
Access in Academic Publishing and What It Means For Different Stakeholders

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Abstract

This article examines the potential issues of access in academic publishing and how these relate to different stakeholders within the academic publishing workflow: authors, publishers, librarians, and consumers. These issues are considered through a review of literature with a focus on Open Access (OA) business models. It demonstrates that OA, although aiming to alleviate access issues for consumers, has introduced its own array of new issues, particularly for publishers, which could be why the transition to full OA has been slow.

These issues are discussed thematically: geographical concerns include lack of access in developing countries; geo-specific OA; and entry thresholds decreasing diversity of publishing. Financial concerns include supply-side pricing models; the sustainability of existing business models; cost of digital publication, alongside reduction in library budgets; and consumers being unable to afford subscriptions. As such, cost continues to be a significant barrier to access and affects all stakeholders. Technological concerns include the threat caused by pre-publication sites; expectations for digital delivery; the changing role of the librarian to aid discoverability; and long-term preservation of digital content. Despite these challenges, it concludes that online delivery is essential, particularly for the achievability of OA which will increase in prevalence and importance.

Key Words

Access; Open Access; Academic publishing; Article Processing Charges Gatekeeping; Business models.

Introduction

This article explores the major obstacles to access experienced by different stakeholders.

For authors, this is primarily around lack of access in developing countries, Article Processing

Charges (APCs), and entry thresholds as a barrier to access. For publishers, the key issues include the requirement for new business models due to Open Access (OA), and the threat of consumers accessing the pre-publication rather than paying for the post-publication, which is weakening the value of the published version. For librarians, the requirement to provide digital access has resulted in a role change and new costs, but their most pressing concern is arguably the act of preservation and long-term access of digital materials. Cost is the “most commonly cited barrier to access” (Johnson, Watkinson, and Mabe 2018, 6) and will be explored in relation to all stakeholders.

Open Access in brief

Since the early 2000s, there has been a drive towards OA publishing which aims to improve access for all (Hall 2008; JISC 2010; Johnson 2019). In 2018, Plan S was launched with the support of the European Research Council and European Commission, which means all scholarly publications financed by funding bodies must be published on OA platforms with effect from 2021, and it is now common for research funding bodies to stipulate that scholarly output must be made openly available (Johnson 2019). However, there are concerns in relation to OA that differ depending on the chosen OA model, and some commonly adopted OA models are summarised below along with their key challenges.

Gold OA means that consumers can access an article freely online immediately, with the publishing costs usually covered by APCs paid by authors or funders, which can narrow the number of authors who can afford to publish (Ule 2020, 1). Green OA allows articles published in traditional subscription journals to also be made available via institutional repositories affiliated with the author (Cope and Kalantzis 2014, 25). For publishers, there is a threat that consumers will access the pre-publication version rather than the official version, thus making their product obsolete. When articles are made available after a select period for free, this is known as Delayed OA (Cope and Phillips 2014, 25). However, this is potentially a barrier for consumers, as most reading happens shortly after publication, and in some fields research can become out of date very quickly; consumers may not be able to wait until material is free. Hybrid OA is where authors can choose to pay an additional fee to

make their article OA, and the “Selected” model means that “material is freely available to certain groups of people, while only available to others for a fee” (Solomon 2008, 19). Both hybrid and selected models ultimately limit access as they only offer a partial solution and do not achieve the long-term goal of OA: free and instant access for all.

This article will explore the issues experienced by different stakeholders in the order of the typical publishing workflow: author, publisher, librarian, academic consumer. The following sections will discuss issues experienced by authors: geographical issues; article processing charges; and gatekeeping.

Geographical issues

Geography has an impact on authors’ access to research, particularly in developing countries, and can make it difficult for authors to get their work published. The “Selected” model of OA can be geo-specific, and as Knöchelmann (2020, 9) illustrates, this can make publication “an exclusive club good and not openly accessible”. Therefore, the “selected” model means that authors may not be building on the knowledge of others as they cannot access literature outside of their borders; this could “lead to biased cultural interpretation of information” (Smart 2005, 42). Although the goal of OA is to remove access barriers, certain models present their own barriers thereby limiting access.

Cope and Kalantzis (2014, 18) describe “a geography of knowledge-making which unconsciously and unsustainably favours rich countries over poor, anglophone over predominantly non-English speaking countries, intellectual centres over peripheries”. The lack of access in developing countries is potentially limiting the knowledge field and duplicating effort and resources (Smart 2005, 42). OA could potentially be exacerbating the problem with the introduction of APCs, and Becerril-Garcia (2019) suggests that “restrictions on publishing for researchers in countries with scarce economic resources are increasing”.

Article Processing Charges (APCs)

With OA, there has been a move towards a supply-side pricing model in the form of APCs. The primary concern for authors is whether they (or their funding body) will be able to

“keep up with the price of open access” or whether it will cause further “limits to the circulation of knowledge” (Willinsky and Moorhead 2014, 201). The expense of these fees can be an issue for authors, particularly from developing countries (Solomon 2008, 120). Although the goal of OA is to remove access barriers, the introduction of APCs has seemingly shifted the access issue from consumer to author (Knöchelmann 2020, 5-6). If publishers have to change their business models to support OA, then there is the threat that they will increase the cost of APCs, and Ule (2020, 1) points out that “scientists and their funders in emerging economies may be less capable of shouldering such APC costs”. A potential solution is to offer waiver policies or establish APC levels (Becerril-Garcia 2019), but this would have to be agreed globally otherwise it will continue to westernise knowledge.

Gatekeeping

Submission requirements and processes also need to be addressed globally, as current entry thresholds are causing some authors to be excluded from knowledge creation and sharing. There is concern that Plan S, which favours well-established OA journals, will result in limited access to valuable research in small journals thereby decreasing the diversity of the publishing landscape and fortifying the position of big commercial publishers. Johnson (2019) argues that Plan S’ “insistence on stringent quality criteria for publication venues risks disadvantaging journals and platforms in the developing world”.

Peer review and other gatekeeping systems have seen no significant change, and so there is a need to look at these systems and make sure that they are still appropriate and inclusive. ACMRS (2020) lists editorial boards, double-blind review, and evaluative criteria as outdated, and Knöchelmann (2020, 12) suggests that these entry thresholds can cause “an exclusionary effect”. Particularly relevant today with the Black Lives Matter movement is the view expressed by ACMRS (2020) that “[a]ll academic journals and presses need to think about what structures are limiting access and hindering the full participation of scholars of color”.

Next, the following sections will explore access issues from the publishers' perspective: business models for OA and how the choice of model impacts sustainability; the threat from Green OA; and the costs associated with digital delivery and moving to OA.

Business models for OA

The main challenges for publishers come from the expectation that they should flip to OA, or at least make allowances for Green OA. One consequence of these expectations is that publishers must reinvent their business models to achieve OA while remaining sustainable, which is challenging as the publishing ecosystem is complicated.

For established commercial publishers "still dealing with antiquated workflows" (Noorden 2013), new cost recovery models need to be established to achieve OA (Budapest Open Access Initiative 2002), and business models need to be assessed to ensure they are still appropriate. Most are therefore using APCs, as this "might prove the sustainable open access model for them" (Willinsky and Moorhead 2014, 206). However, this is potentially limiting the number of authors that can afford to publish and therefore may impact the quality and diversity of submissions. To avoid decreased submissions, publishers could lower submission standards, which could mean a perceived drop in quality (Harnad 2014, 187).

Although Delayed OA "has the advantage that no new business model is required" (Campbell, Pentz, and Borthwick 2012, 433), and so may be tempting to commercial publishers to adopt, this is an unattractive model to consumers and authors and so publishers may lose business by adopting this model. Arguably, "there is no single ideal business model for Open Access" which could be the cause of the slow transition to OA by publishers and the lack of standardisation (OA business models WG 2018).

Threat from Green OA

A key challenge if publishers make allowances for Green OA, is that they must persuade readers that published versions are better than pre-prints. Due to peer review being a lengthy process, some subjects can be out of date by the time they are published (JISC 2009, 100), which potentially encourages authors and consumers to pursue pre-publication sites.

Pre-publication is a serious threat to the post-publication text, “as both authors and readers find the immediacy of open discipline-based repositories more powerful and relevant than eventual publication” (Cope and Kalantzis 2014, 15). The threat of Green OA is still current, and was foreseen by respondents to a survey conducted by Ashman in 2009 (217), who feared that self-archived copies would “undermine the value of the published version”, thereby illustrating that opinions have not altered, nor has the risk been mitigated.

If publishers allow Green OA and consumers do come to rely on the preprint version, this “could give rise to significant levels of subscription cancellations, rendering some journals and publishers unviable” (Jubb et al. 2011, 256). Equally, if authors (or their institutions) are able to make preprints available to consumers, and handle the publishing process themselves, this may mean that authors no longer need publishers to get their literature to the end-user (Hall 2008, 23). Publishers will therefore have to prove their value to the process to ensure they maintain a sustainable business.

Costs of digital delivery and moving to OA

There is an expectation that publishers must digitalise their content, especially to establish OA, and this can be an expensive process particularly if changing to a digital-first workflow. Traditional publishers with a focus on print are now having to provide content online to match consumer expectations, but there is “significant cost involved for publishers in establishing platforms for online delivery” (Cope and Phillips 2014, 2). The licensing model will change with online access, as the matter of ownership of the content will be different from print once someone has subscribed, and decisions will be required about licenses per user or institution. If an institution buys one subscription, then this can be significantly less income for the publisher with “no comparable reduction in expenses” (Morris 2013, 11).

Publishers will have to consider how they can afford to move to online delivery platforms. If publishers decide to use APCs, the success of this will be reliant on the size of the publisher and the number of articles they can publish, otherwise they will be unable to recoup costs and will have to find other revenue streams (e.g. advertising) or methods of cutting costs (Noorden 2013). As stated by Jubb et al. (2011, 252), “[t]he cost effectiveness

of the gold scenario varies dramatically depending on the assumed level of the APC”, but if publishers raise APCs too high then they will create an inequity in publishing.

Next, the article will consider issues and concerns experienced by librarians: the preservation of digital content; the changing role of the librarian; and financial concerns.

Preservation of digital content

The digitalisation of content has caused a key concern for librarians with regards to continued access to the content they have paid for after their subscription has ended, particularly as publishers have taken on the former role of libraries “in storing, providing access to, and preserving journals” (Morris 2013, 25). Beagrie (2013, 10) concurs by stating that “[o]ne of the most cited barriers and concerns both from library and faculty staff to moving to e-only has been sustaining and assuring long-term access to electronic content”. Concern over preservation has made “[m]any librarians... reluctant to abandon print” (Morris 2013, 14), which can cause barriers to access for their consumers, particularly if the libraries are under-resourced. Librarians as archivists have a fear that digital versions will not contain the entire content of the print version, which reinforces their reluctance to move away from print (112).

The changing role of the librarian

With digital access, “the library role will need to change from that of provider to that of interpreter or facilitator” (Creaser 2014, 327). As a result, new systems may need to be set-up to facilitate search and other discoverability tools, and new skills may need to be acquired by librarians. Equally, there is a rise in the amount of data that needs to be captured, and “[i]t seems likely that libraries and their repositories will take on much of the responsibility for managing data” (Campbell, Pentz, and Borthwick 2012, 11). The librarian’s role of data manager means that they will have to acquire skills in data management and analysis, and part of their budgets will need to be reserved for data management tools.

Financial concerns

Library budgets continue to be tight, and due to rising prices and inflexible Big Deals, this prevents libraries from accessing all the titles that are needed by their users. Despite libraries hoping that OA would force publishers to “reduce prices or abandon the subscription business model” (Wenzler 2017, 189), it appears that OA has been slow to take hold. There has been a concern that the “transition on its current path risks replicating unsatisfactory aspects of the subscription journal market” (JISC 2016), with evidence suggesting that “the average price per title increased” (Bosch and Henderson, 2017). Students and university staff do not see these costs (Noorden 2013), and so they can put pressure on libraries about the lack of access to titles, and libraries struggle to meet these expectations.

Furthermore, there are several new costs for libraries associated with digital access: “for computer systems and staff”, “[u]ser support”, and license negotiation (Morris 2013, 11). There are also potential costs of providing “server-hosting, computers and building space” (Noorden 2013). These new costs are only exacerbating the access issue as less budget can be put towards content.

Finally, the article will consider barriers to access experienced by academic consumers: cost as a barrier to access; and the inability to access online materials.

Cost as a barrier to access

Subscriptions are noted as a key barrier to access for many researchers and students. Houghton and Sheehan suggest that “the subscription-based system creates access limitations” (2006, 6) and that the system has failed to serve most consumers (8-9). Subscription barriers are frequently expressed as a difficulty preventing access to useful material (JISC 2010). In developing countries especially, scholars “still have limited access to the fee-for-access literature” (Solomon 2008, 17). Armstrong et al. examples that in Mozambique, the cost of learning materials is a significant challenge and barrier to access (2010, 164); likewise in Uganda, where rising costs were attributed to the “worsening access situations” (301). The move towards OA aims to alleviate this issue, but as previously noted,

the costs are moving to the author rather than the consumer, but frequently authors and consumers are one and the same.

The inability to access online materials

Although OA is a possible solution to cost as a barrier to access, the issue of access remains in developing countries due to poor Internet access preventing them from accessing online materials. In Africa, “most journals need to continue to provide costly print versions as this is what their readership requires (due to lack of Internet access)” (Smart and Murray 2014, 420). Although “digital works are easier to obtain and are cheaper than printed books” things like Internet access mean that digital has its own access issues (Armstrong et al. 2010, 184). With few people in developing countries having access to personal computers there is a reliance on their institutional libraries (301). Restrictions are then faced from accessing literature wherever and whenever consumers need to, which results in a reliance on print.

Conclusion

There are common themes regarding access issues between stakeholders. Firstly, geographical issues which are particularly impacting researchers in developing countries from accessing literature and to being published, exacerbated by the lack of internet access. Carmel (2018) stated that technology has the “the potential to level the playing field (Friedman 2005) and reduce social and geographic inequities, but on the flip side, it can also be a confronting reminder of inequality – of those who do not have access to technology and the required infrastructure”. It is apparent that geography is still impacting journal publishing and consumption today.

Secondly, financial issues are a major barrier to access for all stakeholders. Subscription charges and tight budgets are preventing libraries and consumers from accessing literature. Even with the rise in OA, costs have transferred to the author/funder in the form of APCs. For commercial publishers, the rise of OA is meaning that new revenue streams must be sought, and the question is whether APCs are sustainable if the costs continue to put pressure on authors/funders. With new costs being introduced because of

digital publishing for publishers and librarians, the issue of cost will continue to be a significant barrier to access.

The implications of digital access go further than adding new costs: consumers have access to pre-pub versions of journals, which is a serious threat to the publishing industry; publishers must change their business models to provide digital access, which can be a challenge for established publishers; and librarians are no longer fully in control of preservation and so are concerned about long-term access to material.

Despite these challenges, with the current pandemic, many stakeholders are seeing the importance of online access to literature, and as the economy is put under pressure and consumers have less money to spend, the drive to OA will be stronger than ever, particularly with the need to have instant access to medical research.

References

ACMRS Arizona. 2020. "It's Time to End the Publishing Gatekeeping!" Accessed 24 June 2020. <https://medium.com/the-sundial-acmrs/its-time-to-end-the-publishing-gatekeeping-75207525f587>

Armstrong, C., De Beer, J., Kawooya, D., Prabhala, A. and Schonwetter, T. eds. 2010. *Access to Knowledge in Africa: The Role of Copyright*. Johannesburg: UCT Press. <https://www.wits.ac.za/linkcentre/publications/books/armstrong-et-al-eds-2010---access-to-knowledge-in-africa-the-role-of-copyright/>

Ashman, P. 2009. "What Societies Want from a Publishing Partner." *Learned Publishing* 22(3) 209-219 DOI: 10.1087/2009307

Beagrie, N. 2013. "Preservation, Trust and Continuing Access for E-journals". Accessed 05 June 2020. <https://www.dpconline.org/docs/technology-watch-reports/924-dpctw13-04/file>

Becerill-Garcia, A. 2019. "AmeliCA vs Plan S: Same Target, Two Different Strategies to Achieve Open Access" *Blog Ameli*, February 10. Accessed 27 June 2020.

<http://amelica.org/index.php/en/2019/02/10/amelica-vs-plan-s-same-target-two-different-strategies-to-achieve-open-access/>

Bosch, S., and Henderson, K. 2017. "New World, Same Model: Periodicals Price Survey 2017", *Library Journal*. <http://lj.libraryjournal.com/2017/04/publishing/new-world-same-model-periodicals-price-survey-2017#>

Budapest Open Access Initiative. 2002. "Budapest Open Access Initiative". Accessed 11 June 2020 <http://www.soros.org/openaccess/read.shtml>

Campbell, R., Pentz, E., and Borthwick, I. 2012. *Academic and Professional Publishing*. Woodhead Publishing. [https://www.dawsonera-com.oxfordbrookes.idm.oclc.org/abstract/9781780633091](https://www.dawsonera.com.oxfordbrookes.idm.oclc.org/abstract/9781780633091)

Carmel: CMT Accessible Research. 2018. "Ch-ch-ch-changes – Why aren't we more readily Embracing Change?" Accessed 24 June 2020. <https://medium.com/predict/ch-ch-ch-ch-changes-why-arent-we-more-readily-embracing-change-822977b567e1>

Cope, B., and Kalantzis, M. 2014. "Changing Knowledge Ecologies and the Transformation of the Scholarly Journal." In *The Future of the Academic Journal*, edited by Cope, B. and Phillips, A., 9-84. Oxford: Chandos Publishing.

Cope, B., and Phillips, A. eds. 2014. *The Future of the Academic Journal*. 2nd ed. Oxford: Chandos Publishing.

Creaser, C. 2014. "The Role of the Academic Library." In *The Future of the Academic Journal*, edited by Cope, B. and Phillips, A., 317-330. Oxford: Chandos Publishing.

Hall, G. 2008. "Digitize this Book! The Politics of New Media, or Why we Need Open Access Now". Accessed 13 June 2020. <https://www.jstor.org/stable/10.5749/j.cttttkqr>

Harnad, S. 2014. "The Post-Gutenberg Open Access Journal". In *The Future of the Academic Journal*, edited by Cope, B. and Phillips, A., 179-194. Oxford: Chandos Publishing.

Houghton, J. and Sheehan, P. 2006. "The Economic Impact of Enhanced Access to Research Findings". Diss. Victoria University.

JISC. 2009. "Communicating Knowledge: How and Why Researchers Publish and Disseminate their Findings". Accessed 09 July 2020.

<https://pdfs.semanticscholar.org/96d2/ce7ec23a614f1a078651515fe7dbdaacef0e.pdf>

JISC. 2010. "How to Build a Case for University Policies and Practices in Support of Open Access". Accessed 06 June 2020.

<http://www.jisc.ac.uk/publications/programmerelated/2010/howtoopenaccess.aspx>

JISC. 2016. "Academic Journal Markets, their Limitations, and the Consequences for a Transition to Open Access: A Thought Piece JISC". Accessed 06 June 2020.

<https://www.jisc.ac.uk/reports/academic-journal-markets-limitations-consequences-for-transition-to-open-access>

Johnson, R., Watkinson, A., and Mabe, M. 2018. "The STM Report: An Overview of Scientific and Scholarly Journal Publishing". Accessed 05 May 2020. https://www.stm-assoc.org/2018_10_04_STM_Report_2018.pdf

Johnson, R. 2019. "From Coalition to Commons: Plan S and the Future of the Scholarly Communication." *Insights* 32(1): 5. <http://doi.org/10.1629/uksg.453>

Jubb, M. et al. 2011. "Costs, Risks and Benefits in Improving Access to Journal Articles." *Learned Publishing* 25(4). <http://dx.doi.org/10.1087/20110402>

Knöchelmann, M. 2020. "The Democratisation Myth: Open Access and the Solidification of Epistemic Injustices (preprint Mai 2020)". Accessed 25 June 2020.

https://moodle.brookes.ac.uk/pluginfile.php/2323135/mod_forum/attachment/530360/Kn%C3%B6chelmann_Open%20Access%20and%20the%20Democratic%20Myth_Preprint.pdf?forcedownload=1

Morris, S. et al. 2013. *The Handbook of Journal Publishing*. Cambridge: Cambridge University Press.

OA Business Models WG. 2018. "OPERAS Open Access Business Models White Paper".

Accessed 09 June 2020. <https://operas.hypotheses.org/aboutoperas/working-groups/business-models-wg>

Smart, P. 2005. "Increasing the Visibility of Published Research: African Journals OnLine". *Africa Today* 52(2): 39-53.

Smart, P., and Murray, S. 2014. "The Status and Future of the African Journal." In *The Future of the Academic Journal*, edited by Cope, B. and Phillips, A., 401-424. Oxford: Chandos Publishing.

Solomon, D. 2008. *Developing Open Access Journals: A Practical Guide*. Oxford: Chandos Publishing.

Ule, J. 2020. "Open Access, Open Data and Peer Review". *Genome Biology*. Accessed 26 June. <https://link.springer.com/content/pdf/10.1186/s13059-020-02005-3.pdf>

Van Noorden. 2013. "The True Cost of Scientific Publishing". *Nature*. 495(7442): 426-429. Accessed 30 May 2020. <https://www.nature.com/news/open-access-the-true-cost-of-science-publishing-1.12676>

Wenzler, J. 2017. "Scholarly Communication and the Dilemma of Collective Action: Why Journals Cost too Much". *College & Research Libraries* 78(2): 183-200. Accessed 02 June 2020. <https://crl.acrl.org/index.php/crl/article/view/16581/18027>

Willinsky, J. and Moorhead, L. 2014. "How the Rise of Open Access is Altering Journal Publishing." In *The Future of the Academic Journal*, edited by Cope, B. and Phillips, A., 195-222. Oxford: Chandos Publishing.