. The University of Pisa. http://www.hjournal.org/download

- Lodel. Publishing software behind Revues.org. http://www.lodel.org/

- OpenACS. Toolkit for online communities. http://openacs.org/

- Open Journal Systems. The Public Knowledge Project.

    http://pkp.sfu.ca/?q=ojs

- SOPS. SciX, an European Union funded research project.

    http://www.scix.net/sops.htm

- Topaz. Public Library of Science. http://www.topazproject.org/trac/wiki

These software packages can operate on any standard server. The major limitation

at the university level is the amount of space available for archiving. Given the

significant drop in storage memory costs in the last few years, a small journal site server

with one terabyte of memory can cost as little as $1,000. The average 20-page research

paper with no charts might require 200 KBs of space as a PDF. Add in a dozen charts, in

color, and the result might be as large as 10 MB. Assuming 100 articles a year, which is

very high for even journals such as *Nature* or *JMCQ*, and you have hardware capacity to

last a millennium, for roughly $1 a year. Clearly, the barrier is not the software (free) or

the hardware (minimal costs). The barriers are strictly a matter of desire on the part of

faculty and the university, and the willingness of both to follow the open access, free

model of publishing.

Clarke and Kingsley suggest that this movement toward an open access model

will not come without a "spirited" defense from the "For-profit corporations that have

grown rich through exploitation of their multiple– and mini-monopolies" within the

academic publishing world (2007). The death-like grip of publishers over access to the

research expected at top-ranked university libraries was almost complete by the end of

the millennium (Loughner 1999), with annual prices increasing at alarming rates.

University libraries at the turn of this century consistently faced increased journal costs to

just hold on to what they have, with little or no room to add new volumes. Indeed, sit in

on any faculty committee dealing with university library holdings and the conversation

almost always includes some discussion over what journals will be deleted to fit the

coming year's budget. It is not a small matter for some. The number of holdings in a

library is used by many as a measure in the rankings of academic libraries and

universities (Stubbs 1986), though the value of this measure may be fading (Nisonger

2003, Kyrillidou 2000, Kyrillidou and Crowe 1998).

However, while the low costs of online journals may be driving the engine of new

journal creation, other significant issues have yet to be resolved. Issues of sustainability

and the very ephemeral nature of HTML itself have worried some researchers, going

back to the mid 1990s. As noted by Hitchcock, et al., in 1997, the "bare facts of this

change [is] a simple record of a short period which may or may not, with greater analysis

and hindsight, prove to be an important pivotal moment." Among the issues raised by

Hitchcock's team were the questionable "stability" of online journals, and, perhaps more

importantly, the ability of online journals to carry more than merely one-dimensional,

written content.

> …In these projects lie the clues—information filtering, agents, links,
> multimedia—not just to the next generation of the digital journals but to
> the emerging shape of the digital library. Clearly these projects will not
> provide all the answers or the tools, but they are good starting points from
> which to understand how, also why, e-journals will change. (Hitchcock,
> Carr and Hall 1997)

Oddly, the issue of journal sustainability is rarely cast in terms of a print journal's viability, but is always raised as a factor in discussing the value of an online journal. The fear is that the online journal, a mere collection of bits and bytes, might "disappear" should its sponsor drop its support. The print journal has its subscription base and the ability of large publishers to "bundle" less-favored publications with high-demand ones. The lone wolf online journal has neither of these. Its information, that is, its research articles, are available at no charge, in keeping with the free nature of the Internet itself. The free, online journal will always require sponsorship of some sort. And, while some author-fee structures have been proposed (Willinsky 2003), the reliance of new online journals on their hosting universities (specifically libraries) is a given (Chan 2004). The extent of this support can be focused on three essential items: a faculty member, some sort of academic support (most likely in the form of a graduate student), and archive server space and technical support. These elements comprise what we will discuss later as the university's role as a publisher. But first let us consider peer review and how faculty committees will value online journal publications within the rank and tenure system.

The Future of Peer Review

Roughly a quarter of a century ago, two professors tested the peer review process in place at 12 highly regarded academic journals in psychology. Twelve articles that had been published recently (18 months to two years) in each of these journals were resubmitted under fictitious names and institutions. The researchers reported that three had been caught as resubmissions, one was accepted and eight were rejected. The rationale for the rejections was, in many cases, that the articles contained "serious

methodological flaws." As the researchers noted at the time, "a major portion of the

criticism of the journal review system has concerned the reliability of peer review." The

research suggested the high rejection rates of the previously published articles might be

related to author standing, institutional standing, peer bias, and poor reviewer

performance (Peters, Ceci 1982).

Research published in 2001 suggested that women face a much harder time

getting their articles published because of gender bias and nepotism on the part of

reviewers and editors. These researchers suggested that to avoid the loss of a "large pool

of promising talent," the peer review process needed re-tooling to create "built in

resistances to the weaknesses of human nature" (Wennerás and Wold 2001). Other

researchers have found similar weaknesses within the peer system, a system that is

intended to ensure that only the best research is published (Dalton 2001, Jefferson 2005,

Mahone 1977, Neff and Olden 2006, Peters 1995, Shulenburger 2001).

Rothwell and Martyn noted in 2000 in evaluating the peer review of papers

submitted to two neuroscience journals that the relationship among the opinions of

reviewers was little better than what could result from chance. In fact, their analysis

suggested that the contents of the abstracts submitted for review accounted for only 10%

to 20% of the variance in the opinions of the reviewers (Rothwell and Martyn 2000). In

citing this research, Horrobin concluded that the peer review system itself was "rotten."

> These appalling figures will not be surprising to critics of peer
> review, but they give solid substance to what these critics have
> been saying. The core system by which the scientific community
> allots prestige (in terms of oral presentations at major meetings and
> publication in major journals) and funding is a non-validated
> charade whose processes generate results little better than does
> chance. Given the fact that most reviewers are likely to be
> mainstream and broadly supportive of the existing organization of

the scientific enterprise, it would not be surprising if the likelihood
of support for truly innovative research was considerably less than
that provided by chance. (2001)

However, despite its frailties, peer review is still valued as a method used to sift

out research appropriate for publication and blocking what might be considered

inappropriate or not rigorous. This is the model that academia has relied upon in one form

or another for at least 400 years (Anonymous 2004). As noted by Goodstein, peer review

works "superbly" in identifying science from nonsense. It works less well in "choosing

between competing valid ideas" (2000). He goes on to note that peer review also fails to

detect or account for "cheating or fraud, because all scientists are socialized to believe

that even their bitterest competitor is rigorously honest about the reporting of scientific

results, making it easy to fool a referee with purposeful dishonesty if one wants to."

The question is not whether to eliminate peer review altogether, but whether this

new form of online publishing provides an opportunity to make peer review more reliable

and useful. If the core value of peer review is its ability to identify weaknesses in

research, then it would seem, logically, that more peer review would lead to better

published research. This falls close to the famous Oliver Wendell Holmes argument that

bad speech is cured by more speech, not less. That is, rather than restricting the "speech"

of researchers, the "cure" for any errors in their publication would be a multitude of

comments and suggestions for improvements (*Abrams* 1919). In fact, along with the

article cited earlier that dealt with the rejection of previously published research by

psychology journals (Peters and Ceci 1982), four dozen responses from other researchers

were included by the journal. Given the year (1982), this might be one of the very early

examples of a "blog," with both positive and negative reactions presented in what amounted to equal time.

Online journals are uniquely positioned to offer much the same sort of enriched "conversation" among researchers. A research paper might be placed online and other researchers invited to comment on the strength of the data, the clarity of the writing, the reliability and validity of the analysis, or any other element of the work. These comments provided freely by other researchers could be weighted by editors, readers, and the author for their value and used to improve the work in question. The net result would be stronger research, clearer writing, and, presumably, progress in the field of study. It would avoid the miscarriages of non-publication as that of Einstein and others so frequently alluded to in discussions of peer review. By its very structure, the peer review process assumes that the scholar relied upon to review a work and provide advice as to whether to publish it, is familiar with the field and capable of rendering an educated and measured opinion.

> Today, Einstein's papers would be sent to some total nonentity at Podunk U, who, being completely incapable of understanding important new ideas, would reject the papers for publication. "Peer" review is *very* [emphasis in original text] unlikely to be peer review for the Einsteins of the world. We have a scientific social system in which intellectual pygmies are standing in judgment of giants. (Tipler 2003)

Another question regarding peer review remains: anonymity. The use of anonymity in peer review dates back only to the mid-20th Century (Berezin, Gordon and Hunter 1995, Brown 2003, "Bad Peer Reviewers" 2001). The presumed value is that reviewers feel more comfortable with being direct and to the point in their opinions of a work. The obvious downside goes back to all the faults mentioned earlier: bias, competition, and jealousy. Without identification, reviewers with a personal agenda could

suppress, or at least stall, the publication of works they either do not understand or do not like for a multitude of non-scientific reasons.

It can be argued that with an open review system as outlined above, the "cream" could still identified and, moreover, improved upon. Such rigorous debate over research in a transparent environment might be far healthier than the secretive machinations of a small group of reviewers. And, given the presumed increase in comments and "grading" by peer researchers, the final product might be more improved in an open, identified system, then a closed, anonymous one.

However, even such an open peer review system may not be enough to provide guidance to a faculty committee attempting to evaluate the work of a tenure candidate. Tenure committees at other universities seeking guidance on how to evaluate online publishing, specifically, online journals, have contacted this author on more than one occasion. This author believes the strength of journal largely flows from strength of the journal's editorial board.

Ranking Online Journals

The "established" method of evaluating research publishing—a journal's rejection rate and "reputation"—seems out of step when considering online publishing. Revisiting Anderson's Long Tail Theory, it is reasonable to imagine that small, topic-specific journals would have lower rejection rates. Is this a fair evaluation of their worth as journals or a reflection of their match for a small group of researchers? Additionally, using rejection rates for an online journal, which has the option of virtually unlimited space, seems antiquated. As for "reputation," as we see thousands of more narrowly

defined journals appear, how likely are any to reach a level of high esteem (or even awareness) in a general area of research such as mass communications?

One option has been proposed: use the citation rate of a journal article by other researchers. However, this peer citation rate comes with its own set of problems. Given the likelihood that researchers will gravitate more and more toward open access publications to find research information, citation rates of anything but fully open access research articles are likely to fall (Peters 1995). Thus, citation of a journal article would not reflect on the value of the research, but whether it appeared in an open access or closed journal. Additionally, some journal articles are cited as particularly flawed examples, rather than valuable additions to a body of research. Yet, if one considers the open comment proposition offered earlier in this paper, the opinions of peer researchers could be presented in the form of comments on the research article in question. That is, the opinion of the relevant research community could be gauged by the comments within blogs associated with the article.

Varian suggested in 1998 a publication system for an online journal that revolved around the "ranking" of a work by a board of scholars on a scale from 1 (low) to 5 (high) (Varian 1998). All submitted articles, in this system, are published (with the author permission), with an attached average ranking. Researchers can then choose whether to cite a particular article. This, according to Varian is a "model…unlike the conventional publishing model, but [one that] addresses many of the same design considerations." Tenure committees would be able to track these publications, just as researchers would, and "count" publications based on rating standards for their institutions. Authors would be able to update their work, and, presumably, expect another round of reviews. The

entire model outlined by Varian is fluid, interactive, and eliminates the economic barriers and potential biases inherent in the far more expensive, far-slower-to-respond traditional print publishing model (Varian 1998).

While open, free exchange of ideas and opinions might avoid these sorts of biases, even this system does not answer the question of anonymity among those providing online comments. This issue might be resolved through the use of "blogs" that require the clear (and validated) identity of those commenting on posted works. Authors could determine what comments are useful and which are driven by competition, personal bias, or other non-scientific reasons. Such areas could restrict the ability to post and read user generated content (UGC) to approved individuals, such as those belonging to an academic association. Access could be further restricted to an editorial board membership. Further, with the author's ability to respond to UGC posted online, the ensuing discussion (with some civilizing moderation) would result in a rich, valuable exchange of ideas of a sort only imagined by Holmes's "marketplace."

University as Publishers

The value a university gives to work published within a new journal must be equally extended to faculty willing to edit such journal articles. Given the modicum of university financial support likely available to faculty wishing to act as online journal editors, the credit given must be high for faculty willing to act as editors. If a department chair or dean sees no or little value in editorial work by a faculty member, it is unlikely that the journal will find an editor willing to do the work without compensation. Yet,

attaching performance rewards and rankings to journal editing is precisely what must happen if these new journals are to succeed.

In addition, universities must be full-throated supporters of rigorous online commentary on research. Online blogs are a very new, very unconventional model for "peer" review of academic research. Yet, it could be far more powerful in its immediate impact on the quality of research itself. Indeed, this new model of academic publishing relies upon the participation of faculty in the online comment blogs. A free exchange of ideas, if it is to be of any scholarly value, must accrue value to the participants in that exchange.

We can see the value of a fully open, fully collegial exchange of thoughts on a new publication of research by considering what, from time to time, has occurred in the past. Consider a journal article published in a standard print journal 20 years ago, complete with errors in statistics and citations undetected by the publication's editors and reviewers. No doubt the author would have the chance to improve upon these erroneous findings in later works. Yet, the original work would remain uncommented upon, standing alone in its place within a print journal bound within a volume in a library. It could be cited thousands of times by researchers unaware of the errors or of other works citing these flaws. Now imagine such an article published within an online journal. The errors could not only be pointed out by other researchers, but could be presented in the same physical area where the article resides. Further, the author of this flawed work could have the opportunity to not only offer comment to rebut criticism, but could correct flaws as they are verified. The result is better research, a better publication, and, possibly, a better researcher.

Conclusions

As universities struggle with the new publication model for its researchers, they must be proactive in meeting their new role as publisher. New software has made the maintenance of online journal affordable. The economics of online publishing is making the creation of journals with narrowly defined subjects possible. Investments in storage space for archival materials must be extended to include as-yet-not-published material, specifically, research. The barriers to publishing are now more a matter of philosophy, not economics, as shown by Anderson's Long Tail model.

[Insert Chart Three]

And, given the shift of publishing away from traditional large publishers to smaller, narrowly defined journals, the methods used to determine what is valued research must change. As has been shown, the likelihood that all future research will be published online, whether reviewed or not for its value, demands that we take a hard look at our evaluation systems. It makes sense that, if all academic research eventually is stored within a university library's archival e-space, then the role of journals as filters to that research is moot. Rather than acting as barriers to access, the new online journal will be asked to evaluate the already published, already accessible research. Arguments backing up these evaluations will be expected. Comments from others in the field will be encouraged. And revision and reconsideration of research by authors will be enhanced and strengthened.

Finally, universities must value online publication—not only the original work, but also the efforts of editors in publishing that work, as well as, reviewers commenting with the intent to improve that work. Journal editors working for little or no pay are

assets to any university. Failure to see their work as scholarly research is not only short-

sighted, but counter-productive to progress.

Rather than existing as a place of unchanging bricks and mortar, a place dedicated

to remaining a closed club of elites, and a place of competition both within itself and with

other institutions, universities must embrace a new vision of itself as a "commons," a

place where the sharing of ideas is accompanied by the open, honest criticisms of new

works. Print may be dead within academic research, but the research itself will continue,

more robust and more egalitarian than ever in its history.

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