

Open Access Publishing Movement And Information Economics

Ellen Phillips

200 Information and Society

Fall 2013

My critical note is on the open access publishing movement and information economics. This is a new and radically different business model for scholarly peer-reviewed publishing borne, in part, as a response to escalating subscription costs. It has been slowly gaining acceptance since the concept was first introduced over a decade ago and in 2007 was mandated for the publication of government-funded research.

The naïve promise of the open access publishing movement is that the information that wants to be free can finally be that way. However, in many cases, the costs have simply been shifted to the writers. While researchers frequently have access to funding to pay authorship fees and sometimes they are waived completely, the paying customer of the publication is now the writer. One does not have to look too far to see a conflict of interest, although apologists abound. Recently, however, they were given reason to pause.

In a stunning piece of investigative work titled, “Who’s afraid of peer review?” published October 2013 in the peer-reviewed journal *Science*, writer John Bohannon exposed systemic failure throughout the open access publishing industry. First he created a series of fake research papers by using software to generate “credible but mundane scientific paper(s),” but ones with “experiments ... so hopelessly flawed that the results are meaningless” (p. 62, 60). To ensure that this “scientific version of Mad Libs” was properly riddled with errors, yet superficially plausible, Bohannon recruited molecular biologists from Harvard University to review the manuscripts

prior to submission (p. 62). The general premise was that the fictitious researchers had discovered that a species of lichen contained a molecule that inhibited the growth of cancer (p.62).

Then he submitted these papers to 304 scholarly peer-reviewed journals. The list came from two sources, the well-respected Directory of Open Access Journals (DOAJ) and a “list that journals fear,” the website of “academic crime-fighting” library scientist Jeffery Beall (p. 62). About 20% of the publishers listed on Bealls’s website have journals listed in the DOAJ (p.62).

Ultimately 157 papers were accepted. Bohannon writes that: “Acceptance was the norm, not the exception” (p. 61). The papers were accepted by a wide range of journals including those associated with Elsevier and Sage, Kobe University in Japan and those produced by scholarly societies. The author found that, “most reviews focused exclusively on the paper's layout, formatting, and language” even though “any reviewer with more than a high-school knowledge of chemistry and the ability to understand a basic data plot should have spotted the paper's shortcomings immediately” (p. 64, 60).

There is no doubt that open access publishing is here to stay. Subscription costs are unsustainable and sharing scientific information in a timely fashion makes sense. This article also shows that there are encouraging signs of refinement and maturation within the industry with leaders such as the Public Library of Science (PLOS) and Hindawi emerging. Open access standards should be considered to be inconsistent in all corners of the market from big publishing houses to start-ups and even university presses. In some instances there is more to be concerned about than academic rigor being pushed to the sides in a wave of idealism, as several of Bohannon’s observations illustrate.

Librarians, whose job it is to select sources of information, both in terms of databases and in terms of individual articles, need to be cognizant of this trend. The transparency of Open Access allows us glimpses into the editorial process and many of the clues that it can provide us in discerning the credibility of a resource. We cannot rely on established publishers or journal names that sound credible. It is important to always be aware that not everything in print is truthful, but currently the state of the open access publishing industry makes this type of critical thinking more important than ever before.

References

Bohannon, J. (2013). Who's afraid of peer-review? *Science*, 342(6154), 60-65.

doi: 10.1126/science.342.6154.60

157 of the journals had accepted the paper and 98 had rejected it. Of the remaining 49 journals, 29 seem to be derelict:

Without asking for any changes to the paper's scientific content, the journal sent an acceptance letter and an invoice for \$3100. This journal is published by an award-winning publisher.

Some say that the open-access model itself is not to blame for the poor quality control revealed by *Science's* investigation. If I had targeted traditional, subscription-based journals, Roos told me, "I strongly suspect you would get the same result."* But open access has multiplied that underclass of journals, and the number of papers they publish.

Bohannon, J. (Oct 4, 2013). Who's afraid of peer-review? *Science*. 342 no. 6154 pp. 60-65

doi: 10.1126/science.342.6154.60