

ACRL SCHOLARLY COMMUNICATION ROADSHOW

FRAMING THE ISSUES

SUNY Brockport

September 30, 2016



Learning Outcomes

Describe the scholarly communication system and actors within the system

Identify current and historical disruptions in the research cycle

Begin to visualize your role in the scholarly communication cycle

Meet Kristin

Hello, a bit about me:



RESEARCH

TEACHING

OUTREACH

I'm a behavioral ecologist interested in mating system evolution and reproductive behavior. I am currently a Ph.D. candidate in the Department of Neurobiology and Behavior at Cornell University. My dissertation research focuses on the evolution of female multiple mating and the role it plays in post-copulatory sexual selection (sperm competition, cryptic female choice, sexual conflict). I use the seed beetle, *Callosobruchus maculatus*, to understand the consequences of female mating preferences on

Scholarly Communication: A system of systems



Takeaways about systems

- Scholarly communication is cyclical
- Scholarly communication comprises a series of processes, intertwined, complicated, with multiple stakeholders, participants, inputs/outputs
- The scholarly communications system includes formal and informal networks and products
- The system has critical points where copyright and ownership negotiations can open or close, restrict or support the flow

Scholarly communication system



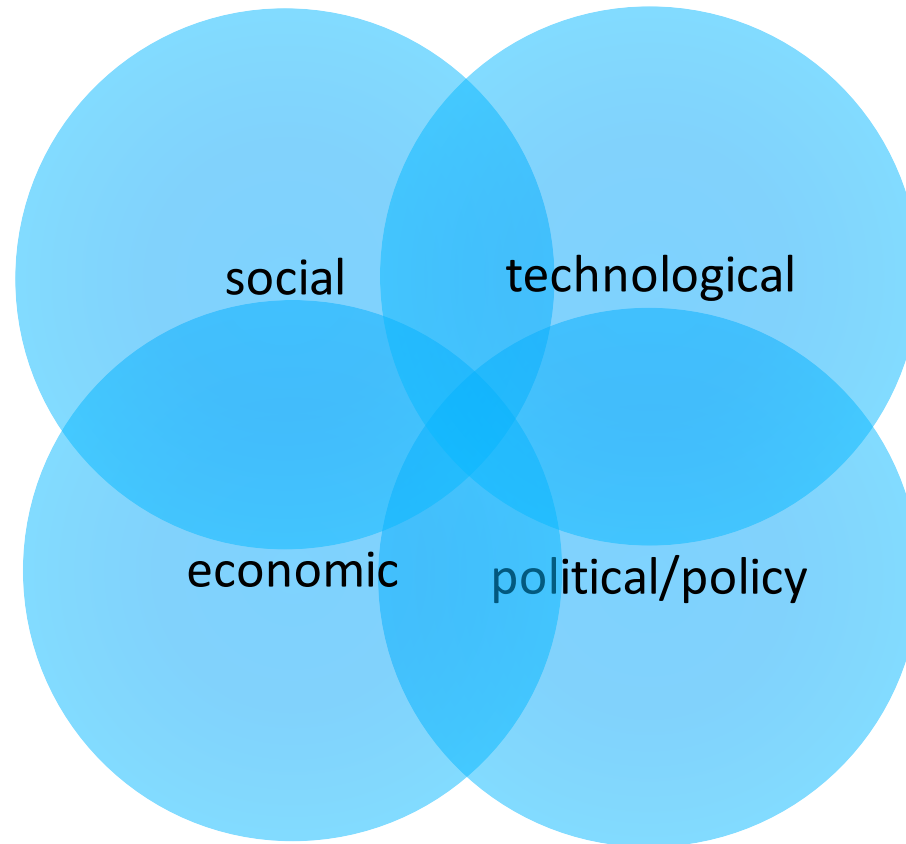
Case study: The Harvard University Memo (2012)

On April 17 the Faculty Members at Harvard University ("in all Schools, Faculties, and Units") received a memo about Periodical Subscriptions from the Faculty Advisory Council that began like this: *"We write to communicate an untenable situation facing the Harvard Library. Many large journal publishers have made the scholarly communication environment fiscally unsustainable and academically restrictive. This situation exacerbated by efforts of certain publishers (called "providers") to acquire, bundle, and increase the pricing on journals."*

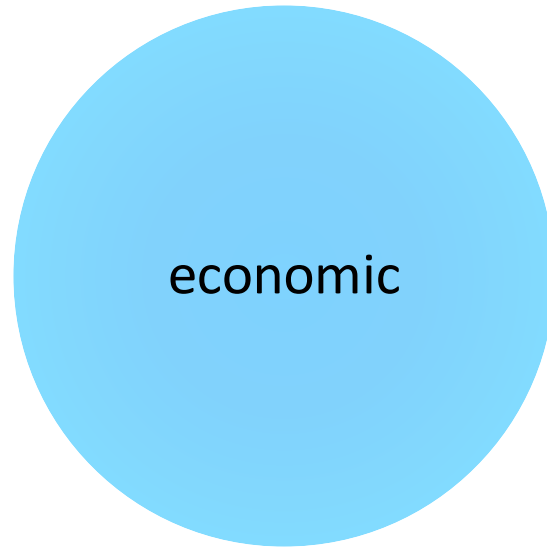
60-second reflection

- How do you think your faculty and administrators would react to such a statement at your University?

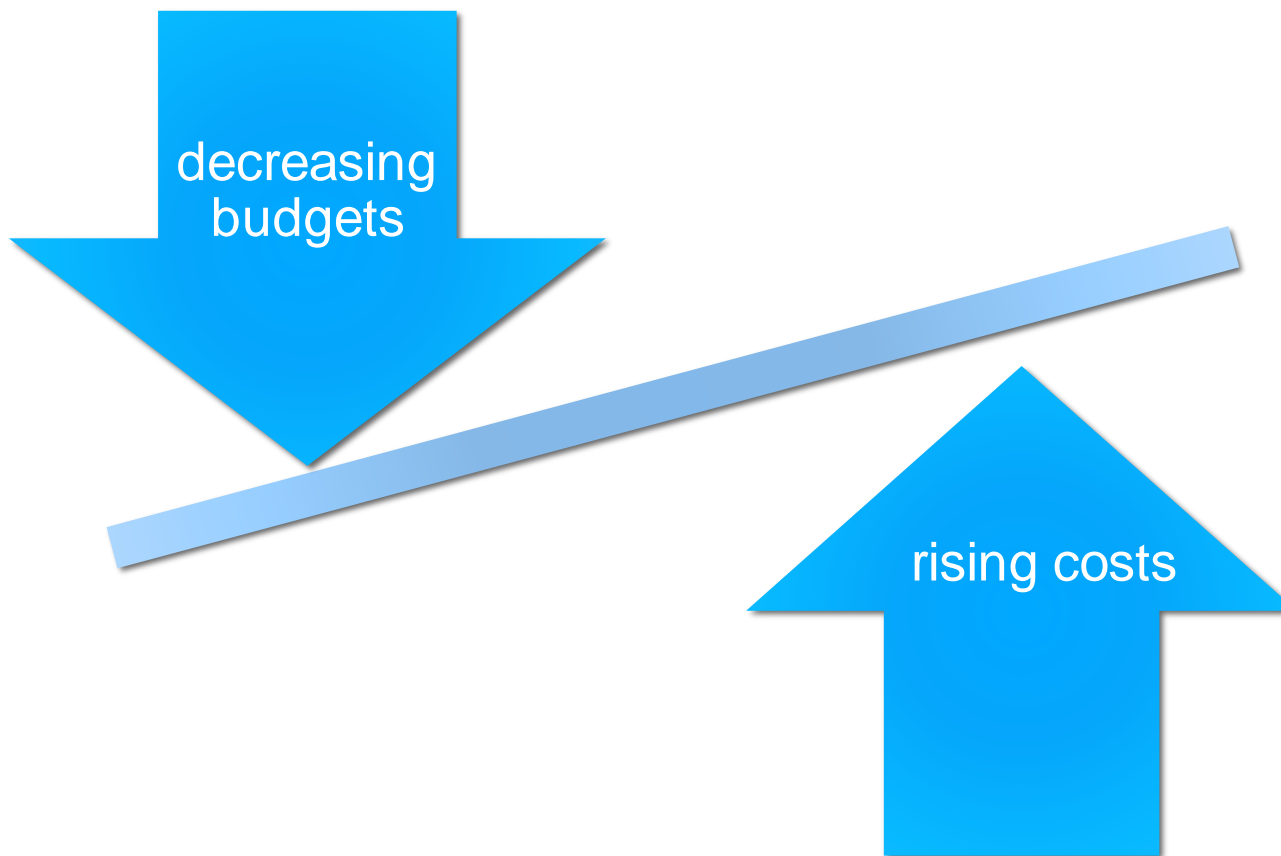
Drivers of scholarly communication



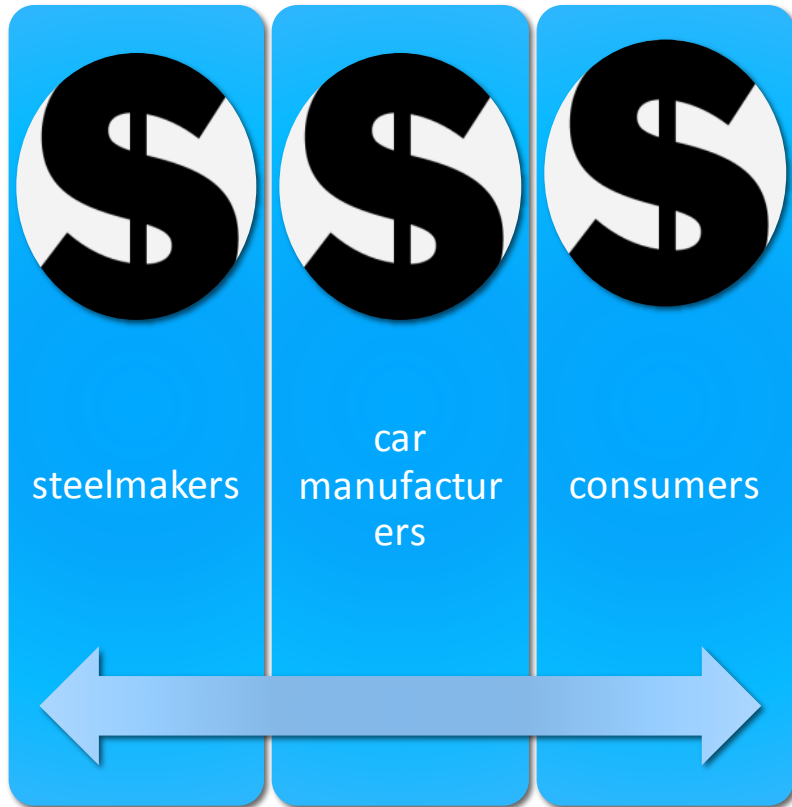
Drivers of scholarly communication



Economic



Typical economy



Scholarly publishing



Open access publishing (Gold)

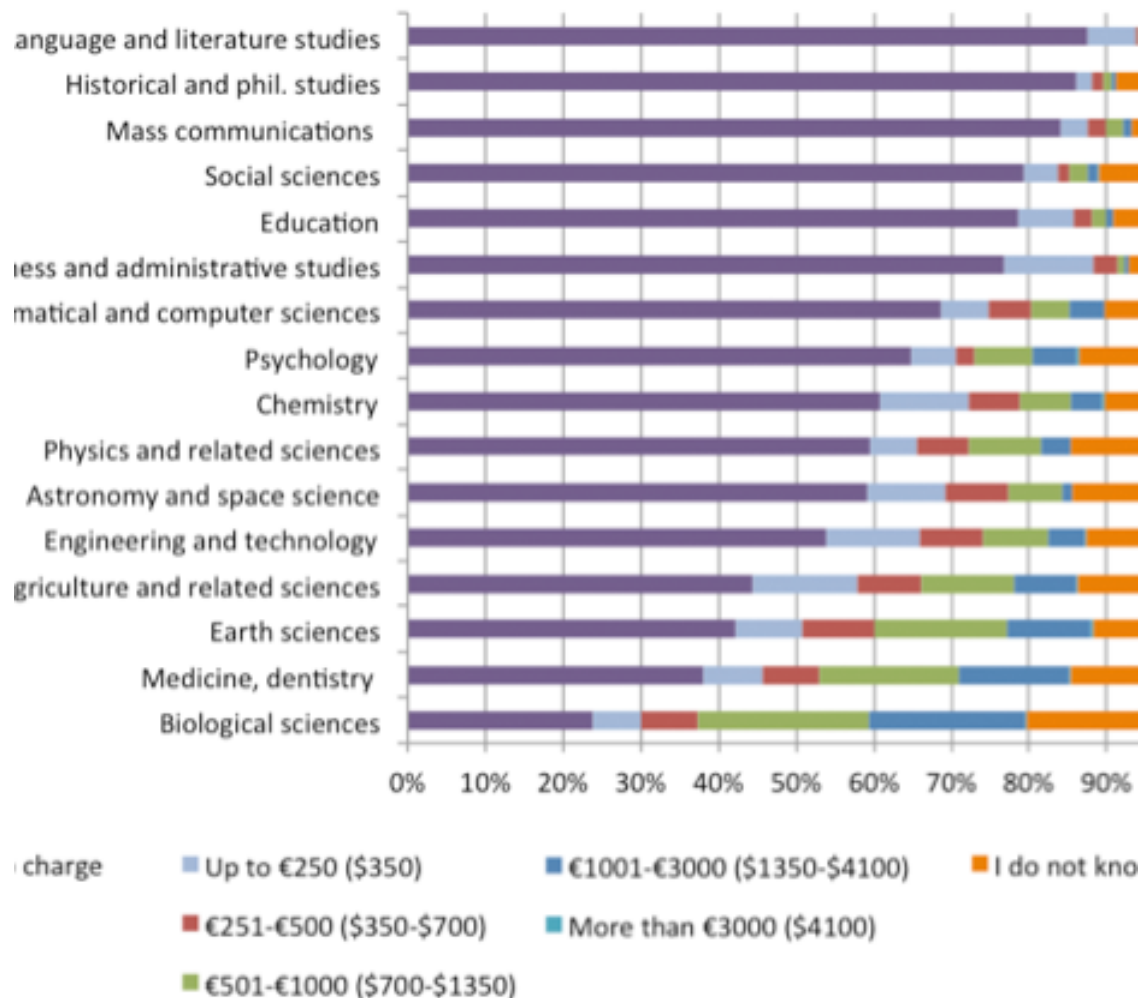
Has taken time for impact factors and reputation to build

Business models still emerging

Article-fee model has better traction in the STM community

Rising of an OA publishing trade organization for legitimate OA publishers (OASPA) and Directory of Open Access Journals (DOAJ) that lists journals with acceptable publishing practices

paid, by discipline



HOW OPEN IS IT?

SINCE THE ADVENT OF THE WEB, MUCH OF SCIENTIFIC PUBLISHING HAS BEEN MOVING TO OPEN ACCESS. ACCORDING TO SCIENCE-METRIX, OPEN ACCESS REACHED A "TIPPING POINT" AROUND 2011: MORE THAN 50% OF NEW RESEARCH IS NOW MADE AVAILABLE FREE ONLINE.

OPEN-ACCESS PAPERS

AS JOURNALS MOVE TO OPEN ACCESS AND DIGITIZE THEIR ARCHIVES, OLD PAPERS FROM EVERY PERIOD MOVE UP HERE...

...IN ADDITION TO THE FLOOD OF NEW PAPERS BEING PUBLISHED HERE DIRECTLY.

25% OF OPEN-ACCESS PAPERS ARE FREELY AVAILABLE ON PUBLICATION.

THE REST BECOME FREE WITHIN 12 MONTHS ON JOURNAL WEBSITES OR OTHER REPOSITORIES.

ARCHIVE OF FREE BIOTED PAPERS

2000: PUBMED CENTRAL DEBUTS
PLOS FOUNDED

2001: 30,000 SCIENTISTS CALL FOR BOYCOTT OF JOURNALS THAT DON'T ALLOW FREE ACCESS ON PUBLISHED WITHIN 6 MONTHS

2002: HINMI AGREES TO PAY AUTHOR FEES FOR OPEN-ACCESS PUBLICATION

2003: PLOS BIOLOGY LAUNCHED, CHARGES \$1500 AUTHOR'S FEE

2006: U.K. MEDICAL RESEARCH COUNCIL MANDATES FREE ACCESS WITHIN 6 MONTHS
PLOS RAISES TOP AUTHOR FEE TO \$2500, LAUNCHES PLOS ONE, WHICH REVIEWS FOR SCIENTIFIC RIGOR, NOT IMPORTANCE.

PAPERS IT FUNDS BE MADE FREE WITHIN 12 MONTHS
HARVARD FACULTY AGREE TO POST PAPERS IN UNIVERSITY REPOSITORY

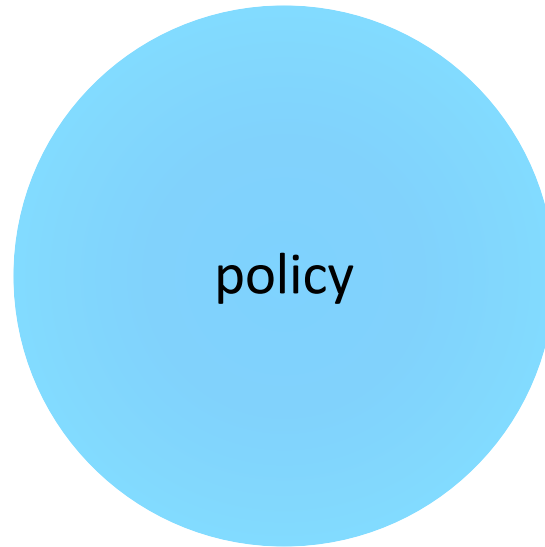
2010: PLOS BECOMES PROFITABLE.
PLOS ONE BECOMES WORLD'S BIGGEST SCIENTIFIC PUBLISHER BY VOLUME.

SCIENCE AGREES TO PLAN TO MAKE PAPERS FREE WITHIN 12 MONTHS

2014: EUROPEAN COMMISSION WILL REQUIRE FREE ACCESS WITHIN 6-12 MONTHS

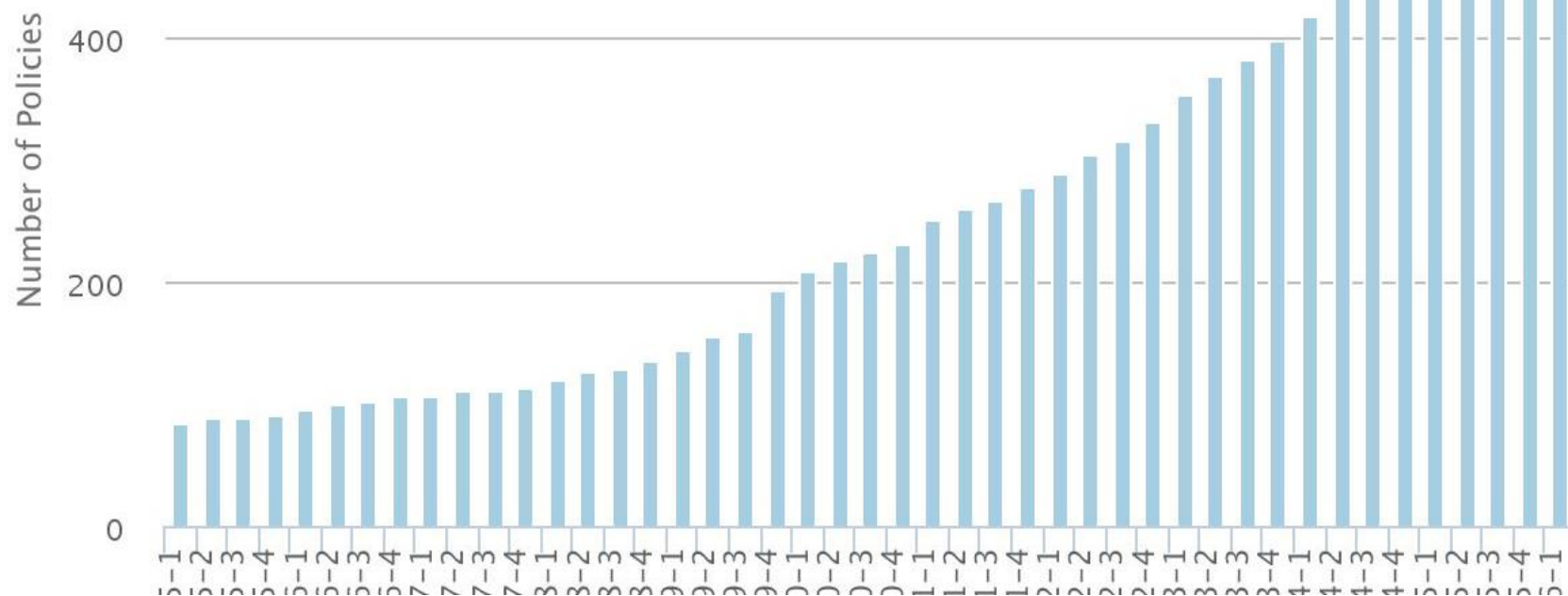
BY RANDALL MURDOCK • REPORTING BY JOCELYN KASER AND DAVID MALKOFF

Drivers of scholarly communication

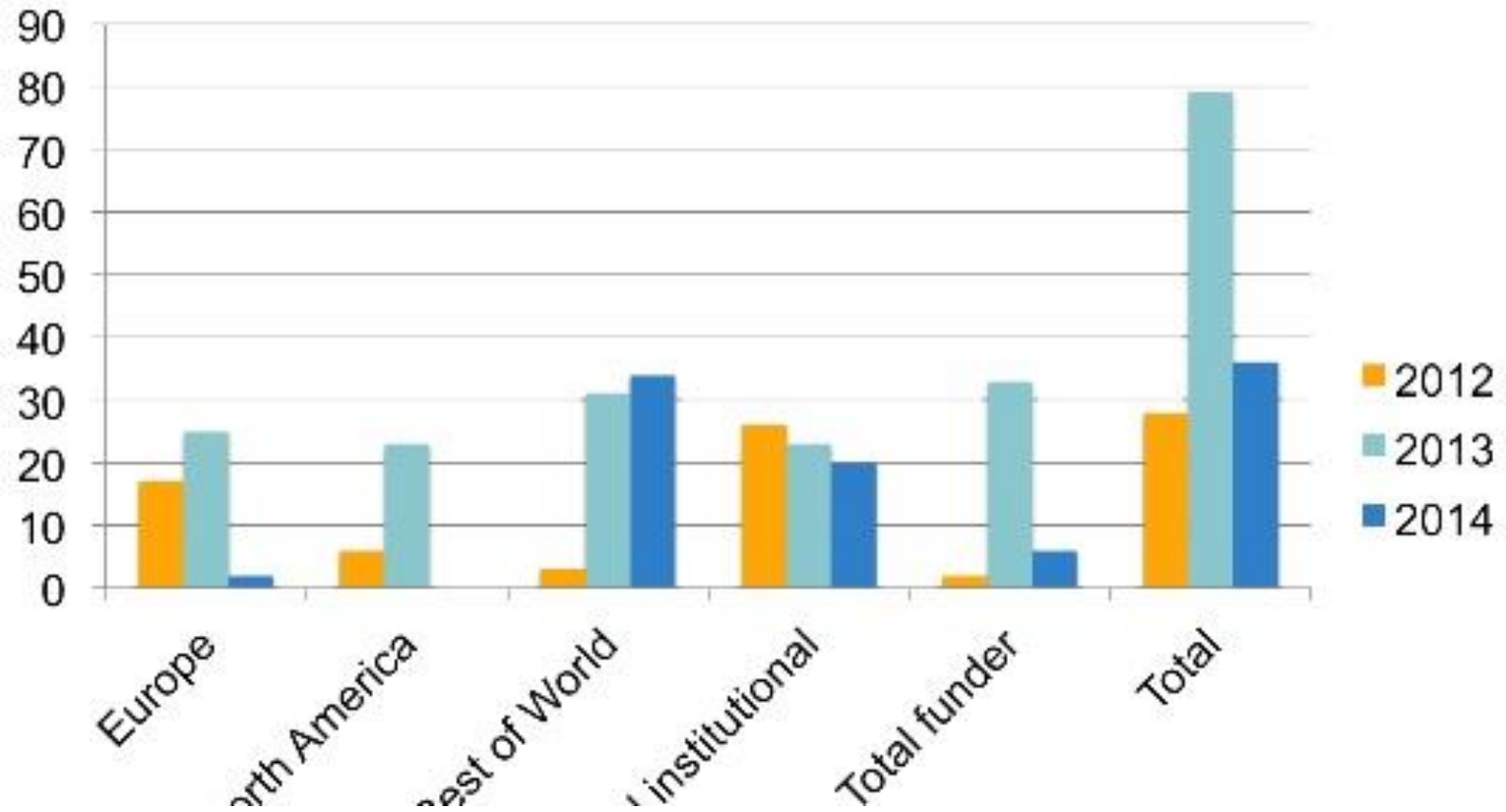


Universities with OA policy

539
(March 2016)



Funder mandates worldwide



SHARE and CHORUS

SHARE

- Primary role is to network institutional repositories
- Envisions providing access to all research outputs (datasets as well as articles)
- The architecture will eventually include a notification service (in pilot), disturbed content, registry layer, and content aggregation layer

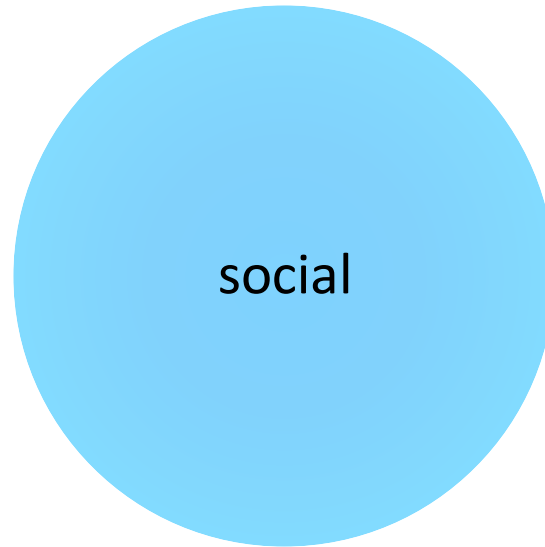
CHORUS

- Primary role is to enable content discovery (not hosting) and redirect to publisher sites
- Will leverage existing standards and systems via CrossRef
- Deposits into a dark archive for long-term preservation
- Six agencies currently using CHORUS (biggest is NSF)

US policies currently on the table

- Department of Education Open Licensing Policy
 - Requires the recipients of direct competitive grant funds to openly license all resulting copyrightable intellectual property to the public.
 - This includes textbooks, videos, articles, software, assessments, and other educational resources
- Fair Access to Science and Technology Research (FASTR) Act of 2015. The goals of this bill are to accelerate scientific discovery and fuel innovation by making articles reporting on publicly funded scientific research freely accessible online for anyone to read and build upon. FASTR is currently waiting to appear on the Senate floor.
- Affordable College Textbook Act (2015)
 - Seeks to reduce cost of textbooks and leverage the use of open textbooks
 - Creates a grant program to support pilot programs at colleges and universities to create and expand the use of open textbooks with priority for those programs that will achieve the highest savings for students.

Drivers of scholarly communication



Social

- The cost of knowledge: nearly **16,000 researchers** from across disciplines have publicly stated they will not work with Elsevier – to peer review or publish
- Students advocating for access through Right to Research Coalition
- SciHub: Illegal website offering more access to more than 48,000 PRP
- #ICanHazPDF

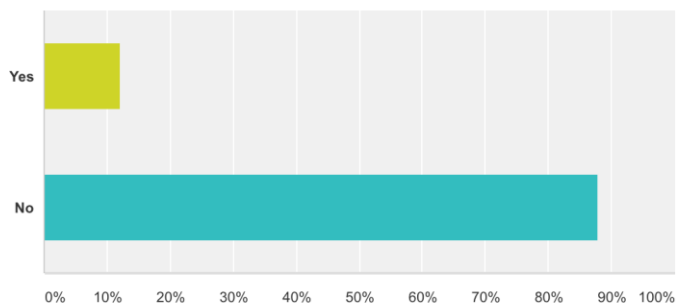
SciHub:

Tell us what you think about Sci-Hub—Love it or Hate it?

Q1

Do you think it is wrong to download pirated papers?

Answered: 10,841 Skipped: 96

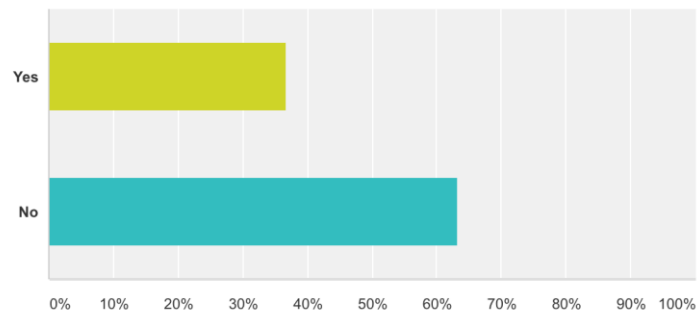


| Answer Choices | Responses |
|----------------|--------------|
| Yes | 12.13% 1,315 |
| No | 87.87% 9,526 |
| Total | 10,841 |

Q4

Have you obtained a pirated journal article, through Sci-Hub or other means, despite having access to it in some manner via a university library or institutional subscription?

Answered: 10,772 Skipped: 165



| Answer Choices | Responses |
|----------------|--------------|
| Yes | 36.85% 3,969 |
| No | 63.15% 6,803 |
| Total | 10,772 |

Civil complaint filed against OMICS

RESEARCH

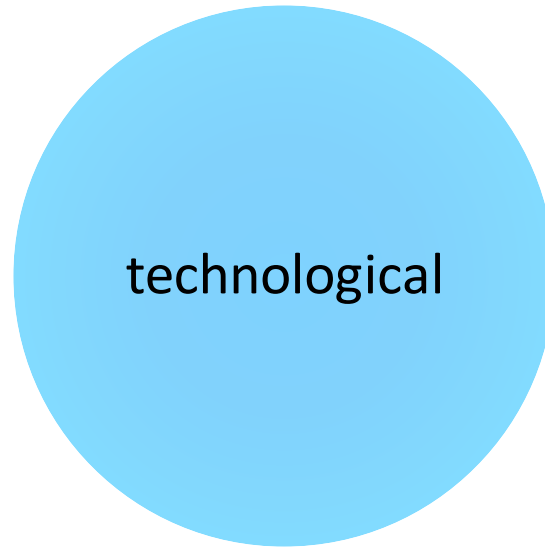
Federal Prosecutors Join Fight Against Predatory Journals

By Paul Basken | AUGUST 30, 2016

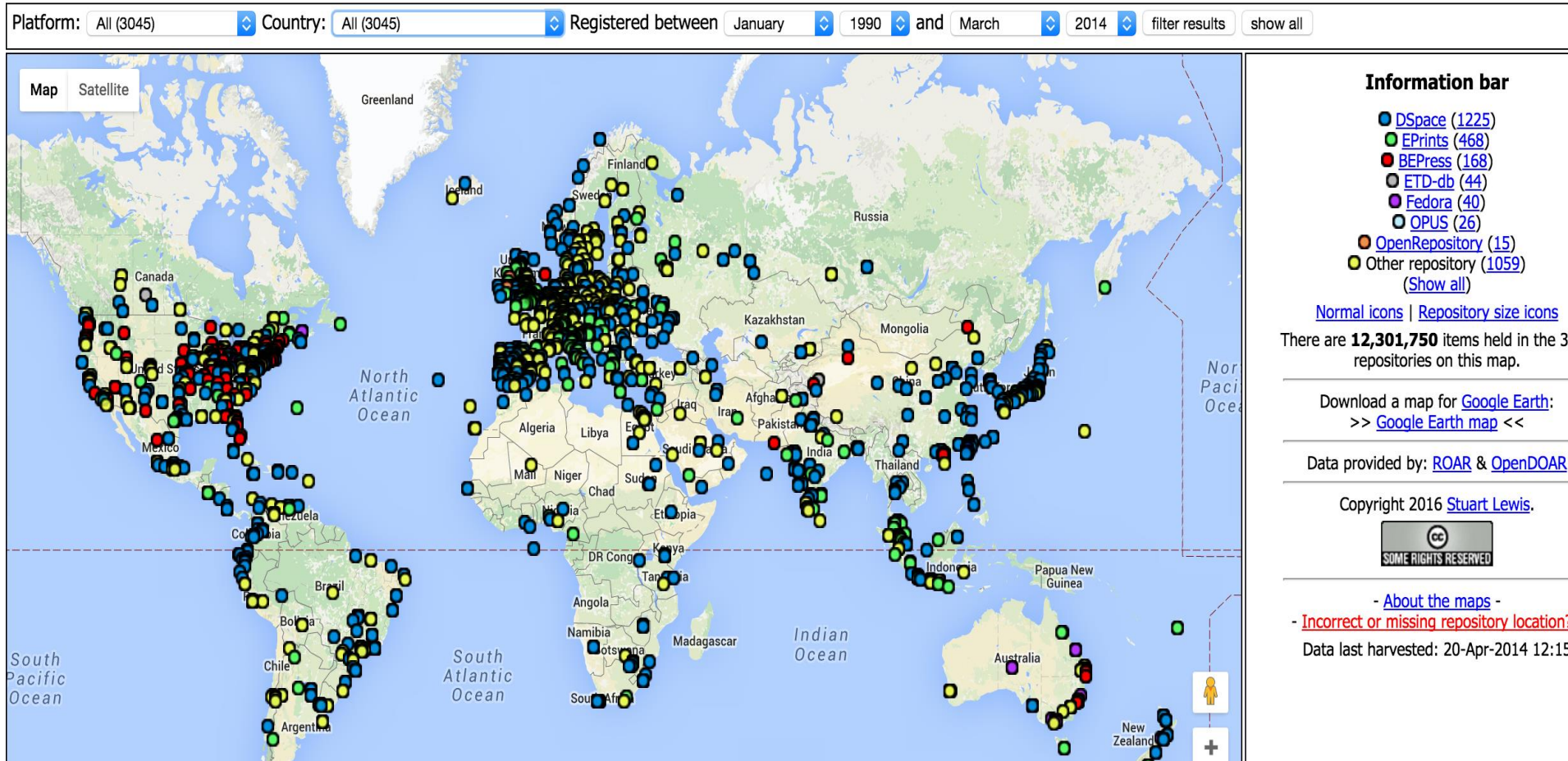
The rising number of predatory journals has become a major blight on academic publishing, deceiving authors, their institutions, and the wider scientific community.

And now the federal government is fighting back.

Drivers of scholarly communication



More than 12,000 repositories worldwide



Technological

- Data repositories
- Dark archives
- Collaborative archives
- Platforms to seamlessly integrate multi forms of content

arXivs multiply!

- ArXiv is a preprint OA repository for reporting new research in physics, math, and related disciplines that has been widely used and embraced by the community for 20 years
- BioarXiv is a preprint server for biology modeled on arXiv
- SocArXiv, for social science research. Will this replace SSRN?

Group activity

- Twelve new faculty members have been hired to launch a interdisciplinary nutrition science major at your University or College.
- Working in teams at your tables, think about the four pillars— economic, social, political, technological—and develop a list of what will you will need to support the **scholarly communications aspects** of this new program.
- Report out to the room

Group activity(cont'd)

- Each table will advocate for one need.
- Build your argument for why your need is the most important.

Work for eight minutes and we'll report out to the room.

Open Access: where the drivers collide

- Open access is a big opportunity, wherein it covers all the pressure areas.
- In this last section we will walk through open access to examine opportunities
- The flip side, let's look at where doors close and what's at stake when we don't consider the culture of open.

How open is it?

| | | | | | |
|---|--|---|--|--|--|
| Free readership rights to all articles immediately upon publication | Generous reuse and remixing rights (e.g., CC BY license) | Author holds copyright with no restrictions | Author may post any version to any repository or website with no delay | Journals make all copies of all articles automatically available in trusted third-party repositories | Article full text, metadata, supporting data etc. & citations may be accessed via API... |
|---|--|---|--|--|--|

(All Rights Reserved)

Open Access

Point

- OA is democratic
- Remixing encourages innovation and improves teaching and learning
- OA has higher citation rates for authors, offering incentives for reluctant authors

Counterpoint

- OA journals and publishers can be predatory
- OA journals were initially poor quality
- OA is too expensive & complex
- Making work available OA in a repository means that publishing system will collapse

OA Repositories

Point

- Great way to preserve and access content
- Not controlled by commercial interests
- Powerful opportunities to share metadata of unique content

Counterpoint

- Requires a lot of support by the institution – e.g., self-depositing does not work. Mediated service does!
- Use and deposit policies often confusing because it is per work, not governed at the repository level

Mandates

Point

- A starting line to get everyone on equal playing field
- Tied to funding so authors have incentive to comply

Counterpoint

- Multiple and confusing requirements for authors
- US does not provide additional support for US federal agencies – how sustainable are the mandates?
- Will libraries be asked to play a role in compliance?

Open services in libraries

- OA resolutions & policies
- OA resources in our collections
- OA negotiations with publishers
- Copyright & author rights support services
- Open Education services
- Open data services
- Institutional repositories
 - Faculty scholarship
 - ETDs
 - Digital collections
 - Data archiving

Scholarly communication: on the horizon

- Open data
 - Data aggregation and sharing is not a mature system
 - Most disciplines do not have data standards
- Impact
 - Institutions are increasing ways to “capture” and measure research performance
 - Authors are interested in new ways to see the impact of their work
- Open education resources
 - With new emerging policies on textbooks and open licensing, how will the library be called on to support these new initiatives?

We made it! Thank you!



Attribution

- Slide 4:
- Slide 5:
- Slide 18
- Slide 19: Money, Nathan Thomson, from The Noun Project (CC BY 3.0)
- Slide 20:
- Slide 21:
- Slide 24:
- Slide 34:
 - Article, Sébastien Desbenoit, from The Noun Project (CC BY 3.0)
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Question 1

- How would you define this term/area as it applies to scholarly communication? What's included and what's out scope?
- Who are the important stakeholders? How does where you work influence your answers?

Question 2

- What are the challenges and opportunities for libraries around the issue?

Question 3

- What current trends do you see?
- What's going on right now on your campus?

Question 4

- What are your predictions for the future, on your campus, nationally, and globally?