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The unintended consequences of Open Access publishing – and possible futures

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Highlights

- Most early geography journals were established by learned societies as non-profit-making ventures
- Most of these are now published by commercial organisations, alongside many others they have established
- Journal publication is now a capitalist, profit-making venture to which academics donate their intellectual property
- Moves to make all journal papers derived from publicly-funded research freely accessible and sustained by author charges will exacerbate this situation
- Non-capitalist alternatives are desirable

Abstract

Journal publication in geography changed significantly in the late 20th century as its dominance by learned societies was captured by (large, multi-national) commercial organisations making large profits from freely-donated authors' intellectual property. Further changes are now proposed, involving journals being freely accessible, sustained not by subscriptions but rather by author payments, which will enhance capitalist publishers' profit-making potential and disadvantage authors. Alternatives are needed, returning to the earlier model whereby research papers are not treated as profit-making commodities.

Keywords

Academic Capitalism; Journal Publishing; Open Access; Plan S.

The unintended consequences of Open Access publishing – and possible futures

Introduction

Some fifty years ago, there were very few geography journals; almost all were owned, published and distributed by learned societies but with some exceptions owned and published by university departments, such as *Economic Geography* and *East Midlands Geographer*. The journals were produced as a service to members and for library sales, with income from the latter sufficient to cover the costs of producing copies for members.¹ Editors were unpaid. Authors handed over their Intellectual Property Rights (IPR) to non-profit-making bodies that existed to promote their discipline through propagation of research findings and other materials; any surplus income was ploughed back into the learned society's other promotional activities aimed at enhancing the discipline.

This situation changed in the late 1960s, when commercial publishers began to appreciate the potential profits from publishing geography journals, identifying a demand for publishing space that the existing journals were not catering to.² In most cases, they identified areas within the discipline with sufficient quality material and sales potential for such specialist outlets; while library subscriptions were the main focus, individual (in some cases discounted) subscriptions were also popular, until academics gained access through library electronic subscriptions. The publishers sought out editors, who were to be paid, and canvassed likely contributors and readers to establish the sustainability of a proposed journal; most were successful and very few failed (an exception, in geography, was *Geographical and Environmental Modelling*, launched in 1997 and terminated in 2003).

This invasion of geographical journal publication by capitalist enterprises created a major change in the nature of scholarly publication. No longer were authors donating their IPR to a learned society, and editors and reviewers their time.³ They were still expected to donate their IPR and time for free, but any surplus resulting from that generosity was not re-invested in the discipline but was profit

¹ In the late 1980s, Neil Wrigley, then editor of the IBG's *Transactions*, showed that the surplus from library sales – handled through the Institute's office, which comprised a single administrator only – was sufficient to cover the marginal costs of providing free copies of both *Transactions* and *Area* to every member; Institute members' subscriptions were not called upon to sustain its journals.

² The 1950s saw an early realisation of this unmet demand by a group of geography academics who launched, published and distributed *Geographical Studies*: only five volumes were produced during 1954-1958, and publication then ceased (see Steel, 1984, 35-7).

³ Some journals were quasi-independent of the commercial publishers because they were owned by academic co-operatives (such as *Antipode* and *International Journal of Urban and Regional Research*): they can return at least some of the surplus into academic activities but remain reliant on commercial publishers – and their pricing – for publication and distribution.

reaped by journal owners – the publishers and their shareholders – perhaps with some token contribution to the discipline, such as the sponsorship of plenary lectures at major conferences adopted largely as an advertising tactic.

The next stage in this shift away from the non-profit-making academic (often quite amateur) cooperative to capitalist enterprises came when the publishers realised that further profit could be realised if they took over publication of learned societies' journals – enhancing their publishers' standing in the academic world because many of those journals were considered among the discipline's 'best' with the wide readerships (and later citations) that brought. Publishers offered learned societies attractive financial packages – including payment of editors (but not authors or reviewers) and undertaking all publishing details once papers had been accepted, including library and other orders and the provision of members' copies. This considerably reduced societies' administrative burden and provided an income stream replacing that from journal subscriptions. For the publishers, the realisation of profitability of publishing prestigious society journals led to competition. The societies realised they could gain marginal improvements in their income and perks for their members, and regularly put their journals out to tender.

For the publishers, these twin strategies worked. In a period of rapid expansion, during which publication became an increasing demand on academics (exacerbated by exercises, such as Research Assessment Exercise/Research Excellence Framework in the UK), the market expanded. New journals could be launched, and existing ones expanded – the latter facilitated by the declining demand for printed copies from individuals and libraries as electronic access became common. Further, although the market was not entirely elastic the demand for access to journals expanded with the supply of material; academics wanted their institutions' libraries to subscribe to those they published in. So, as the publishers' costs relative (and perhaps absolute) costs fell with the declining number of printed and distributed copies (by post) and production was outsourced to low-cost-labour countries, profit margins increased, and they could exploit the relative inelasticity of demand by raising prices. Consequently, many journals now print very few copies, other than those for copyright libraries, as universities and other institutions subscribe to the electronic versions only.

These changes produced two reactions. Within academia individuals and, under pressure from them, institutions protested against the publishers' large profits – increasingly noticeable as competition led to few very large organisations reaping the benefits of scale from expanding their offerings into an oligopolistic market. These protests and threatened boycotts had little substantial impact. Some

learned societies launched new (usually online only) journals, some of which they published themselves – The Royal Geographical Society launched *Geo: Geography and Environment* with John Wiley in 2014 – but the pressures of supply and demand meant that publishers could continue profit-making at the expense of academics who ‘freely’ donated their IPR and time – and were even convinced to sign over the copyright of their papers to the journal publishers: and their institutions paid the inflated subscriptions.

The second reaction came from without, led in the UK by a small number of politicians who could not get access to academic papers behind journal paywalls. In collaboration with some academics – mostly in the administrative cadre rather than practising researchers⁴ – they argued that since the research being reported in journals had been publicly-funded the public should have access to the published results. Thus, was developed the notion of ‘open access’, with the publishers’ agreement since they were going to benefit even more. When a journal accepts a paper, the author – usually the author’s institution – pays for its publication, which is then made available freely on its website; that is paid for either by the author’s institution or the research’s funding body (or – if they are prepared to do so! – the authors themselves).

Yet, this only covered research paid for from public funds directed specifically at a particular project. Much research – notably in the humanities and social sciences – is not so funded, but it was argued that because it is undertaken by academics funded from taxation either directly (grants from government to institutions) or indirectly (through student fees that are subsidised in one way or another by the state) all research by university staff should come under a new regime. Journals would be published for free – i.e. all content would be accessible on their websites – and academics (through their institutions) would pay the cost, using money that the institutions would save by no longer having to subscribe to journals. Plan S, was proposed by the EU and a coalition of European research funders to move the full academic publishing industry towards online open access. It has since gained considerable support – although recent concerns about implementation have been expressed, including by learned societies (such as the RGS-IBG and Regional Studies Association).⁵

⁴ The Finch Committee (see Working Group, 2012) established by the then Minister for Universities and Science (now Lord) David Willetts included two ‘ex-academic’ geographers, Dr Rita Gardner (then Director of the Royal Geographical Society and now Chief Executive of the Academy of the Social Sciences) and Prof Adam Tickell (then Pro-Vice-Chancellor at the University of Birmingham and now Vice-Chancellor of the University of Sussex).

⁵ Their responses to Plan S may be read here: <https://www.rgs.org/getattachment/Professionals/Consultation/RGS-IBG-Plan-S-response-Feb19.pdf?lang=en-GB>; and here: <http://3ftfah3bhjub3knerv1hneul-wpengine.netdna-ssl.com/wp-content/uploads/2019/02/RSA-Response-to-Plan-S-08-Feb-2019.pdf>.

For publishers the move to online open access is utopian. They only have to pay an editor to make decisions on what is publishable (assisted by reviewers' free labour) and provide the copy in as near to publishable form as possible, so that the publishers' low-cost-labour has little to do, and then put it on the website. Their profits – unless the charges they levy on authors can be regulated – are thus guaranteed. Meanwhile academics continue to donate their IPR without recompense, to give their time freely to review papers, and to edit for small recompense. Undoubtedly conflict will emerge within institutions which realise they have insufficient funds to meet their academics' demands to meet publishing costs – rationing systems might well favour those with income from outside the institution, to the probable detriment of humanities and social sciences scholars. And what leverage would learned societies have to get income from the publishers?

Nirvana for the publishing companies

So attractive is the open access gravy train that more commercial publishers are climbing on it, offering authors various incentives to publish in their journals, including fast (i.e. light touch) peer review and discounts on article publishing charges (APCs) for authors whose papers might be considered to give the journal (and publishing company) credibility, leading to an increase in submissions from authors paying a full APC. Such rapacious tactics are not only being employed by new publishers but also by long-standing ones. For instance, recent years have seen the launch of 'companion' journals whereby authors whose papers are accepted in a well-established 'hybrid' journal (that offers routes for publishing via open access as well as under traditional copyright and access restrictions) are offered the chance to pay – as much as US\$600 – to publish the data on which their paper was based within another separate, fully open access journal (with the peer reviews for the first article assumed to hold for the separate data article as well). For example, Elsevier's *Data in Brief* (DiB) was launched in 2014 and now publishes data from a broad spectrum of disciplines including Biology, Chemistry, Economics, Psychology and Physics.

The emergent use of open access publishing as a means of extracting further profits from academic labour has stimulated growing reservations about the transition to an open access model where journals rely for their income on author payments. There are concerns that commercial open access publishing works against scholarly interests as profit margins increase in line with each paper accepted. Although most open access journals did not initially charge authors APCs – and a number remain free to publish in, funded by non-profit charitable foundations, research grants, learned societies and/or universities (including *Human Geography: A new radical journal*; *Cybergeo: European*

journal of geography; and *Acme: An international journal for critical geographies*) – the growth of ‘predatory’ publishers and strategies to increase the volume of research published by all journals is fuelling fears of a lapse in paper quality. The ever-increasing number of submissions is also a function of the pressure on academics to publish as a demonstration of their research activity and ‘impact’ and the way that research metrics feed into tenure-review, for example. Given the move from paper copy to online issue, there are now fewer limits to publication length and journal frequency. Online publishing is not zero-cost, but the costs of producing a journal may equate to as little as 5000 euros (US\$5700) per annum for the online journal management system and publishing platform, as well as copy-editing and typesetting tasks, and no longer limit the number of papers accepted.⁶

With the number and length of journals increasing rapidly, the five biggest publishers (Elsevier, Taylor&Francis, Wiley-Blackwell, Springer, and Sage) have started to emphasise ‘quality controls’ to differentiate themselves from the new and supposedly less credible competition.⁷ Indexation in accredited databases (Web of Science, Medline, Scopus, etc.) and the promotion of proxy quality indicators, such as journal impact factors are being used to signal the superiority of certain publications to increase numbers of submissions and cement their position in the publishing industry (Bell, 2017). Their goals appear to be to capture the entire publishing industry (some link journals to book series, for example), creating an oligopolistic situation whereby the pursuit of research and dissemination of its findings is totally embedded within a capitalist matrix. Such secondary, superficial indicators of esteem are problematic, not least because they tend to exclude the many journals that are published in the Global South – particularly small, scholar-led titles with editorial tasks largely being done on a voluntary basis by academic staff and the small costs met by government or institutional funding. The ambition to scale and monetise the free labour of academics is resulting in genuine, good but unfamiliar and perhaps unprofessional-looking journals getting unfairly tarred with the predatory label.

⁶ This is the estimated cost of establishing a fully open access venue with Utrecht University via their UOpen programme (<https://www.uopenjournals.org/>). The quoted cost is 3000 euros for the first year to get the publishing platform up and running with Ubiquity Press (<https://www.ubiquitypress.com/>), then 1500 euros each year thereafter. Additionally, copy editing and typesetting to create article PDFs is 3.50 euros per page (completed in Ireland). Using an estimate of 35 euros for an average 10-page article, we estimate 1750 euros in total for 50 articles/per year. Total initial journal start-up costs for the first year would therefore be around 5000 depending on the number of articles that were accepted for publication.

⁷ Given the challenge of externally evaluating a journal’s publication process or drawing inferences on the basis of its individual published articles, it remains difficult to distinguish between bona fide journals and ‘sham’ publications (Ray, 2016).

The idealism of the open access agenda conceals some more contentious and problematic issues pertaining to the commercial environment of knowledge production, including the ways in which the transition from journal subscription models to a form of 'pay to print' challenges established conceptions of quality and value by introducing a new profit motive that may undermine peer review as the traditional method of research evaluation. On face value, open access appears welcome. In the UK, where we are based, most Universities are part-funded by taxpayers and their research is supported by government funds, charities and the third sector. Having timely access to the best research is important for policy and decision-making – a paywall between authors and users is a barrier to effective dissemination of knowledge. However, APCs create different impediments to ensuring society's access to knowledge by creating new inequalities between subjects and individual academics, some working in cash-rich areas, others not. Existing variations in access to financial resource may privilege some forms of scholarship and repress others.

In essence, subscription models exclude those who cannot afford the subscription (although increasingly there are ways of bypassing publishers' paywalls through websites such as sci-hub and via 'pre-print' publications). Indeed, the UK's Research Excellence Framework now requires submitted publications to be free for anyone to access. Usually this requirement is fulfilled if not on the publisher's website then as a 'pre-print' in an open access repository hosted by the authors' institution. In commercial open access models, the cost of publishing is switched to the point of submission (or, rather, acceptance, after a process of peer review) benefiting those who have the funds to pay for publication either through their institution or via external research funding. As this funding tends to be awarded prior to the research being conducted, the value of the knowledge produced is decided *a priori* and often by the extent to which it meets the particular agenda of a research council or funding organisation (which may be influenced by what governments are interested in funding at any given time). It is not hard to imagine how such a situation will generate inequalities in knowledge production and reproduction. Worse, it encourages gaming the system because metrics feed into processes of academic career progression: publishing an article as 'gold' open access (in an online open access journal) is a good way to increase its citations, feeding into various 'impact' metrics that may then be used to allocate limited institutional or research council funds. In a limited funding environment, not everyone will be able to publish open access – it all depends upon who and what is being funded in the first place.

All publishing has an unavoidable cost; what ought to be axiomatic to scholarly publishing and everything that Universities are about, however, is the opportunity for anyone to express an idea,

theory, research discovery or other form of knowledge and to disseminate it, without hindrance, into the arena of scholarly debate, subject only to the 'quality checks' provided by peer review. Any charge is contrary to that. Of course, paying to access journals is not ideal given that traditional subscription journal models keep many people out. Yet, open access to knowledge will not be achieved, nor the inequalities in the production and reproduction of knowledge that stem from costly journal subscriptions solved, by the simple transfer of publishing costs from audience to authors. The current hybrid model is little better, allowing 'those who have' to publish openly in a journal (under a Creative Commons licence) whilst 'those who haven't' have to make do with traditional copyright and access restrictions supplemented by a pre-print version hosted by their institution. Some publishers provide authors with a pdf copy of their contributions but limit the number of individuals to whom they can distribute these too – although is there no evidence of that being policed beyond actions to prevent (or punish) individuals uploading post-publication pdfs to online repositories.

There are strong proponents of non-commercial approaches to open access globally. However, opinion on commercial open access – being pushed under Plan S – is mixed. Specifically, the mandate that "With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo" has attracted criticism (cOAlition S, n.d. p.1). Problems of affordability and exclusion for scholars have been raised, alongside fears that Plan S may create a complete dichotomy of the global scientific society, separating European countries from the rest of the world. Though often touted, APC waivers for academics in precarious or disadvantaged positions are seen as patronising or simply haven't been heard of owing to the low level of engagement with scholars outside the EU in the development of Plan S. Another issue is that researchers with smaller support networks are more vulnerable to dubious publishing practices and paying for open access results in the loss of (often) scarce research funds to a commercial publisher with profit margins in excess of 30 per cent (Geoforum Editors, 2019). Unsurprisingly, some see this as yet another example of colonialist exploitation (those in poor countries pay and the richer countries benefit with free access).

Alternatives?

The issue of access thus remains critical. How can we ensure society's access to knowledge without creating new inequalities between subjects and individual academics? How do we ensure research excellence where there are no limits to publication space or means by which research users can exert

control (e.g. by cancelling subscriptions) should publication quality lapse? Is the rapid growth of publications and open access outlets making it harder for users to keep abreast of developments (or, at very least, know what is considered by academic peer reviewers to be the finest contemporary research) and how should we address this to the benefit of scholarly enterprise? To reform the academic publishing industry, we should:

- (I) Encourage and support the establishment of fully open access journals published by charitable foundations, research grants, learned societies and/or universities. The transition to a fully open access publishing model will be easier if there are more non-profit journals that are able to publish work open access either for free or with very low APCs that cover publication costs only.
- (II) Campaign for established hybrid journals to make all papers open access after only a short embargo period (no more than 12 months after they are first available online). Publication costs would still be met by journal subscriptions, but existing barriers to research dissemination would be removed allowing those without subscriptions to access all papers after a short delay (during which authors should make pre-print versions of papers accessible via one or more of the open access repositories and highlight their key findings in an associated open access blog).
- (III) Resist buying into the myth of journal quality whether in terms of 'brand' or proxy indicators of research impact given that these have been designed to increase commercial publishers' profits. Instead employ individual strategies to ensure research quality; for instance, volunteering time to expertly review papers and/or serve on editorial boards for venues that facilitate the exchange of ideas within and beyond a global community of scholars because they meet the criteria I or II above.

We believe that there should be a return – in principle if not in detail – to the type of publishing in place prior to the explosion of 'academic capitalism' (Slaughter and Rhoades, 2004; Jessop, 2017). The dissemination of academic research findings should be handled by non-profit organisations, such as learned societies, largely through relatively low-cost web-based publication linked to search engines that enable readers readily to identify and access relevant papers to their work, indeed to be informed of their existence through information media, such as the Table of Contents e-mails now deployed by the large capitalist publishing empires. Academic researchers would then no longer be giving away their intellectual property to profiteers but could get the same service from bodies dedicated to making research papers freely available at very low cost – with any surplus from such activity being

invested into knowledge-creation rather than shareholders' dividends. With such options the production and dissemination of knowledge would be removed from the biases inherent in the current capitalist model and universities could return to their former independence from such predation.

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