



Open Research: Making Harmful Habits History

Presented by
Ashley Farley
Program Officer; Knowledge &
Research Services; Bill &
Melinda Gates Foundation





Presentation Outline

	<u>Today's Topics</u>
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Disclaimer >

Ecosystem Pain Points >

Evidence Based Publishing >

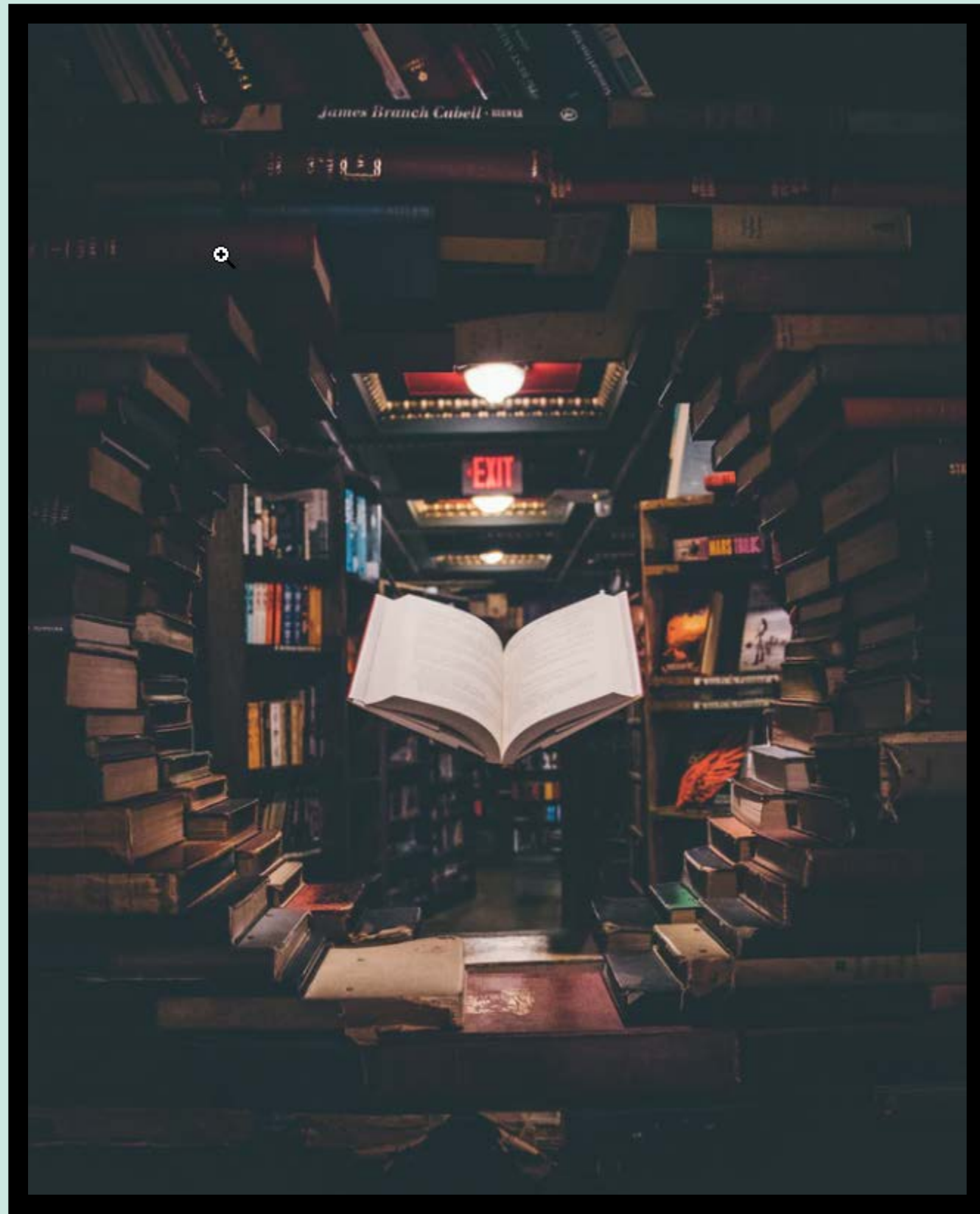
Copyright – Who has the right? >

The Remedy >

FAIR Data >

>





NEXT

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

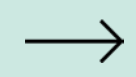


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Ecosystem Pain Points

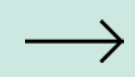
INFO OVERLOAD 

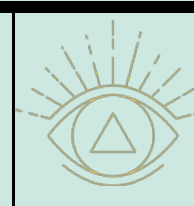
- Too much to read
- Preprints proliferating with little linkage
- Publish & Perish adds to volume



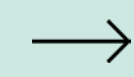
PROLIFERATION OF POLICIES 

- This is a reaction to the inflexibility of many publishers
- Funders making concessions both for publishers & authors
- Affecting Author Choice/ Freedom



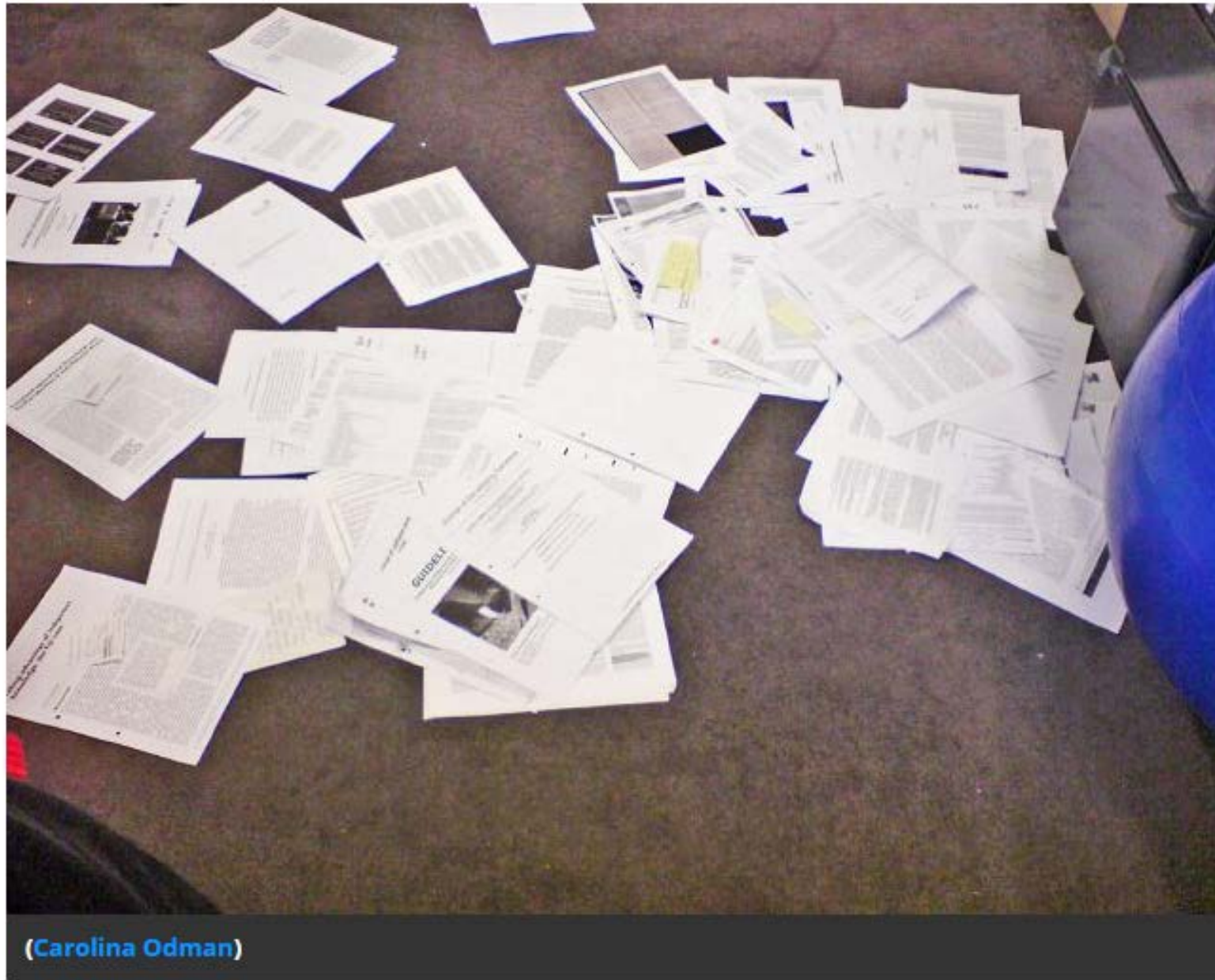
BUSINESS MODELS 

- Need to move past "support" for open access & actualize it
- Abandon bad models: hybrid, subscription, APC
- Highly selective model not fit for purpose



Academics Write Papers Arguing Over How Many People Read (And Cite) Their Papers

Studies about reading studies go back more than two decades



Info Overload

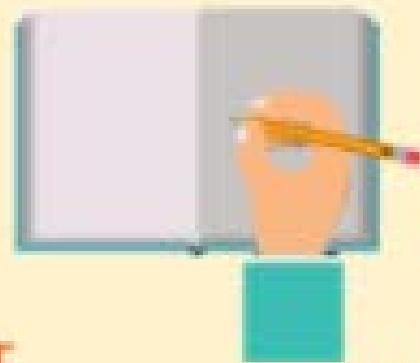
Estimated that over 2 million articles are published each year:

- 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-print

The version of a scholarly paper that precedes formal peer review



Submit for publication

Revisions

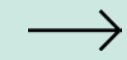
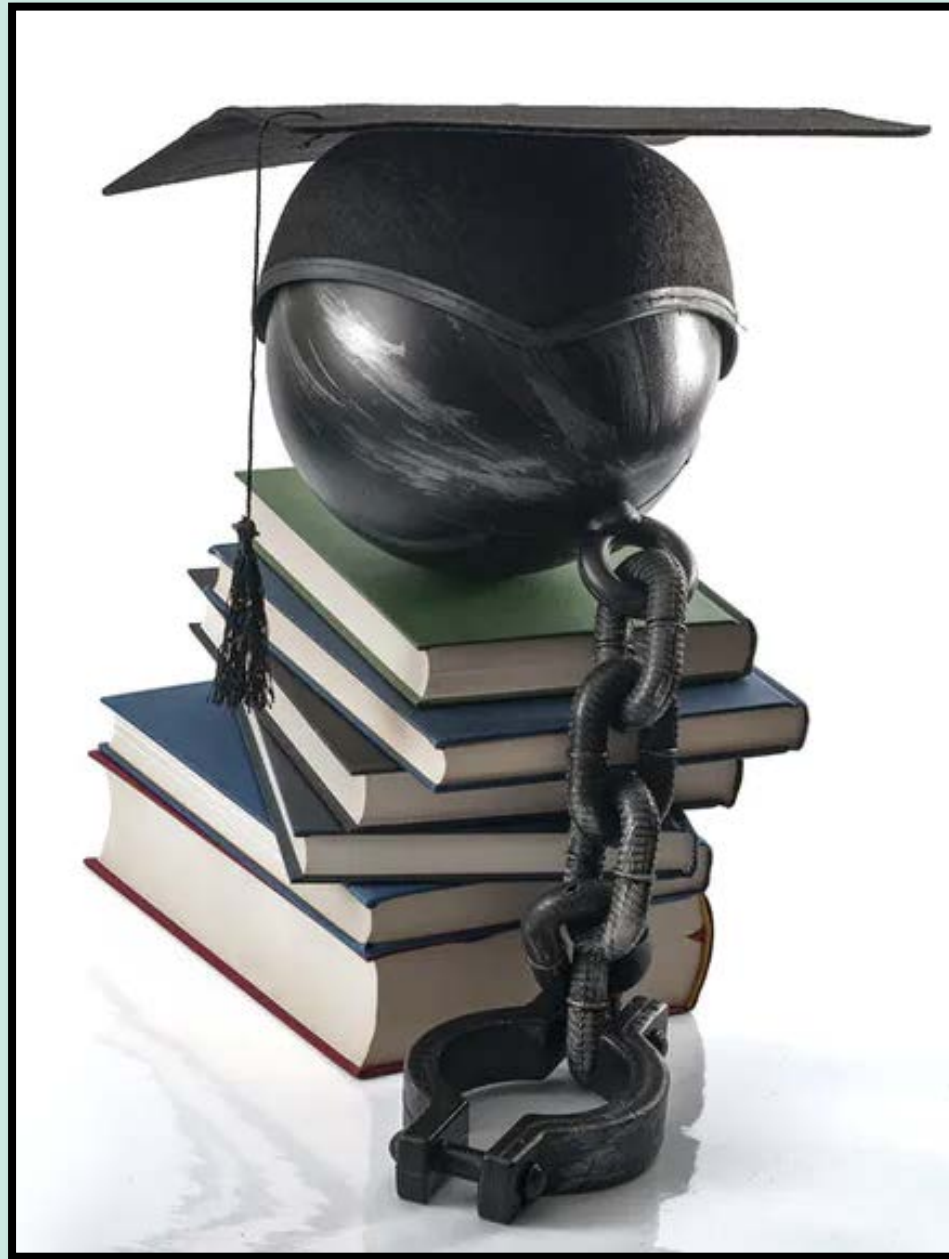


Pre-Prints

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

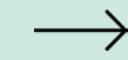




Faulty Metrics

The discussion has grown as to what are good metrics for evaluating research - it's not easy!

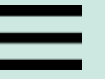
- Funders are signaling a shift in what counts - this is difficult to quantify & shift



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

Removal of Paywalls

●○○ Increased Use

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

●●○ Increased Speed

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

●●● Increased Need for Transparency

Especially in the pandemic - but for quite some time proceeding - there is mounting evidence that we need more transparency in every aspect of research





Hybrid Journals - Bad Habit to Kick

01.
HAVEN' T MADE OPEN ACCESS THE DEFAULT

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.

02.
MORE EXPENSIVE

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.

03.
MORE ERROR PRONE

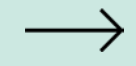
For authors: articles may still be paywalled (in error or for awaiting payment), attributed a wrong license, experience unreliable repository deposits, little price transparency
For readers: Unpredictable what articles are OA, will still hit paywalls for content in the same journal

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Evidence Based Publishing

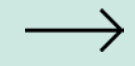
The Evidence	
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- Peer Review doesn't work well as is
- Hard to reproduce results



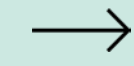
Predatory Publishers	
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- Rarely read/ cited
- No standard definition
- Distraction from bad practices at reputable journals



Pandemic Response	
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- 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?

NEXT



Words to Live By →



"If we think openness of communication is valuable in a crisis, it should surely be valuable in normal times as well".

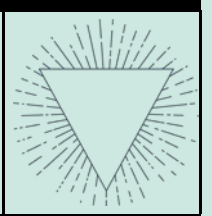
CAMERON NEYLON



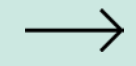


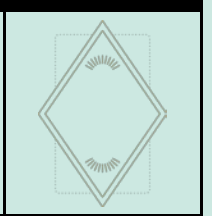
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Copyright

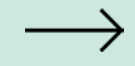
Who has the right?	
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- Open Licensing
- Who adds “value” to a work to earn copyright?
- Is copyright held hostage by APC’s?



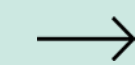
Rights Retention Strategy	
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- Funders ensuring copyright remains with author/grantee
- Not waiting for publishers to change policies





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?



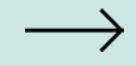


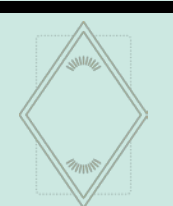
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The Remedy

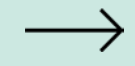
New Models 

- 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,

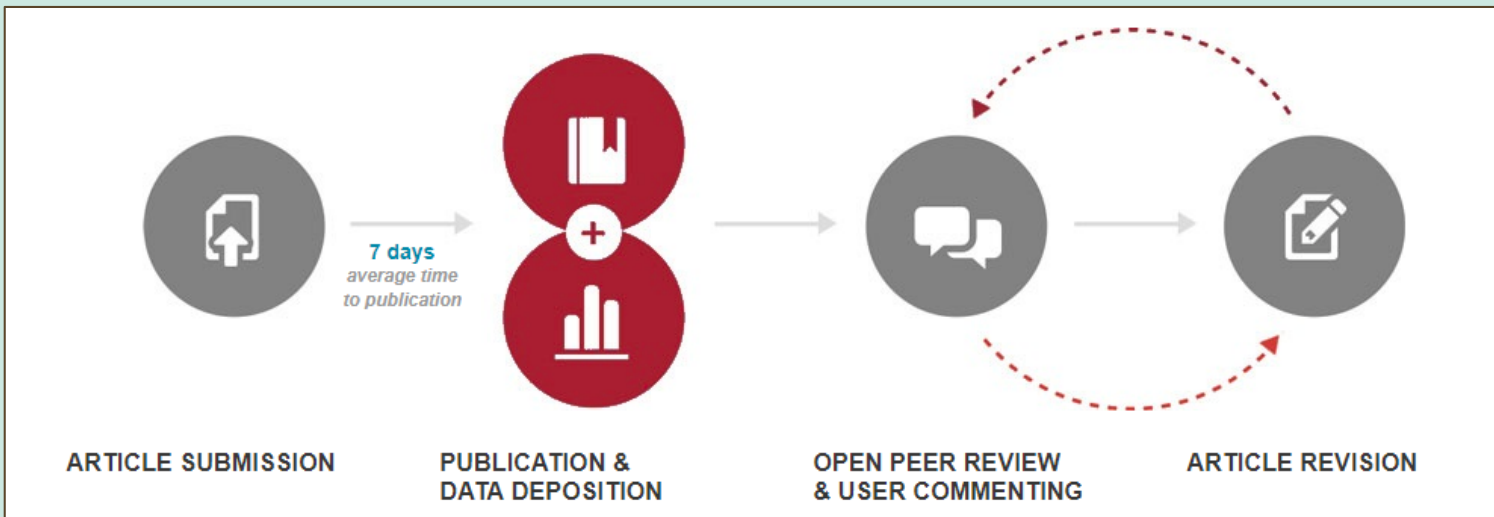
● ● ● Alleviates Pain Points

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

Gates Open Research
SUBMIT YOUR RESEARCH
🔍

BROWSE
HOW TO PUBLISH ▾
ABOUT ▾
MY ACCOUNT ▾
SIGN IN

DATA NOTE

The Network for Analysing Longitudinal Population-based HIV/AIDS data on Africa (ALPHA): Data on mortality, by HIV status and stage on the HIV care continuum, among the general population in seven longitudinal studies between 1989 and 2014 [version 1; referees: awaiting peer review]

✉ Emma Slaymaker , Estelle McLean^{2,3}, Alison Wringe¹, Clara Calvert¹, Milly Marston¹, Georges Reniers^{1,4}, Chodziwadziwa Whiteson Kabudula⁵, Amelia Crampin^{2,3}, Alison Price^{2,3}, Denna Michael⁶, Mark Urassa⁶, Daniel Kwaro⁷, Maquins Sewe⁷, Jeffrey W. Eaton , Rebecca Rhead⁸, Jessica Nakiyingi-Miir⁹, Tom Lutalo¹⁰, Dorean Nabukalu¹⁰, Kobus Herbst ¹¹, Victoria Hosegood , Basia Zaba

👤 Author details

📄 Grant information

Check for updates

Abstract

Timely progression of people living with HIV (PLHIV) from the point of infection through the pathway from diagnosis to treatment is important in ensuring effective care and treatment of HIV and preventing HIV-related deaths and onwards transmission of infection. Reliable, population-based estimates of new infections are difficult to obtain for the generalised epidemics in sub-Saharan Africa. Mortality data indicate disease burden and, if disaggregated along the continuum from diagnosis to treatment, can also reflect the coverage and quality of different HIV services. Neither routine statistics nor observational clinical studies can estimate mortality prior to linkage to care nor following disengagement from care. For this, population-based data are required. The Network for Analysing Longitudinal Population-based HIV/AIDS data on Africa brings together studies in Kenya, Malawi, South Africa, Tanzania, Uganda, and Zimbabwe. Eight studies have the necessary data to estimate mortality by HIV status, and seven can estimate mortality at different stages of the HIV care continuum. This data note describes a harmonised dataset containing anonymised individual-level information on survival by HIV status for adults aged 15 and above. Among PLHIV, the dataset provides information on survival during different periods: prior to diagnosis of infection; following diagnosis but before linkage to care; in pre-antiretroviral treatment (ART) care; in the first six months after ART initiation; among people continuously on ART for 6+ months; and among people who have ever interrupted ART.

METRICS

73

VIEWS

25

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What it Looks Like

Reviewer Report 69 Views

28 Aug 2018 | for Version 1 Cite this report

Horacio M. Frydman , Department of Biology, National Emerging Infectious Diseases Laboratories (NEIDL), Boston University, Boston, MA, USA Responses (0)

Heverton Leandro Carneiro Dutra , Department of Biology, Boston University, Boston, MA, USA

? **APPROVED WITH RESERVATIONS** i

Overall comments:
 The manuscript "Scaled deployment of *Wolbachia* to protect the community from *Aedes* transmitted arboviruses" reports a successful strategy for the long-term establishment of *Wolbachia* on a citywide scale. Previous pioneer work from this group have shown that *Aedes wMel Wolbachia* strain can establish itself in the field after surpassing a certain unstable equilibrium threshold (Hoffmann et al., Nature 2011). However, in the current study, the establishment of *Wolbachia* is done at a larger scale, across 66 km² of Townsville, a city in northern Australia with a population of approximately 187,000 residents. Interestingly enough, the authors also report details on a community engagement approach used to achieve *Wolbachia* establishment in a cost-effective manner.

Remarkably, the results presented here provide the first field-based evidence that the self-sustainable *Wolbachia* deployment strategy works against dengue. That being said, this study was not designed as a clinical trial experiment, as pointed out by the authors. Although extremely promising and exciting, the results presented here should not be taken, at least at this point, as a definitive evidence that *Wolbachia* will block dengue transmission in endemic areas. Townsville, has a relatively low number of dengue cases a year, compared to a great number of cities in tropical and sub-tropical areas of the globe. On that regard, this non-profitable consortium has ongoing field-trials in places like South America and Asia, serious contenders to the *Wolbachia*-based strategy.

Major comments:

- The reader is left wondering if non-*Wolbachia* factors in Townsville (e.g. climate) are contributing to the remarkable decrease of reported locally acquired dengue cases after *Wolbachia* release (2016-2018). This work would greatly benefit from providing additional epidemiological data. Showing the dengue cases for other cities in Northern Australia with no *Wolbachia* release over the same period as shown in Figure 4 (2002-2018). This data could be incorporated in Figure 4 as an additional histogram. Ideally this histogram should show an average of locally acquired dengue case notifications from 2002 to 2018 from several cities with epidemiology similar to Townsville from 2002 to 20014 (prior to *Wolbachia* release). Although not a rigorous control, this data would at least give some indication if non-*Wolbachia* factors in that region (may be climate?) could be playing a role for the dengue decrease.

(note added in proof: the other reviewer also had a somewhat similar comment).

- A small discussion of the challenges faced by their approach as well as lessons learned from Townsville that should be considered in areas were *Wolbachia* deployment is imminent would be valuable to the field.

Minor comments and suggestions by page

Main Text: Original text in *italics*

Referee ratings:



Approved



Approved with reservations



Not approved

Open Peer Review

Reviewer Status ✓ ✓ i

Reviewer Reports

	Invited Reviewers	
	1	2
Version 2 01 Nov 18		✓ read
Version 1 01 Aug 18	✓ read	↑ ? read

1. **Gregor J. Devine**, QIMR Berghofer Medical Research Institute, Australia
 2. **Horacio M. Frydman** , Boston University, USA
Heverton Leandro Carneiro Dutra , Boston University, USA

Comments on this article

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Minimal requirements for indexing:

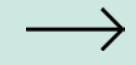


or





The Remedy



Community

Focusing on those who espouse the mission and values that your organization shares

NEXT





Support those making change happen

Organizations who are walking the talk

F1000Research
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PLOS
COMMUNITY
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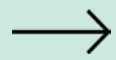
Support those making change happen

Taking risks and showing it's possible to make knowledge better





It's been done!



There are publishers and journals that have been successful at living their mission and placing open access and research integrity above profits



The screenshot shows a Twitter thread. At the top is a tweet from JCEL-Pub (@jcelpub) replying to @KDNyhan. The tweet asks why other journals don't have no author fees, no embargos, and self-archiving as a right of the author. Below this is a reply from Ashley Farley (@ashleydfarley) who says it's a great point/question. At the bottom is another reply from JCEL-Pub explaining that it's a hustle to get funding for costs like copyediting, and that for them, it was never a question because their work matters and everyone should be able to read it.

JCEL-Pub @jcelpub · Oct 26
Replying to @KDNyhan
Or, if we can all agree, why not no author fees, no embargos, and self archiving is a right of the author? We did it, why can't others?
1:02 PM · Oct 26, 2020 · Twitter Web App
2 Likes

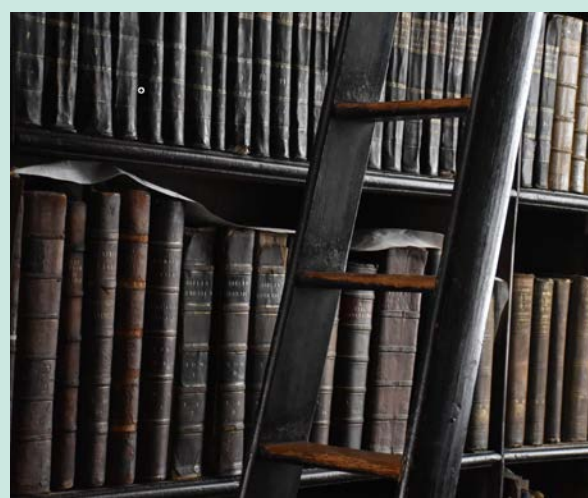
Ashley Farley @ashleydfarley · Oct 26
Replying to @jcelpub and @KDNyhan
Such a great point/question!

JCEL-Pub @jcelpub · Oct 26
It's a hustle to get funding for our costs, ie-copyediting, etc... We've had great supporters. For us, it was never a question. If your work matters, everyone should be able to read it. You should be able to publish if your work is worth reading, not because you can pay.





Libraries in the Open Future



● 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

NEXT

FAIR Data

Foundation Strategy	
------------------------	--

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



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- Open & comprehensive
- Stellar interface
- Competitive to expensive alternatives





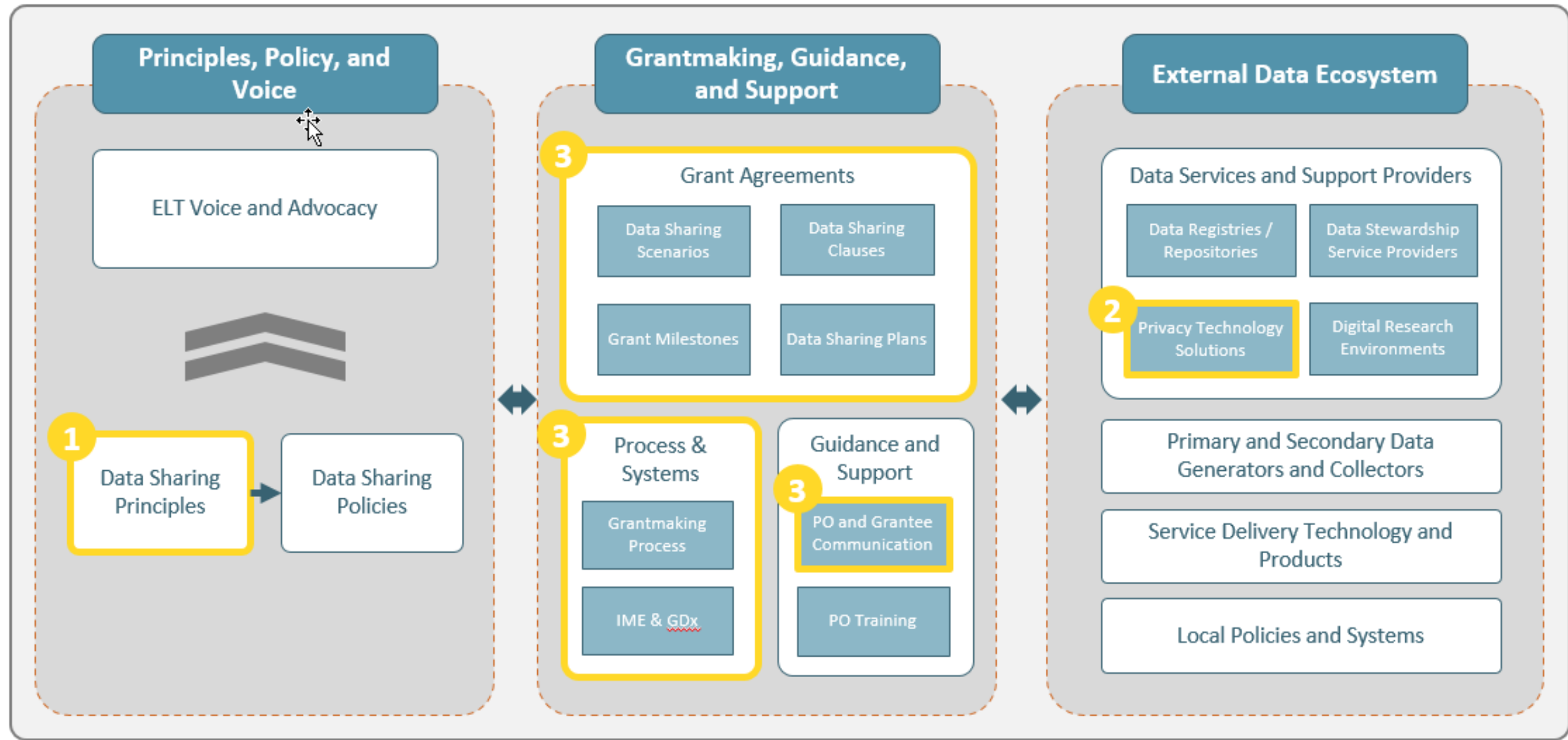
ENTERPRISE DATA SHARING MODEL

Strategic components to treat data as a reusable asset across the foundation

1 Principles to Guide Responsible Use and FAIR Sharing of Funded Data

2 Community of Practice for Privacy Preservation

3 Pilot for Output Management Planning and Implementation



Lens.org – Open Knowledge



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Brace Gnan, Harsh Kamath, Jean-Marie Terascon
Science, Issue 9256, Volume 334, Pages 926-936, Nov 17, 2011
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Electrochemical capacitors for energy management

John R Miller, Patricia Simon
Science, Issue 3095, Volume 321, Pages 651-651, Aug 1, 2008
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