

# A New Era in Scholarly Communication: Open Access Publishing

Srinivas Puala<sup>1</sup>, Karna Singh<sup>2</sup>, Bulu Maharana<sup>3</sup>

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## Abstract

Open access has presented a fresh challenge to the publishing and scholarly communication sectors with the start of the twenty-first century. For the previous two decades, libraries have struggled to keep their journal subscriptions at a level that will support their research and development efforts due to rising publication fees and a stable budget. In the interim, the Web's ability to publish academic articles in the public domain has opened up new communication channels for the scientific community. Along with various OA techniques, supporting business models have been proposed. Authors have reviewed a number of recent studies to demonstrate the effect of open access on its use and citation in scholarly and research. According to studies, open access (OA) has a significant impact on scientific communication since it helps boost the citation impact of journals and makes scientific research more visible and accessible. The writers are optimistic about the future of OA.

**Keywords:** Open Access; Journals; Libraries; Information Technology; Electronic resources; Internet.

## INTRODUCTION

The use of open access (OA) in scholarly research is becoming increasingly popular among

scientists as a result of the Internet and computer technologies. OA is starting to take the place of conventional scholarly publishing techniques. Some scientists and researchers believe that the world should have open access to the knowledge produced by their study.<sup>2</sup> Scholarly research has been published in publications in the field that are distributed by academic societies and for profit publishers. Peer review, editing, and publication occur after authors submit their work to publishers. Some journals are now published in electronic format thanks to the Internet.

A number of contentious topics have recently arisen in the fast changing field of scholarly communication, but none have generated as much controversy as the move towards open access publishing.<sup>8</sup> As a scholarly organisation

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**Authors Affiliation:** <sup>1,2</sup>Research Scholar, <sup>3</sup>Professor & Head, Department of Library & Information Science, Sambalpur University, Jyoti Vihar, Burla 768019, Odisha, India.

**Corresponding Author:** Srinivas Puala, Research Scholar, Department of Library & Information Science, Sambalpur University, Jyoti Vihar, Burla 768019, Odisha, India.

E-mail: [pualamlis2011@gmail.com](mailto:pualamlis2011@gmail.com)

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that publishes multiple journals, the International Political Science Association (IPSA) is directly impacted by this radical change to the traditional subscription based publication model and to participate in the discussions on the future of scholarly publishing and the inevitable rise of open access. IPSA, in collaboration with the Konrad Adenauer Foundation, Concordia University, and the American Political Science Association (APSA), will host a two-day conference covering various topics related to the transition of scholarly publications to the open access format in an effort to contribute to the discovery of an ideal and long-lasting solution.

### What is Open Access?

Open Access essentially refers to user free access. Generally speaking, this refers to the files that are in the public domain and are accessible online. This phrase is frequently used in connection with academic writing. OA refers to the availability of scholarly articles online for free at the point of usage. This is a more recent development in scholarly communication, when neither readers nor the institution of readers pay to access articles or other resources. Open access publishing and free online scholarly resources are other names for OA. "By 'Open Access' to this literature, we mean its free availability on the public Internet, permitting any user 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. According to the Budapest Open Access Initiative (BOAI). Giving writers control over the integrity of their work and the right to be properly credited and cited should be the only restriction on copying and dissemination, as well as the sole purpose of copyright in this field.<sup>9</sup>

### Definition of OA

Open access scholarly communications are accessed over internet freely. It does not require login password subscription for accessing it. The OA publishers are willing to provide access the internet users freely.<sup>7</sup>

Wikipedia defines open access as an ongoing publication practice which differs from the traditional methods of publishing papers, particularly in context of how the papers get submitted, reviewed, authenticated and finally published. The word 'open' here means a change

in how publication is negotiated between author and publisher and 'access' has an inflex on how the audience can obtain the publication.

By observing all the three open access definitions of "Budapest Open Access Initiative the Bethesda Statement on Open Access Publishing and the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities," Peter Suber (2002)<sup>1</sup> summarises the BBB definition of open access.

Open access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions.

## **HISTORY AND DEVELOPMENT**

University librarians all around the world were confronted with a significant issue at the close of the 20th century that has come to be known as the "serials crisis." The internet was really starting to take off at this point. Anyone with an internet connection might suddenly publish material and spread it widely for very little money thanks to the World Wide Web.

First came the archives, such as arXiv.org, which prompted researchers to store their unpublished manuscripts in an online repository on their own initiative. The Journal of Medical Internet Research and other free online journals then started to appear. The National Institutes of Health (NIH) introduced PubMed Central, an open access depository with about 6 million articles as of today, and BioMed Central, an open access publisher, in 2000. The government's assistance gave the movement a new lease on life. The Budapest Open Access Initiative and the Berlin Declaration on Open Access, which provided a formal definition of open access and served as calls to action, were prepared jointly by the academic community in 2002 and 2003 and attracted almost 500 institutional signatories. The Public Library of Science, which publishes some of the most competitive open access journals today, was also established in 2003.

Academics, institutions, funding organisations, businesses, and even governments have all shown their support. The Wellcome Trust started requiring that award winners submit a copy of their works with PubMed Central in 2005. The gold road, which advocates for publishers to adopt open access policies, and the green road, which encourages researchers to self archive their work in institutional repositories, is today's two complimentary approaches to the struggle for open access.<sup>10</sup>

## **PATHS OF OPEN ACCESS**

### *Gold OA*

It is referred to as "Gold Open Access" (Gold OA) if the scholarly communication is published in open access journals. The main benefit of gold open access, which only applies to post-prints, is that publications are made publicly available from the moment they are initially published, allowing for immediate use.

### *Green OA*

It is referred to as "Green Open Access" (Green OA) if the scholarly communication is distributed through open access repositories. Preprints, post-prints, and other types of works that peer-reviewed journals typically don't publish, like datasets, theses, and dissertations, conference proceedings, source code, and digitised versions of work that was previously only available in another medium like print, microfiche, or film, are all covered by green open access.

### *Hybrid OA*

A hybrid open-access journal is a paid publication with some open-access articles. In order to publish an article open access under this status, the publisher often requires payment of a publication fee (sometimes known as an article processing charge, or APC), in addition to the ongoing payment of subscriptions to access all other content. Since these publications might equally be dubbed "hybrid subscription journals" using the same reasoning, the term "hybrid open-access journal" is technically erroneous and possibly misleading. The phrase "hybrid access journal" alone is appropriate.

### *Platinum/Diamond OA*

This category of open access (OA) refers to OA publications that have funding from a particular academic institution, society, government funds, etc. to cover the costs of having the resource published under an open access (OA) licence. This means that, the contributors and writers whose work is accepted by the journal and published under OA do not have to pay an APC.

## **OPEN ACCESS RESOURCES**

Open Access Resources (OAR) are educational

resources offered through online to the academic and research community freely which can be used, modified, updated and redistributed for the purpose of teaching, learning and research. These resources reach wider academic community and improves the quality of education. In the present scenario, most of the educational institutions have joined as part of Open Educational Resources (OER) initiatives and projects for easy access to educational resources.

A project called SWAYAM (Study webs of Active Learning for Youth Aspiring Minds) provides free Massive Open Online Courses (MOOCs). E-PG Pathashala, which is another important Open Course, helps the distance learners to learn from their home itself. Many of the experts have delivered lectures through ePG Pathashala is well received by both faculty members and students. (Vanaja & Pushpalatha, 2019)<sup>6</sup>

Shodhganga digital repository of Indian Electronic Theses and Dissertations set-up by Infflibnet is another major initiative developed using a digital repository available through Shodhganga - ETD repository. As on data, there are 2,49,563 full text theses contributed by 415 universities have been uploaded (Shodhganga-a reservoir of Indian Theses, 2020)

### *Evolution of Open Access in India*

In 2004, the renowned scholar T.B. Rajashekar took efforts to establish the India. "sever first open access institutional repository "eprints@IISc" at Indian Institute of Science, Bangalore. Professor Subbiah Arunachalam, organized a workshop on "Open Access and Institutional Repositories" under the aegis of the M.S. Swaminathan Research Foundation, Chennai. These two events have laid foundation to open access movements in India.

Open access has gained the momentum in the year 2006 when a special session on open access held at the 93rd Indian Science Congress in January 2006, which came up with the recommendation for the "Optimal National Open Access Policy" (Sahu & Parmar, 2006).<sup>5</sup> Digital Library (LDL)" was established at the Documentation Research and Training Centre (DRTC), ISI, Bangalore. Open Med@NIC was developed by the National Informatics Centre, New Delhi. India's first cross institutional thesis and dissertation repository Vidyandhi (Deprecated) was developed by University of Mysore.

### *In 2005, the University Grants Commission of India)*

- a. Creation of Indian National Theses and Database and
- b. Submission of Ph.D. Theses in electronic form

Scholarly communication Evolution  
Scholarly communication refers to the creation, transformation, evaluation, dissemination and preservation of knowledge related to research and other scholarly endeavours. The origin of Scholarly Communication can be traced from 1323 when the oldest learned society "Compagnie du Gai Sçavoir" was founded in Toulouse, France and in the year 1660 the Royal Society of London was founded. Establishment of these two learned society are recognized as the evolution of informal means of scholarly communication.

Association of College and Research Libraries (ACRL) defined scholarly communication as "the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use. The system includes both formal means of communication, such as publication in peer reviewed journals, and informal channels, such as electronic list serve" (ACRL, 2004).

### *Benefits of Open Access Resources*

- It is one of the best tools for increasing the audience for the works by making.
- It available freely Open Access contributes to the ongoing progress of knowledge.
- The features such as share, modify and reuse options accelerates the spread of ideas and advances the knowledge.

### **FUTURE OF OPEN ACCESS**

The two primary factors that will determine the success of open access are finance and contribution to scholarly communication. The idea of promoting OA has a large following. Publishing firms, funding organisations, scientific associations, lone researchers, foundation grants, and funding institutions all assist them. To raise money, several periodicals run advertisements. OA business concepts are supported by a variety of funding organisations. The Wellcome Trust, Research Councils UK, Social Science and Humanities Research Council of Canada, Howard Hughes Foundation, Moore Foundation, Open

Society Institute, and others are a few financing organisations. OA is now required for all Wellcome Trust funded research.

Both subscription based internet (gold open access) and institutional based repository (green open access) models are the way that information will be disseminated in the future, even though they will probably coexist for some time to come. Peer review, intellectual property rights, and financial viability are the key issues in this shift. Open access is ultimately a powerful publication strategy that optometric educators cannot ignore since it allows our patients, students, and peers access to knowledge.

Although it is challenging to say that OA's business strategy will determine its future, there is no question regarding its funding. Scientists are referring and using open access articles in their study.<sup>3</sup> Due to their free availability, open access publications are getting more citations, and their usage is gradually rising. They occasionally receive citations earlier than non-OA papers. As a result, OA increases scholarly communication. In light of the foregoing, OA has a promising future. OA journals will be given preference over print journals. Long-term problems will be faced by the print.

### *Issues and Challenges of Open Access of Scholarly Communication*

Some issues are that, due lack of knowledge or awareness of open access publishing, a lack of cross-linked e-libraries, a poor state of the information and communication technology infrastructure, an inadequate and unstable power supply, inadequate advocacy for open access repositories, poor or inadequate funding, and barriers to copyright and intellectual property are some of the problems cited in the literature as contributing to India's slow adoption of open access publishing and scholarly communication. Inadequate ICT infrastructure and connection Roy, B.K., Biswas, S.C and Mukhopadhyaya, P.(2012).<sup>4</sup>

### *Challenges*

However, before you even entertain paying an APC, your article needs to be accepted into an OA journal and due to the increased benefits of publishing under OA authors can face numerous challenges, including:

- Increase Competition and Higher Rejection Rates.
- Expedited Publishing Process and Review

Times.

- Article Process Charges and Funding.
- Digital tools used to support the manuscript management and review process.
- Typesetting, formatting, and layout.
- Online hosting.
- Submission of the journals content to numerous abstracts, directories, and indexes.
- Third-party software (e.g. plagiarism checks).
- Editorial support such as manuscript tracking, communications, submission guideline checks, and communications with authors and reviewers.
- All promotional support and activities include metadata distribution, press releases, promotional communications, web content, ads, flyers, brochures, postcards, etc. for the journal and its published contents (Sean Graybill, 2021).<sup>2</sup>

## CONCLUSION

The development of open access publishing and scholarly communication in India is hampered by a number of issues, including a lack of knowledge of open access publishing in academic and research institutions in developing nations, poor funding, inadequate information and communication infrastructure, inadequate and unstable power supplies, and ineffective advocacy for open access. The topic of copyright management was also covered. Funding for research into the creation and application of effective power generating alternatives to power ICT facilities used in the deployment of institutional repositories is required to address the problem of electricity supply to power ICT infrastructure. Additionally, it was

noted that building institutional repositories requires a significant investment of resources in India and the majority of developing nations.

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