Essays

Open access for European science journals

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Abstract The open access model provides an alternative to the subscription model of journal publishing, which fairly reimburses publishers for the services they provide. Open access journal publishing has been growing rapidly since 2000, and has been proved to be sustainable, and to produce quality journals using a different business model. The model has proved to be a good choice for regional society journals wishing to increase their impact and reach.

Keywords Open access; STM publishing; Society publishing; BioMed Central

Introduction

Until recently academic journals were available only in printed form, *via* subscription. Unless you had a personal subscription, reading an article in the journal involved making a trip to the library, finding the article you wanted amongst the bound volumes, reading it there and then or making a photocopy to read at leisure. Alternatively you could order the article through your library's document delivery service. Whichever route you took, it meant that there was a wait involved, and if you found an interesting reference to follow, you had to do the same thing all over again.

Less than two decades later, almost all journals are available online, accessible from your computer or mobile device, wherever you are. You can link out to references and supporting data, play videos, comment on an article or blog about it, and a variety of other related activities which are enabled by digital communication. But even in this connected world, if you come from an institution

with limited library funds, or a small company, or are a patient researching the latest treatment for your disease, or are just not authorised to access the journal from the particular computer you are using, when you want to access a paper from a journal published under the subscription model, you come up against a barrier which requires payment before you go any further. So you either have to pay or find a library which will give you access and take the tortuous route described above. The

subscription model, which made sense in the print world, now acts as a barrier for many of those who need access to the information in scientific and medical journals.

The Open Access Model

New frameworks, not based on historical print models, are needed to cater for these new opportunities. These frameworks need to fairly reimburse publishers for the services they provide. The open access model, which has been growing rapidly over the last decade, seeks to provide this framework. Open access journals allow universal free access to their content, which is openly licensed to allow reuse. To cover the costs of the services provided, the publisher charges an Article Processing Charge (APC) on publication of the article, which is generally paid for from the author's institution or research grant, or sometimes by a sponsoring body such as a society. Many funding bodies (eg Max Planck Institute, Wellcome Trust and the UK Research Funding Councils) now mandate that research papers which arise from research they fund should be made available in open access form. The funding bodies allocate money for the APCs. Many universities have established central funds for researchers to cover open access costs.¹ Recent research shows that fewer than 20% of authors in OA journals pay the fees themselves, and this number is less than 10% in biological sciences, earth sciences and physics (Fig. 1).² For authors who are not funded or come from low income countries, the major open access publishers offer waivers.3

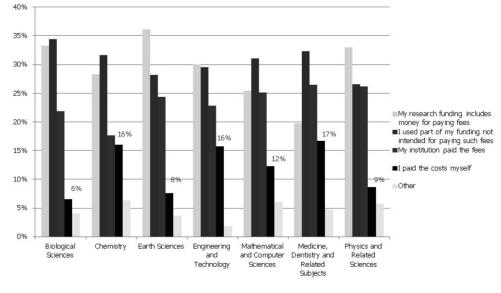


Figure 1. Payment of open access fees.¹

Benefits of this model to some of the constituencies who previously had no access are clearly articulated by two quotes:

"These days, more than ever, efficient access to scientific information is a must, for all kinds of research and innovation. In particular, researchers, engineers, and small businesses need to access scientific results quickly and easily. If they can't, it's bad for business: for small businesses, for example, it can mean two years' extra delay before getting new products to market. So if we want to compete globally, that kind of access cannot be a luxury for Europe — it's a must-have." Neelie Kroes, Vice-President of the European Commission responsible for the Digital Agenda, "Making Open Access a reality for Science", 29 May 2012.

"The timing of these publications worked out perfectly for me. In June, I will be seeing a doctor who is new to me. Among others, I have a lesion in my shoulder that is behaving badly and causing a lot of pain. I read and copied both the publications on surgical and pain management. They are precise and informative. I believe these articles will prove to be invaluable for all of us as we seek proper care for this disease." Letter from a reader of a supplement published in Orphanet Journal of Rare Diseases (an open access journal), 24 May 2012.

Since the first open access journals were published by BioMed Central in 2000, the sustainability of the open access model has been proven, with BioMed Central and PLOS, amongst others, running profitable open access publishing programmes. Open access journals are in most ways exactly the same as those published under a subscription model, with chief editors, editorial boards, peer review systems, and indexed by the major bibliographic databases. The difference is mainly in the funding mechanism that they use.

The quality that OA journals can achieve is shown by the fact that over 1,100 open-access journals are indexed by Thomson Reuters Web of Science^{*}, and many of those lead their respective categories (eg top two open-access journals in tropical medicine). According to the Registry of Open Access Repositories Mandatory Archiving Policies, open access to research is now mandated by over 150 institutions and over 50 funders.⁴ Because of this, submissions to OA publishers have increased rapidly (Fig. 2, information supplied by the publishers).

The benefits to authors of publishing their papers using the open access model include high visibility of their papers which leads to high citation rates.⁵ Authors also become direct customers of the publisher (rather than solely the librarian) which means that publishers concentrate more on author satisfaction and work to improve their service to authors. Many authors also report that it is less expensive to publish in an open-access journal than to pay the page and colour charges in some subscription journals.

"Scientific authors when choosing where to submit their manuscripts are making choices... they evaluate the costs and benefits for a particular journal compared with other options... With APC-funded OA journals, authors will be forced to consider even closer [sic] the value they get from a particular journal... OA journals need to be able to offer additional advantages such as accessibility, rapid publication, better topical fit, and/or the likelihood of more citations to offset and exceed the negative cost of the APC." ⁶

Journal editors report that having no page budget allows them to choose to accept or reject submitted papers in line with the editorial objectives, and that the wider visibility of their journal means that they receive more submissions from researchers who may not have considered the journal previously.

The example of Acta Veterinaria Scandinavica

Acta Veterinaria Scandinavica was founded in 1959, and is the publication of the Veterinary Association of the Nordic Countries. Until 2005, it was published as a subscription journal, but was struggling to increase its low subscription rates, to attract quality submissions and to improve its journal impact factor (JIF). In 2006, it transferred to BioMed Central to be published under the open-access model. Since then, its

> submissions have steadily increased, allowing the editors to be more selective about what they publish, which, in turn, led to a threefold increase of JIF (Fig. 3).

Conclusion

For the reasons described above, increasing numbers of journals are transferring to open access publication. In a world where gaining additional subscriptions and visibility for content amongst the ever increasing mass of information on the internet is becoming increasingly difficult, open access has proved to be a good choice for regional society journals wishing to increase their impact and reach.

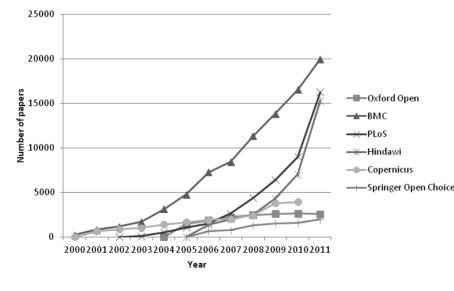


Figure 2. Papers published by major OA publishers in 2000 – 2011.

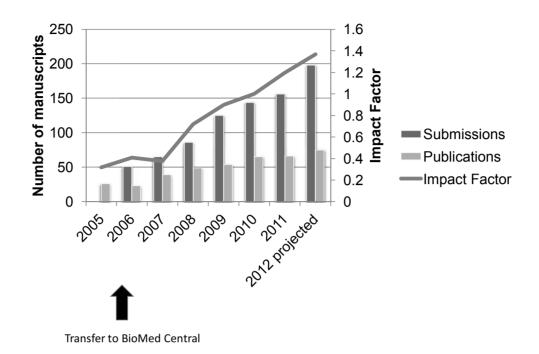


Figure 3. Effect of move to Open Access publishing on Acta Veterinaria Scandinavica

Acknowledgements

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Development of open access medical journals in Russia: encountered problems and the example of the *Saratov Journal of Medical Scientific Research*

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Abstract The article highlights the main problems and perspectives of launching open access medical journals in Russia, using *The Saratov Journal of Medical Scientific Research* as an example. Launching the journal's open access website is viewed as a major achievement, enabling smooth communication and coordination of the editorial work. Insufficient English language skills among authors and editors are the main problem hampering international recognition of Russian scholarly journals.

Keywords Periodicals as topic; biomedicine; Russia; science editing.

Most Russian scholarly journals remain largely unknown to the global scientific community, causing isolation of information flows in Russia. Despite the wide availability of digital translators, the language barrier and insufficient English language skills among Russian authors and editors are still the main reasons limiting the global influence of their scientific articles. They also prevent the publication of these articles in the most prestigious English-language journals. To address this, some Russian journals have launched English-language versions supported by international publishing companies such as Springer. However, bilingual journals cover only a small part of medical research in Russia.

Several problems are common to most Russian biomedical journals: i) lack of electronic full-texts of articles, ii) poor quality of journal websites, iii) inefficient peer review, iv) lack of open access, v) lack of funds to run the journals (mainly due to the so-called economic self-sufficiency policy) and vi) incorrect English language editing.

Importantly, to obtain a scientific degree and academic position, Russian authors have to publish articles in the

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