The value of the scholarly-led, non-profit business model to achieve Open Access and scholarly publishing beyond APC: the AmeliCA's cooperative approach

Arianna Becerril García
“The debate on Open Access is a debate about the future of academia. How should the future of academic publishing and academia look like?”

Christian Fuchs, Marisol Sandoval
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
An approach to science as commons
An approach to science as commons

Academy-owned (scholar-led, the owner is an academic institution)

Immediate Open Access

Not-for-profit
Increasing control of the knowledge production circuit

Restrictions on where, when or how to deposit

Restrictions on the rise

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

Publishers’ good financial health

Reed Elsevier: Goodbye to Berlin - The Fading Threat of Open Access (Upgrade to Market-Perform)
Claudio Aspesi, Helen Luong

.. from editorial services .. to publishers .. to analytics?
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
Who sustain the non-profit publishing in Latin America?
Academy-owned publishing seems not to exist in the mainstream databases

Academy-owned journals in WoS

Academy-owned journals in Scopus

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

CiteScore2019

Repiso, Rafael; Orduña-Malea, Enrique; Aguaded, Ignacio (2019). “Revistas científicas editadas por universidades en Web of Science: características y contribución a la marca universidad”. El profesional de la información, v. 28, n. 4, e280405. https://doi.org/10.3145/epi.2019.jul.05
An approach to science as commons
Large publishers enjoy economies of scale which makes them companies "too big to fail" and can be considered natural monopolies that have acquired a market power that impedes competition.

They reach an optimum production level to produce more at lower cost. However, the use of information and communication technologies (ICT) enables the stage for breaking that power.
ICT has the potential to redraw the landscape, and thus bring new possibilities for other models to be competitive and even disruptive...

will we be prepared for it?
CONTEXT: ineffective transition to the digital age

346 years later ... Find the differences

Newton, Isaac (1671)
New theory about light and colors.
Philosophical Transactions, 6(80)

Herrero, Susana (2017)
Regionalismo abierto y nueva integración ... Cuadernos Geográficos, 56(2).
At what stage of the web is scholarly publishing running?
CONTEXT: ineffective transition to the digital age
Article of the Future

Homework: compare and contrast
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)
Redalyc AmeliCA
For a non-profit publishing model to preserve the scholarly and open nature of scientific communication
### Traditional Article Processing

- Accepted article
- Editorial team
- InDesign formation
- Editorial team
- Electronic version
- Editorial team
- XML markup
- OJS

- $50 - 60 EUR / article
- 11 - 13 hr / article

### 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
Supported by publisher non-profit institutions along with Redalyc - AmeliCA as an infrastructure
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
Self-classification of information
Improved reading experience
Illustration of items
Intelligent information retrieval
# In numbers...

| Category                | Value        |
|-------------------------|--------------|
| Indexed journals        | 1260         |
| Countries               | 22           |
| Publisher institutions  | 622          |
| Full-text articles      | 0.6 Million  |
| Article downloads per month | 10 million |
| Redalyc daily users     | 54,000       |
| Authors from institutions | 1.5 million |
| Institutions            | 10,000       |
An approach to science as commons
Author-fee journals (based on DOAJ)

- **Author-fee journals:** 47.6%
- **Non-APC journal**
  - **Non-APC academy-owned journals:** 52.4%
  - **Non-APC non-academy-owned journals:** 60%
Non-APC tradition in LatAm

Source: DOAJ
Now a global flip is being intended based on a transformation from a pay-to-read to a pay-to-publish strategy.

However, the control of science will continue in the hands of corporations.

Countries, academic institutions and the research community do not have any control beyond commercial agreements.
How could Latin America and other developing regions participate in the global scientific conversation when restrictions change from reading to publishing?

The APC model brings a risk of widening the gap between Latin American research and international publication; as well as a risk of breaking the open nature of scientific communication system in Latin America.
Risks of the influence of APC in LatAm

• In a government-funded scientific communication system, where non-APC publication is a fact and sustainability is driven by public resources, which are the advantages in adopting a model to charge author fees?
• Wouldn't it be a risk of discouragement of governments and public institutions to keep supporting scientific research and publication?
• Wouldn't it be a risk of discouragement of non-profit Open Access platforms like Redalyc to keep strengthening publications?
• Could journals become self-sufficient through APCs in a region with no funds in research projects to publish results?
Successful case: journals generate its XML content with no-cost in Marcalyc, download the PDF, HTML, intelligent multimedia article reader, ePUB article versions and use them in their own websites.
Successful case: APC to non-APC conversion
Journal of the Entomological Society of Argentina eliminated its APC policy to apply for a user account in Marcalyc.

La RSEA no presenta costos de publicación para los autores y proporciona acceso libre de sus artículos a la comunidad científica.
Challenges
It is critical to understand that the Journal Impact Factor has a number of well-documented deficiencies as a tool for research assessment.

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

The best ranked publications are usually for-profit and the research assessment systems reward publishing in them.
Stop confusing the map with the territory

Based on Scopus
Analyzing scientific collaborations

Based on Redalyc
Analyzing scientific collaborations
Why does a journal that can benefit for a cooperative infrastructure need this? ...
... for the pursuit of prestige
¿services?
¿appropriation?
We must think about:

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

2. Sustainability
   - Is it OA long-term guaranteed?
   - Is it non-profit OA sustainable?

3. Research assessment
   - Is it science fairly assessed?
   - Are there OA platforms included in assessment criteria?

4. Funding
   - Are new forms of exclusion emerging?
Our 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.
To give the non-profit academy-owned scholarly-publishing an opportunity we envision a three-dimension strategy
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-comercial solution for Open Knowledge.
Cooperative infrastructure for science as a common good

Principles of Open Scholarship
Tony Ross Helferower

Distributed sustainability
Peer-review by journal editors
XML crowdsourcing
Operation by Redalyc / AmeiICA

Benefits (all)

10k journals
> 5 million full-text articles
> ~10 years of publication

N Institutions of Latin America
N Institutions all over the world

Libraries
Researchers community
General public
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)
Plan S and AmeliCA definitely share a common goal: achieve full and unrestricted Open Access to publications from publicly funded research.

AmeliCA is the evolution of fifteen years of Redalyc’s work aim to build a cooperative infrastructure with a wider geographical scope.

Plan S and AmeliCA also share the vision of DORA: Research needs to be assessed on its own merits rather than on the basis of the venue in which the research is published.

Redalyc last year required -as mandatory criterion for indexing- that publisher institutions or journal editors sign DORA declaration. DORA recently confirmed that almost 50% of its signatures comes as a result of this Redalyc requirement.

Plan S and AmeliCA coincide that authors must retain copyright of their publication with no restrictions.

We celebrate cOAlition S is commited to fulfil the target. Our concerns about Plan S are not a matter of ends but of means.
Plan S from AmeliCA’s perspective (2/2)

Although Plan S is not focus on a single business model, the only one that is clearly identified for funding is the APC-based. If Plan S pursuit a global flip, the diverse business models should receive equal mentions and they deserve planned actions, including the definition of how funding could be given to organizations that implement them. (agree with point seventh of Martin Eve’s response).

Latin America, publications in Redalyc 650,000 articles in 1,300 journals 620 publishers (universities and academic societies) from 22 countries. They are no-fee journals and free of cost platforms but they need funding to continue publishing and to be competitive.
Papers from non-latin authors published by LatAm journals.
Data source: Redalyc

Approximately 13.5% of articles published in Latin American journals come from non-Latin American authors (~60K articles)

Applying an APC of 1,000USD funders would have paid 60,000,000 USD to publish them.
45 non-LatAm countries publishing in journals from Argentina
97 non-LatAm countries publishing in journals from Mexico
107 non-LatAm countries publishing in journals from Brazil
The potential of Redalyc/AmeliCA model

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.
What if every source of information could be a provider of a linked data?
to compose a structure that expresses the inherent knowledge and to be linked to a wider and unrestricted knowledge cloud
We must seek as humanity a more equitable participation of all nations in the scientific discourse that comprehends local agendas, diversity and that contributes in the reduction of gaps.

We imagine ...

A web of data for science, a cloud of scientific knowledge, sustainable and open that promotes a participatory and inclusive science communication.
Thank you!

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For a non-profit academy-owned scholarly publishing to preserve and sustain the open nature of science communication