## THE IMPACT OF THE OPEN ACCESS PUBLICATIONS POLICY ON THE ARGENTINE SCIENTIFIC SYSTEM

Scientific journals have been published in a few private players –Elsevier, Taylor & Francis, Wiley Blackwell, and Springer. To these are added the "learned societies": the Royal Society of Chemistry, the American Chemical Society or the American Association for the Advancement of Science, which publish very prestigious journals.

Many journals have electronic versions, and the paper versions are becoming obsolete. In the traditional way, access to scientific literature is by subscription. With the advent of electronic publications, an alternative for the region was the creation of Centralized Electronic Libraries (BEC). In order to include titles in these libraries, subscriptions are negotiated with the most important publishers. The BECs can be made available to researchers through nodes in the main centers of each country. In the case of Argentine, the amount of the annual subscription exceeds twenty-two million US dollars (US\$ 22 million). Publishers are reproached of concentrating disproportionately high profit margins, for the mere fact of publishing -and appropriating- research results that are often subsidized with public funds.

This mode of publishing business often allows work to be published without having to pay fees, although of course there are many variations within this scheme.

One of the major shortcomings of this business model is that the ownership of the article belongs to the publisher. The author himself, if he wishes to reuse his work, must request authorization from the copyright owner (the publisher). Even if he wants to read it, he must pay the subscription fee. Research funding bodies lose control of the product.

The rules of the scientific publishing business have been changing for a few years now. Quite a variety of business forms are gaining momentum, constituting the package of what has been called "open access".

Within open access, there are various ways of releasing content. Perhaps the most open is the Creative Commons Attribution (CC BY) License, which allows unrestricted reuse of articles, with the sole commitment of explicit acknowledgment of the author and source.

There are also various ways of financing open access publications. Particularly important is the form that establishes publication fees (and even submission fees, even for articles that are not accepted). There are various possibilities of organizations that finance these fees, but what is universal is that without payment there is no publication, except in some cases of researchers in very underdeveloped countries. Hence, the payment of the fee must be accounted for in the budgets of the research projects.

To get an idea of the amounts we are talking about, the Public Library of Science (PLOS), an open access publisher focused especially on biomedical research, charges fees (article processing charges, APC) that are in almost all its journals higher than the USD 2000 per article. Another major publisher, Hindawi charges APCs that vary widely, between \$600 and \$2,400. It is possible to compare BEC subscription costs with APC costs for work produced in a given country; the result seems to be a significant increase in costs when moving to the open access system.

Of course it is possible to visualize all kinds of intermediate situations, with also intermediate costs. However, the clear conclusion is that the trend towards open access publishing poses challenges that need to be addressed over time.

An additional feature that is revolutionizing the world of scientific publications refers to the forms of dissemination and of reaching a large number of readers quickly and effectively. Online publications, coupled with the use of social networks for the dissemination of news, generate a totally different situation from the one that existed a few decades ago.

It is urgent to think from the region about the best strategy to face this crisis/opportunity. It is possible to couple the issue with the revision of policies to support the development of scientific publishing. It is possible to generate efficient scientific communication media that reach the whole world and that can be considered as an option by regional researchers when choosing where to publish their results.

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