

Enabling Open Research

Heather Joseph
Executive Director, SPARC
SPARC Japan Seminar
Tokyo, Japan
February 21, 2018

SPARC is a global coalition committed to making open the default in research and education.



We focus on opening access to journal articles, research data, and educational materials.





SPARC*

Access to more information, opportunities to do more with it.



Theoretically.



Despite the promise of the Internet, the materials we most need the freedom to work with remain laden with restrictive access, pricing and reuse barriers.



Financial Barriers.



ISI Indexes 2016 Cost By Discipline

| Discipline | Average Cost Per Title |
|----------------------------|------------------------|
| Chemistry | \$5,105 |
| Physics | \$4,508 |
| Engineering | \$3,244 |
| Biology | \$3,104 |
| Food Science | \$2,729 |
| Astronomy | \$2,718 |
| Botany | \$2,418 |
| Geology | \$2,400 |
| Technology | \$2,239 |
| Zoology | \$2,221 |
| Math & Computer Science | \$1,895 |
| Health Sciences | \$1,801 |
| General Science | \$1,717 |
| Geography | \$1,713 |
| Agriculture | \$1,687 |
| Business & Economics | \$1,474 |

| Discipline | Average Cost Per Title |
|-----------------------------|---------------------------|
| Military & Naval Science | \$1,063 |
| Psychology | \$1,020 |
| Sociology | \$1,004 |
| Education | \$978 |
| Social Sciences | \$907 |
| Political Science | \$820 |
| Library Science | \$774 |
| Recreation | \$747 |
| Anthropology | \$513 |
| Law | \$475 |
| History | \$434 |
| Philosophy & Religion | \$433 |
| Arts & Architecture | \$432 |
| Language & Literature | \$379 |
| Music | \$293 |
| General Works | \$263 |

Average: **\$1,788**

Source: Library Journal 2016 Periodicals Pricing Survey

"Fracking the Ecosystem | Periodicals Price Survey 2016," by Stephen Bosch and Kittie Henderson. Library Journal, April 21, 2016:

In 2015, the annual revenues generated by STM journal publishing were estimated at US \$10 billion.

http://www.stm-assoc.org/2015_02_20_STM_Report_2015.pdf



These cost barriers for articles have direct consequences on each of us...daily.





NIghttime hypoglycemia Continuous Glucose Monitoring System in pedia



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| | Everything |
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Images

Maps

Nocturnal hypoglycemia detected with the Continuous Glucose ...

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Nocturnal hypoglycemia detected with the Continuous Glucose Monitoring
System in pediatric patients with type 1 diabetes. Kaufman FR, Austin J, Neinstein

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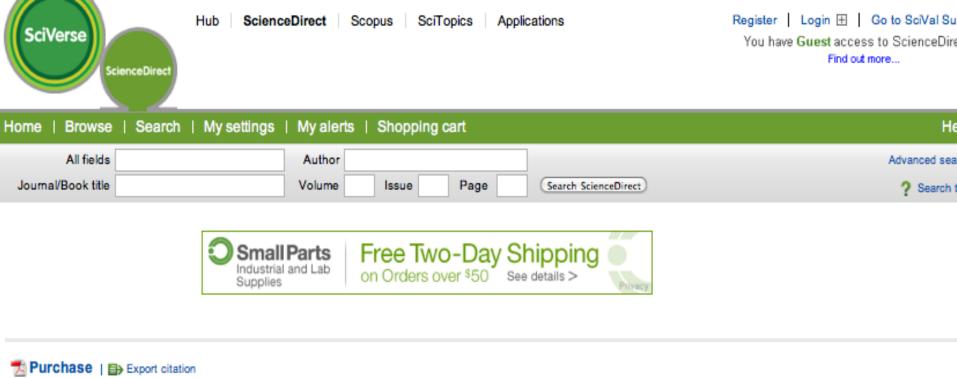
Nocturnal hypoglycemia detected with the Continuous Glucose Mo...

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(2002) Kaufman et al. The Journal of pediatrics. Read by researchers in: 100%
Medicine. OBJECTIVE: To use the Continuous Glucose Monitoring System (CGMS,

Continuous glucose monitoring reveals delayed nocturnal hypogly...
www.mendelev.com/.../continuous-glucose-monitoring-reveals-delay...

Nocturnal hypoglycemia detected with the Continuous Glucose Monitoring ...

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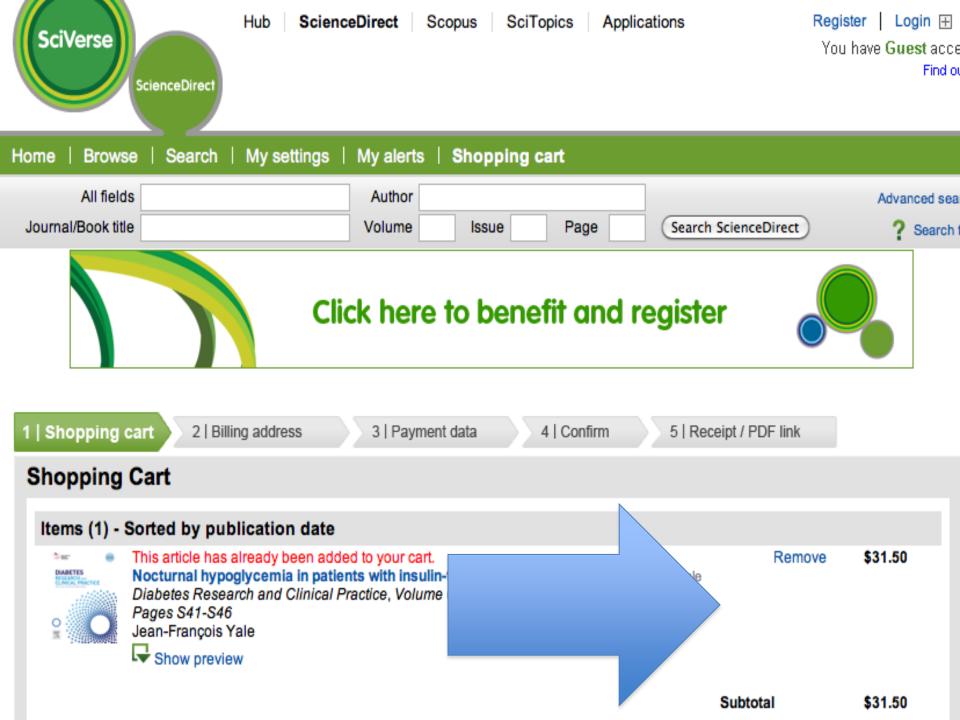
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So what do you do?



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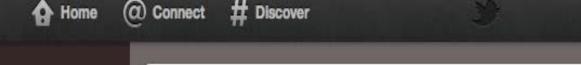


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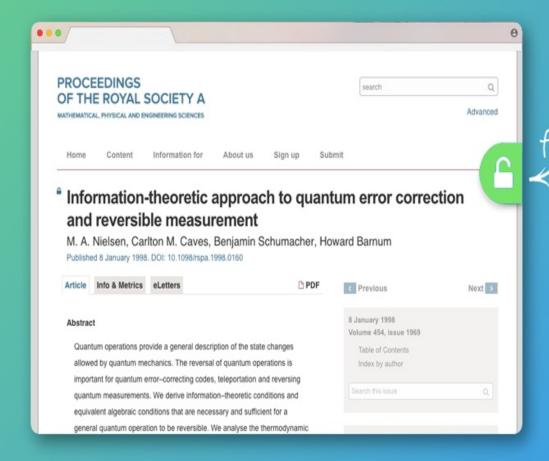
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In rich and poor countries, researchers turn to the Sci-Hub website.

Or worse - I skip the article altogether, and go on to one that I do have access to.



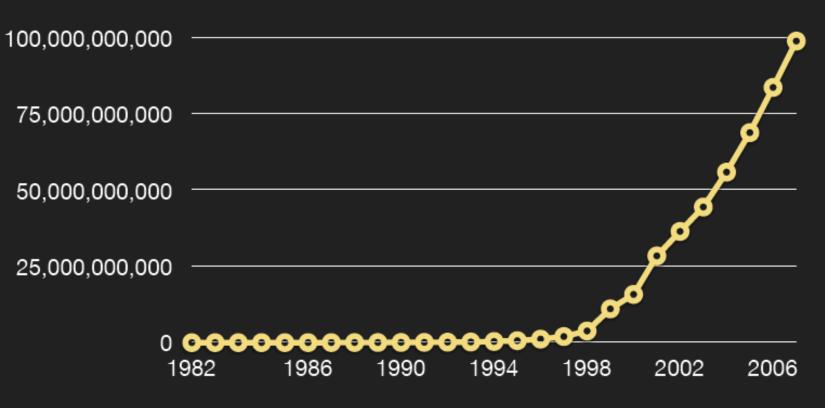
We're operating in a system that regularly forces us into workarounds.



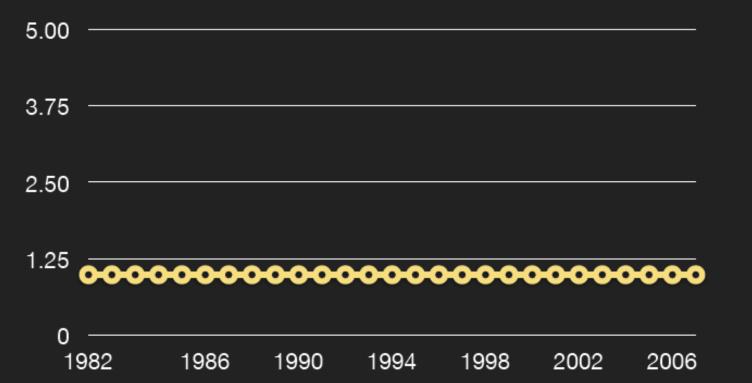
Cost issues are compounded by limited utility.



Submissions to Genbank



Average Capacity of Human Scientist





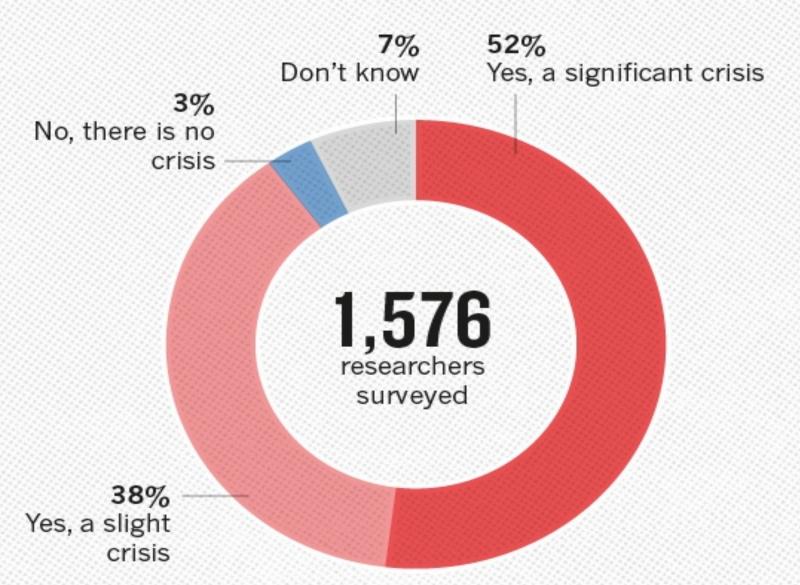
Not allowing research via "commercial" text and data mining



Text
and data mining
can be used to process
large volumes of data easily.
Copyright often prohibits it, if
the purpose is not completely
non-commercial.

This creates
needless
barriers to
scientific
research.

IS THERE A REPRODUCIBILITY CRISIS?



Need to optimize the system of sharing research and educational materials to better suit the needs of the end users - scholars, students, researchers, etc.







"An old tradition and a new technology have converged to make possible an unprecedented public good..."



"The public good they make possible is the world-wide electronic distribution of the peer-reviewed journal literature and completely free and unrestricted access to it by all scientists, scholars, teachers, students, and other curious minds."



"By "open access" to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers."

Open Access = Free Online Access + Full Digital Reuse



Not "open" simply because open is better than closed, and not "open" for open's sake...



...But "Open" as an enabling strategy in order to make progress.



"This will accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge."



Opening access to research data in order to...prevent a Zika pandemic.



Opening access to research data in order to... improve transparency and reproducibility.



Opening access to textbooks in order to... make higher education more affordable to all students.



OPEN IN ORDER TO

- ✓ INCREASE ACCESS TO KNOWLEDGE
- ✓ FACILITATE COLLABORATION
- ✓ RAISE YOUR RESEARCH VISIBILITY
- ✓ OTHER:



What can OPEN ACCESS do for you?







WORK TOGETHER
WITH OTHERS







OPEN in order to...

Open in order to end extreme poverty: Access to Information as an enabling strategy



SUBMITTED BY ELISA LIBERATORI PRATI ON WED, 10/18/2017 CO-AUTHORS: SUMIR LAL













In 2009, the World Bank envisioned "open" in exactly the same way you "see" the word . . . an open door . . . and waiting behind the door . . . access to buildings and ideas, people and events. And in the Bank's case, access to a plethora of information on projects throughout the world, current 'of the moment' information on

Biden to cancer researchers: How can we move faster on this?



ice President Joe Biden in 2012.

What concrete benefits can be realized by making scholarly outputs openly available?

"Open in order to..." serves as a prompt to move beyond talking about openness in itself and focus on what openness enables—in an individual discipline, at a particular institution, or in a specific context; then to take action to realize these benefits. If you have an answer, share it with us and Tweet #OpenInOrderTo. Created by **SPARC***













All of this sounds pretty compelling...so why aren't we there yet?



Publisher pushback, to be sure...

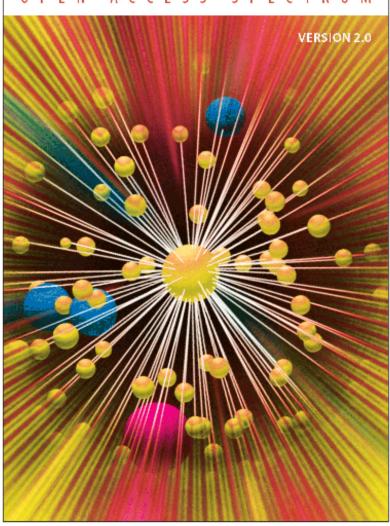


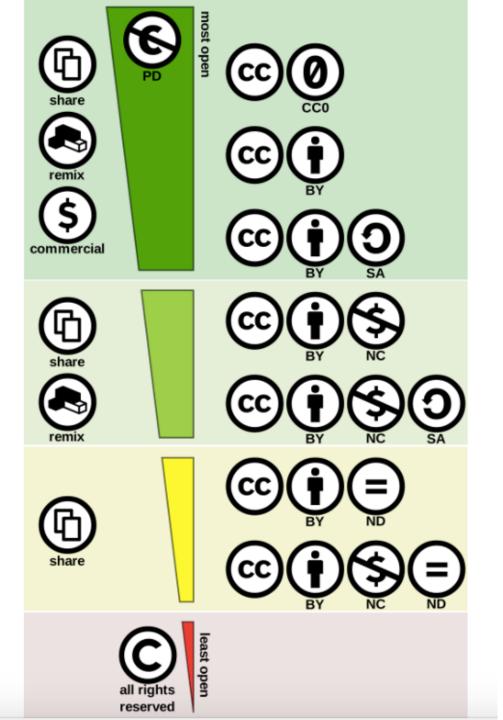
But also scholar/researcher pushback.



HowOpenIsIt?

OPEN ACCESS SPECTRUM







BEALL'S LIST OF PREDATORY JOURNALS AND PUBLISHERS

PUBLISHERS

STANDALONE JOURNALS

CONTACT

OTHER

THINK CHECK SUBMIT

Potential, possible, or probable predatory scholarly open-access publishers

This is a list of questionable, scholarly open-access publishers. We recommend that scholars read the available reviews, assessments and descriptions provided here, and then decide for themselves whether they want to submit articles, serve as editors or on editorial boards. In a few cases, non-open access publishers whose practices match those of predatory publishers have been added to the list as well. The criteria for determining predatory publishers are here.

We hope that tenure and promotion committees can also decide for themselves how importantly or not to rate articles published in these journals in the context of their own institutional standards and/or geocultural locus. We emphasize that journal publishers and journals change in their business and editorial practices over time. This list is kept up-to-date to the best extent possible but may not reflect sudden, unreported, or unknown enhancements.

- 1088 Email Press
- 2425 Publishers
- The 5th Publisher

News



Nature: Predatory journals recruit fake editor

List of journals saying they are indexed by DOAJ, but they are not





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Data Management Planning Tool

Create, review, and share data management plans that meet institutional and funder requirements.

Get Started



PUBLIC DMPS

List of sample data management plans provided by DMPTool users.

- » UNDERSTANDING THE ROLE OF PHYSICIAN INTEGRATION WITHIN NURSING HOMES IN POST-ACUTE CARE OUTCOMES
- » "A Microgravity-Themed Collaborative Intervention Promoting Student Selection of a STEM Career Pathway"



DMPTOOL NEWS

Latest information about data management and the DMPTool.

- » NSF EAGER Grant for Actionable DMPs
- » DMPRoadmap summer camp news
- » On the right track(s) DCC release dra...
- » RDA-DMP movings and shakings
- » Active, actionable DMPs



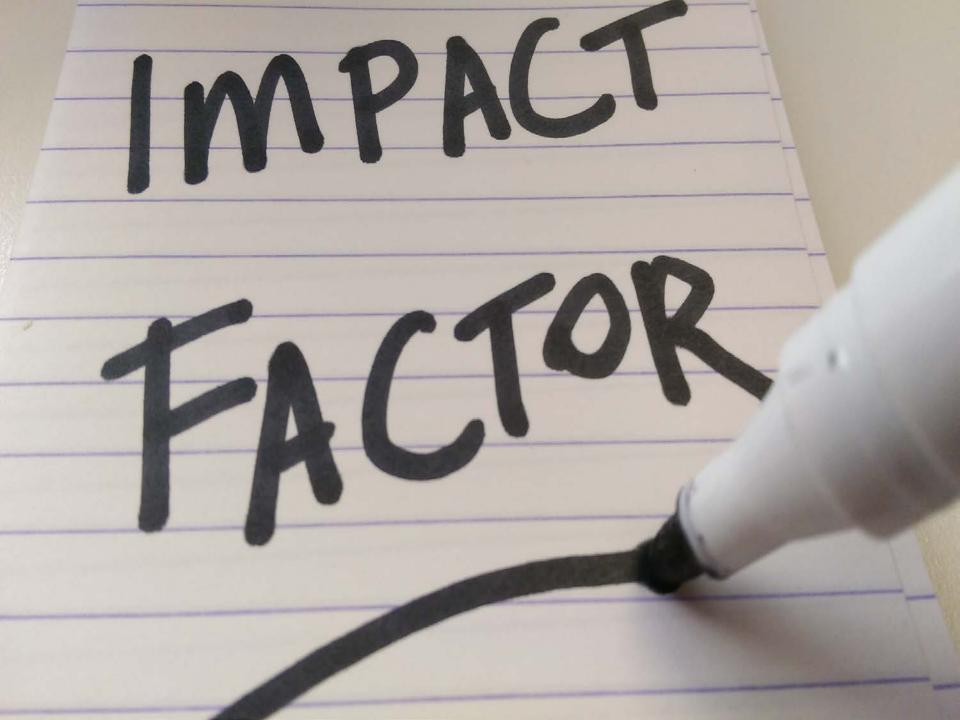
DMPTOOL HELP

Overview of how to use the tool, plus resources and guidance on data management.

- » Frequently Asked Questions
- » Create a DMP
- » Administer the DMPTool
- » Data management guidance
- » Community resources







We have institutional incentives that do not reward the creation and use of open materials and practices.



So how do we address these problems?



1. Need to realign institutional incentives to reward practices that contribute toward achieving core mission.







Chiba University began with five faculties in 1949 as a national university under the new postwar education system. Since then, it has expanded to become a comprehensive university comprised of ten faculties and 11 graduate schools.

Since its foundation, Chiba University has aimed to contribute to society through its pioneering education and research. To attain this goal, faculty and staff are encouraged to think outside the box and to collaborate across specialty and profession. This open system of faculty-level exchange enables Chiba University to promote its distinctive integrated education and research.

In 2004, changes to the education law allowed the national university to become an independent administrative entity. Under our university's

motto, "Always Aim Higher", we established a new goal to cultivate human resources capability of assuming roles in global society. In 2016, we created a new faculty, the College of Liberal Arts and Sciences, in an effort to stimulate the further development of our university mission.

Too Many Guidelines Look like This...

| - | |
|---|---|
| | 1 |
| | |
| | |

| Peer-reviewed publications 1 | Grants and Patents | Teaching | Service |
|--|--|--|--|
| 10-15 in journals with average impact factors of 3-6 or an H-index of ≥10 or publication in appropriate subspecialty journals. As a general guideline 10 or more peer reviewed publications since appointment as an assistant professor at USF MCOM. | PI or multiple-PI/co-PI on 1 peer-reviewed grant (preferably federal with full indirect costs) that has been renewed; or the combination of a current or prior peer-reviewed funded grant plus either a) a second peer-reviewed funded grant or b) a patent generating licensing income. | Positive teaching evaluations >3.5; or strong peer-reviewed teaching evaluation; or program/course development; or successful mentorship of graduate students and/or postdoctoral fellows. | University/collegiate committees plus membership in professional societies; and/or peer-review study section membership; and/ or service as reviewer or on editorial boards. |

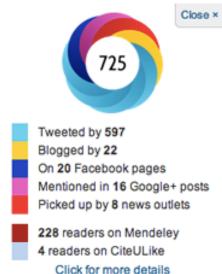
What could/should they look like in your discipline?



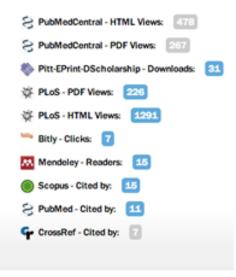














Master of Publishing Undergraduate Minor Publishing Workshops Research

Home > Assessing Current Practices in the Review, Promotion and Tenure Process

From the Blog

The MPub Book Project
2018/01/05 | Publishing@SFU Announcements,
Student Presentations, Papers, & Reports,
Uncategorized

Copyediting Position at BC Pension Corporation 2017/12/05 | Jobs & Opportunities, News & Events, Publishing@SFU Announcements, Uncategorized

How to arrange a professional placement 2017/12/04 | Jobs & Opportunities

Pandoc version 2.0 released 2017/11/04 | News & Events

Publishing Spring 2018 TA and TM Postings 2017/10/24 | Jobs & Opportunities

Assessing Current Practices in the Review, Promotion and Tenure Process

Project Description

This research project, funded through the Open Society Foundation, aims to examine how faculty are evaluated in the review, promotion and tenure (RPT) process. We aim to understand the types of criteria and definitions of criteria that are utilized in the process for faculty to describe their research. We are particularly interested in examining the extent to which concepts of open access, open science, and public engagement have been incorporated in the RPT process.

How you can help!

We are looking to collect as many of RPT documents as possible. If you can locate any of these documents, please email them to rpt-project@sfu.ca with the URL to the department and university that they correspond with. If you found them online, please also include the link to where they are available.

Below you can find some details on what these forms look like, where you might find them, and how you could solicit them from faculty members.

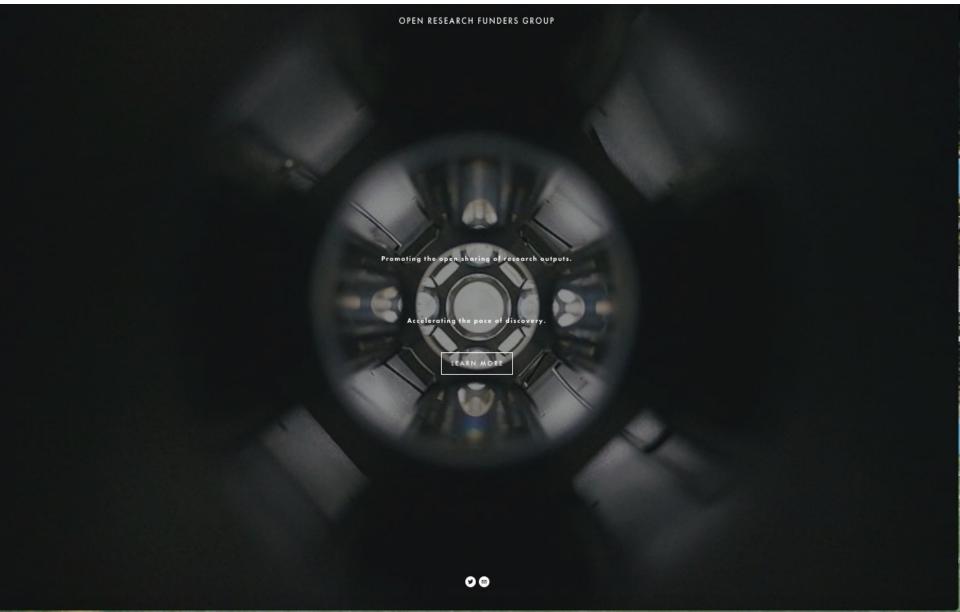
Please take a few minutes to help us!

What Do These Forms Look Like?

These forms will vary by institution. Some may be straight text guidelines while others may be a form for the faculty to fill with guidance from the institution. Here are some examples of different formats, such as:

- institutional guidelines for promotion and tenure (e.g. IUPUI),











BILL & MELINDA GATES foundation



JAMES S. McDONNELL FOUNDATION













2. We need Open Access business models that support both local knowledge creation and global dissemination in an equitable manner.



OA2020 – initiative for the large-scale transition to open access

NEWS

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OA2020 - The Initiative

27 September 2017

New Endorsement of OA2020 from the Kingdom of Saudi Arabia

The King Abdullah University of Science & Technology (KAUST), the first institution in the Middle East to have established an open access mandate for its researchers, has now endorsed the Open Access 2020 Initiative, thanks to the direct involvement of Dr. J. K. Vijayakumar, University Librarian of

Open Access 2020 is an international initiative that aims to induce the swift, smooth and scholarly-oriented transformation of today's scholarly journals from subscription to open access publishing.

The principles of this initiative were discussed and agreed upon at the Berlin 12 Conference on 8-9 December 2015 and are embodied in an Expression of Interest, which has already been endorsed by numerous international scholarly organizations.

The practical steps that can be taken towards the envisaged transformation are outlined in a Roadmap.

All parties involved in scholarly publishing – particularly universities, research institutions, funders, libraries, and publishers – are invited to collaborate through OA2020 for a swift and efficient transition of scholarly publishing to open access.

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The Knowledge

Gap: Geopolitics of Academic Production

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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

Over the last few decades, there has been ongoing debate and distress regarding the effects of the journal subscription paywall and the very real barriers to knowledge access that it creates. As major academic publishers invest and redirect their business strategies to open access and alternative paying structures, it may seem as if the access to knowledge battle is starting to be won. However, as big publishers move towards openness they have also been redirecting their business strategies towards the acquisition of scholarly infrastructure, the tools and services that underpin the scholarly research life cycle, many of which are geared towards data analytics. We argue that moves toward increased control over openness and data analytics by big publishers are simultaneous processes of profit maximization. Could it be that our attention on the paywall has distracted us from paying attention to the strategic takeover of infrastructure by the publishers? These processes should be examined closely as they are actively entrenching the publisher's' power and control which could be posing great threats to the exclusion of already marginalized researchers and institutions.

Categories

 Knowledge, Power and Inequality in Open Science Policy

Recent Posts

The Rise of Big Publishers in
Development and What is at Stake

Recent Comments

Austin Krauss on <u>Preliminary Findings:</u> <u>Rent Seeking by Elsevier</u>

3. We need community owned/controlled infrastructure for knowledge creation and dissemination.





Elsevier acquires institutional repository provider bepress

Building on its strategy to pivot beyond content licensing, Elsevier has acquired bepress, the institutional repository provider.

Authors

Editors

Institutions

Publishers

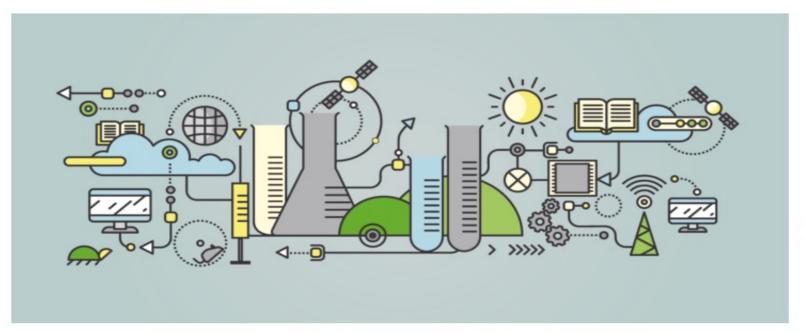
Special Issues

Opinion

Contact

A radically open approach to developing infrastructure for Open Science

8 Paul Peters © October 23rd, 2017













Hindawi's CEO, Paul Peters, explains the problems inherent in proprietary solutions for Open Science infrastructure and presents a proposal for how things can be done differently.

We need to continue to build collaborative strategies that better reflect the global nature of the research enterprise...



...and that use "Open" as an effective enabling strategy to help us achieve our shared goals.



Thank You.

Heather Joseph
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Twitter: @hjoseph

