

Open Access Journals: A Study

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Abstract

Open access journals are scholarly journals that are available to the reader "without financial or other barrier other than access to the internet itself." Some are subsidized, and some require payment on behalf of the author. Subsidized journals are financed by an academic institution or a government information center; those requiring payment are typically financed by money made available to researchers for the purpose from a public or private funding agency, as part of a research grant. There have also been several modifications of open access journals that have considerably different natures: hybrid open access journals and delayed open access journals. Open access journals (sometimes called the "gold road to open access") are one of the two general methods for providing open access. The other one (sometimes called the "green road") is self-archiving in a repository. The publisher of an open Access journal is known as an open access publisher, and the process, open access publishing. The paper describes about the open access and open access journals. The benefits of the OAJ to researchers, for education, types of OAJ, the OAJ and the library, essential of OAJ, advantages and disadvantages of OAJ, current problems, criticism, history and links are discussed in this paper for the benefit of the research scholars.

Keywords: Open Access Journals, Open Access Publishing, Open Access Library

1. Introduction

Open Access

"By 'open access' to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself...

2. Open Access Journals

Open access journals provide free access to their content through a business model that differs from the subscription-based model

- ◆ Subsidized model: subsidy by government grants or membership fees; e.g. National Research Council Press journals are freely available to all Canadians
- ◆ Mixed models: e.g. some of the journals published by the Public Library of Science
- ◆ Author pays (or institution) e.g. BioMed Central

An open access journal makes articles it publishes freely accessible online. Some open access journals also cover their costs by charging the author's institution or funder for publication. The Government will cover such open access publication costs where needed.

Definition

In the original definition from the BOAI, "open access" was defined as "having no financial or other barrier other than access to the internet itself." However, there have been a number of modifications of this, both to increase the range of the requirement, and to make it more flexible. In particular, some journals have every article open access, including review articles. This is more than the initial requirement. On the other hand, some otherwise open access journals have a limitation on the commercial reuse of the articles, and this would, strictly speaking disqualifies them.

Open access journals divide into those that charge publication fees and those that do not.

- ◆ Made available *gratis*, or "free as in 'free beer'", on the public Internet. There is no cost to access the content, aside from any costs incidental to access the Internet itself. Stated differently, *access barriers* to the content are removed.
- ◆ *Permission barriers* to use of the content are removed. The definitions of Budapest and Bethesda differ slightly on the details here, but both require the freedom to use and redistribute, subject to attribution of authorship. The biggest discrepancies between the two definitions are on the subjects of derivative works and commercial use:
- ◆ Bethesda includes the right to make and distribute derivative works, but is silent on the right to make commercial use.
- ◆ Budapest states that authors should have "control over the integrity of their work", which restricts the ability to make derivative works. The declaration further states that integrity of the work and attribution of authorship should be "the only constraint[s] on reproduction and distribution", which implies the right to make commercial use.

We define open access journals as journals that use a funding model that does not charge readers or their institutions for access. From the BOAI definition of "open access" we take the right of users to "read, download, copy, distribute, print, search, or link to the full texts of these articles" as mandatory for a journal to be included in the directory.

Publishing in open access journals, which provide open access to their complete scholarly content immediately upon publication, is known as the "gold" road to open access. For an example, see the Public Library of Science journals.

3. Benefits of Open Access Journals

To Researchers

As authors, researchers benefit because their research papers are given a much wider dissemination and can be read without restriction by anyone with Internet access. This increases the impact of their research. Indeed, evidence is accumulating to show that open access articles are cited 25-250% more than non-open access articles from the same journal and year. As readers, researchers benefit because they will increasingly be able to access and use the full text of all the research published in their area, not just the research available to them via the subscriptions their institution can afford.

Open Access to the world's publicly funded research literature provides equal opportunities for the communication of all research information, eliminating financial barriers. Furthermore, articles made available electronically on an open access basis have been shown to be cited¹ on average 50% more often than non-open access articles from the same journal, thus ensuring the greatest possible benefit both to the authors, to the investment of funding agencies and to scientific progress.

4. Open Access publishing and the Library

The Library's objective is to establish 'new ways of collecting, sharing, recording, disseminating and preserving knowledge'. We want 'to ensure our relevance in a rapidly changing world, [by participating] in new online communities'. For these reasons, the Library decided to engage in an open access journal publishing trial, coincidentally also called Open Publish. Open Publish is a pilot project to help the Library understand how to host an open access journal publishing service.

5. Essential steps in publishing an Open-Access Journal

- ◆ Low-cost strategies for receiving manuscripts, managing peer review, and online hosting
- ◆ Using an end-to-end electronic and online journal management system (JMS) for receiving manuscripts and managing their distribution during the peer-review process.
- ◆ Ensuring that the final digital version of the paper is generated, hosted, and archived as inexpensively as possible.

6. Two types of Open Access Journals

6.1 Fee-Based Open Access Journals

Fee-based open access journals require payment on behalf of the author. The money might come from the author but more often comes from the author's research grant or employer. In cases of economic hardship, many journals will waive all or part of the fee. (This generally includes instances where the authors come from a less developed country). Journals charging publication fees normally

take various steps to ensure that editors conducting peer review do not know whether authors have requested, or been granted, fee waivers, or to ensure that every paper is approved by an independent editor with no financial stake in the journal.

6.2 No-Fee Open Access Journals

No-fee open access journals use a variety of business models. As summarized by Peter Suber: "Some no-fee OA journals have direct or indirect subsidies from institutions like universities, laboratories, research centers, libraries, hospitals, museums, learned societies, foundations, or government agencies. Some have revenue from a separate line of non-OA publications. Some have revenue from advertising, auxiliary services, membership dues, endowments, reprints, or a print or premium edition. Some rely, more than other journals, on volunteerism. Some undoubtedly use a combination of these means."

7. Advantages and Disadvantages of Open Access in General

7.1 Advantages

The primary advantage of open access is that the content is available to users everywhere regardless of affiliation with a subscribing library. This will benefit:

- ◆ authors of such articles, who will see their papers more read, more cited, and better integrated into the structure of science
- ◆ academic readers in general at institutions that cannot afford the journal, or where the journal is out of scope
- ◆ researchers at smaller institutions, where their library cannot afford the journal
- ◆ readers in general, who may be interested in the subject matter
- ◆ the general public, who will have the opportunity to see what scientific research is about
- ◆ taxpayers who will see the results of the research they pay for
- ◆ patients and those caring for them, who will be able to keep abreast of medical research

7.2 Disadvantages

There are two categories of objections:

- ◆ Open access is unnecessary
- ◆ Open access is too impractical to implement.

8. Current Problems

Identifying open access journals and the articles in them, there are several major directories of open access journals, most notably: Directory of Open Access Journals (DOAJ) and Open J-Gate. Each has its own special standards for what journals are included.

Articles in the major open access journals are included in the standard bibliographic databases for their subject, such as PubMed. Those established long enough to have an impact factor, and otherwise qualified, are in Web of Science and Scopus. DOAJ includes indexing for the individual articles in some but not all of the many journals it includes.

Major projects to provide open access journals Pioneers in open access publishing in the biomedical domain were journals like the BMJ, Journal of Medical Internet Research, and Medscape, who were created or made their content freely accessible in the late 90s. BioMed Central, a for-profit publisher with now dozens of open access journals, published its first article in the year 2000. The Public Library of Science launched its first open-access journal.

9. Criticism

Opponents of the open access model assert that the pay-for-access model is necessary to ensure that the publisher is adequately compensated for their work. Scholarly journal publishers that support pay-for-access claim that the “gatekeeper” role they play, maintaining a scholarly reputation, arranging for peer review, and editing and indexing articles, require economic resources that are not supplied under an open access model. The cost of paper publication may also make open access to paper copies infeasible. Opponents claim that open access is not necessary to ensure fair access to developing nations; differential pricing, or financial aid from developed countries or institutions can make access to proprietary journals affordable.

Reactions of existing publishers to open access journal publishing have ranged from moving with enthusiasm to a new open access business model, to experiments with providing as much free or open access as possible, to active lobbying against open access proposals. There are many new publishers starting up as open access publishers, with the Public Library of Science being the best-known example.

Open access is the subject of much discussion amongst academics, librarians, university administrators, government official, commercial publishers, and learned society publishers. There is substantial disagreement about the concept of open access, along with much debate and discussion about the economics of funding an open access scholarly communications system.

10. Open Access Publishers

(This does not necessarily imply that all content published by these publishers is open access)

- ◆ Bentham Open Access
- ◆ BioMed Central
- ◆ Hindawi, (98 full open access STM journals)
- ◆ Indian Academy of Sciences
- ◆ Istituto Italiano di Antropologia

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- ◆ Ivyspring International Publisher
 - ◆ J-STAGE - Japanese initiative providing open access to a large number of Japanese journals
 - ◆ Libertas Academica (60+ fully open access journals, mainly biological sciences and clinical medicine)
 - ◆ Medknow Publications (Publishers of Biomedical Journal from India)
 - ◆ MDPI (Molecular Diversity Preservation International (MDPI), Basel, Switzerland) (some journal content only)
 - ◆ Public Library of Science
 - ◆ Scholarly Exchange

11. Conclusion

Open access is no longer just an idea to be deconstructed, analyzed, and reanalyzed. We now have information about how publishers are practicing it and how scholars and researchers are reacting to it. The really intriguing question about the topic today is to deal with the reality of open access and its exciting promise.

The availability of scientific and intellectual works freely through scientists' personal web sites, digital university archives or through the electronic print (eprint) archives of major scientific institutions has radically changed the process of scientific communication within the last decade. The "Open Access" (OA) initiative is having a tremendous impact upon the scientific communication process, which is largely based on publishing in scientific periodicals. This exploratory paper investigates the research impact of OA articles across the subject disciplines. The research impact of OA articles as measured by the number of citations varies from discipline to discipline.

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