Open Research: Making Harmful Habits History

Presented by
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Program Officer; Knowledge & Research Services; Bill & Melinda Gates Foundation
Presentation Outline

Today's Topics

- Disclaimer
- Ecosystem Pain Points
- Evidence Based Publishing
- Copyright – Who has the right?
- The Remedy
- FAIR Data
Disclaimer

Before we begin...

• My career has been spent in libraries helping people access the knowledge they need to make their lives better - this is the perspective that shapes my thinking

• I work at a privileged institution

• Much of what follows are generalizations (#notallpublishers) - there are many nuances in this ecosystem. This is not meant to minimize anyone’s work but having tough & critical conversations will make the ecosystem stronger
### Ecosystem Pain Points

<table>
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<tr>
<th>INFO OVERLOAD</th>
<th>PROLIFERATION OF POLICIES</th>
<th>BUSINESS MODELS</th>
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<tbody>
<tr>
<td>• Too much to read</td>
<td>• This is a reaction to the inflexibility of many publishers</td>
<td>• Need to move past &quot;support&quot; for open access &amp; actualize it</td>
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<td>• Preprints proliferating with little linkage</td>
<td>• Funders making concessions both for publishers &amp; authors</td>
<td>• Abandon bad models: hybrid, subscription, APC</td>
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<tr>
<td>• Publish &amp; Perish adds to volume</td>
<td>• Affecting Author Choice/Freedom</td>
<td>• Highly selective model not fit for purpose</td>
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Estimated that over 2 million articles are published each year:

- Hard to stay up to date in even niche disciplines
- Strict copyright makes technical solutions difficult to create
- Cost burden to the entire system
Pre-Prints have been critical in pushing the ecosystem to change:

- The volume has made it hard for them to be ignored by publishers
- A workaround to slow traditional publishing models but worry we are now being asked to support two publication systems
- Opened a new world of instant community peer review via PubPub, Twitter, and other platforms
- Need improved linkages to other components
The discussion has grown as to what are good metrics for evaluating research - it’s not easy!
- Funders are signaling a shift in what counts - this is difficult to quantify & shift

Faulty Metrics

Peverse Incentives

These are quite hard to shift:
- Publish or Perish adds volume unnecessarily
- Behavior/ Cultural Change is needed
- Many are "boogeyman" incentives that aren’t explicitly written down
- Research is being done on PR&T
Proliferation of Policies

**GROWTH**
Many funders are adding strong mandates around openness & sharing of research output

**SHIFTING**
Funders are beginning to see paying for publication is a critical part of research ecosystem & funding impact

**COMPROMISE**
Funders want to see change. Change can be hard. Compromise leads to differing & confusing policies.

**CHOICE**
Doesn’t exist in the traditional system; academic freedom concerns research exploration not publication
The removal of paywalls during the pandemic has shown an increase in use of research that cannot be ignored. Data has shown that openness will increase use.

Preprint submissions rose & traditional journals worked to speed up peer-review to publish COVID19 research quickly.

Especially in the pandemic - but for quite some time proceeding - there is mounting evidence that we need more transparency in every aspect of research.
The percentage of OA articles in hybrid journals is not increasing enough to ensure full transition in a reasonable time frame. Hybrid maintains the status quo and shows no commitment to progress towards full OA.

By charging APC's for OA articles & subscription fees for closed articles these journals "double dip" in revenue. There is little data proving publishers offset costs. The average APC levied by hybrid journals is on average higher than that charged in fully OA journals.

For authors: articles may still be paywalled (in error or for awaiting payment), attributed a wrong license, experience unreliable repository deposits, little price transparency
For readers: Unpredictable what articles are OA, will still hit paywalls for content in the same journal
## Evidence Based Publishing

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<th>The Evidence</th>
<th>Predatory Publishers</th>
<th>Pandemic Response</th>
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| • Peer Review doesn’t work well as is  
• Hard to reproduce results | • Rarely read/cited  
• No standard definition  
• Distraction from bad practices at reputable journals | • Demonstrated need for openness  
• Liquidity of knowledge was key  
• Collaboration was fundamental |
Are we ignoring the evidence?

Peer Review

• Over-burdened
• Costly to various stakeholders
• Data is rarely included
• Not transparent

Reproducibility

• Most studies are not reproducible for a variety of reasons
• No incentive to get it fundamentally right

Why do we do what we do?
Who Makes the Call?

Predatory Publishers
Threat to science?
Or a distraction?
"If we think openness of communication is valuable in a crisis, it should surely be valuable in normal times as well".

CAMERON NEYLON
Copyright

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<td>• Open Licensing</td>
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<td>• Who adds “value” to a work to earn copyright?</td>
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<td>• Is copyright held hostage by APC’s?</td>
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<th>Rights Retention Strategy</th>
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<td>• Funders ensuring copyright remains with author/grantee</td>
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<tr>
<td>• Not waiting for publishers to change policies</td>
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Copyright - Who has the right?

Open Licenses

- Essentially pay journals to free your research for others to build upon
- Major publishers will push for more restrictive licensing
- Little evidence of misuse of the CC-BY license

Rights Retention Strategy

Ensuring that grantees from cOAlition S funders retain sufficient rights to make their AAM open access with a CC-BY license

Who owns what?

- Estimate of peer review volunteer time
- Research is funded by private & tax payer funds

Holding Copyright Hostage

Some publishers charge more for CC-BY & often you cannot retain copyright
The Rights Retention Strategy

- **Funder Agreement**
  - Language change to grant agreement to protect rights
  - Allows for any journal to be compliant

- **Publisher Pushback**
  - Publishers are shook – no legal ramifications yet
  - Ensuring that this strategy is not “needed”
  - Where did author choice go?
The Remedy

New Models
- Publish Review Curate
- Full transparency
- Author driven
- Speed

Community
- Good partners in the space
- Orgs living their values
- Equity at the core

Libraries
- Libraries leading with values
- More than content licensers
- Driving New Models
Gates Open Research

- Open & Transparent
  No paywalls.
  Fully open, post publication peer review
  Fully versioned control

- Increased Speed
  Hosted first as a preprint with days, available while under going peer review,

- Alleviates Pain Points
  No journal shopping, lag to publication, lack of linkages, reliance on faulty metrics, fragmentation in updates & corrections
What it Looks Like

Post-publication peer review:

Passed peer review

Indexed

Abstract


Elena Skytovsky, Estelle McLear, Jiyoon Hwang, Crista Cavallari, Meryl Mandas, George Reamir, Chinthakaihale Wanzume Kabaluka, Amelia Crampton, Alphée Prunier, Diana Michael, Mark Urasen, David Kover, Maguire Seme, Jeffrey W. Eaton, Rebecca Aweis, Joanne Rosewijn-Medir, Tom Luders, Doreen Kabakula, Kobby Pedo.

Table of Content Alert

Open Peer Review

Reference Status: AWAITING PEER REVIEW

Comments on this article

Your email address

SUBSCRIBE
Referee ratings:

- Approved
- Approved with reservations
- Not approved

Minimal requirements for indexing:

- ✓ ✓
- ✓ ?

What it Looks Like
Community

Focusing on those who espouse the mission and values that your organization shares
Support those making change happen

Organizations who are walking the talk
Support those making change happen

Taking risks and showing it's possible to make knowledge better
There are publishers and journals that have been successful in living their mission and placing open access and research integrity above profits.

It's been done!
Libraries feel they have no choice or control over lending & access to information – want to shift from renters to lenders

- **Community**
  More alignment with the funder community to help best address needs of both institutions

- **Values Driven**
  Shift to leading library work with values: collection development & vendor relationships

- **Change**
  Budgets are becoming even tighter with cost continuing to rise

- **Choice**
  Libraries feel they have no choice or control over lending & access to information – want to shift from renters to lenders
FAIR Data

**Foundation Strategy**
- Learning from past mistakes
- Leveraging current opportunities
- Start small then scale

**Lens.org**
- Open & comprehensive
- Stellar interface
- Competitive to expensive alternatives
ENTERPRISE DATA SHARING MODEL
Strategic components to treat data as a reusable asset across the foundation

1. Principles to Guide Responsible Use and FAIR Sharing of Funded Data
   - ELT Voice and Advocacy

2. Community of Practice for Privacy Preservation
   - Data Sharing Scenarios
   - Grant Milestones
   - Data Sharing Plans

3. Pilot for Output Management Planning and Implementation
   - Process & Systems
     - Grantmaking Process
     - Outputs & GitLab
   - Guidance and Support
     - PO and Grantor Communication
     - PO Training

External Data Ecosystem
- Data Services and Support Providers
  - Data Repositories
  - Data Stewardship Service Providers
- Privacy Technology Solutions
- Digital Research Environments
- Primary and Secondary Data Generators and Collectors
- Service Delivery Technology and Products
- Local Policies and Systems
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