Academy-owned non-profit scholarly publishing: an approach to achieve an inclusive and sustainable Scholarly Communications

Arianna Becerril García
The prevailing scholarly communication system has failed in terms of making science a global, participatory and equitable conversation.
17 years after BOAI we should acknowledge that the goal has not been achieved and the ways to attain the goal have been ignored, and even more ...

Budapest Open Access Initiative
Open access to peer-reviewed journal literature is the goal. Self-archiving (I.) and a new generation of open-access journals (II.) are the ways to attain this goal.

Increasing control of the knowledge production circuit

 Publishers’ good financial health

Restrictions on the rise: restrictions on where, when or how to deposit

Preliminary Findings: Rent Seeking by Elsevier
Publishers are increasingly in control of scholarly infrastructure and why we should care
A Case Study of Elsevier
Written by: Alejandro Posada and George Chen, University of Toronto Scarborough
Published on September 20th 2017
The best ranked publications are usually for-profit and the research assessment systems reward publishing in them.

Quantitative metrics cannot replace qualitative evaluation, nor can they make the contributions of local research visible.

It is critical to understand that the Journal Impact Factor has a number of well-documented deficiencies as a tool for research assessment.

CONTEXT: Exclusive and deficient research assessment
CONTEXT: ineffective transition to the digital age

346 years later ...

Find the differences

PHILOSOPHICAL TRANSACTIONS
February 29, 1669

The CONTENTS
'A Letter to Mr. Isaac Newton. Mathematician, Professor in the University of Cambridge concerning the New Theory about Light and Colours.'

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'A Letter to Mr. Isaac Newton. Mathematician, Professor in the University of Cambridge concerning the New Theory about Light and Colours.'

Resumen
Sudamérica ha experimentado recientemente dos modelos de integración en el proceso de globalización económica. En los noventa, el regionalismo abierto priorizó el comercio como una premisa para el libre mercado y la sistemática intervención del Estado. En el siglo XXI, la nueva integración pretende un comercio internacional capaz de crear y generar beneficios más allá de los esfuerzos nacionales para ello en la UNASUR. Ambos modelos coexisten en el espacio y pueden llegar a complementarse en la práctica, pero el modelo de integración abierto tiende a generar una mayor integración comercial. La aplicación de ambos incluye nuestro tiempo e indica que etapas del camino están en marcha. Es necesario que el comercio de China en el entramado, que absorbe el bien más importante del comercio regional, lo que tiene a considerar que el regionalismo abierto ha generalizado sus integraciones comerciales que la nueva integración, acelerada por las oportunidades del continente.

Palabras clave: Regionalismo abierto, nueva integración, comercio internacional, integración comparada, UNASUR.

Abstract
Open Regionalism and New Integration, What Model Generates More Trade
Integration in South America?

South America has experienced two models of integration in the process of economic globalization. In the nineties, open regionalism prioritized growth in trade through free market and the maximum governmental intervention. In the 21st century, the integration model known as new integration proposed to seize international benefits beyond the economic ones. Both models exist and even they could complement each other but beyond the theory, which has generated a major commercial integration? The application of several indexes shows how the exchange between South American countries was major in the countries that in the 21st century because of the expansion of China on the market, which has absorbed in the last years part of regional trade. It seems to think that open regionalism has generated more commercial integration than new integration, reduced to the opportunities of China.

Keywords: Open regionalism; new integration; international trade; compared integration; UNASUR.
How could they interact without cause other forms of exclusion?

How could they coexist if the big funding flow is directed unequally?

If one subsystem is altered to emulate other, new concepts, rules and values will appear with side effects varying from the weakening of the original subsystem’s strength to its complete disruption and disappearance.

Different paradigms to address Open Access

- **Focused on commercial publishers**
  - Aim to eliminate pay-to-read business model

- **Open, scholarly-led, non-profit communication system**
  - Neither a cost for readers nor for authors

Different resultant subsystems of science communication

- How could they interact without cause other forms of exclusion?
- How could they coexist if the big funding flow is directed unequally?

- If one subsystem is altered to emulate other, new concepts, rules and values will appear with side effects varying from the weakening of the original subsystem’s strength to its complete disruption and disappearance.
Analyzing scientific collaborations

Map of scientific collaborations from 2005 to 2009
Computed by Olivier H. Beauchesne @Science-Metrix, Inc.

Map of scientific collaborations from 2005 to 2011
Computed by Redalyc, 2019
We must think about:

**Property**
1. There is no guarantee that what it is open now, will continue open. Specially if authors do not hold copyright.

**Sustainability**
2. Is it OA long-term guaranteed?
3. Is it non-profit OA sustainable?
   - Is it science fairly assessed?
   - Are there OA platforms included in assessment criteria?

**Research assessment**
4. Are new forms of exclusion emerging?
What *role will the academy play* to face this challenge?

What will be the role of *libraries*?
What will be the role of *researchers*?
What will be the role of *funders*?
What will be the role of *platforms*?
What will be the role of *publishers*?
The cost of communicating scientific research is a tiny fraction of the cost of research, somewhere between 1% and 2%.

So why should we ask that particular phase of the research cycle to obey financial rules couched in terms of “sustainability” while the overwhelming part of scientific research has to be constantly subsidized?

Jean-Claude Guédon
Academy-owned publishing seems not to exist in the mainstream databases

Academy-owned journals in WoS

11.9

6.3% Science Citation Index;
14.6% Social Sciences Citation Index;
33.8% Arts & Humanities Citation Index.

Academy-owned journals in Scopus

16.3

CiteScore2019

Latin America has created and maintains a non-commercial structure where scientific publishing belongs to academic institutions and not to large publishers.
Every institution supports journals that are driven by their own faculty members, and then that content is made available in OA. Everyone gets benefit from everyone’s investment.

A fee has not been included neither for authors nor for readers in the regional editorial tradition.
Open Access Environment in Latin America

**Key factors:**
- Cooperation
- Networking
- Crowdsourcing
- Open source software
- In-house software
- Free software
- International collaboration

**Nonprofit platforms of visibility, edition, quality assurance, metrics**

**Nonprofit institutional journal portals and repositories**
- Mainly public institutions

**Nonprofit institutional journal publishing**
- Mainly public institutions

**Scholarly-led** scientific communication system

**Nonprofit**, mainly public – funded scientific communication system

3,321 journal installations
Who sustain the non-profit publishing in Latin America?
An infrastructure that supports academy-owned non-profit scholarly publishing by providing technology and sharing knowledge that contributes to the sustainability of non-commercial Open Access.
An OA platform for journal visibility, quality improvement, production tools (XML, PDF, HTML, ePUB, desktop & mobile readers)
Traditional article processing

Accepted article → Editorial team → InDesign formation → Printed version → Editorial team → Electronic version → Editorial team → XML markup → Upload

60 - 65 EUR / article 11 - 13 hr / article

Production costs
Article Processing with Redalyc/AmelICa as infrastructure

Accepted article → Editorial team → Author → XML markup → Files automatically generated → Printed version → OJS

6 -7 EUR / article  2 - 2.5 hr / article  89% Cost savings
Mathematical expressions tagging with MathML

XML tagging of tables and data

XML tagging of annexes and supplementary material

Open Data

Replicability

necessary condition in science

Sistema de Marcación
XML-JATS

Marcalyc
Self-classification of information
Improved reading experience
Illustration of items
Intelligent information retrieval
In numbers ...

1,260 indexed journals

22 countries

622 Publisher institutions

0.6 Million Full-text articles

10 million article downloads per month

54,000 Redalyc daily users

1.5 million authors from 10,000 institutions
Unfortunately ...
The Latin American OA landscape is being fragmented

Different OA approaches
Approach 1: Dependent on Mainstream-metrics and Commercial Open Access

- Research assessment based on IF (JCR) or SJR (Scopus) as the most important metrics.*
- Favours APC business model (inherited from the Global North becoming attractive for Latin American journals)
- Language criteria that disqualify publishing in local languages

*Scielo’s agreement with Clarivate Analytics to generate Scielo Citation Index
Approach 2: Scholarly-driven Scientific Communication and Non-commercial OA

- **Scholarly-driven publications and repositories**
  This approach seeks to strengthen publishers inside universities by empowering editors with technology and training in favor of the sustainability of OA

- **Non-commercial OA**
  - More than 500 journal publisher institutions adopting tools provided by Redalyc to keep the non-commercial nature of their processes and to avoid APCs.

- **Research Assessment**
  - Efforts towards finding a better way to assess scientific research (Redalyc metrics, UdeA metrics)
  - More than 600 journals signed DORA (Redalyc’s additional mandatory requirement)

- **Intellectual Property**
  - Publishers allow authors to hold the copyright without restrictions
So, we had to act in response...

A decision made to take advantage of the regional ecosystem, technology, knowledge and experience of multiple organizations so that the **scholarly communication remains in control of the academy and that avoids losing subsidies** by choosing a shift to address Open Access with commercial mechanisms such as the APC.
AmeliCA is a multi-institutional community-driven initiative supported by UNESCO and led by Redalyc and CLACSO, that arises in response to the international, regional, national and institutional contexts of Open Access, which seeks a cooperative, sustainable, protected and non-commercial solution for Open Knowledge.
Journals participating in this model have the following:

- **Peer-review and editorial quality**
- **Digital publishing technology (XML JATS)**
- **Open Access policy free of publishing or processing costs (APC)**
- **A vision to overcome the current assessment of science based on the Impact Factor aligned to the Declaration on Research Assessment (DORA)**
To give the non-profit academy-owned scholarly-publishing an opportunity we envision a three-dimension strategy.
Technology and Artificial Intelligence for a participatory and inclusive science ecosystem

The potential of Redalyc/AmeliCA model

- Open data
- Knowledge Discovery
- Semantic web
- XML
- Linked data
- Ubiquity

Technology and Artificial Intelligence for a participatory and inclusive science ecosystem.
Organic visibility, discoverability and impact of science
Every single piece of information could be part of a giant graph
An upper layer of linked knowledge could be built

Aligned to the Web Foundation call on policymaker to reverse and leverage the power of technology to fight inequality:

**Accelerate progress towards universal access**

**Level the playing field**
It is possible to achieve a cooperative values-based infrastructure that benefits scholarly communications worldwide.

Academy has the power to take back control (or keep it) of the whole knowledge generation life-cycle.

Publishing in control of academia can create a counterweight to the exclusionary system that prevails today.
Thank you!

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