

Merits and Demerits of Open Access Publishing

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Abstract

This article discusses the merits and demerits of open access (OA) publishing. It highlights various aspects of this emerging mode of scholarly publishing, including the OA nature, types, growth and impact. The article also highlights the implication of OA publishing for copyright issues and how creative commons licenses are used to deal with this issue. The focus of the article is to outline and discuss the different advantages and benefits of open access publishing, and how authors and researchers can benefit from publishing their intellectual works via OA channels.

Keywords: open access, scholarly publishing, copyright, creative commons

1. Introduction

OA refers to free, unrestricted online access to research outputs such as journal articles and books. OA content is open to all, with no access fees. In its purest form, OA is “digital, online, free of charge, and free of most copyright and licensing restrictions”. Oren (2008) pointed out that OA entails a new model of publishing wherein the author, supported by an institution or funding agency, pays the publishing costs and owns the copyright. The publisher manages the peer review process and publishes directly to the Internet, where content is accessible free of charge to the public. Madalli (2015) highlighted the fact that OA publishers take full advantage of available computing technology to streamline the publishing process, and that OA aims to provide users with information that is unconstrained by the motive of financial gain or profits. The Bethesda Statement on OA Publishing (2003) and the Berlin Declaration on OA to Knowledge in the Sciences and Humanities (2003) declared that OA should enable users 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.

In subscription-based publishing, authors are required to transfer the copyright of their works to the publisher who makes profits via the dissemination and reproduction of the works. Contrary to this, with OA publishing, authors can retain copyright to their work and license its reproduction to the publisher. “The most licenses used in OA publishing are the Creative Commons (CC) licenses.

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2. Development of the OA movement

The OA movement can be said to have started in the year 1971 with Project Gutenberg Founded by Michael Hart, as outlined by Royster (2006). It provides free public domain text files with more than 60000 eBooks. More recently, Royster pointed out that the modern open access movement began in the 1990s with the wide availability and access to the World Wide Web and online publishing became the norm.

According to Remenyi and Singh (2016) there was a significant momentum towards making access to published research free of charge to scholars and universities through the OA movement. There are three pioneering initiatives laid the foundation for the ideas and principles of OA movement. These are The Budapest Open Access Initiative on Feb. 14, 2002, The Bethesda Statement on Open Access Publishing on Apr. 11, 2003, and The Berlin Declaration on Open Access on Oct. 22 2003.

Kumari (2017) explained that the Budapest Open Access Initiative was worked out during the human rights proponents gathering for the Open Society Institute meeting in December 2001. During the meeting^s a number of participants suggested that a global support is needed to create open information access within the scientific community. A draft was created during that meeting, and formalized two months later, in February 2002, as the Budapest Initiative. In April 2003, the United States and the United Kingdom based biomedical community convened and drafted a set of publishing principles guiding scientific dissemination. These principles were finalized and published in June 2003 as the Bethesda Statement. In October 2003, the European scientific community called for support by European researchers to engage in Open Access, with the Berlin Declaration.

According to the UNESCO (2020) many stakeholders contributed to building institutions and resources for shaping up the global OA movements. Some of the institutions emerged during the first two decades of the third millennium, including the Public Library of Science (PLOS), BioMed Central (BMC) – publishers of peer-reviewed OA journals, the Scholarly Publishing and Academic Resources Coalition (SPARC), and Open Access Scholarly Publishers Association (OASPA). Additionally, the Budapest, Berlin and Bethesda (BBB) OA declarations or statements were signed by the scholarly communities, particularly by the funding agencies, research councils, learned societies, institutions, universities, and scientists for the OA dissemination of public funded research.

The Latest strong support for the OA movement is represented by what is known as *PLAN S* where the s refers to speed. Plan S is an initiative for Open Access publishing that was launched in September 2018. The plan is supported by coalition S, an international consortium of research funders. Plan S requires that, effective 2021, scientific publications that result from research funded by public grants must be published in compliance with OA journals or platforms.

3. Types of Open Access

There are three basic types of open access publishing. These are Green Open Access, Gold Open Access, and Hybrid Open Access, as explained by Burtle (2018).

3.1. Green OA publishing refers to the self-archiving of published or pre-publication works for free public use. Authors provide access to preprints or post-prints of their works with publisher permission in an institutional or

disciplinary digital repository. In this case the material is first published in a traditional, closed-access journal. This material is then made available to all via the internet, without restrictions or pay walls. In the “Green Route” of OA, institutions create repositories for their own research which is made open after an appropriate embargo period agreed upon with commercial publishers.

Willmers & King (2014) stressed that Green OA generally refers to the post-print of an article. In this context, there are three basic types that can be self -archived in repositories, namely:

- Pre-Prints – The author's copy of article before it has been reviewed by the publisher, or pre-reviewed.
- Post-Prints – The author's copy of article after it has been reviewed and corrected, but before the publisher has formatted it for publication, or post-reviewed.
- Publisher's Version – the version that is formatted and appears in print or online.

3.2. Gold OA publishing refers to works published in an open access journal and accessed via the journal or publisher's website. The Gold Route involves publishing in an OA journal, which then provides the dissemination and curation services in the same way as current proprietary publishers. This form of publishing is funded through governments, societies or institutional grants, and sometimes through charging authors a fee for deposit, known as an article processing charge (APC). However, the latter practice is implemented by a minority of open access journals and most journals do not charge any fees at all.

3.3. Hybrid OA publishing is mostly associated with gold OA. It takes place in journals that offer authors the option of making their articles open access, for a fee. Hybrid journals are subscription-based journals that make individual articles openly available in return for a fee. The hybrid route has been suggested as a means for traditional publishers to make a transition to OA publishing without significantly decreasing revenue, by charging fees for OA articles equal to the average subscription revenue per article. In the Hybrid OA publishing type, sometimes called Paid OA, the fee is paid to the publisher or journal by the author, the author's organization, or the research funder (Walker, 1996; Bjork, 2012).

There are a number of other variations of these major types of OA publishing types. They include the Diamond OA and the Platinum OA. The Diamond OA journals provide scholarly publishing free of fees and access charges. They have direct or indirect subsidies from institutions like universities, research centers, government agencies etc. On the other hand, the Platinum model of OA publishing refers to the situation in which journals are published directly by the research or funding institutions themselves.

The Creative Commons Organization (2020) elaborated that in Gold and Hybrid OA models, publishers usually publish articles with Creative Commons (CC) licenses. OA does not imply that there is no copyright attached to the open document; rather, in most cases the Creative Commons Attribution License (CCAL) model is used. Founded in 2001, the CCAL states that users are free to share, adapt, or use the work as long as they give attribution in the manner specified by the author or licensor. Nick (2012) and Shah (2017) pointed out that the Attribution License is one of six codes under the Creative Commons License. Thus OA journals do not charge subscription or pay-per-view fees

compared to traditional journals. The authors, their institutions, or the research funders pay the OA fee to make it free to readers; with authors retaining copyright for the article and most permission barriers are removed.

Brookes (2020) pointed out that there is a controversial type of OA called the Bronze OA. In the Bronze model no author fee is paid but the publisher chooses to make a publication freely available to read. Brookes highlighted the fact that many OA advocates and research funders would not regard Bronze as truly open access because the publisher could stop the publications being freely available at any time, whereas genuinely open access publications have a specific license that means the publication is irrevocably open access and the terms of use and reuse are clearly stated. On the other hand, Brock (2018) stressed that although bronze OA lacks a license, it is temporarily free to read only on the publisher's website, and Publishers can deny access to the majority of open-access articles at their discretion.

3.4. Gratis vs Libre OA. Mizera (2013) stressed that these two terms are interlinked to the basic three types of open access. But in contrast to Gold, Green and Hybrid OA, they do not describe forms of publication, but rather define the attributes of an article published in OA. Therefore, an article might be described jointly as Gratis Open Access, or Gratis Gold or Green Open Access, etc. Gratis OA means free of charge Open Access. Hunt and Swan (2012) further explained that it means that price barriers alone are removed from access to the publication. It allows no uses beyond what is considered legitimate under copyright and fair use. Hunt and Swan pointed out that Libre Open Access means free of charge and free of at least some permission barriers. This means that the article is free for some kinds of further use and reuse, and presupposes some kind of open license that allows types of uses that are not permitted by default.

4. Advantages and Disadvantages of Open Access Publishing

4.1. Advantages and Benefits

OA publishing has a plethora of advantages for authors, institutions and readers across all sections of society. These advantages, which were discussed by Rubow, Lexi, and Schofield (2015), and Singh and Remenyi (2016), can be summarized as follows:

- i. Increased accessibility of research work by users and other researchers. This leads to the enhancement and acceleration of the research cycle, where work is published, read, cited and then built upon by other researchers.
- ii. Increased visibility for authors and institutions, resulting in a higher impact of the research. There are no financial or copyright barriers so the readership continues to increase, enhancing the visibility and impact of the author's work.
- iii. Immediacy and Shorter publication times compared to non-open access publishing.
- iv. Increased citations. A number of studies revealed that OA publishing leads to a greater number of citations. The studies reveal that across most subject areas there is at least a twofold increase in citation rate and that in some subject areas it is even higher.
- v. Removing of price barriers. OA removes price barriers and that openly accessible works are often full-text indexed, helping potential readers easily locate and access the work using a search engine.

ESPMENA - English for Specific Purposes in the Middle East and North Africa, 33, 18-24, 2020

*Issued by the Faculty of Arts, University of Khartoum
Published by Khartoum University Press*

vi. Contribution to author royalties Some authors found that widespread dissemination of their openly accessible works stimulates demand for print copies of their works, contributing to royalties for these authors.

4.2. Disadvantages

The most prominent and prevalent disadvantage of OA publishing is the emergence of predatory publishers and predatory journals. The objective of the predatory journal is to make money for the owners without concern for the quality of the research published. A predatory journal will pretend to follow the essential editorial processes required for authentic academic publishing, but will not do so. Predatory journals can be identified by a number of characteristics, the most important of which may be the fact that they tend to market themselves through intensive e-mailing to invite selective victims who might otherwise have difficulty in having their research published in reputable journals. These journals are then presented to the public as OA journals. (Singh and Remenyi 2016, Tamburri 2013, Beall 2009)

Conte (2018) highlighted another claimed disadvantage of Open Access publishing; some OA Journals do not have high impact factors and this is considered detrimental to a researcher, though this is questionable as many OA journals are new and have not received their first impact factor (IF). However, high-IF OA journals are available in a variety of fields.

5. Conclusion

This article presented an overview of the basic principles and common practices of open access publishing as an emerging and expanding mode of scholarly publishing. The article started with an introduction to the concept of open access publishing with a brief background of the development of the open access movement. The different types of open access publishing are then highlighted and defined. These types include Gold OA, Green OA and Hybrid OA in addition to other variations of these basic types namely, the Diamond OA and the Platinum OA. The concepts of *Gratis* vs *Libre* OA were also defined and explained. The article then discussed the advantages and disadvantages of OA focusing on the various advantages of this mode of scholarly publishing to authors and to readers as well.

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