OPEN ACCESS TO KNOWLEDGE GENERATED BY PUBLICLY FUNDED RESEARCH

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Open Access (OA) is free, online full text access to scientific and scholarly material, primarily research articles in digital form for any user, from anywhere at any time over the web. OA enables users to link, read, download, store, print-off, use, and data-mine the digital document free of copyright restrictions for academic purposes. The aim of OA is to make publicly funded recorded output of research, freely available for the benefit of the society. Mahatma Gandhi University has during the Silver Jubilee Year conducted one International Workshop on GenISIS and two National Workshops on EPrints, and DSpace the Open Source software used worldwide for developing OA repositories. It has also developed an On-line Digital Archives of PhD. The present article outlines the relevance and importance of OA.

Introduction

Open Access (OA) is document or literature, which is digital, online, free of charge, and free of most copyright and other restrictions. The Internet and the permission of the author make OA possible. OA Initiative (OAI) now becoming popular at academic and research institutions worldwide is an attempt to build a low-barrier interoperability framework.
for open archives or institutional repositories containing research papers and other documents in digital form. It is also called digital libraries. It allows Information Service Providers to harvest metadata from various data providers. This metadata is used to provide value-added services, often by combining different databases. Initially, OAI concentrated in the development of a technological framework and interoperability standards specifically for enhancing access to digital archives, in order to increase the availability of scholarly communication. OAI is, also related to the OA publishing movement. The technology and standards developed for OA are applicable in a wide area than scholarly publishing.

**Meaning of OA**

Is free, immediate, Meaning is immediate, permanent, full-text, online access, for any user, from anywhere at any time over the web, to digital scientific and scholarly material, primarily research articles published in peer-reviewed journals. OA means that any individual user, anywhere, who has access to the Internet, may link, read, download, store, print-off, use, and data-mine the digital content of that article. An OA article is free of restrictions for copying and distribution for academic purposes.

OAI is very important development in the world of scholarly communication. Its aim is to make the recorded output of research, most of which is publicly funded, freely available to all over the Web. Now most part of this information is not accessible to many due to subscription costs and is limited to scientists associated to institutions acquiring such journals/publications.

**History of OA Movement**

The beginning of the scholarly journal was a way of expanding access to scholarly findings. Many anticipated the OA concept even before the technology made it possible. Common Knowledge was an attempt to share information for the good of all, the brainchild of Brower Murphy. The modern OA movement springs from the potential unleashed by the electronic medium, and the WWW. It is now possible to publish a scholarly article and also make it instantly accessible anywhere in the world where there is Internet connection.

The possibility emerged at a time when the traditional, print-based scholarly journal system was in a crisis. The number of articles published in journals has been increasing at an explosive rate. The average cost per journal has also been rising every year for decades. But the budgets of academic libraries have remained static. The result decreased access when technology has made unlimited access a real possibility. Libraries wee
the systems, which firstly became aware of this crisis. They are also the first to think about consortia for journal subscriptions as well as OA and have played an important part in the OA. The Association of Research Libraries developed the Scholarly Publishing and Academic Resources Coalition (SPARC), in 1997, an alliance of academic and research libraries and other organizations, to address the crisis and develop and promote alternatives, such as OA.

The first online-only, free-access journals later called OA journals began appearing in late 1980s. Among them were Bryn Mawr Classical Review, Postmodern Culture and Psychology. The first free scientific online archive was arXiv.org, started in 1991, initially a preprint service for physicists, initiated by Paul Ginsparg. Self-archiving has become the norm in physics. Steven Harnad first formally proposed OA self-archiving in 1994. But self archiving was initiated earlier by computer scientists in their local FTP archives in the '80s have been self-archiving their papers centrally from 1991 onwards. The inventors of the Internet and the Web - computer scientists - had been self-archiving on their own FTP sites and websites earlier than the physicists. The 1994 Subversive Proposal was to extend self-archiving to all other disciplines. From this in 1997 arose CogPrints and eventually the OAI-compliant generic GNU EPrints Software in 2000.

In 2001, 34,000 scholars around the world signed an Open Letter to Scientific Publishers calling for the establishment of an online public library that would provide the full contents of the published record of research and scholarly discourse in medicine and the life sciences in a freely accessible, fully searchable, interlinked form. Scientists signing the letter also pledged not to publish in or peer-review for non-OA journals. This led to the establishment of the Public Library of Science (PLoS) an advocacy organization. But most scientists continued to publish and review for non-OA journals. PLoS decided to become an OA publisher aiming to compete at the high quality end of the scientific spectrum with commercial publishers and other OA journals, which were beginning to flourish.

In 2002, the Open Society Institute launched the Budapest OAI. It was the first major international statement on OA. It provided a definition of OA. The Bethesda Statement on OA Publishing came in June 2003. In the same year the Berlin Declaration on OA to Knowledge in the Sciences and Humanities was drafted and the World Summit on the Information Society included OA in its Declaration of Principles and Plan of Action. The idea of mandating self-archiving was mooted at least as early as 1998. Since 2003, efforts have been focused on OA mandating by the funders of research: Governments, research funding agencies, and Universities. The publishers have opposed these efforts. But many countries, funders, Universities and organizations have now either made commitments to OA, or are in the process of reviewing their policies and procedures, with a view to opening up access to results of the research they are responsible for.

"Resistance to OA has largely been from commercial journal publishers, whose business model depends upon providing access to research only to those who will pay for journal subscriptions. Major international publishers, feel that OA mandates by research funding agencies are an unwarranted governmental intrusion in the sphere of publishing."
It is absurd and exploitative to donate an academician’s work to a publisher who then owns exclusivity rights to it, makes money off it, limits its readership by charging, and doesn’t give the author any remuneration.

Benefits

Authors make their articles openly accessible to maximize their research impact. An OA article is more likely to be used and cited than one in a priced journal. A recent study found that articles published as immediate open access were cited three times more than non-open access papers.

Scientists are paid by research funders and/or their universities to do research. The published article is the report of the work they have done, rather than an item for commercial gain. The more the article is used, cited, applied and built upon, it will be the better for research as well as for the researcher’s career.

Conclusion

Now it is time for all to think about adopting full OA for publications from publicly funded research. The importance of access to the world's research information for the development of a strong economy and a vibrant research capability is widely acknowledged. But the financial barriers limit access by developing countries to the research information they need. Equally, the unique research carried out in countries representing majority of the world’s population is largely ‘invisible’ to international science because of economic or other constraints. The solution to many of the world’s problems, such as emerging infectious diseases, environmental disasters, or climate change, cannot be achieved without incorporation of the research from developing countries into the global knowledge pool.

Open Access to the world’s publicly funded research literature can provide equal opportunities for the communication of all research information, eliminating financial barriers. Also papers made available electronically on an OA archive will be used more often than articles in priced journals. So OA can ensure the greatest possible benefit both to the authors, to the investment of funding agencies and to scientific progress. Now researchers and organizations worldwide have recognized this. Hence Universities and research institutions from India also should encourage our researchers to archive their papers in concerned OA subject repositories. Our research institutions can also start Institutional Repositories. This can surely improve the quality and integrity of our research.