

Viewpoint

Article processing charges suppress the scholarship of doctoral students

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Abstract

The open access movement has drastically reconfigured the financial burdens of scholarly publishing. Yet, the influence of a marketized scholarly publishing system on doctoral education remains unexplored. I reflect on my own PhD candidature to illustrate how article processing charges disempower doctoral candidates. I argue that the current open access publishing model unfairly advantages candidates with personal, familial and/or institutional wealth. The inequalities imposed on doctoral students by our sectors' current publishing habits ultimately bias who will be paid to produce and safeguard knowledge in the future. Doctoral students can no longer be ignored in debates over open access publishing.

Keywords:

Article processing charge, doctoral education, open access, scholarly publishing, transformative open access agreement

Introduction

Academic research aims to make the world a better and more just place. Such a goal can only be achieved if the voices of all peoples are adequately privileged in the production of knowledge. Arguably the most significant bottleneck in academic inclusion lies within doctoral education, where 50% of students attrite.¹ Anglophone, male, economically advantaged staff face less barriers when navigating an academic career,² highlighting the subtle reproduction of power structures in the academy. Understanding how doctoral training marginalises and excludes alternative voices in academia is therefore crucial.

Doctoral students are no longer just research apprentices; they are increasingly expected to contribute to scholarly publishing. For most PhD graduates hoping to obtain increasingly competitive postdoctoral or faculty roles, a track record of multiple publications in high-impact factor journals is essential.³ In some nations, publishing in reputable journals is even a minimum requirement for PhD graduation.⁴ It is therefore crucial to consider how broader changes in scholarly publishing shape doctoral student success.

The marketisation of scholarly publishing

At the turn of the 21st century, digitisation prompted the widespread sharing of published research online, resulting in a shift to open access (OA) business models. For-profit OA publishers generate revenue in the absence of subscription costs by charging article processing charges (APCs) to authors. The OA movement is widely supported by the academic community,

especially early career researchers⁵ given its purported mission as a tool to democratise knowledge. Additionally, many national laws⁶ and funding policies⁷ require the results of funded research to be available without pay-walls. Only a handful of high-impact OA journals operate outside of an APC business model.⁸ Consequently, the proportion of OA articles published through payment of an APC has increased steadily over the past decade,⁷ making APC payment an increasingly ubiquitous part of research dissemination.

Ultimately, the inequality in access that the OA movement combats is replaced with inequality in the production of knowledge; as Green⁹ has stated, OA “flips the paywall to a play-wall”. OA journals are predominately controlled by an oligopoly of international for-profit publishers which gradually absorb smaller market competitors.¹⁰ Aware of researchers’ reliance on their journals in a publish or perish culture, these publishers are able to charge inordinate APCs, well-above what is required for a healthy profit margin.⁶ APC amounts increase annually far above inflation rates¹¹ and are positively correlated with the impact factor of the journal.¹² These charges therefore exclude much of the global south as funding for these researchers often cannot cover publication fees.¹³ For-profit OA may also marginalise the academic contributions of women in a similar fashion.¹⁴ The APCs accompanying much of the OA movement paralyses the publishing ability of less-privileged academics.

APCs strip doctoral students of their publishing agency

Doctoral students hoping to enter academia are among the most vulnerable authors

in the academy. They are therefore likely sensitive to shifts in academic publishing norms. Some large quantitative surveys assessing publishing attitudes have included PhD students in their recruitment.¹⁵ However, these studies lack qualitative depth by design. The PhD candidature represents a major obstacle for diversity in the academic career ladder, yet the impact of the OA movement on doctoral education is still unknown. The interaction between the marketisation of scholarly publishing and doctoral education is therefore an important topic for future research.

In my own candidature at an Australian university (2020-2023), I was heavily motivated to publish in high impact-factor journals to enable my academic career. For example, in the first year of my PhD, I had co-authored three papers totalling approximately \$15,000 AUD in APCs that my supervisors' grant had paid. The total institutional funding given to each PhD student for the entirety of their candidature was \$4500 AUD. I was therefore reliant on my supervisors' grant funding to publish my research. My need for APC coverage also dimmed my willingness to engage in genuine debate with my supervisors regarding my project; I would readily concede on many points if there was any remote risk that not doing so would lose supervisory support for publications. Ultimately, I didn't feel that I was compatible with my supervisory team at the time. However, changing my supervisory team could have potentially jeopardised my access to APC support.

Given that a PhD is research training, doctoral candidates are unlikely to start their candidature with a publication record

competitive for grant funding. The institutional funding provided to doctoral candidates is likely insufficient to cover the publishing fees of multiple papers. Current estimates suggest that the average APC for a journal is \$1500 USD, with higher impact factor journals generally charging more.¹⁶ In my case, I would only be able to cover the APC of one OA article with the total institutional funding available for my entire candidature. For students with a wealthy family structure, parental support may help to cover additional APCs or be used to supplement the candidate's living expenses so that scholarship stipends can be diverted to pay APCs. If this is not possible, researchers may resort to paying APCs out of pocket when other funding opportunities are exhausted.¹⁷ Only students with enough personal or familial wealth can utilise these strategies and develop a competitive publishing record on their own terms. This scenario demonstrates that the OA movement, as it currently stands, can further entrench the elite nature of the academy.

The OA movement has silently entrusted doctoral supervisors with the keys to academic publishing, and an unprecedented level of control over the career development of future scholars. This is problematic since there is an immense power-difference in the relationship between student and supervisor, especially when determining authorship of research outputs.¹⁸ Disagreement with the status quo is a prerequisite to knowledge discovery. PhD students whose ideas clash with their supervisors may therefore be restricted from publishing and engaging the broader academic community with their alternate views under the current publishing system.

Transformative OA agreements restore the publishing agency of doctoral students

Transformative OA agreements are institution-wide contracts which allows universities to purchase APC waivers in bulk.¹⁹ This then allows members of that institute to publish OA in journals under the agreement without any individual charges. These agreements have not yet been discussed in the context of doctoral education, yet such agreements can transform doctoral candidatures. During my candidature, my institution introduced transformative OA agreements with 3 minor publishers. Upon discovering this, I wrote my own review article independent of supervisory input tailored to one of the included journals. The paper was accepted with minor revisions less than a month later and published with my institution covering the \$3000 AUD APC. As a result of this, I decided to change PhD supervisors given that I was no longer reliant on my former supervisors for financial support. This example illustrates how transformative OA agreements promotes PhD student independence and decreases their reliance on their supervisor/s to build an academic career.

While transformative OA agreements may improve the doctoral student experience, these agreements are nascent, volatile and likely temporary.¹⁹ Additionally, these agreements have only been implemented in well-funded institutions, excluding most of the global south.¹⁹ This again demonstrates that the current publishing system advantages the already advantaged and restricts doctoral students in less privileged circumstances from publishing. Furthermore, these agreements are often reconsidered annually, meaning that they are not a stable source of APC funding for the duration of a doctoral

program. The benefits transformative OA agreements bring to doctoral students should therefore be considered when institutional leaders decide whether or not to enter into or renew these contracts.

Conclusions

Democratising access to published research is an important endeavour, however the OA movement as it stands is pernicious to academic research. Measey²⁰ estimated that the projected cost for publishing an academic journal article, including a 25% fee for publishing services, would total \$270 USD. This amount is, on average, almost six times less than the APCs generally charged currently.¹⁶ Doctoral students would be able to fund their publishing fees more easily in such a scenario. This piece aligns with the views of diamond open access advocates; the current hyper-profitable oligopoly of commercial publishing must be changed if research is to become open in access and production.

While much of the above literature discussing OA issues highlights the inequalities that result from APCs, very little research examines how this situation sculpts research at the doctoral level. My own reflections demonstrate that APCs can be the determining factor behind critical moments in the PhD candidature. By extension, the unevenly distributed restrictions that APCs impose on doctoral candidates will ultimately shape the future cohort of academics worldwide. My experience alone is not representative of the vastly diverse global community of PhD students. Further in-depth qualitative research must be conducted on doctoral students and OA publishing to identify more intersections between these concepts than an individual reflection can yield. Such

data would help inform current debates over how the academic system is ultimately configured and financed. Listening to the largely ignored perspectives of doctoral students may ultimately uncover new ways in which the publishing systems we are governed by determine the composition of the academic community.

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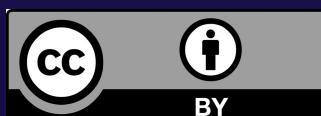
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