The Scholarly Kitchen

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Seven Things Every Researcher Should Know About Scholarly Publishing

POSTED BY <u>SCHOLARLY KITCHEN</u> · MAR 21, 2016 · <u>16 COMMENTS</u> **FILED UNDER** <u>ALTMETRICS</u>, <u>BASIC KNOWLEDGE</u>, <u>BUSINESS MODELS</u>, <u>COPYRIGHT</u>, <u>IMPACT FACTOR</u>, <u>METRICS</u>, <u>PEER REVIEW</u>

Image via Gamerscore Blog.

Editor's Note: This is a collaborative post, authored by <u>Alice Meadows</u> and <u>Karin Wulf.</u>

Almost all researchers have at least two regular, direct relationships with scholarly publishing: as authors, and as readers. Many also interact with scholarly publishing as reviewers or editors. But the multi-dimensional world of scholarly communications, of which publishing is just one part, affects so much more of what researchers do — how their work is funded, promoted, circulated, evaluated, and archived. As participants in the publishing process, they are called on to make important decisions, including what, where, and how to publish. To compound matters, there is little training available for scholars and what there is tends to focus on the practicalities of how to publish, rather than educating researchers on broader publishing issues. So, while there are notable exceptions, many researchers are less well informed about scholarly publishing than perhaps they should be, given the important role it plays in their professional lives.

After many and long conversations among colleagues within and beyond the *Scholarly Kitchen* about what researchers need to know about scholarly publishing, and drawing on their suggestions and past posts, we have compiled here a list of what we think to be the most urgent issues. We divided these issues into seven general areas, each of which could easily warrant its own post — especially since each issue ought to be considered with reference not only to the standards and expectations within individual disciplines, but by field within those disciplines.

1. The Ecosystem

The ecosystem may be the most overused metaphor of the decade but we find it perfectly suits scholarly communication, of which scholarly publishing is a key part. And its nature and shape are difficult to grasp for any one participant. As Rick Anderson puts it: "As an academic, you are one of many players in a highly complex ecosystem of scholarly communication and publishing,

much of which functions beyond the boundaries of your perception." This point is important not because any one participant *should* necessarily understand the whole, only that there *is* a larger and interdependent whole.

Like all ecosystems that contain diversity of interests as well as perspective, there is no "one size fits all" for scholarly communication. Scholars, funders, libraries, and publishers, including scholarly societies, have different positions within this system and often very different agendas; as Joe Esposito notes "where you stand depends on where you sit." Scholars want their work to be reviewed and circulated, though they may have different ideas about how this should happen. Funders want to encourage research and demonstrate its use. Libraries want to circulate good scholarship, though they may have different perspectives on how good work is created and how it should be discovered by researchers and then made available. Publishers want to facilitate the production of good scholarship, and make it available. While all stakeholders have much in common, often the focus is on the differences. Again, researchers don't need to understand each and every approach, but to appreciate that there is a broader context that contains a range of perspectives.

Lastly, the views and needs of different disciplines and fields differ widely with regard to any number of issues in scholarly publishing and beyond that, scholarly communication. Issues that are urgent for some sciences are nearly irrelevant for the humanities, and vice versa. Tenured and non-tenured faculty have different interests, as do faculty and students. Researchers within and outside of academe, too, are positioned differently. In short, the diversity among the categories of players within scholarly communication is compounded by the diversity among scholars of different disciplines and fields, not to mention individual preferences and professional situation.

2. "Scholarly Hygiene"

Scholars who care deeply about ethical research, publication practices, and circulation need to be familiar with the kinds of unethical abuses that sometimes tarnish scholarship and scholarly publishing. These include different types of outright fraud, including the <u>long tail of researcher fraud</u> once published, scholar identity theft, citation rings, varieties of deceptive publishing schemes including phony and pseudo-scholarly journals, and the phenomenon of journal retractions.

But scholars need to know, too, that they can do a lot to ensure the integrity of research and publication through their own "hygiene" practices. It goes without saying that rigorous research and review, as appropriate to discipline and field, is the starting point. But in publishing that research, it's then important to make sure you know who you're publishing with. An online checklist through thinkchecksubmit.org helps to clarify the process of sorting through the vast array of journals.

Scholars should also be intentional and informed about circulating work that's not their own. Two posts here at the *Scholarly Kitchen* last month <u>about Sci-Hub</u> illustrated some of the serious ethical and legal issues around <u>that site's practices</u>. Not only, as one of our colleagues put it, do some well-meaning academics "conflate stolen access with open access," but our conversations with university administrators, and especially IT security at universities, emphasized what a dangerous situation it can be – for their own information security as well as their students' and colleagues' — when faculty, in particular, give up secure information to a third party. In short, as well as

ensuring the integrity of their own research, scholars can and should work to keep the wider scholarly environment clean by using best practices in placing their own work, reviewing the work of others, and circulating works by themselves or other authors.

3. Business Models

Talk of business models in scholarly publishing tends to focus on the negatives, yet they are critical for survival and sustainability. Behind every successful organization in our industry — commercial or not-for-profit — is a business model, even if it's not immediately obvious what that model is.

It's important, therefore, that researchers have a basic understanding of publishing business models, including the costs for themselves, their organizations, and their publishers (as Alison Mudditt points out: "most academics have very little understanding of the costs of publication (especially the indirect costs of e.g. acquisitions and peer review)." For example, researchers who are required by their funders or organizations to make their work openly available need to know about the options for doing so, including the pros and cons of gold (author pays) versus green (self-archiving) open access (OA). But even if OA isn't a requirement, it's valuable information for researchers to consider when making any publishing decision.

For book authors, a basic knowledge of advances and royalties is essential. And, while book publishing hasn't – yet – moved as far toward OA as journals publishing, changes are coming there too, and it behooves researchers to keep abreast of them. For example, "Platinum" OA, in which consortia groups fund publication of OA books, or university administrations pay the APC for the publication of faculty books, is an important development.

In addition, researchers should be aware of the business models behind the increasing number of apparently 'free' sites and services they're using. To quote Rick Anderson: "Nothing is free...If you're getting something at no direct cost to you, that means either that you are paying indirectly or that someone else is absorbing the cost." For example, social scientific networks (SSNs) like academia.edu and ResearchGate are typically financed by selling advertising space on their websites and/or selling data about their users to advertisers and others.

So, as David Crotty puts it: "Learn more about who you're publishing with and support those whose practices are in line with your own beliefs. This also goes for online startups and social networks — pay attention to who is behind the various companies. Are they for-profit? Venture capital backed? Are they not-for-profit? Run by the community for the community? Keeping all funds raised in the community or putting them in the bank accounts of investors? Choose wisely."

4. Peer Review

Peer review has been central, not just to scholarly publishing, but to the entire scholarly endeavor. Questions abound about whether the traditional form of double-blind review, in which both author and reviewer are anonymous to one another, is the most effective way to encourage excellent scholarship. On the one hand, anonymity has been shown to guard against gender and other forms of bias as well as provide more traditionally recognized benefits. On the other hand, open peer review offers more immediate feedback and the opportunity for more to participate in the review process.

Whatever form of review, and despite its importance for scholarly publishing, survey after survey shows that most researchers receive little if any training other than reading a journal's guidelines. Most recently, Wiley's <u>survey</u> of close to 3,000 active reviewers indicated that very few respondents have had any formal training, such as participating in a journal's reviewer mentoring program (4%), attending a workshop/seminar on the topic (4%), or watching a video or webinar (3% and 2%).

A few organizations, including <u>Sense about Science</u> and some of the larger publishers and societies, offer in-person and/or online peer review training but, given the number of researchers, their efforts will likely only ever reach a small number. And yet it's vital that researchers not only learn how to do peer review themselves, but also have an understanding of the different types of peer review they may encounter – both as a peer reviewer and as an author.

Training is especially vital given the continuing increase in the number of papers published and, therefore, reviews and reviewers needed. Providing better, more consistent peer review training to researchers around the world will enable them all to play their part in benefitting from and giving back to the scholarly community.

5. Metrics

In scholarly publishing "metrics" is now shorthand for the ways that various tools are used to assess the citation volume and distribution of the work of both individual scholars and of the journals where they publish. Tools such as the Journal Impact Factor (JIF), calculated by Thomson Reuters, measure the number of citations to particular journals. Journals with more citations per paper have a higher "impact factor." The math of metrics is more complex than this, but essentially the notion is that more is better. Other tools, such as the H-index offer scholar-level evaluations. But these metrics are hard, for example, on the humanities, where citation practices are very different from those in the sciences, and they are prone to bias of several sorts. A report last year by the Higher Education Funding Councils of England on *The Metric Tide* addressed a variety of issues, including the concern about metrics replacing qualitative evaluation of scholarship.

A relatively new entry on the metrics scene, altmetrics, aim to capture not only scholarship in publications, but web, including social media, traffic. While rightly criticized for valuing "buzz" over substance, altmetrics can play a useful role in showing how scholars' work is engaging a broader public audience.

It's clearly critical for scholars to be aware of the uses and challenges inherent in those metrics that have been adopted in their own organization and community. Metrics are human creations and thus reflect the values of their creators. They can show us some things, but not all things or even necessarily the things we most want to know about the importance of scholarship. Their uncritical use by many university administrators and grant funders needs to be of concern for researchers.

6. Tools

There are so many tools to aid scholars in both the production and consumption of research. In our experience such tools are usually stumbled across rather than systematically understood or used. These tools, too, have to be sustained through business models (#3) and enter into the ecosystem (#1) to facilitate research, its publication, and circulation.

A very basic example is the search engine. Many scholars use Google or other web search engines. They also use search engines within specific content aggregators such as JSTOR or subject-specific search engines like PubMed. And within their institutions they may use engines such as Summon from Proquest that is designed to pull from a variety of a library's holdings. All these search engines produce specific results based on their own algorithms. Or, as one of our colleagues tweeted "research-searching." No search engine provides all of everything or even the best of everything in a researcher's order of priority.

Other examples of tools for scholarly publication include persistent identifiers (PIDs) such as DOIs (provided by Crossref, DataCite, and others), and person identifiers (ORCID,iDs, Scopus IDs, Researcher IDs, and more) that enable unique identification of works and people respectively. Citation linking in online books and journals wouldn't be possible without DOIs, while an increasing number of publishers and funders are requiring ORCID iDs as a way of ensuring that researchers are correctly linked to their works and activities. Many PID organizations are not-forprofits, supported in large or small part by membership fees from scholarly publishers. – a great example of the interdependencies within the scholarly ecosystem!

And of course, there are numerous other tools, both commercial (such as Digital Science's array of services around the research life cycle) and not-for-profit (CHORUS, SHARE) intended to help scholars spend more time on research and less on administrative tasks.

7. Licenses and Copyright

Copyright is surely one of the most misunderstood – and contentious – of issues in scholarly publishing. It is important to recognize what copyrights cover in this context – essentially the specific set of words and images used in that particular order in a paper or a book. Copyright does not restrict the reuse of the ideas or technologies described by those words, just the reuse of the specific words and pictures themselves.

From their support for <u>Google's landmark victory against the Authors' Guild</u> to allowing self-confessed copyright "pirate", <u>SciHub to download and make freely available millions of copyrighted articles</u>, it seems that more and more researchers (and, in some cases, their organizations) see copyright as, at best outdated, at worst completely unnecessary. At the same time Creative Commons licensing of works, whether by authors or by libraries, has become more popular. But the two are not mutually exclusive, with the vast majority of articles, books, and other work still covered by copyright, even if the author chooses (or is required) to make their publication available under license. To add to the complexity, there are <u>six flavors of CC licenses</u> (and several different versions of each!) with different degrees of flexibility, requiring researchers to decide how widely (or not) they want their work to be shared and reused.

In order to make informed publishing decisions, all academic authors need to understand the difference between copyright and licensing: what it means to transfer copyright to another organization (typically the publisher — commercial or not-for-profit) of a journal article; the difference between transferring copyright and signing a license to publish; how to choose the right Creative Commons licensing options (if any); when it's legal to use other people's materials — and for them to use yours — when it's not, and why.

There are already some great materials available from individual universities and from organizations like the Copyright Clearance Center (including this nice <u>quiz</u> — perfect for any researcher to test her/his knowledge) and these great <u>videos</u> from Creative Commons. But we

suspect that many researchers are still unaware of these basic legal structures and what they mean.

These 7 Things Add Up To...?

We hope this list gives some indication of the breadth and depth of considerations for researchers as they interact with the world of scholarly publishing — and the wider world of scholarly communication. And here's one last, sneaky eighth item for those of you who have made it to the end of the post: as our own *Scholarly Kitchen* Editor-in-Chief notes, "editors are people, too." Too true. Publishers, librarians, and all the other professionals involved in scholarly communications are eager to speak with scholars about these issues. We know that some researchers are extraordinarily well versed in all of these issues, but we also know how many have very little knowledge about any of them. We believe that more scholars should not only begin to grapple with these issues, but have a larger voice in all of them. And that the scholarly communications community should look for ways to better support researchers through training and education, backed up by openly available resources. This is, we hope, just the beginning of many more conversations on these topics as well as the broader issue of what scholars need to know or to know more about.

Discussion

16 thoughts on "Seven Things Every Researcher Should Know About Scholarly Publishing"

1. A fine summary of many of the big issues. I have two quick questions. First, is someone going to do a post on the seven (or so) things that the publishing ecosystem should know about research (but generally does not)? I imagine the researchers are also awash in issues. Second, when I hear people saying that other people should do more work of some sort I ask how much more? How much time should the average researcher spend on these seven issue groups? For example, 7 or 70 or 700 hours? This would make clearer what we are talking about.

POSTED BY **DAVID WOJICK** | MAR 21, 2016, 9:36 AM **REPLY TO THIS COMMENT**

• Thanks, David. I'll just address the latter question about how much time/ effort scholars might expend in learning about these issues. A general overview is important and a good though not major investment of both, I think.

POSTED BY **KARIN WULF** | MAR 21, 2016, 11:58 AM

REPLY TO THIS COMMENT

• Yes, Karin, you have touched on a relatively large number of significant issues. This is not something that can be covered in a webinar or a video, but rather in a set of them. It really calls for a campaign of sorts.

Regarding the first question, science is itself under attack. For example, I recently saw a tweet from the London School of Economics claiming that 85% of health research is wasted (which I think is an absurd claim). This sort of stuff must be painful for the researchers. It might be useful for the communications ecosystem to understand this. Perhaps by pointing out to the researchers that we value their work, as well as their papers.

POSTED BY **DAVID WOJICK** | MAR 21, 2016, 1:19 PM REPLY TO THIS COMMENT

2. This ex-Editor and Publisher says nicely done and overdue. Thanks for such a portable article, eminently shareable and close to policy-neutral.

POSTED BY MARJORIE SPENCER | MAR 21, 2016, 10:50 AM REPLY TO THIS COMMENT

3. Thanks so much, Marjorie!

POSTED BY <u>KARIN WULF</u> | <u>MAR 21, 2016, 11:58 AM</u> <u>REPLY TO THIS COMMENT</u>

4. One can address each of the 7 topics but in retrospect it seems to me that much of what is mentioned is part of the publishing process and really not part of the author process of publishing.

Further, authors tend to learn much of this stuff if they are interested in it (and most are not) from other authors who are, or from the publishers with whom they publish.

Most authors I have worked with want to know in which indexes their work will be listed and what is the IF of the journal. These are important because it effects their career.

Copyright is a big deal because so few understand it. As a publisher, just give me the exclusive right to distribute and sell what you do and you can have the headache of defending the copyright you own. BTW if someone violates your copyright and it damages my exclusive right to distribute and sell you can be called upon by me to defend your copyright and cover any and all of my loses.

Some publishers make 100% of their money by someone paying to publish the piece (OA) and they do not want the copyright.

On the other hand, there are publishers who earn 99% of their revenue via the initial sale (subscription) and, in fact, the purchase of an individual article (pay per view or a download charge, etc) would not be available if not for the ease of doing so via a computer.

Considering so few individuals do pay for an individual article, one wonders why there is a cadre of "#*&%ers" who seem to believe that hoards would pay for an esoteric paper on the role of Paronychia on the survival of the tyrannosaurus – that is if it were only cheaper.

POSTED BY **HARVEY KANE** | MAR 21, 2016, 12:13 PM **REPLY TO THIS COMMENT**

• The other part of the author process missing a bit is the importance of selecting how and where to publish to earn tenure and promotion. As a retired faculty member, I've been advising a tenure track faculty member on which factors are relevant both at the unit and university level since I have experience with both. The first question was how to make sure that the publication is refereed. Our unit considers Ulrichs to be the authority though I know from experience that editors sometimes accept publications that they like without sending them out for review. A second piece of advise was to prefer a peer reviewed publication over a non-peer reviewed one with a higher impact factor. I personally don't like this advise since getting the message out to more readers is more important in the practically oriented library science field, but non-refereed publications are worth much less to T&P review committees. I particularly liked being tenured and now even more so being retired because it allows me to write and publish were I want to and on the subjects that interest me as long as the journal editor accepts them.

Finally, I find the Scholarly Kitchen to be much more useful for my research than most scholarly publications plus it's certainly more interesting.

POSTED BY **BOB HOLLEY** | MAR 21, 2016, 3:26 PM REPLY TO THIS COMMENT

"cadre of '\$%&#*ers'"

I'm surprised this vulgar comment made it through moderation

POSTED BY **NICK** | <u>MAR 22, 2016, 1:42 PM</u>

REPLY TO THIS COMMENT

• Sorry, my bad. Been traveling and pressed for time. Have edited both comments.

POSTED BY **DAVID CROTTY** | MAR 22, 2016, 4:36 PM **REPLY TO THIS COMMENT**

5. I think it is a great idea to turn this about as David suggests and ask researchers what they would like publishers to know. I will add that to our researcher-interviews list! I suspect it will be that they hate reformatting manuscripts for different publishers' requirements, and that the effect of "just one more thing" on them (depositing data, getting ORCIDs, registering clinical trials, submitting articles to institutional repositories...) is really adding up now.

Harvey: about a decade ago, a HighWire-hosted publisher with a significant number of journals decided to do a test to see how 'pay per view' pricing affected volume of PPV. So in different journals they set different prices, and then compared the volume of purchases. You would have believed the results were faked, the relationship between price and volume was so perfect: if you doubled the price, you halved the number of PPV, and vice versa.

John

POSTED BY **JOHN SACK** | MAR 21, 2016, 3:06 PM

REPLY TO THIS COMMENT

• John, has anyone published those results? They would make a fascinating article, even if the journal were anonymized.

POSTED BY **RICK ANDERSON** | MAR 22, 2016, 9:28 AM **REPLY TO THIS COMMENT**

• Rick,

The results for the PPV study were never published afaik, though they were presented at a HighWire publishers' meeting. Let me check with the original publisher and see if I can share the data/results. I suspect they will be fine with this, but need to check.

John

POSTED BY **JOHN SACK** | MAR 22, 2016, 9:37 AM **REPLY TO THIS COMMENT**

• Rick, I have permission to post this. I'll write it up on the highwire blog this weekend. The study was from 2006, so not fresh data.

POSTED BY **JOHN SACK** | MAR 23, 2016, 7:52 AM **REPLY TO THIS COMMENT**

Great, thanks!

POSTED BY **RICK ANDERSON** | MAR 23, 2016, 9:09 AM **REPLY TO THIS COMMENT**

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