

Open Access Publishing: A compelling imperative for scholarly publishing

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September 6, 2011

1 Introduction

The traditional model of scholarly publishing has been around for around 200 years now, and was, until recently, the main instrument for sharing of original research work done by professionals in various disciplines from engineering to mathematics to medicine. In most cases, the traditional scholarly publishing model restricts access to the published content based on the instrument of Copyright, allowing access to the full material only on the payment of a fee. This system continues even after the explosive growth of the Internet with the full-text searchability of scholarly papers.

The copyright mechanism is increasingly seen as an impediment to the advancement of the frontiers of the concerned discipline, as progress in any discipline requires that all practitioners have equal access to the work done by others. Copyright, coupled with access fees—which may be relatively high for some users, as for example, those in developing countries—creates asymmetries of information access that on the whole results in impeding the progress of scholarly work.

Further, the copyright mechanisms have been abused on numerous occasions, leading to warnings by many individuals and institutions about the debilitating effects that it can have on free flow of information—such as The New York Times which came out with a scathing commentary entitled “The Tyranny of Copyright?”. We live in an information age, when the smooth flow of information is a key parameter to agility—of not just scientific disciplines, but even enterprises and governments—and any measure that impedes the free flow of information impedes progress.

2 The Origins

From the mid-1980s, the Free and Open Source Software (FOSS) Movement began revolutionizing the way software—an extremely important intellectual artifact in the current information age—was being produced, distributed, modified and used, creating a more equitable model where freedoms of the producers and consumers were both protected. The success of the FOSS movement was the inspiration for numerous initiatives in different intellectual disciplines where practitioners sought more equitable ways of sharing knowledge.

3 Open Access Publishing

In the area of scholarly publishing, the Open Access movement that began in the early 2000s, has today gained sufficient traction, and is increasingly impacting—even threatening, according to some—the traditional publishing model.

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The earliest initiative in this direction was the Budapest Open Access Initiative, which was the result of a conference organized in 2001 by the Open Society Institute. Further codification was done by the 2003 “Bethesda Statement on Open Access Publishing”, which called for the promotion of the Open Access Publishing model amongst all stakeholder communities. The statement also defined the phrase *Open Access Publication*:

An Open Access Publication is one that meets the following two conditions:

1. The author(s) and copyright holder(s) grant(s) to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship, as well as the right to make small numbers of printed copies for their personal use.
2. A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in a suitable standard electronic format is deposited immediately upon initial publication in at least one online repository that is supported by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving (for the biomedical sciences, PubMed Central is such a repository).

The declaration also goes on to say:

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. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited

4 Advantages

Open Access Publishing provides several advantages to its stakeholder communities. These include:

1. OAP provides full-text, fully searchable access to published material to everyone around the world through the medium of the Internet. This instant and full access results in higher usage and citation for the original author
2. The publishing cycle—which used to take over a year in some cases—is significantly reduced, bringing it down to weeks. This is a welcome development from the perspective of the author as well as readers
3. By providing on-line mechanisms for quick, transparent and fair peer-review (such as ‘blind’ review), the quality of the material is enhanced
4. Free access encourages users from very different disciplines to use each others’ content, thereby encouraging interdisciplinary research
5. The OAP model creates a level playing ground for all users, removing the barriers of financial fees, access and geographical isolation
6. The liberal licensing mechanisms (also called ‘community licenses’) used in OAP—such as those from Creative Commons or GNU Free Document License (GFDL)—encourage re-use of work, with or without modifications, at the same time crediting the original author (unlike the traditional copyright which prohibits such use in most cases)

7. The global reach and nature of the Internet provides means for review and publishing in different languages by making available reviewers locate in geographically dispersed locations

Today, there are thousands of peer-reviewed Open Access Journals that conform to various models of Open Access Publishing, including the highly-successful Public Library of Sciences (PLOS, <http://www.plos.org/>). The Directory of Open Access Journals (<http://www.doaj.org/>) lists close to 7,000 journals with about 620,000 articles. The Open Archives Initiative of Cornell University, arXiv.org, (<http://arxiv.org>) lists around 700,000 e-prints in Physics, Mathematics, Computer Science, Quantitative Biology, Quantitative Finance and Statistics.

5 The Indian Situation

In the meantime, the Indian situation *vis-à-vis* scientific publishing is characterized by both negative and positive trends. On the one hand, India has a sizable academic and research community, perhaps even the largest in the world. On the other hand, the quality and number of papers published from this community is not commensurate with its size. While there are undoubtedly many reasons for this situation, one of them is the lack of sufficient high-quality, peer-reviewed journals that the community in India can access for publishing their content.

Open Access Publishing, especially in the form of OAJs is perhaps a way to mitigate this problem. OAJs do not imply any dilution of the rigour of peer reviews. However, it does make it feasible for more research institutions in India to launch new publications of world-class quality but at a fraction of the cost that it would take for a print-based journal. Properly nurtured, OAJs are an important instrument that can help liberate the Indian scientific, research and academic community.

6 OAJ for ICFOSS

ICFOSS, established by the Government of Kerala as an international institution promoting academic and research work, is launching an Open Access Journal entitled *Journal of Free Software and Free Knowledge*. The journal will publish high-quality peer-reviewed material on the developments in the global FOSS domain as well as the non-software domains inspired by FOSS. JFSFK is expected to mature into a world-class journal over the next few years.

The journal is being edited by an international panel of 15 Editors from 10 countries, and will be launched in September 2011. All content published in the journal will be available online with no usage restrictions, under an appropriate license such as one of the CC licenses.

7 Conclusion

Open Access Publication is a recent development in the domain of scholarly publishing, that aims at providing free, instant, global, indexed access to published literature, without compromising on its quality. This transformation enhances the value of such scholarly work to humanity, by encouraging widespread access, use and reuse—with or without modification—of the original work, but still maintaining the integrity of the original material and the rights of its author. Open Access Publications has been enabled by the Internet and Web technologies as well as developments in licensing mechanisms such as Creative Commons families of licenses.

It is widely expected that Open Access Publications will radically transform the scholarly publishing industry in the near future, benefiting humanity as a whole, and India in particular.