Academic journals online
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What the sciences can teach the humanities

I work full-time as a freelancer in the scientific, technical, and medical (STM) market, and in addition to my practical experience, I've also attended professional meetings, notably the Council of Science Editors, where those in the printing industry have debated topics having to do with access, reuse of material (for example, prepping a single document for online, print, and perhaps a CD), and monetization. The sciences have been asking many of the questions the humanities are now asking, and although the differences between the sciences and the humanities are many, I think it's useful to take a look at some of the practices in the sciences and consider whether they might be adopted by the humanities. At the very least, some of their practices are worth discussing, and while researching this paper, I found lots of great articles about relevant topics—all conversations that those in the sciences have already had, with best practices and published guidelines to go with it.

The sciences have something that the humanities don't: money. Those of us in the STM world have a saying: "The last part of research is publication." Practically speaking, this means that in the sciences, money for publication is written into a grant, along with everything else. Hiring editors and statisticians, printing signatures in color for the figures, paying reprint fees for figures to appear in the final article—this is the sort of thing that may be written into a grant, and the total dollar amount can be staggering. Thus work in the sciences is subsidized in a way that just doesn't exist for the humanities. Likewise, although plenty of editorial offices associated with the STM market work on their own journal (*New England Journal of Medicine* and *JAMA* spring to mind), plenty outsource peer review trafficking, journal production and management, copyediting, SGML tagging, composition, proofreading, printing, and mailing. This means that a team of dedicated professionals works on the journal, not an ad hoc group of editors working on a journal partially subsidized by a university in exchange for a course remission. Some of the journals I work on print 100 issues a year, but even *PMLA,* the premiere journal in my field, English, comes out four times a year. The sciences have infrastructure, and that costs money. Lots of that money comes from industry and from grants. Not so in the humanities.

I'm working under the assumption that freely available content is good because it is good for scholarship and the free exchange of ideas. MIT's faculty newspaper, in a statement about a move to make research openly available, summarizes my take on online scholarship: "Publisher business models, which are built on restricted access, impede reuse and sharing of the scholarly record—in contradiction to MIT's mission of rapid dissemination of science and scholarship." Some of my thoughts about access and online availability stem from the fact that I am unaffiliated, which means that to access databases and information, I have to travel physically to a library and perform research there, whether online or off.

In what follows, I talk about my work with an academic journal in the field of fan studies, *Transformative Works and Cultures* (TWC), published by the Organization for Transformative Works. I'm using it as an example to hold up against the standard print model.

Conservative versus radical publishing

My work with TWC, the online-only fan studies journal I coedit with Kristina Busse, has opened my eyes regarding certain rules of publications in general, particularly because I count among my clients several well-regarded university presses, whose guidelines, I have discovered,

are often purely arbitrary and have no basis in law or fact but rather in code of established practice, meant to reduce the press's liability. For example, every single one of my university press clients, as well as the press I publish with, do not permit song lyrics to be reproduced—at all. I am to strike them and query the author. This usually results in the author huddling with the book's production editor to come to some kind of agreement: either the author cuts the song lyrics, or they decide that the reproduction of a few lines fall under fair use, or the author contacts the copyright holder and pays whatever fees are demanded. The rule of thumb for song lyrics mentioned in several sources I've consulted is anywhere from two to four lines. Rules for quoting copyrighted poetry are similar. Similarly, US presses don't like to reproduce images based on copyrighted material, like TV shows or films, without the express permission of the copyright holder, although screenshots (as opposed to promotional still images) fall within fair use, and altered/manipulated images fall under the rubric of transformation and ought to be acceptable.

In short, the "rules" regarding rights and permissions for reproduction, even if such reproduction comprises what might be termed citation, are not being interpreted in the spirit of copyright law. Instead, out of fear of litigation, presses generally demand that absolutely everything be queried and fees paid, even if it obviously falls under fair use. Rare is the copyright holder who will pass up a chance to make a couple hundred bucks by charging a fee (although I have seen that happen). One reason I was convinced to come on board to help set up TWC was because I would be in a position to set up rules that were not conservative—for lack of a better word, I'll say *radical,* even though not checking with copyright holders for work that clearly falls under transformative or fair use is hardly radical. TWC's submission guidelines lay out our view of fair use, in wording approved by OTW's legal team (Figure).

We believe images, including images altered by an artist to create a derivative artwork, and song lyrics may appear in TWC under fair use under US copyright law. Such images and lyrics are fair use because:

1. They are lower in resolution and quality than the original.
2. They do not limit the copyright owners' distribution rights.
3. They are being used in the context of academic analysis in a manner that contributes meaningfully to our culture.
4. They represent only a tiny fraction of the whole artwork.
5. They are hosted by the OTW's servers, and the OTW is a nonprofit organization.

Figure. TWC's copyright notice, from its author submission information Web page (http://journal.transformativeworks.org/index.php/twc/about/submissions#onlineSubmissions).

This sort of conservatism applies to other aspects of publication as well. Open access (OA) publications are viewed with great suspicion. From the point of view of publishers, OA means mostly that the publisher doesn't see how it can make money, although research has shown that many people are quite happy to pay for books even if an online version is available for free. OA shifts production-related costs to the author (or the author's sponsor, like a grant or an institution[1]) instead of the reader; it's definitely not free, and it requires messing with an

established infrastructure, which is inconvenient for the publisher. From the point of view of the readers, who are used to locked-down and embargoed content behind library and publisher firewalls, OA is misconstrued to mean it is of low quality and not peer reviewed. From the point of view of the academy and the researchers who comprise it, OA can only be a good thing because it will disseminate the author's words far more widely, but most researchers choose a publication venue by prestige, not by OA status, and thus more often than not are locked into publishers' conservative models.

Shouldn't it be all about the peer-reviewed content? It's not. OA and online only are red flags that imply, respectively, lack of rigor and transience. The mistaken beliefs about online-only journals and OA have some odd and unfair results: some universities will not count publication in online-only journals for promotion and tenure, which means that affiliated authors would do well to check with their university before they submit to such a journal, to ensure that it counts. Some presses will not send TWC books to review because we are online only. Presses are unlikely to consider publishing a book-length OA text because they don't know how to monetize it, and publishers of journals (at least in the medical field) were so annoyed about the OA requirement for work funded by taxpayer money that they managed to get a year-long embargo passed as part of the US law that granted OA.

Why journals need to go online right now

Now is an exciting time in journal publishing because the promise of the Web is starting to pay off. For example, one of the medical journals I work on publishes how-to videos online, demonstrating new surgical procedures. Many journals publish raw data sets as online-only supplemental material, which is obviously a boon for researchers worldwide. All the journals I work on appear online first (locked down, often behind a pay wall, but full-text abstracts can be searched), then in print. The Web can provide color images, moving images, and sound—just what researchers in, say, TV/film studies, music, video games, and art need. Scholarship as a whole will only be better from radical (not conservative!) new ways of quoting and citing, and from experiments in form that the online medium can permit.

TWC is experimenting with the very things that other academic journals in the humanities are going to have to wrestle with. Yet TWC made some decisions early on that have profoundly affected every aspect of publication. These are worth enumerating. TWC:

- Has an OA model, not a fee subscription model.
- Is online only, with no PDF or print component.
- Has a broad notion of fair use.
- Uses a Creative Commons copyright that permits transformation.
- Uses an open-source journal management system, OJS, that permits readers to comment, thus encouraging dialogue between author and reader.

The standard print model is proving insufficient to produce texts the way that authors would really like to see them. For those who work with TV, film, audio, and video games, the chance to embed a clip—rather than describe, in prose and in numbing detail, every moment of action so that a point might be made—is compelling. Further, reproducing color online is a snap, and better yet, poor-quality JPG files, which would be rejected as laughably insufficient from the point of view of linescreen reproduction in print, look great online. In addition, paper costs a lot, and the cost is only going up; within the last few years, this has caused some journals to move from appearing quarterly to three times a year, and with paper, you have to traffic it via mail, which is also expensive. Online journals have none of these drawbacks.

To this might be added purely practical concerns, such as length and number of papers. Print publications have a budget. Most journals in the humanities print four or five full-length research papers per issue, plus whatever else might go into an issue: editorial, book reviews, books received, correspondence. Sometimes articles have to be held because the issue is too long, or length must be strictly adhered to to keep the pages within the required range, so reproduction of space-hogging images may mean that text must be cut somewhere. Further, trafficking documents in the humanities tends to take a long time. From receipt of draft to print can sometimes take literally years.

Contrast this with the STM market, where shortness of time to print is treated like some kind of holy grail. All the journals I work on print received/accepted dates, to prove how timely they are; these ranges vary but are rarely more than a year, and often much less. When a contract with one publisher is up, another may win the bid if they can shorten time from receipt of peer-reviewed manuscript to print.

With an online model, things like length and number of papers becomes much more flexible. Increased article length thanks to lots of embedded images is not a problem. I'm not advocating printing lengthy articles—as a reader, I max out at about 8,000 words, and I'm sure I'm not alone in that—but if it's possible to print five articles in one issue and ten in the next, backlogs may be abolished. Journal editors may shudder in fear, because having a backlog is comforting, but timely publication is good for everyone—particularly authors.

However, the most compelling reason for a journal to have an online presence (even if it does not have full issues online) is simply citation. If journals want to be found, read, and cited, they must be online, because every research project now begins with a Google search. I have advocated in my blog for the humanities to adopt abstracts, and better yet, structured abstracts. Abstracts are a great free advertisement. Journals need to consider making them copyright-free and disseminating them: the more people who can find an article on a keyword search, the better. If nothing else, journals need an online presence to advertise their titles and authors for every issue, and inclusion of abstracts, particularly abstracts crafted to be keyword dumps, can only increase profile of the journal, the article, and the author.

Although the existence of abstracts in the humanities remains a minority of publications, online aggregators such as EBSCO have a place for them in their online forms. This has resulted in inclusion of abstracts, or abstractlike summaries, when metadata are being submitted to the aggregator. Requesting an abstract up front will result in the best summary of the work, because otherwise, some poor data entry person will make up a one- or two-sentence summary, and it won't have the depth or density of keywords to adequately reflect the article's contents.

Who pays?

Who pays for humanities journals? Many journals are sponsored by publishing houses, and many are sponsored by professional organizations; the fees paid by subscribers go to printing and mailing. The academy also subsidizes journals in the humanities: editors receive course remissions; student labor may be paid through work-study programs; correspondence and books can often be mailed at the department's expense; the editorial job is counted as service during tenure and promotion review; and the institution may provide Web space and support. In exchange, the institution gets prestige. Of course, institutions also have a responsibility to the academy in general to provide support for these kinds of meaning-making projects.

In TWC's case, OTW, a fan advocacy organization, sponsors us. OTW provides server space and pays our DOI deposit fees. We use the OJS publishing platform, which is OA and free. TWC is supported by expert personnel who work on many projects for OTW, including a Web

team and a Systems team who help us design and maintain our site. TWC's production, including copyediting, layout, and proofreading, is performed by unpaid volunteers, some of them, like me, professionals employed in the publishing industry. We do not rely on any kind of institutional support (my coeditor and I are both unaffiliated), and we do not rely on subscription fees. The Board budgets to TWC a portion of the money paid by members, but anybody can read full text for free, not just those who donated.

The current journal system (particularly for journals sponsored by publishing concerns rather than professional organizations) relies on subscribers' money to pay for printing, binding, and mailing, just as it relies on mostly invisible institutional support. Many journals also make money selling reprints; in the STM market, new drug applications must append to their submission to the US FDA paid reprints of sometimes hundreds of research articles. In the humanities, reprints tend to be more along the lines of an article given as assigned reading in a course and do not approach the scale of reprints in the STM market.

The current model relies on subscribers, privileges the rights of the copyright holder (journal, professional organization, multinational publishing entity) over that of the intellectual community, and it relies on restricting access to maintain an income stream, not to mention prestige. It is proving very difficult to restructure these fundamental relationships in a way that serves the intellectual community by making information freely available. Yet this sort of experimentation is precisely the kind of thing that needs to be happening now.

As I mentioned above, one way is to shift the cost from the reader to the author. Many other strategies might be tried: embargoing the most recent one or two years' content and requiring micropayments for items under embargo (I might pay up to $3 for immediate access to an article I really wanted—$30, not so much); or perhaps charging more for participants to attend the professional organization's annual meeting (because this is often reimbursed by participants' employers) and then plowing that money into the journal to subsidize the authors. Other parties may wish to partner with journals: libraries tend to be big fans of OA, and they have a vested interest in keeping subscription fees down. Maybe libraries could help by hosting or mirroring online content. Similarly, aggregators like EBSCO could list OA content, thus making it available via search; or perhaps the digital humanities could create their own nonprofit organization and aggregate OA content for some kind of fee.

Hybrid print–online models

When TWC decided to have no print or even PDF component at all, our reasons were twofold. The first was simple expedience: print was way outside our budget, and creating a PDF would add two weeks to the production process. We'd need specialists with expensive software to lay the pages out, and we'd need to continually reconcile the online and PDF/print versions to ensure they were identical. But the more important reason is simply that TWC was conceived as a multimedia journal. Color images, embedded video, and sound clips simply cannot be reproduced in a static model. If we provided a PDF, it would automatically be perceived as the more correct version, and it is not.

TWC is online only, but many print-only journals are now exploring creating an online component. I like the idea of humanities journals going backward—scanning back issues and putting up full text. However, this sometimes isn't practical. It depends on who owns the copyright: the scholarly society/journal, the publisher, or the author. It also depends on whether the journal relies financially on charging reprint fees. But going forward, the best bet for a journal is to use a hybrid print–online model. It can fit within an existing copyright, and the primacy, importance, and prestige of print are retained. Authors can have PDFs to give to their

tenure and promotion committees. And best of all, there is some kind of online component that, if set up properly, not only permits hits on keyword searches, but also can ask potential readers to click a handy button and pay for the article right then and there.

Strategies for hybrid models mirror what I described above about who pays. Journals who are serious about OA may have to reconfigure their copyright going forward. I always recommend that journals retain copyright: it gives journals the right to repurpose the material (for example, by putting it online), and when an author cannot be reached or has died, the journal can still grant reprint rights. Another strategy is to provide full text online but lock it to subscribers only, or to embargo the material. I dislike embargoes, but if it's required to sell an online model to a publisher or board of directors, it may be just the ticket to get a foot in the door to online publication. This decision can always be revisited later. Meanwhile, the journal can track access, subscriptions, and revenue and generate hard data about the move online.

In the sciences, online content precedes hard copy content, in part because quick print times are a gold standard in the industry. In the humanities, the other way around might make more sense: hard copy comes out, and then the online version may appear later. This permits a period of exclusivity for the print version, which will reassure those who distrust online publication.

Out-of-the-box free software may be used to manage all this. OJS does all this, from providing both HTML and PDF content to maintaining a subscriber database to locking content to subscribers only. Other easy-to-learn software that could easily configured to meet the needs of journals include WordPress and Drupal. These software packages require someone with computer know-how to set it all up and maintain it, and of course the journal will require server space. For some journals, these barriers may be insurmountable.

The hybrid model is merely a stopgap until journals can figure out what to do next. I personally think we're all just marking time until online Web publication is perceived as so mainstream that tenure and promotion committees don't even blink when presented with such a text in a candidate's portfolio. But someone has to do the spade work in figuring all that out, and someone has to do the trailblazing.

Conclusion

Fears about digital publishing tend to focus on monetization and upsetting the status quo, but now is the time for this conversation. Important scholarship in cutting-edge fields like video games and media studies is at stake. Rethinking the current publishing structure will reveal sites of possible renegotiation of the academic model in a way that will help scholars and scholarly discourse. Publishing in the humanities and the social sciences needs to follow the lead of the sciences, which were early adopters of moving and organizing content online: physics pioneered the online preprint; ClinicalTrials.gov registers trials and provides instructions for investigators; and journals in many disciplines publish online-only supplemental materials, such as data sets and online videos. Further, Creative Commons copyright and OA models have much to offer. All these ideas may be usefully co-opted by the digital humanities.

Practically speaking, a print–online hybrid may be the best way to move content online, with the reassuring prestige of print backed by the flexibility and readability of HTML. Open-source publishing platform OJS is one such trailblazer in this genre. Further, opportunities to partner with aggregators and libraries to host content may help make moving online affordable.

It is not sufficient to move print online; it is necessary to exploit the capabilities of Web 2.0 and explore interactivity. This is true not only for the articles themselves, but for the online journal's infrastructure.

Note

1. The faculty at Harvard and MIT voted in 2008 and 2009, respectively, to adopt an OA model. This means that authors affiliated with these institutions are to file their final papers with the university, which then makes them available via an institution-associated archive.

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Bio

Karen Hellekson, founding coeditor of the online-only academic journal *Transformative Works and Cultures,* works as a full-time freelancer in the printing industry in the scientific, technical, and medical market.