Sustentabilidad y innovación en scholarly communication

Kathleen Shearer y Eloy Rodrigues
Confederation of Open Access Repositories
Quiene somos?

• Creada en 2009
• Una asociación internacional
• > 120 miembros y asociados en 35 países de todos los continentes
• 13 de América Latina
Who is COAR?

• Over 100 members and partners from 35 countries in 5 continents
• Universities, libraries, government agencies, open access organizations, not-for-profit organizations, and platform developers
• Diverse perspectives that share a common vision

Major Activities

International voice
Raising the visibility of repository networks as key infrastructure for open science

Alignment and interoperability
Building a global knowledge commons through harmonization of standards and practices

Cultivating relationships
Supporting an international community of practice for repositories and open access

Building capacity
Advancing skills and competencies for repository and research data management

Adopting value-added services
Promoting the use of web-friendly technologies and new functionalities for repositories

Contacts Us
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Phone: + 49 551 39 22215
Fax: + 49 551 39 5222
Facebook: COAReV
Twitter: @COAR_eV

How to participate?

• Organizations can join COAR for €500 Euros per year (about $600 US)
• Join as a single, consortial, or special member or partner
• Download the membership application (https://www.coar-repositories.org/about/join/become-a-member)
Executive Board

- Eloy Rodrigues, University of Minho, Portugal (Chairman)
- Carmen-Gloria Labbé, RedCLARA, Chilé
- Márta Virágos, Debrecen, Hungary
- Wolfram Horstmann, University of Göttingen, Germany
- Oya Rieger, arXiv y Cornell University, United States
- Daisy Selematsela, National Research Foundation, South Africa
El sistema internacional de las publicaciones está defectuoso!
El problema del acceso

<table>
<thead>
<tr>
<th>DISCIPLINE</th>
<th>AVERAGE PRICE PER TITLE</th>
<th>DISCIPLINE</th>
<th>AVERAGE PRICE PER TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>$4,871</td>
<td>Zoology</td>
<td>$2,073</td>
</tr>
<tr>
<td>Physics</td>
<td>4,341</td>
<td>Technology</td>
<td>2,058</td>
</tr>
<tr>
<td>Engineering</td>
<td>3,039</td>
<td>Math &amp; Computer Science</td>
<td>1,866</td>
</tr>
<tr>
<td>Biology</td>
<td>2,977</td>
<td>Health Sciences</td>
<td>1,694</td>
</tr>
<tr>
<td>Astronomy</td>
<td>2,730</td>
<td>General Science</td>
<td>1,643</td>
</tr>
<tr>
<td>Food Science</td>
<td>2,496</td>
<td>Agriculture</td>
<td>1,589</td>
</tr>
<tr>
<td>Botany</td>
<td>2,277</td>
<td>Geography</td>
<td>1,571</td>
</tr>
<tr>
<td>Geology</td>
<td>2,195</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: LJ PERIODICALS PRICE SURVEY 2015
## Bid deals lock-ins

### Global results of the analysis

<table>
<thead>
<tr>
<th></th>
<th>Out of 50,000 journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used journals</td>
<td>16,816</td>
</tr>
<tr>
<td>Cited journals</td>
<td>9,075</td>
</tr>
<tr>
<td>Journals mentioned by our community in the survey</td>
<td>8,060</td>
</tr>
<tr>
<td><strong>subtotal</strong></td>
<td><strong>26,843 unique titles used/cited/mentioned</strong></td>
</tr>
<tr>
<td>«essential titles» (80%)</td>
<td>4,852</td>
</tr>
<tr>
<td>Additional titles (from validation by departments)</td>
<td>1,041</td>
</tr>
<tr>
<td><strong>subtotal</strong></td>
<td><strong>5,893 unique essential titles</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>titles with quantitative approach</th>
<th>titles from community consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,940 titles</td>
<td>2,953 titles</td>
</tr>
</tbody>
</table>
Pero no es sólo problema de acceso ...
El problema de participación

World scaled by number of documents in Web of Science by Authors Living There

2011

Created by @juancommander using d3.js and cartogram.js

Juan Pablo Alperin: http://jalperin.github.io/d3-cartogram/
Openness is not simply about gaining access to knowledge, but about the right to participate in the knowledge production process, driven by issues that are of local relevance, rather than research agendas set elsewhere or from the top down.

La apertura no se limita a acceder al conocimiento, sino al derecho a participar en el proceso de producción del conocimiento, impulsado por cuestiones de relevancia local...
10 simple strategies to increase the impact factor of your publication

by sven | Mar 5, 2015 | |

Impact factors are heavily criticized as measures of scientific quality. However, they still dominate every discussion about scientific excellence. They are still used to select candidates for positions as PhD student, postdoc and academic staff, to promote professors and to select grant proposals for funding. As a consequence, researchers tend to adapt their publication strategy to avoid negative impact on their careers. Until alternative methods to measure excellence are established, young researchers have to learn the “rules of the game”.

El factor de impacto de la revista y otros indicadores de los editores son la base de nuestro sistema de prestigio académico y evaluación.
“The pressure to publish in "luxury" journals encouraged researchers to cut corners and pursue trendy fields of science instead of doing more important work.” (Dr. Randy Schekman)

"La presión para publicar en revistas de "prestigio" incentiva a los investigadores de cortar esquinas y llevar a cabo los temas de la ciencia de moda en lugar de hacer el trabajo más importante."
Fernando Carrión, FLACSO
“La academia revistera” 12/Abril/2014

“Hoy la academia ecuatoriana intenta caminar bajo un a cultura “revistera” que muy poco impacto tendrá en el conocimiento de nuestra realidad y, en cambio, si tendrá uno muy alto en la construcción de una academia destinada a satisfacer mercados externos y a los egos personales.”
¿Es malo para la ciencia el negocio de la comunicación científica que resulta asombrosamente rentable?

Sí!
Los cinco editores más prolíficos representan más del 50% de todos los artículos publicados en 2013.

The Oligopoly of Academic Publishers in the Digital Era

Vincent Larivière, Stefanie Haustein, Philippe Mongeon

Published: June 10, 2015 • DOI: 10.1371/journal.pone.0127502

Abstract

The consolidation of the scientific publishing industry has been the topic of much debate within and outside the scientific community, especially in relation to major publishers’ high profit margins. However, the share of scientific output published in the journals of these major publishers, as well as its evolution over time and across various disciplines, has not yet been analyzed. This paper provides such analysis, based on 45 million documents indexed in the Web of Science over the period 1973-2013. It shows that in both natural and medical sciences (NMS) and social sciences and humanities (SSH), Reed-Elsevier, Wiley-Blackwell, Springer, and Taylor & Francis increased their share of the published output, especially since the advent of the digital era (mid-1990s). Combined, the top five most prolific publishers account for more than 50% of all papers published in 2013. Disciplines of the social sciences have the highest level of concentration (70% of papers from the top five publishers), while the humanities have remained relatively independent (20% from top five publishers). NMS disciplines are in
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Impact factors are heavily criticized as measures of scientific quality. However, they still dominate every discussion about scientific excellence. They are still used to select candidates for positions as PhD student, postdoc and academic staff, to promote professors and to select grant proposals for funding. As a consequence, researchers tend to adapt their publication strategy to avoid negative impact on their careers. Until alternative methods to measure excellence are established, young researchers have to learn the “rules of the game”. 
El acceso abierto ha llegado!
Acceso abierto

• Parte de una tendencia más grande para apertura y transparencia de ciencia en general - “open science”

• Ahora, la cuestión no es si debemos tener acceso abierto, pero ¿cómo se implementar acceso abierto
Transición fácil?

Photo credit: Roy Gumple (www.allposters.com)
Dos “caminos” para acceso abierto

Revistas en Acceso Abierto
• Revistas sin suscripciones
• Una variedad de modelos de negocio
• Las “grandes editoriales” ofrecen una opción acceso abierto (revistas híbridas) – utilizando “Article Processing Charges (APCs)”

Repository Acceso Abierto
• Más de 3000 repositorios alrededor del mundo
• Redes de repositorios nacionales y regionales están desarrollando y ampliando (e.g. OpenAIRE, LA Referencia, SHARE, etc.)
Politicas internacionales son **verdes**

Table 3: Open Access policies: Green and Gold OA criteria

<table>
<thead>
<tr>
<th>Criterion (Green OA)</th>
<th>Number of policies</th>
<th>Criterion (Gold OA)</th>
<th>Number of policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposit in repository required (Green OA)</td>
<td>381</td>
<td>OA publishing required</td>
<td>2</td>
</tr>
<tr>
<td>Deposit in repository requested</td>
<td>140</td>
<td>Recommended alternative to Green OA</td>
<td>97</td>
</tr>
<tr>
<td>Deposit in repository not specified</td>
<td>141</td>
<td>Permitted alternative to Green OA</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not specified/other</td>
<td>463</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>663</strong></td>
<td></td>
<td><strong>663</strong></td>
</tr>
</tbody>
</table>
In dramatic statement, European leaders call for ‘immediate’ open access to all scientific papers by 2020
La solución de los editoriales internacionales: APCs (Article Processing Charges)

ELSEVIER

Open access publication fee

A fee is payable by the author, or their institution or funder to cover the publication costs. Fees range from $500 to $5,000 US Dollars. Visit your journal's homepages for specific pricing information.


Open Choice allows you to publish open access in the majority of Springer’s subscription-based journals.
**Sostenible? El precio para publicar en acceso abierto en las revistas internacionales**

The initial wide variety in APC prices and their general convergence shows that APC prices are not grounded in the actual cost of producing an article but rather are reflections of what the market can bear (Lawson, "APC Pricing", 2014). The report's estimate of £1,500-£2,000 may have encouraged cheaper journals to raise prices in order to be seen as high quality.

- Cell Press: £3,087.55
- Nature Publishing Group: £2,698.23
- American Chemical Society: £2,034.00
- Oxford University Press: £2,010.96
- Elsevier: £1,863.26
- Wiley-Blackwell: £1,852.12
- BMJ: £1,833.87
- Springer: £1,817.60
- Average*: £1,744.96
- BioMed Central: £1,425.15
- Taylor & Francis: £1,338.36
- Public Library of Science: £1,139.19

**£0.75 GBP = $1 US**  
**Promedio = $2334.58 US**

*Average across all publishers*

“Article processing charges (APCs) and subscriptions. Monitoring open access costs”, Jisc. United Kingdom. Junio 2016 https://www.jisc.ac.uk/reports/apcs-and-subscriptions
Figure 22: APC and subscription revenue by publisher, 2014
“The flip” (la vuelta?)

**About OA2020**

OA2020 is an initiative building on the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, which has been embraced by more than 560 signatory institutions. Building on the Mission Statement of 2013, OA2020 aims to accelerate the transition to open access by transforming the existing corpus of scientific journals from their current subscription system to open access. A key reference is the Expression of Interest – a document that was discussed and adopted at the Berlin 12 conference, held on 8-9 December 2015.

Over the course of the last 10-15 years, open access has become a shared vision of many if not most of the world’s national and international research councils. Open access as a principle is very well-established in the international discourse on research policies; however, open access as a practice has yet to transform the traditional subscription-based publishing system, which is as vigorous and prosperous as ever, despite its inherent restrictions on access and usage and its remarkable detachment from the potentials of a 21st century web-based publishing system.
Declaración conjunta COAR-UNESCO sobre Acceso Abierto

El acceso abierto es una tendencia global, con políticas y prácticas que están siendo rápidamente adoptadas en todo el mundo. A medida que el mundo ingresa en una nueva era de desarrollo sostenible, la apertura e inclusión en los procesos de la investigación científica serán cada vez más críticos. Aunque la mayoría de los gobiernos están de acuerdo con los principios fundamentales del acceso abierto, hay una diversidad significativa en la forma en que los países han abordado su implementación. Estas diferencias reflejan una variedad de perspectivas, valores y prioridades de las diferentes regiones. Es evidente que no existe una solución única que sirva para todos en la implementación del acceso abierto.
DECLARACIÓN
PRIMERA REUNIÓN DE CONSORCIOS
DE IBEROAMÉRICA Y EL CARIBE

Ciudad Juárez, México
31 de agosto y 1 de septiembre 2017

Acordamos que una política de expansión del AA, mediante el pago de tarifas APC, es imposible acometerla desde un punto de vista financiero para los países participantes; se recomienda a las instituciones no crear subsidios para pagar publicación en revistas OA-APC.
¿Qué valor (realmente) aportan las organizaciones comerciales a nuestro sistema de producción y difusión científica?

Elsevier adquiere “bepress”, un proveedor de servicios utilizado por las instituciones académicas para mostrar su investigación

Elsevier acquires bepress, a leading service provider used by academic institutions to showcase their research

*Elsevier, the global information analytics business specializing in science and health, today acquired bepress*, a Berkeley, California-based business that helps academic libraries showcase and share their institutions’ research for maximum impact. Founded by three University of California, Berkeley professors in 1999, bepress allows institutions to collect, organize, preserve and disseminate their intellectual output, including preprints, working papers, journals or specific articles, dissertations, theses, conference proceedings and a wide variety of other data.
Tal vez es el momento de...
Devolver el control del sistema de comunicación científica a la comunidad investigadora y académica!
De esta manera...nuestra visión

• Fortalecer y ampliar el papel de la institución en la comunicación científica
• Para COAR, los repositorios son herramientas importantes para actualizar esta visión
#9: infraestructura local que sea sostenible e inclusiva

(Los sistemas abiertos, distribuidos, como el Internet, son más flexibles, sostenibles y menos propensos a fallar, o ser comprada por las empresas comerciales)
En este informe, describimos una nueva visión, audaz, para la biblioteca como una plataforma global, abierta arraigada en nuestra valores y misión compartidos
La situación actual de los repositorios

Proportion of Repositories by Continent - Worldwide

- Europe: 45.2%
- Asia: 17.8%
- North America: 20.3%
- South America: 8.9%
- Africa: 7.4%
- Australasia: 0.6%
- Central America: 0.4%
- Caribbean: 0.3%
- Other: 1%

Total = 3448 repositories

OpenDOAR - 02-Oct-2017
Pero, en su forma actual, los repositorios sólo perpetúan el sistema defectuoso

“I’m right there in the room, and no one even acknowledges me.”

“What if we don’t change at all ... and something magical just happens?”
Nuestra visión para el futuro

Posicionar los repositorios (y sus instituciones) como la base para una infraestructura de comunicación académica y científica distribuida y globalmente interconectada

Nueva generación de repositorios!

Next generation repositories!
Grupo de Trabajo

Eloy Rodrigues, chair (COAR, Portugal)
Andrea Bollini (CINECA, Italy)
Alberto Cabezas (LA Referencia, Chile)
Donatella Castelli (OpenAIRE/CNR, Italy)
Les Carr (Southampton University, UK)
Leslie Chan (University of Toronto at Scarborough, Canada)
Rick Johnson (SHARE/University of Notre Dame, US)
Paolo Manghi (CNR, Italy)
Lazarus Matizirofa (NRF, South Africa)
Petr Knoth (Open University and Jisc, UK)
Pandelis Perakakis (Open Scholar, Spain)
Jochen Schirrwagen (University of Bielefeld, Germany)
Daisy Selematsela (NRF, South Africa)
Kathleen Shearer (COAR, Canada)
Tim Smith (CERN, Switzerland)
Herbert Van de Sompel (Los Alamos National Laboratory, US)
Paul Walk (EDINA, UK)
David Wilcox (Duraspace/Fedora, Canada)
Kazu Yamaji (National Institute of Informatics, Japan)
Dos ideas central para actualizar nuestra vision

1. Mejorar la funcionalidad de los repositorios:
   - Ser de, y no solamente estar en, La Web
   - Interoperabilidad global
   - Repositorios pro-activos
Dos ideas central para actualizar nuestra vision

2. Suportar el desarrollo de servicios de valor agregado
Nuestro visión incluso más que artículos

Todos los productos de la ciencia deben ser compartidos
Nueva generación de repositorios

El problema:

Los repositorios aún no realizaran todo su potencial y funcionan principalmente como recipientes pasivos y aislados de las versiones finales de los resultados de investigación publicados.

Los repositorios siguen usando tecnologías y protocolos diseñados 20 años atrás, antes del boom de la Web, de Google, web semántica, redes sociales y dispositivos móviles ubicuos.
repositorios actuales

Services we can develop with repositories today

Persistence layer

Conceptual layer

Interoperability

Metadata

Nueva generación de repositorios

Services we can develop with the next generation of repositories

Conceptual layer

Persistencia layer

Batch discovery

Metadata

Interoperability

<table>
<thead>
<tr>
<th>Usage interaction s and metrics</th>
<th>Comments</th>
<th>Peer-reviews</th>
<th>Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global sign-on</td>
<td>Metadata</td>
<td>Content</td>
<td>Links between resources</td>
</tr>
</tbody>
</table>

Diagram:

- **Metadata**
- **Interoperability**
- **Persistence layer**
- **Conceptual layer**
- **Batch discovery**
- **Navigation**
- **Notifications**
Nueva Generación de Repositorios

Metodología

1. Identificar los principales casos de uso
2. Determinar funcionalidades / comportamientos
3. Desarrollar modelos conceptuales
4. Definir tecnologías y arquitecturas
5. Publicar recomendaciones
6. Apoyar la adopción e implementación
Resultados iniciales

12 historias de usuario disponibles para comentarios del público del 7 de febrero al 3 de marzo de 2017

- Más de 60 comentarios recibidos
- Recomendaciones técnicas que se están desarrollando en base a las historias de usuarios
### Casos de uso y prioridades

<table>
<thead>
<tr>
<th>Discovery and exposing resources</th>
<th>Batch</th>
</tr>
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<tbody>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>Navigation</td>
<td></td>
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<tr>
<td>Notification</td>
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</table>

<table>
<thead>
<tr>
<th>Research workflows and lifecycle</th>
<th>Annotation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Commenting</td>
</tr>
<tr>
<td></td>
<td>Social interaction</td>
</tr>
<tr>
<td></td>
<td>Peer review</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research evaluation</th>
<th>Metrics</th>
</tr>
</thead>
</table>

- Data mining
- Discovering metadata that describe a scholarly resource
- Discovering the identifier of a scholarly resource
- Discovering usage rights
- Resource syncing and notification

- Recognizing the user
- Commenting & annotating
- Providing a social notification feed
- Recommender systems for repositories
- Preservation

- Peer-review
- Comparing usage
Example of recommendations

- Adopt ResourceSync
- Hold OAI-PMH
- Adopt Signposting
- Adopt Message Queue
Nueva Generación de Repositorios (NGR)

Próximos pasos

1. Publicar recomendaciones tecnológicas
   (noviembre 2017)
2. Desarrollar una estrategia para la
   implementación de la visión de la NGR (4
   comunidades)
   1. Redes de repositorios
   2. Plataformas de repositorios
   3. Instituciones y bibliotecas
   4. La comunidad académica en general
La estrategia para implementación de NGR

• Trabajar con los redes regionales y nacionales
International Accord strengthens ties between repository networks worldwide

Australasia, Canada, China, Europe, Japan, Latin America, South Africa, United States
La estrategia para implementación de NGR

• Trabajar con las plataformas
La estrategia para implementación de NGR

- Trabajar con las bibliotecas y instituciones
La estrategia para implementación de NGR

• Otros comunidades
  – Comunicación y “branding” de nuestro visión
  – Pilotos
Queremos trabajar con ustedes!

SI QUIERES IR RAPIDO, VETE SOLO, PERO SI QUIERES LLEGAR LEJOS, TRABAJA EN EQUIPO

Gracias!
Kathleen Shearer y Eloy Rodrigues