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The publishing industry against open access journals

ABSTRACT

Open-access journal publishing has significantly grown in recent years. Restricted access publications have, in turn, increasing access costs as they benefit from a unique economic model in which relevant work and essential inputs are provided free of charge to vendors who have a captive market that has almost no competition. An additional issue typical of industries that work under the copyright regime is that the oligopoly market structure of the publishing industry which in turn further contributes to increase their products' prices. Mandatory open-access policies, as determined by the NIH, constitute a threat to this business model and are being challenged by the industry on several fronts, including the passage of legislation to undermine these initiatives. The purpose of this commentary article was to review key aspects of this confrontation and to suggest potential strategies for encouraging open-access publishing in Brazil.

DESCRIPTORS: Periodicals as Topic. Access to Information. Open access. Editorial Policies. Book Industry.

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INTRODUCTION

Over the last few years, in Brazil, the discussion of scientific publication has gained relevance due to this activity's increasing importance in the peer review processes. However, one angle of this which is rarely discussed are the economic and commercial implications of scientific publication.[1] The growth of open access (OA) publishing has placed strain on the traditional, private for-profit model.

The growth of the internet created new opportunities for the dissemination of knowledge. Practically all of the scientific journals have internet access, albeit for a fee, to their collections. As pointed out by LaPorte et al,[6] this represents a threat to traditional forms of publishing. OA is growing, notably through free access portals such as Public Library of Science, Biomed Central and Scientific Electronic Library Online. A study on OA publishing estimates an annual growth rate, since 2000, of 18% in the number of journals and 30% in the number of articles, in contrast to a yearly increase of 3.5% in general publishing.[5] The US National Institute of Health (NIH), an important sponsor of Biomedical research, decreed that publications resulting from research financed by the institution should be available to the public, with no restrictions, with one year of publication.[a]

On the other hand, restricted access publication are becoming increasingly more expensive, leading to the so-called "serial crisis" facing university libraries, with the acquisition costs for adding to their collections escalating beyond their budgets. McGuigan & Russel[7] link the crisis to the unique business model of scientific publishing, in which the basic inputs (articles and editorial services) are provided to the publishers free of charge (or at least, for a symbolic fee; some editors receive a small remuneration), and it is the buyers who subsidise the product, as they pay the salaries of the authors and editors. Moreover, a situation of market concentration has been created, in which it is estimated that three publishing giants (Reed Elsevier, Springer and Wiley) account for over 40% of journals.

Ramello argues that characteristics such as oligopolisation and the ever-increasing prices of the products are typical of industries which work under a copyright regime. Citing data from the US Association of Research Libraries, Ramello shows that libraries' costs in acquiring journals between 1986 and 2004 increased 273% (pg. 3).[8] He also points out how pressure to publish and for recognition favours the more prestigious journals, to the detriment of newer publications and the indirect benefit of restricted access publications.

THE FLAWED ARGUMENTS OF THE PUBLISHING INDUSTRY

Commercial editors argue that the prices they set are a consequence of the resources employed in order to guarantee the quality and the dissemination of their publications, but this explanation does not stand up to critical scrutiny.

A technical analysis of Reed Elsevier[4] by Deutsche Bank highlighted the profit margin of their editorial sector and, with unusual frankness, questioned the rhetoric used to justify the prices they set.

"In justifying the margins earned, the publishers, REL included, point to the highly skilled nature of the staff they employ (to pre-vet submitted papers prior to the peer review process), the support they provide to the peer review panels, including modest stipends, the complex typesetting, printing and distribution activities, including Web publishing and hosting. REL employs around 7,000 people in its Science business as a whole. REL also argues that the high margins reflect economies of scale and the very high levels of efficiency with which they operate. We believe the publisher adds relatively little value to the publishing process. We are not attempting to dismiss what 7,000 people at REL do for a living. We are simply observing that if the process really was as complex, costly and value-added as the publishers protest that it is, 40% margins wouldn't be available.[4]" (p. 36)

George Monbiot, an investigative journalist from the UK, bluntly point out the absurdity of the situation:

"Universities are locked into buying the publishers' products. Academic papers are published in only one place, and they have to be read by researchers trying to keep up with their subject. Demand is inelastic and competition non-existent, because different journals can't publish the same material. In many cases the publishers oblige the libraries to buy a large package of journals, whether or not they want them all. (…)What we see here is pure rentier capitalism: monopolising a public resource then charging exorbitant fees to use it. Another term for it is economic parasitism.[b]"

THE INDUSTRY'S RESPONSE

The publishing industry attempted to rise to the challenge presented by OA publications with alternative access to its collections without, however, providing actual open access. The definition of full open access means fulfilling, simultaneously, the following three conditions: easy online access; available free of

[a] US Department of Health & Human Services. National Institutes of Health Public Access. Bethesda; s.d. [cited 2012 Jan 10]. Available from: http://publicaccess.nih.gov

[b] Monbiot G. The lairds of learning [cited 2012 Oct 10]. Available from: http://www.monbiot.com/2011/08/29/the-lairds-of-learning/

charge to anyone; available for additional use with no restrictions except acknowledging the source (creative commons model, adopted by the above-mentioned open access portals). Some restricted access publications charge a fee to authors who wish to provide free access to their articles, although maintaining the copyright. This is not a characteristic of genuine open access. Among the various restrictions this implies, for example, is the inability of an author to distribute their own work directly: if the publisher does not make the article available for whatever reason, such as the closure of the journal, for example, nobody, not even the author themselves, may access it.[2]

Another strategy that has been adopted is to offer free or cheaper access to countries with fewer resources. Offering access to some articles to these regions makes the researchers there dependent upon the publishers' political decisions, over which they have no effective control and this perpetuates a model which is disadvantageous to them.[3]

The most dramatic response to the challenge of open access is perhaps best exemplified in a bill (HR 3699)[c] presented to the US Congress on 16th December 2011:

"No Federal agency may adopt, implement, maintain, continue, or otherwise engage in any policy, program, or other activity that – (1) causes, permits, or authorizes network dissemination of any private-sector research work without the prior consent of the publisher of such work; or (2) requires that any actual or prospective author, or the employer of such an actual or prospective author, assent to network dissemination of a private-sector research work."

The bill defines "private-sector research work" as an article intended to be published in a scholarly or scientific publication, or any version of such an article, that is not a work of the United States Government (as defined in section 101 of title 17, United States Code), describing or interpreting research funded in whole or in part by a Federal agency and to which a commercial or non-profit publisher has made or has entered into an arrangement to make a value-added contribution, including peer review or editing.

The target is clear: to destroy the system guaranteeing free access to publications originating from publicly financed research implemented by the NIH.

Reactions resounded throughout the internet, highlighting the role played by the powerful American Publishers Association in formulating the Bill and calling for authors and reviewers to boycott restricted access publications. Under the title, *Research bought, then paid for*, Michael Eisen, one of the founders of the Public Library of Science,[d] highlighted the absurdity of demanding additional payment for access to research paid for from public funds.

The strong reaction against the bill meant that support was withdrawn and it was excluded from the legislative agenda.[e]

THE FINANCING IMPASSE

Scientific publishing, like any other activity, needs financing. Open access practically excludes revenue from subscriptions, and advertising is not an acceptable option for many editors, especially in the area of public health. The SciELO portal solved an important part of the equation, strengthening the structure of online publishing, which covers part of the costs of publishing. This leads journals to depend on additional financing, usually from the research institutions which act as publishers and/or other agencies which finance research, notably the National Council for Scientific and Technological Development – Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq). Additional costs, such as translating articles into English to allow bilingual publication, which, in theory, increases their visibility, are borne by the authors. The journals of *PloS* and *Biomed Central* also charge authors in order to finance the maintenance of their systems. Although in richer countries this cost would easily be covered from research funding, this is not necessarily the case for researchers from so-called 'emerging' countries, such as Brazil, who are no longer covered by the exemption given to researchers from regions with few resources. It would be significant if Brazilian agencies financing research, notably the CNPQ, made provision for the cost of publishing in the budgets they grant for research, or if direct cooperation with the portals were established, to provide a general publishing policy so that the cost of publishing did not fall solely on the individual authors.

THE SITUATION IN BRAZIL

In addition to financing publication, bearing in mind that almost all Brazilian research is financed from public funds, perhaps the Brazilian government should adopt the same policy as the NIH, requiring free access to publications arising from the research it has financed.

[c] H.R. 3699: a Bill: to ensure the continues publication and integrity of peer-reviewed research works by the private sector, 112th Cong., 1st Sess (Dec 16, 2011). [cited 24 Nov 2012]. Available from: http://www.gpo.gov/fdsys/pkg/BILLS-112hr3699ih/pdf/BILLS-112hr3699ih.pdf
[d] Eisen M. Research bought then paid for. The New York Times, 2012 Jan 10; The Opinion Pages. [cited 2012 Jan 10]. Available from: http://www.nytimes.com/2012/01/11/opinion/research-bought-then-paid-for.html
[e] Grant B. Anti-open access bill dies. The Scientist. 2012 Feb 29; The Nutshell. [cited 2012 May 27]. Available from: http://the-scientist.com/2012/02/29/anti-open-access-bill-dies/

Another aspect to consider is the inductive role played by the evaluative process. The current Qualis paradigm of classifying journals, based on indicators of citation, tend to indirectly favour restricted access publications. As they have been around for longer, their positions are more consolidated and they are probably viewed as better indicators. The struggle to publish in journals with better indicators tends to create a vicious circle, a significant barrier to new publications – and, due to the recent arrival on the scene of the internet, open access journals are new publications. Modifying Qualis would be an important step in changing the current oligopolistic model, as it would lead to greater value being placed on open journals. It would be even better, if these modifications included making the publications' financing more transparent. This is, at least partially, the reality in the area of public health, which started to evaluate the public health journals in SciELO differently.

FINAL CONSIDERATIONS

The growth of open access called into question the contribution of commercial editors to scientific publication, bearing in mind that their core activities, preparing texts and reviews are carried out at no cost to the publisher. This question becomes still more pertinent when considering the astronomical price rises, far in excess of inflation, and the frankly exorbitant profit margins mentioned above. Added to this are commercially abusive practices, such as 'bundling', which force university libraries to subscribe to unwanted publications in order to have access to those they are interested in. Such practice is only viable in a strongly oligopolised market, as is the case in commercial publishing, controlled by a small number of large scale publishers with a global reach.

Restricted access publications are an obstacle to science itself, creating artificial restrictions to the free circulation and dissemination of knowledge, as well as being yet another factor contributing to the inequality between professionals and researchers in different countries / parts of the world. This issue was dramatically addressed by Winston Hide, former associate editor of a prestigious publication (*Genomics*), who renounced his post, explaining: "No longer can I work for a system that provides solid profits for the publisher while effectively denying colleagues in developing countries access to research findings".[f]

Open access publishing threatens the oligopoly. In order for it to become a viable alternative, it is necessary to cut the Gordian knot of financing, allowing authors to publish with no economic onus. Policies which indirectly propagate publishing in restricted access journals need to be revised. The evaluative process, based on citation indices, tends to favour more established journals, which are largely restricted access. It is necessary to incorporate evaluation criteria for scientific publishing, which positively discriminate in favour of open access publishing. Classifying journals in the area of public health incorporate, albeit timidly, this principle, but it is necessary to do this more boldly.

[f] Hide W. I can no longer work for a system that puts profit over access to research. *The Guardian Blog* [Internet]. London; 2012 [cited 2012 May 27]. Available from: http://www.guardian.co.uk/science/blog/2012/may/16/system-profit-access-research

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The authors declare that there are no conflict of interests.