

Open Issues with Open Access Publication

Open access journals have grown in number over the last decade. In 2000, there were fewer than 800 such journals, and fewer than 20,000 such papers. By 2009, nearly 5000 open access journals were being published annually, containing almost 200,000 articles.¹ The rise of the open access model point has been based largely on its strengths: allowing scientists and the public free access to research, efficient navigation and mapping of knowledge, dissemination of scholarship, and increasing recognition and citation of research findings. However, despite these formidable virtues, 2 sources of concern remain. The first is the growing portion of research funds being spent on open access publication fees, and the second is a cottage industry of low impact, low oversight journals.

A number of recent high-profile commentaries have championed the open access movement. In *The New York Times*, Michael Eisen,² one of the founders of the Public Library of Science, argued against the now-defeated Research Works Act, which would forbid the National Institutes of Health from requiring authors who receive funding to provide their work free of charge. Eisen argued that, if enacted, “taxpayers who already paid for the research would have to pay again to read the results.”² An article in the *Economist* calling for more open access publication made a similar case, noting that in traditional journal models, “academics and taxpayers who were responsible for its [research’s] creation have to pay to read it.”³

Indeed, personal and institutional subscriptions to traditional journals can be formidable. Obscure titles may cost upwards of \$20,000 a year for a single journal per institution,³ and personal journal subscriptions may cost in the hundreds of dollars. Under the traditional model of journal publishing, a typical article costs approximately \$3000 to publish.⁴ Subscription fees primarily cover these expenses, with deficits made up through advertising, reprint sales, and fees for color figures or submission.⁵

Online, open access journals are not without cost, however. Consider the open source journal *Public Library of Science One*, now the largest peer-reviewed journal in the world.⁶ In 2011, the journal was on pace to publish 14,500 articles.⁶ This number may seem staggering, however, less

so when considering the journal’s credo to publish all articles that are methodologically and ethically sound.⁶ As such, the journal publishes 69% of all submissions.⁷ With a charge of \$1350 per publication for *Public Library of Science One*, \$2900 for *Public Library of Science Biology*, and \$2250 for *Public Library of Science Genetics*, the collective Public Library of Science organization generated over \$21 million in author fees in 2011.⁸ While Public Library of Science continues to enjoy high visibility, not all open source journals are equally well known.

A cottage industry of low-impact, open-source journals appears to be growing. These journals charge between \$500 and \$3000 per paper⁷ and have a dubious readership. In the last 3 months, one of us has received 12 solicitations for articles to such journals, including the *Open Journal of Internal Medicine* and *Journal of Cancer Research & Therapy—Open Access*. The average article-processing fee was \$1100 for these journals. The growth of this industry raises ethical concerns about soliciting publications, which require research funds to pay for them, to publish in journals with limited impact and visibility.

Who pays for open access? The irony of Eisen’s editorial is that open access publishing is funded primarily by authors’ own grants, often paid for by the public. As such, in both open access and traditional models, taxpayers currently ask the public to pay for research, and to read those findings.

We appreciate little distinction between traditional and open source models of funding. All journal articles continue to incur significant costs to publish. But, when it comes to open access, often there is a direct relationship between research funds and payment for publication. As such, we believe clinicians and researchers have a moral obligation to be selective with open source, choosing only those journals that promise wide dissemination of scholarship, and not those simply guaranteeing ease of acceptance.

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