

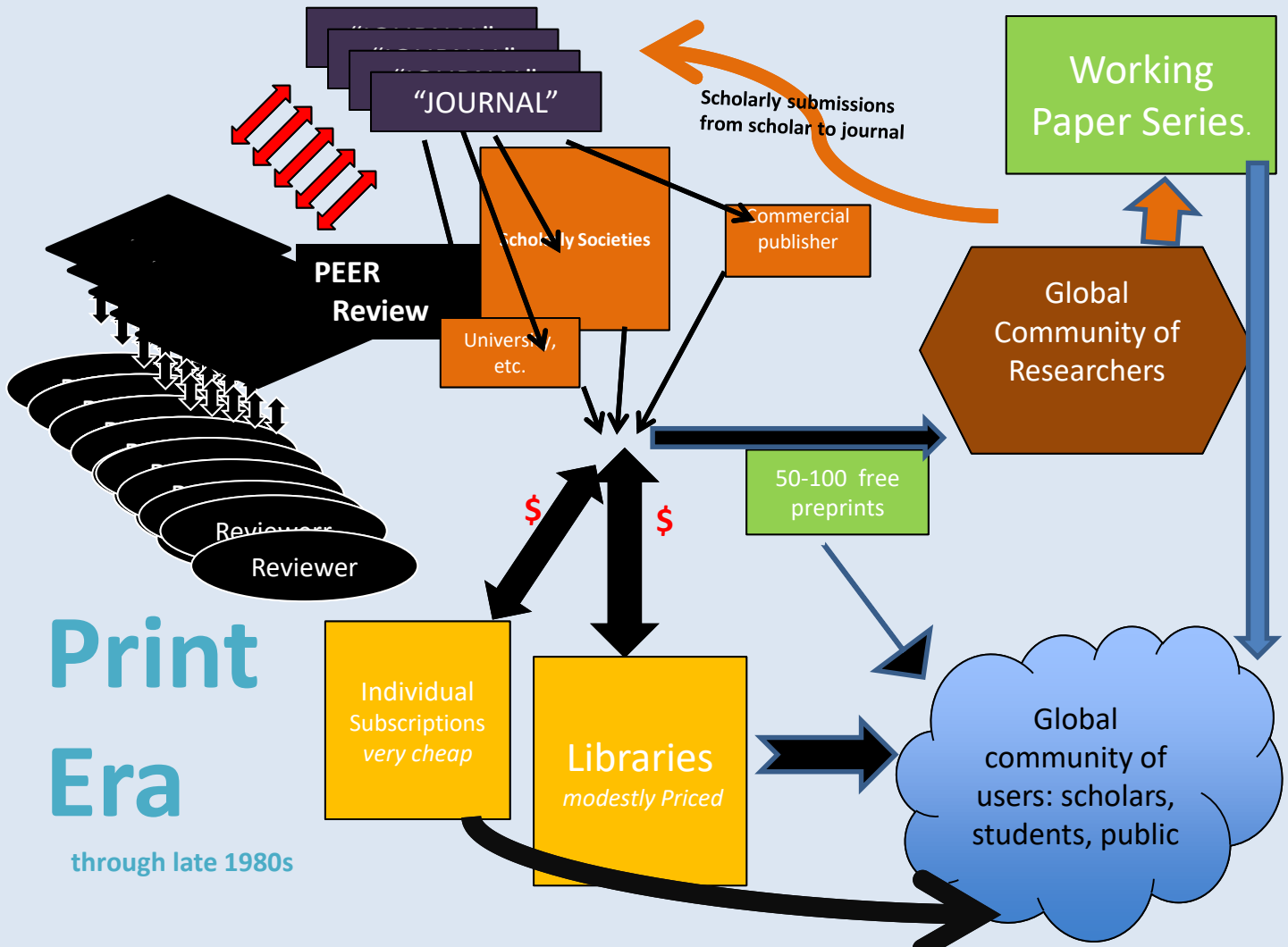
SUBSCRIPTIONS? FLIPPING? KEEPING THE OA FAITH? GETTING TO THE FUTURE WITH BOTH OUR INTEGRITY AND SCHOLARSHIP INTACT

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Association of Public and Land-grant Universities

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A LITTLE HISTORY

WHERE WE'VE BEEN



MANY ADVANTAGES AND DISADVANTAGES

- GETTING MANUSCRIPTS INTO PRINT WAS EXPENSIVE
- PRINT WAS SLOW
- PRINT WAS HARD TO EDIT, COPY, SEARCH
AND USE TO DEVELOP METRICS

BUT UNDERSTANDING THIS...

- PRINTED JOURNALS WERE PRODUCED CHEAPLY
- INDIVIDUAL SUBSCRIPTIONS WERE
EASILY AFFORDABLE
- LIBRARY SUBSCRIPTIONS WERE AFFORDABLE
- PRE- AND POST-PRINT SHARING WAS FREELY PERMITTED

AS AN ASSISTANT PROFESSOR IN THE 1970s
I HAD ROUGHLY 50% OF WHAT I NEEDED IN MY OFFICE
AND
NEAR 100% IN MY UNIVERSITY LIBRARY

UNTIL THE EARLY 1970S JOURNAL PRICES WERE INEXPENSIVE AND
JOURNAL PRICE INCREASES WERE MINIMAL---

BUT CRITICAL CHANGES OCCURRED

- 1- **BIG SCIENCE** EMERGED IN THE 1960S AND THE SCALE OF SCIENCE AND UNIVERSITIES EXPLODED FOR THE NEXT TWO DECADES
- 2A. THIS LED **COMMERCIAL PUBLISHERS** TO APPRECIATE THE POTENTIAL PECUNIARY VALUE OF JOURNALS AND THEY BEGAN TO BUY THEM, CREATE PARALLEL JOURNALS, OBTAIN THE RIGHTS TO PRODUCE, DISTRIBUTE AND DO BUSINESS MANAGEMENT OF JOURNALS OWNED BY OTHERS
- 2B. SOME **SCHOLARLY SOCIETIES** BEGAN TO EXPLOIT PECUNIARY VALUE OF THEIR OWN JOURNALS, **EMULATING COMMERCIAL PUBLISHERS**
- 3- THE INTERNET MATURED AND MOST SCHOLARLY JOURNALS ASSUMED **DIGITAL FORM**
- 4- THE **JOURNAL IMPACT FACTOR** BECAME WIDELY AVAILABLE (1975) AND WAS INAPPROPRIATELY SEIZED UPON BY RESEARCHERS, UNIVERSITIES AND NATIONAL RESEARCH AGENCIES AS A USEFUL WAY TO JUDGE THE “WORTH” OF AN ARTICLE.

The result was that journal prices exploded

- Publishers absorbed competitors.
- Devices like the “big deal” were developed.
- Transactions that had been open became confidential
- *Journal Impact Factor* conveyed even greater pricing power on dominant journals

MANY EXPLANATIONS FOR THE PRICE INCREASES WERE OFFERED,
BUT IT BECAME CLEAR THAT
ACQUISITION OF MARKET POWER
WAS RESPONSIBLE
FOR EXTRAORDINARY JOURNAL PRICE INCREASES

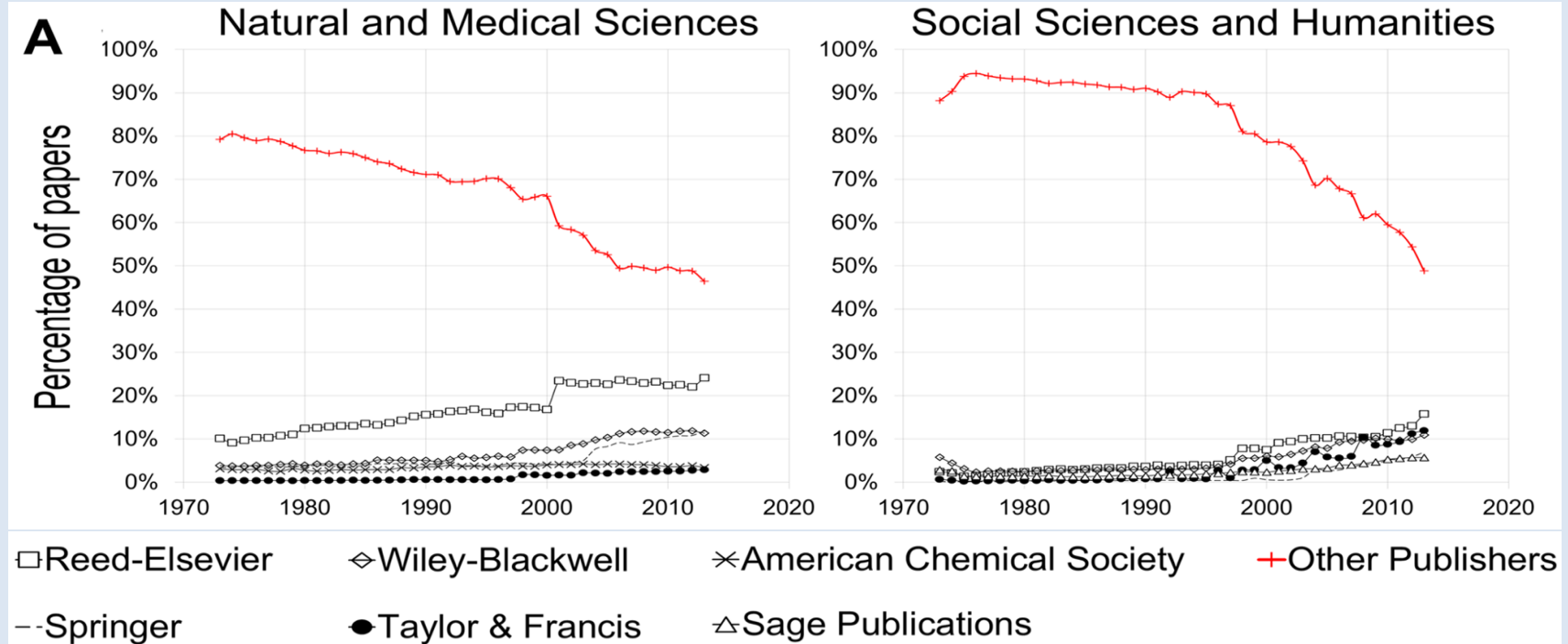
- EXCHANGE RATE MOVEMENTS, ETC.
- COMMERCIAL PUBLISHERS ARGUED THAT THEY WERE ADDING GREATER AND GREATER VALUE, WHICH INCREASED THEIR COST. HENCE, JOURNAL PRICES HAD TO GO UP.
- BUT ECONOMETRIC EVIDENCE SHOWS THAT **ACQUISITION OF MARKET POWER BY PUBLISHERS** WAS LARGELY RESPONSIBLE FOR EXTRAORDINARY PRICE INCREASES*

* see new study Lewis G. Liu and Harold Gee, "Determining Whether Commercial Publishers Overcharge Libraries for Scholarly Journals in the Fields of Science", Technology, and Medicine, with a Semilogarithmic Econometric Model Volume 87, Number 2 | April 2017 The Library Quarterly finding--- *Commercial publishers derive 102% of return beyond cost of non profit publishers*

Clearly, the Market Power of a set of commercial/society journals increased.

Percentage of Scholarly Journal Articles by Top Five Publishers*

*slide content from Jeffery Mackie-Mason

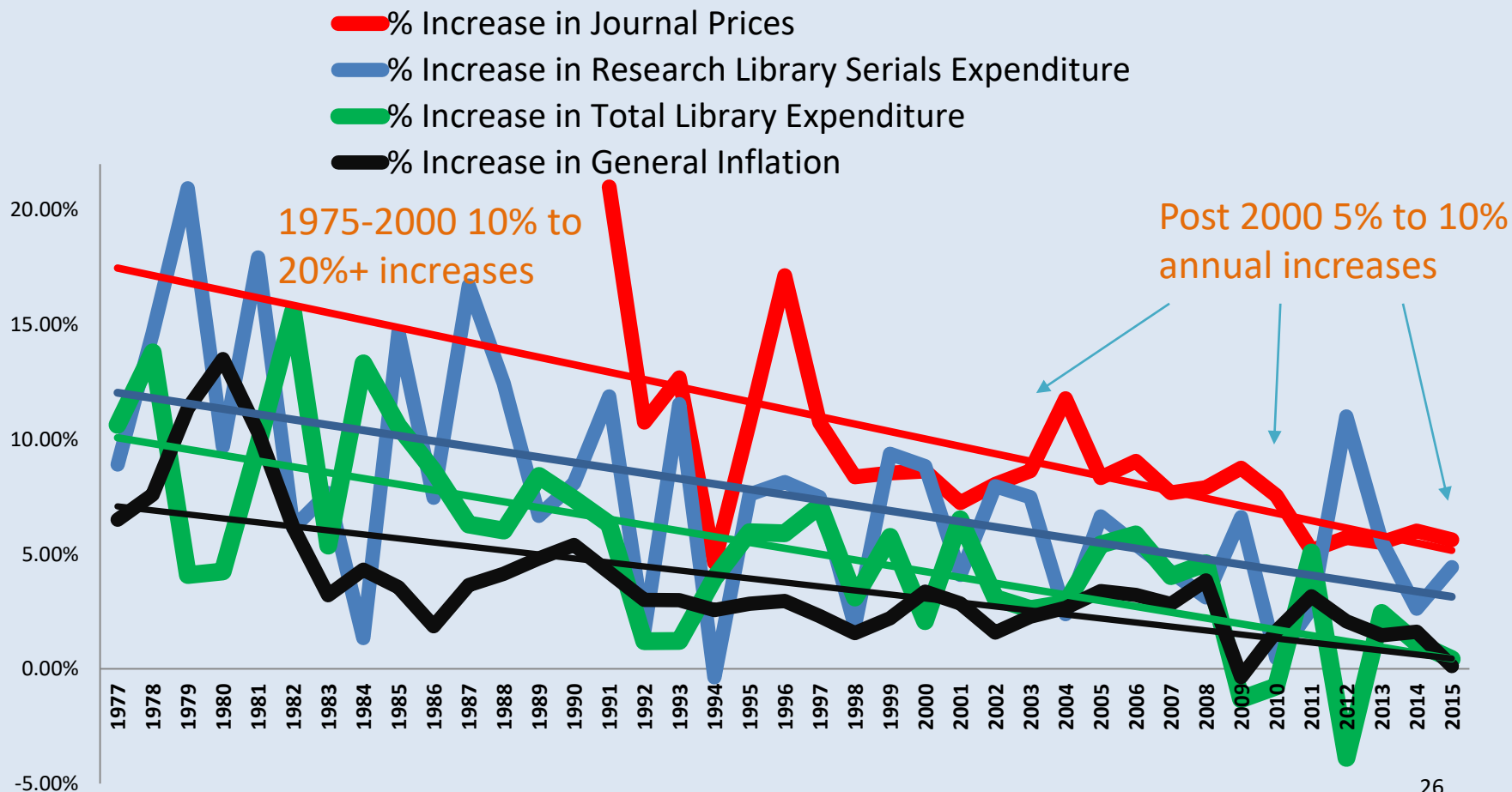


Larivière V, Haustein S, Mongeon P (2015) The Oligopoly of Academic Publishers in the Digital Era. PLOS ONE 10(6): e0127502.

<https://doi.org/10.1371/journal.pone.0127502>

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127502>

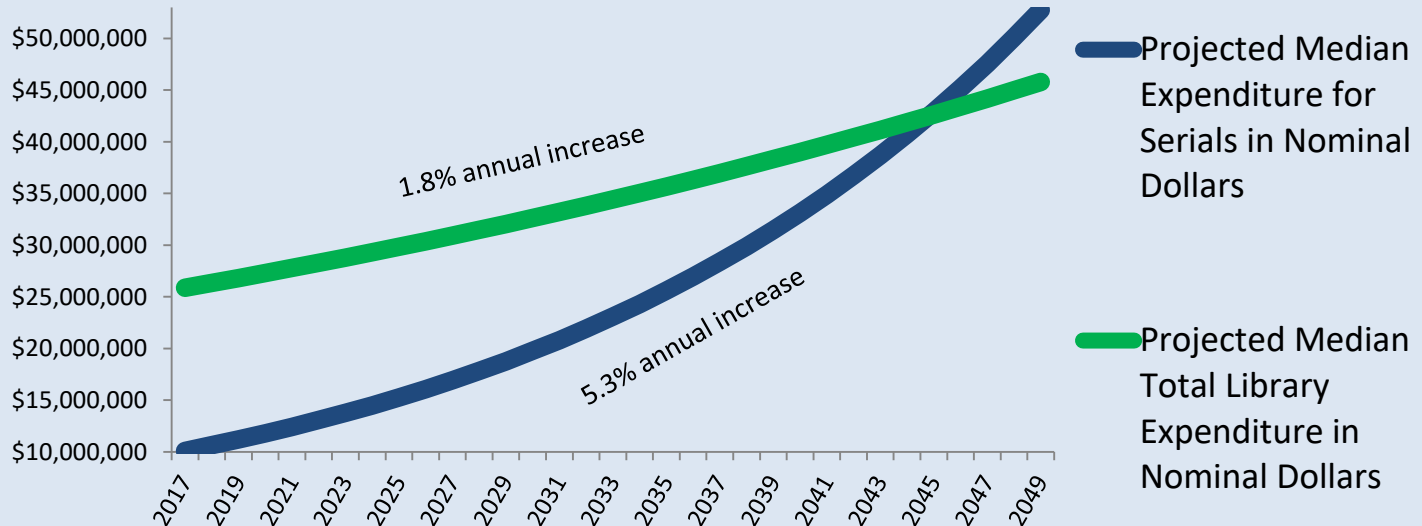
A SERIALS CRISIS: IMPROVED BUT NOT RESOLVED



THE “CRISIS” CLEARLY CONTINUES FOR JOURNAL LIBRARIES

Rule of 72 --- 1.8% doubles in 40 years but 5.3% doubles in 13.5 years

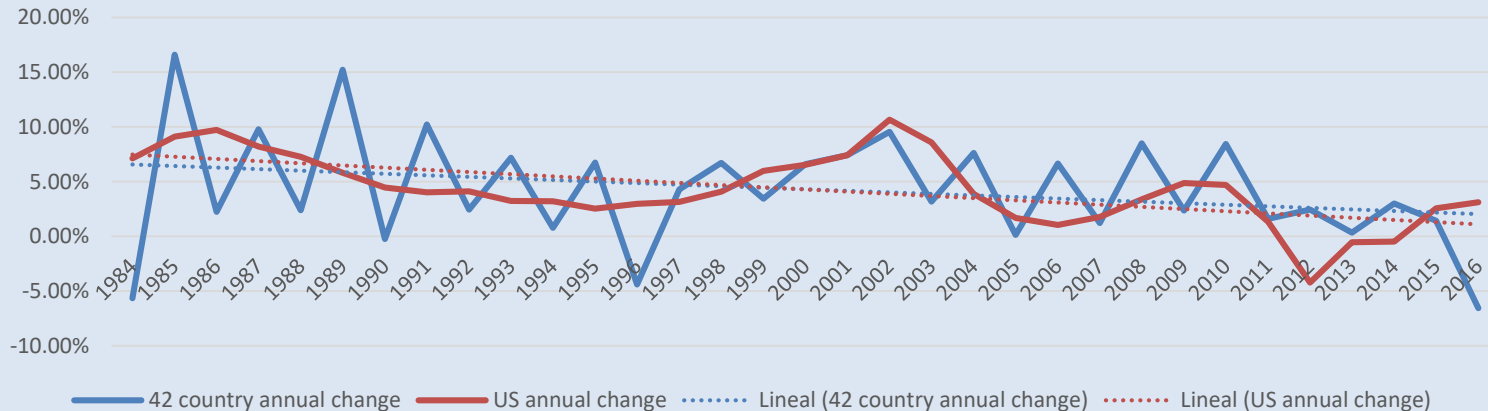
If **Serials Expenditure** and **Total Library Expenditure** Increase at the Average Rate of the Last Decade, in 2045 Serials Expenditure Will **Exceed the Total Library Budget!**



What caused Price Increases for Journals to Abate after 2000?

1. Reduced University Purchasing Power

Percent Change in Higher Education Expenditure in US and 42 Developed Countries



What caused Price Increases for Journals to Abate after 2000?
(continued)

2-COUNTERVAILING POWER EXERTED BY LARGE
BUYERS OF SERIAL SUBSCRIPTIONS

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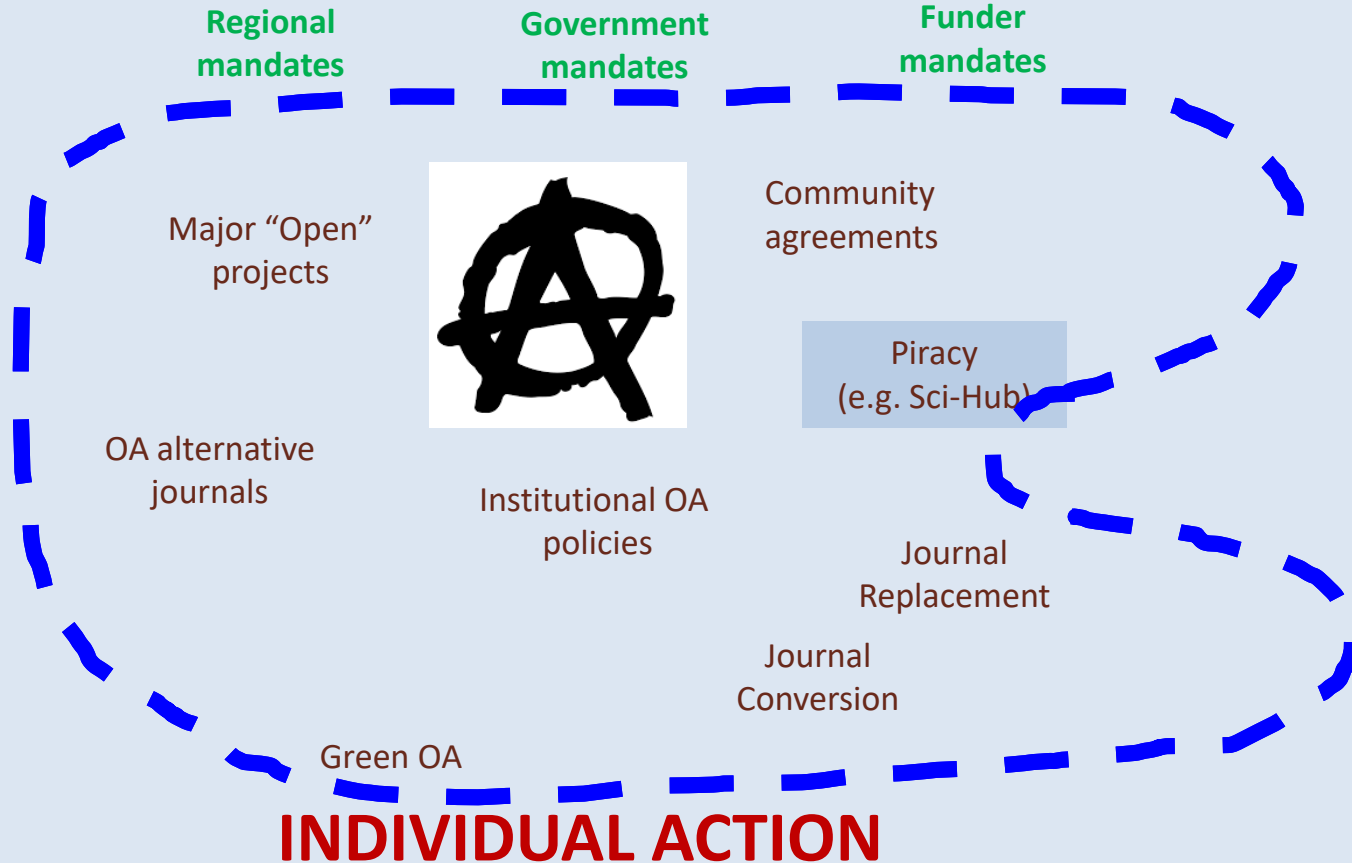
3-COLLECTIVE ACTION TO REDUCE THE MARKET
POWER OF PUBLISHERS

Big Deal Cancellations

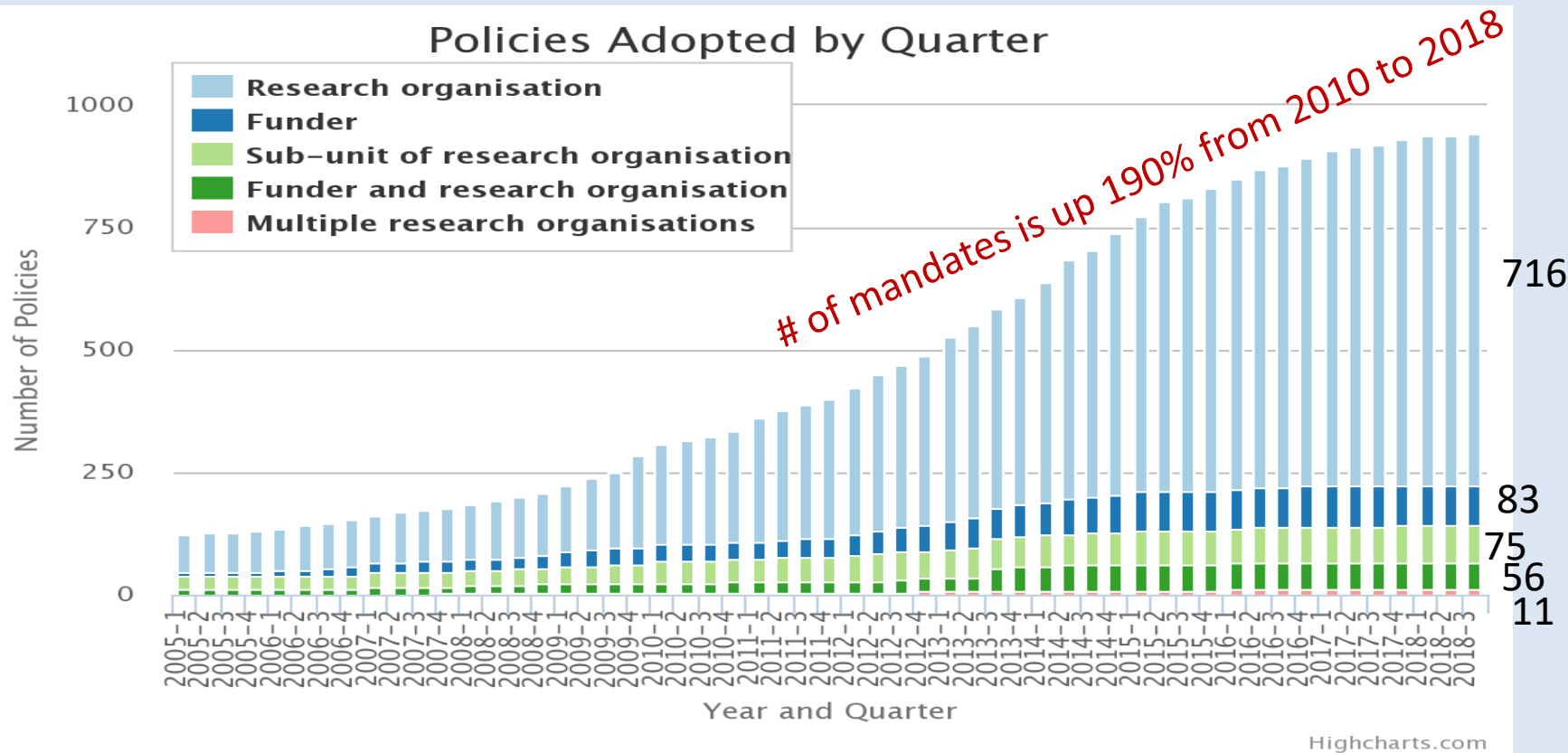
<https://sparcopen.org/our-work/big-deal-cancellation-tracking>

Florida State	Elsevier	2019 US
Le Consortium Couperin	Springer/Nature	2018 France
Université de Lorraine	Springer/Nature	2018 France
Abdus Salam International Centre for Theoretical Physics (ICTP)	Elsevier	2018 Italy
Bibsam Consortium	Elsevier	2018 Sweden
University of North Carolina Chapel Hill	Wiley	2018 US
Consortium on Core Electronic Resources in Taiwan (CONCERT)	Elsevier	2017 Taiwan
George Mason University	Taylor & Francis	2017 US
Kansas State University	Springer/Nature	2017 US
National Council for Science, Technology and Technological Innovation (CONCYTEC)	Elsevier	2017 Peru
Université Laval	Cambridge University Press, Lippincott Williams & Wilkins, Springer Nature	2017 Canada
University of Calgary	Oxford University Press/ Taylor&Francis	2017 Canada
University of Kansas	Springer/Nature	2017 US
University of Massachusetts Amherst	Royal Society of Chemistry	2017 Canada
University of North Carolina Chapel Hill	Cambridge University Press,	2017 US
University of Wisconsin-Milwaukee	Springer, Nature,, Wiley	2017 US
VSNU (the Association of Universities in the Netherlands)	Oxford University Press	2017 Netherlands
West Virginia University	Wiley	2017 US

COLLECTIVE ACTION



AND THE PROPORTION OF SCHOLARLY ARTICLES THAT IS AVAILABLE FOR FREE WILL INCREASE RAPIDLY DUE TO OA MANDATES



Source: <http://roarmap.eprints.org/>

APPROXIMATELY HALF OF SCHOLARLY JOURNAL ARTICLES ARE NOW AVAILABLE ON THE WEB FOR FREE

- AUGUST 2013, A STUDY DONE FOR THE **EUROPEAN COMMISSION** REPORTED **THAT 50%** OF A RANDOM SAMPLE OF ALL ARTICLES PUBLISHED IN 2011 (AS INDEXED BY SCOPUS) WERE FREELY ACCESSIBLE ONLINE BY THE END OF 2012.¹
- IN 2015 THE **UK OA COORDINATING** GROUP FOUND THAT **36.9%** OF SCHOLARLY ARTICLES PUBLISHED WORLD-WIDE IN 2014 WERE FREELY AVAILABLE.²
- A 2018 STUDY EXAMINING 100,000 SEARCHES ON **UNPAYWALL** FOUND THAT **47%** OF LARGELY RECENT SCHOLARLY ARTICLES COULD BE ACCESSED FOR FREE.³

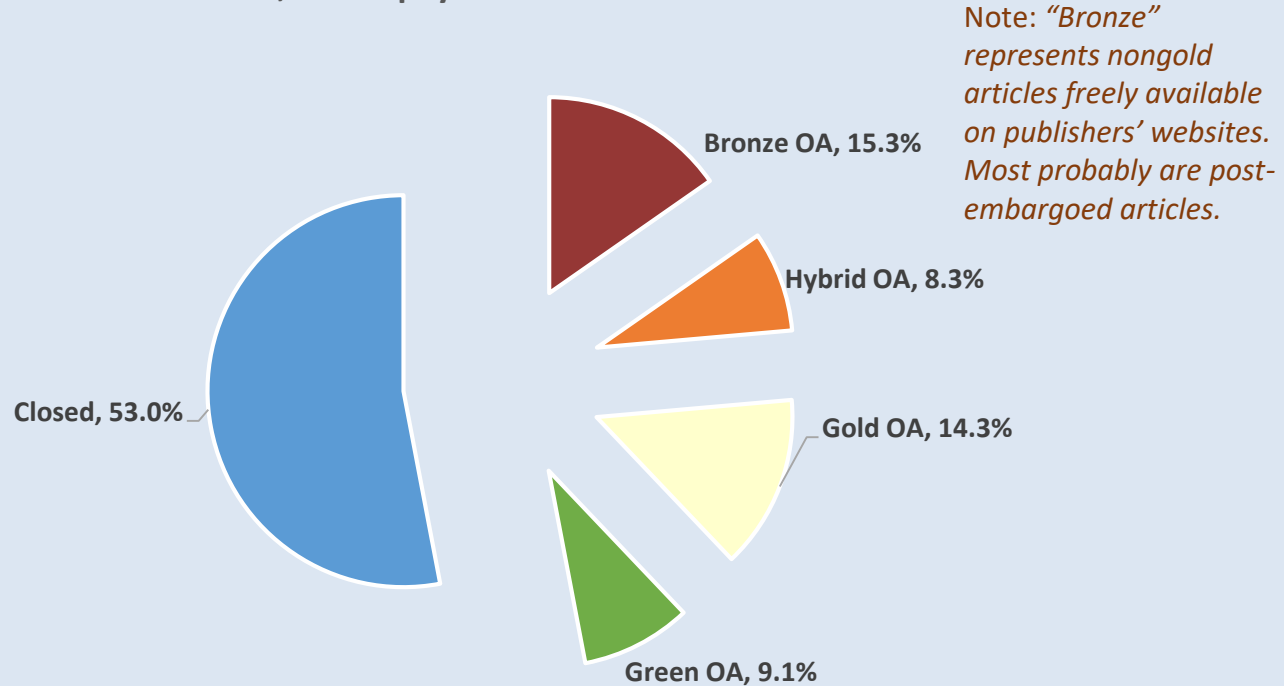
¹Eric Archambault, Didier Amyot, Philippe Deschamps, Aurore Nicol, Lise Rebout & Guillaume Roberge
Proportion of Open Access Peer-Reviewed Papers at the European and World Levels—2004-2011, Science-Metrix Inc., 2013 .

²*Monitoring the Transition to Open Access A report for the Universities* UK Open Access Co-ordination Group August 2015

³Piwowar H, Priem J, Larivière V, Alperin JP, Matthias L, Norlander B, Farley A, West J, Haustein S. (2018) The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles. *PeerJ* 6:e4375 <https://doi.org/10.7717/peerj.4375>

47% of recently published works are available as OA

100,000 Unpaywall Searches in 2017



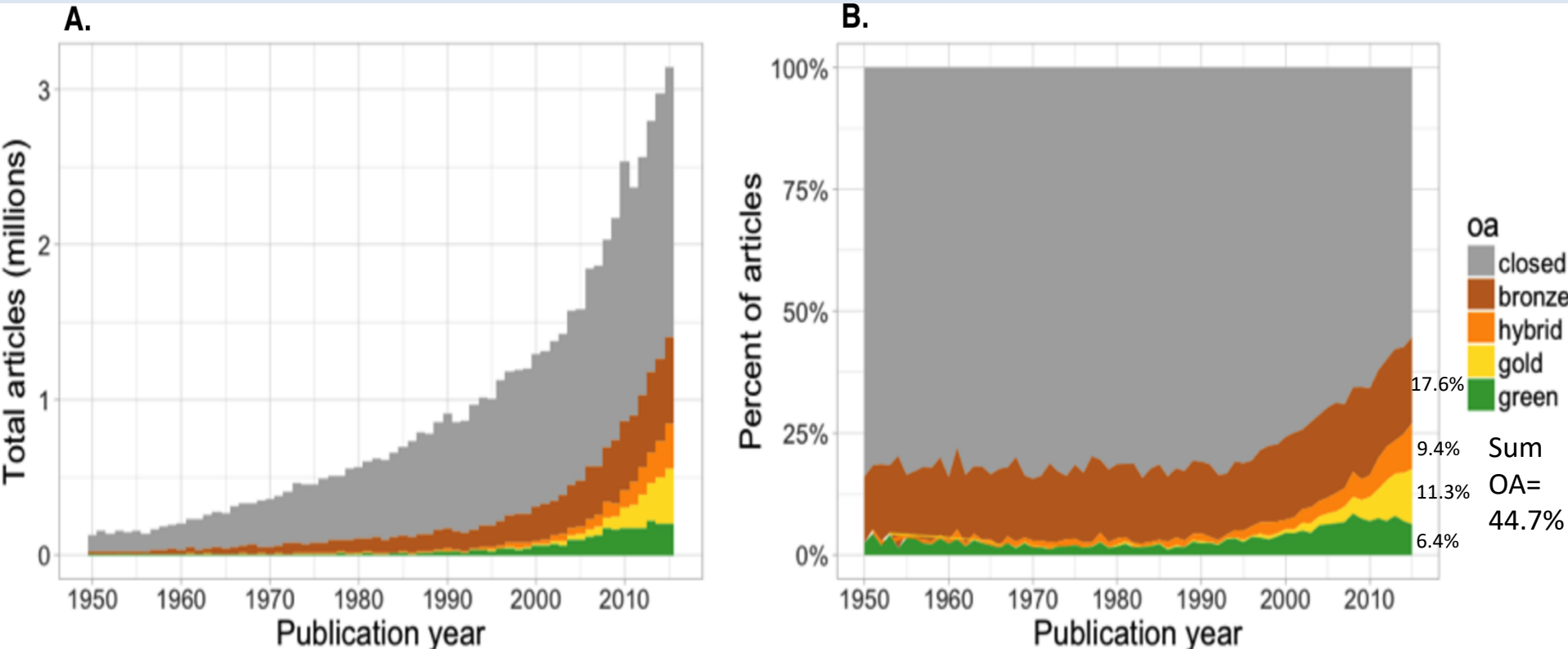
Disintermediation

dis·in·ter·me·di·a·tion

reduction in the use of intermediaries between producers and consumers

- Rapidly underway in scholarly communications
- *Reduces costs to consumers and society*
 - *Amazon example—now the #2 book seller to libraries.*

Rapid increase in Proportion Available OA



Piowar H, Priem J, Larivière V, Alperin JP, Matthias L, Norlander B, Farley A, West J, Haustein S. (2018) The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles. *PeerJ* 6:e4375 <https://doi.org/10.7717/peerj.4375>

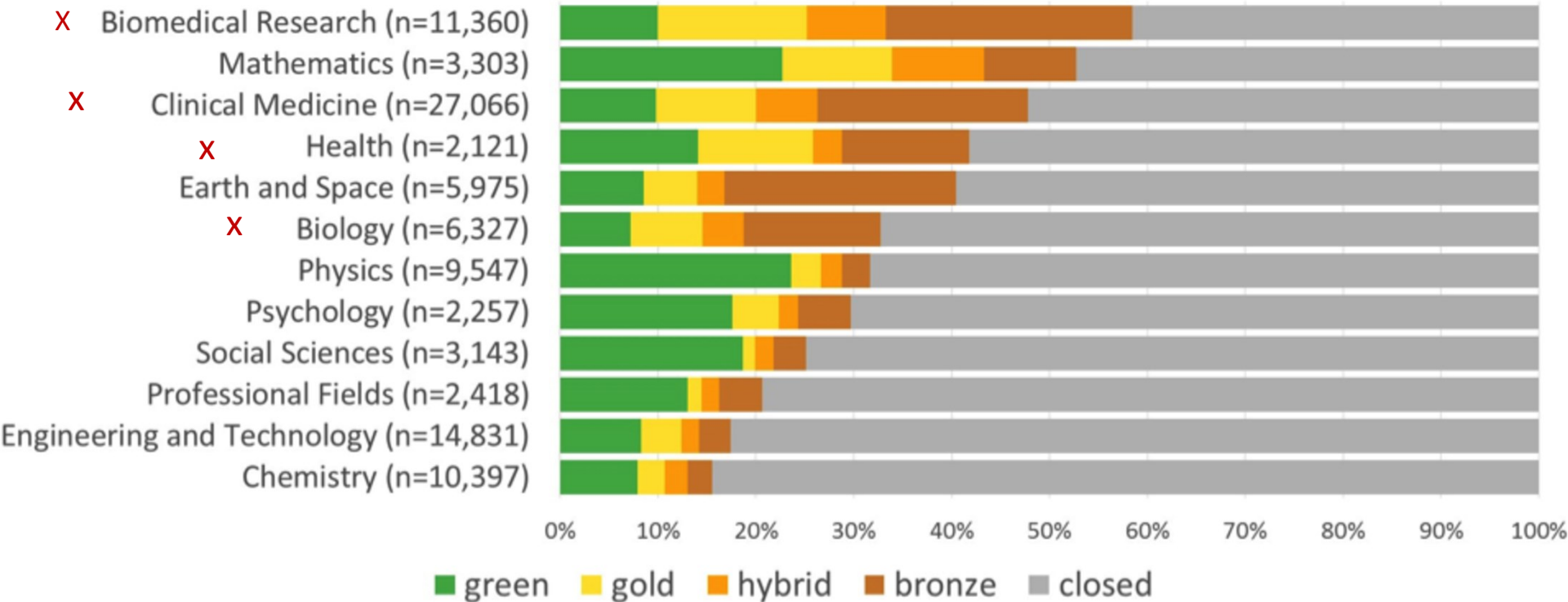
And Freely Available Scholarship in Latin America Exceeds these Levels

- ❑ In 2010, around 85% of academic publications in Latin America were publicly available through the Internet,
- ❑ Scopus Journal catalogue points to the statistic that 72% of Latin American indexed journals are Open Access compared to about 13% of all journals
- ❑ Thanks to:
 - ❖ SciELO (Scientific Electronic Library Online) and Redalyc, (Red de Revistas Científicas de América Latina y el Caribe, España y Portugal)
 - ❖ University financing/publication of a large proportion of scholarly journals and
 - ❖ History of distribution without subscription

Primary Source: Open Access in Latin America: Embraced as key to visibility of research outputs

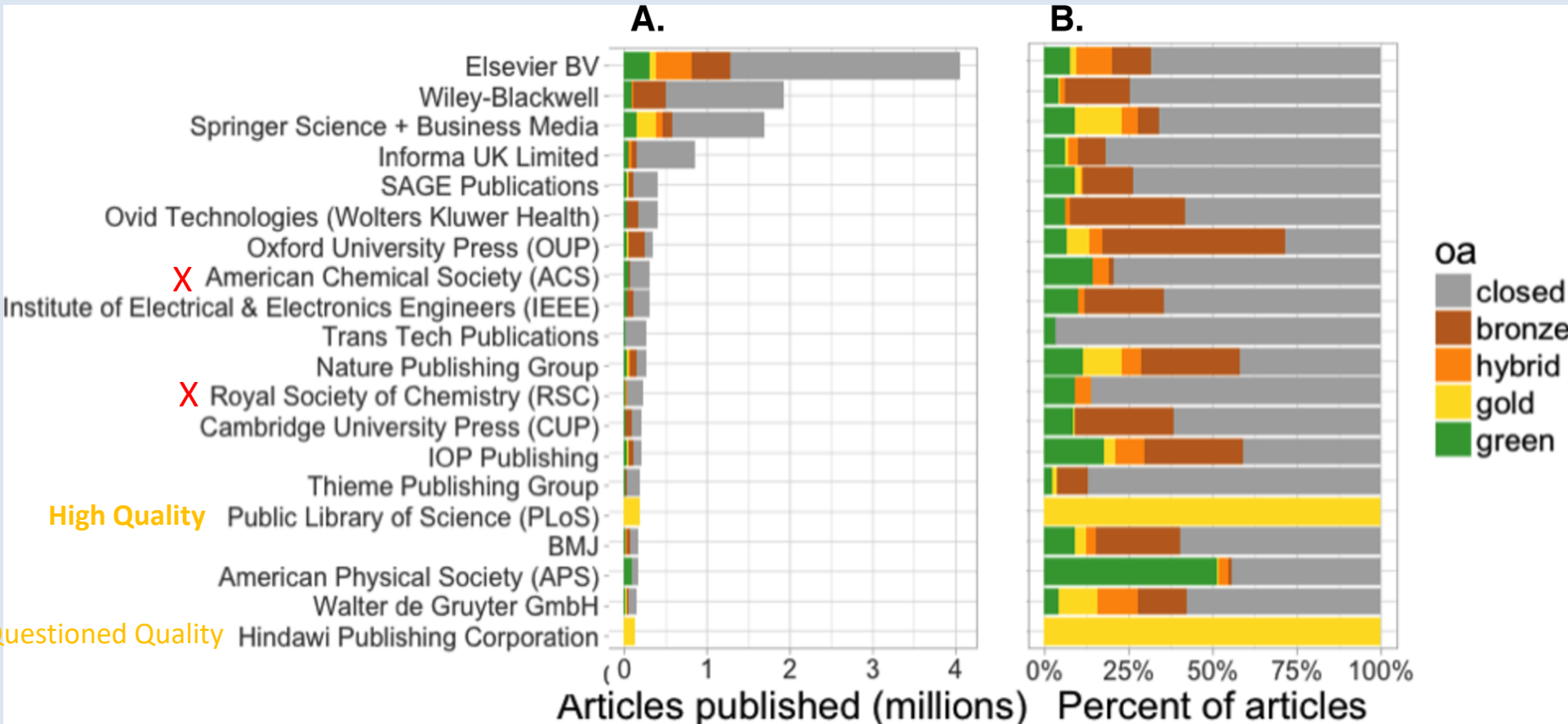
Caralee Adams www.sparc.arl.org/.../open-access-latin-america-embraced-key-visibility-research-out...

Generally, fields with Broad OA Funder Mandates have made the most progress



X Entrenched Society Opposition Hurts Some Disciplines

Both high quality and questionable quality publishers embrace gold APC



Lack of 100% Availability Causes Disproportionate Harm to Some Scholars

- In Lower Income Countries
- In Poorly Financed Universities
- In Fields in Which Journal Subscriptions are Relatively Expensive

What Universities and Library Consortiums Should Do to Help Scholars

1- Continue the Collective and Individual Actions; they are working and will continue to work.

2-Cease using Journal Impact Factors for any university purpose; *Not* in faculty evaluation. *Not* in Journal Acquisition, etc.

Evidence increases that JIF's are not helpful to scholars

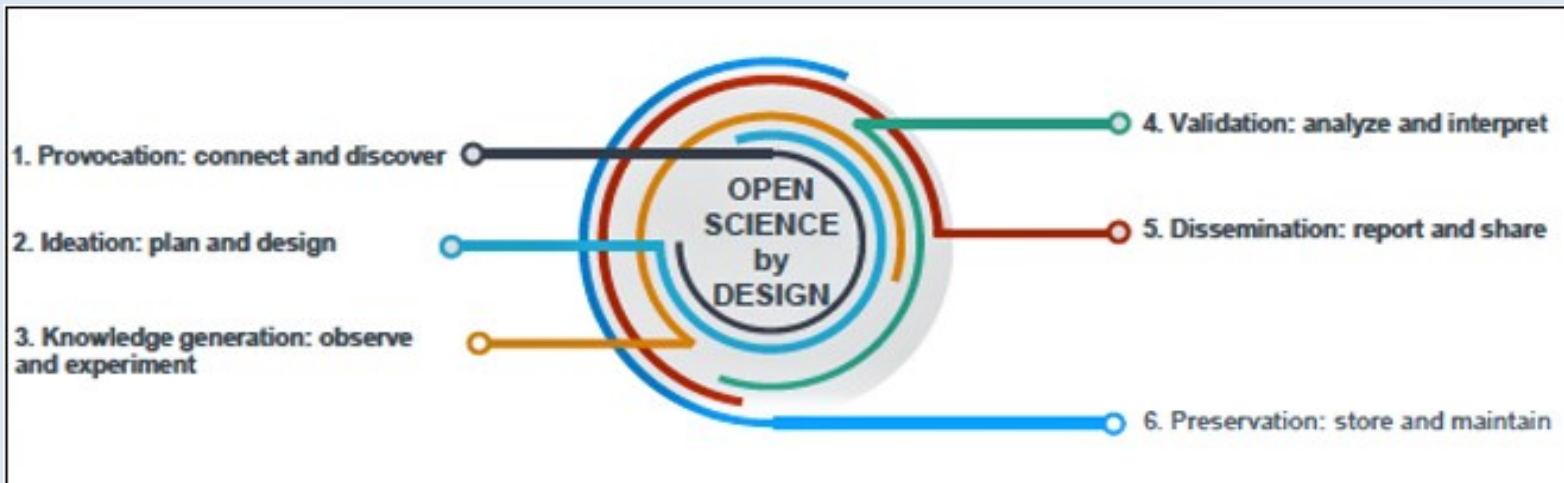
"up to 75% of the articles in any given journal had lower citation counts than the journal's average number. So trying to use a journal's JIF to forecast the impact of any particular paper is close to guesswork."

- Lucas Carey, a cell biologist at Pompeu Fabra University in Barcelona, Spain, {The Impact Factor of a Journal}" *is meaningless as a predictive measure,*" meaning that publishing a paper in a high-impact journal does not necessarily mean that it is more likely to be cited.

Source: John Bohannon (2016). "Hate journal impact factors? New study gives you one more reason". [Science](https://doi.org/10.1126/science.aag0643). doi:[10.1126/science.aag0643](https://doi.org/10.1126/science.aag0643)

What Universities and Library Consortiums Should Do to Help Scholars(continued)

3-Embrace *Open Science by Design*



OPEN SCIENCE BY DESIGN

Realizing a Vision for 21st Century Research

A Consensus Study Report of *The National Academies* of SCIENCES·ENGINEERING·MEDICINE, July 2018
ISBN 978-0-309-47624-9 | DOI 10.17226/25116

Committee on Toward an Open Science Enterprise Board on
Research Data and Information Policy and Global Affairs

Key Elements of Open Science by Design

- **“Select the best venue for open publication** of their work, including articles, data, code, and other research products.... *In the digital age, compiling articles in journals for distribution is no longer a requirement for broad distribution. New models are appearing, in which authors publish their work, which then goes through open quality review and certification.* “
- **“Select a public copyright license**, such as the GNU General Public License for software or a Creative Commons license for other works, including scholarly articles.”
- **“Make final adjustments to the metadata that describe their research data and code, making sure that these will be reusable by other interested researchers “**
- **“Deposit the final peer-reviewed articles in an openly accessible university archive, or they deposit the articles in another publicly accessible archive** as required by their research funders.”
- **“Deposit their research data and software in one or more FAIR data archives, with clear and persistent links that interlink the article, data, and software.”**

What we should **not** do

- Embrace “panaceas” like flipping journals from subscription to gold OA as proposed by OA2020

Max Planck's and OA 2020 Motivation

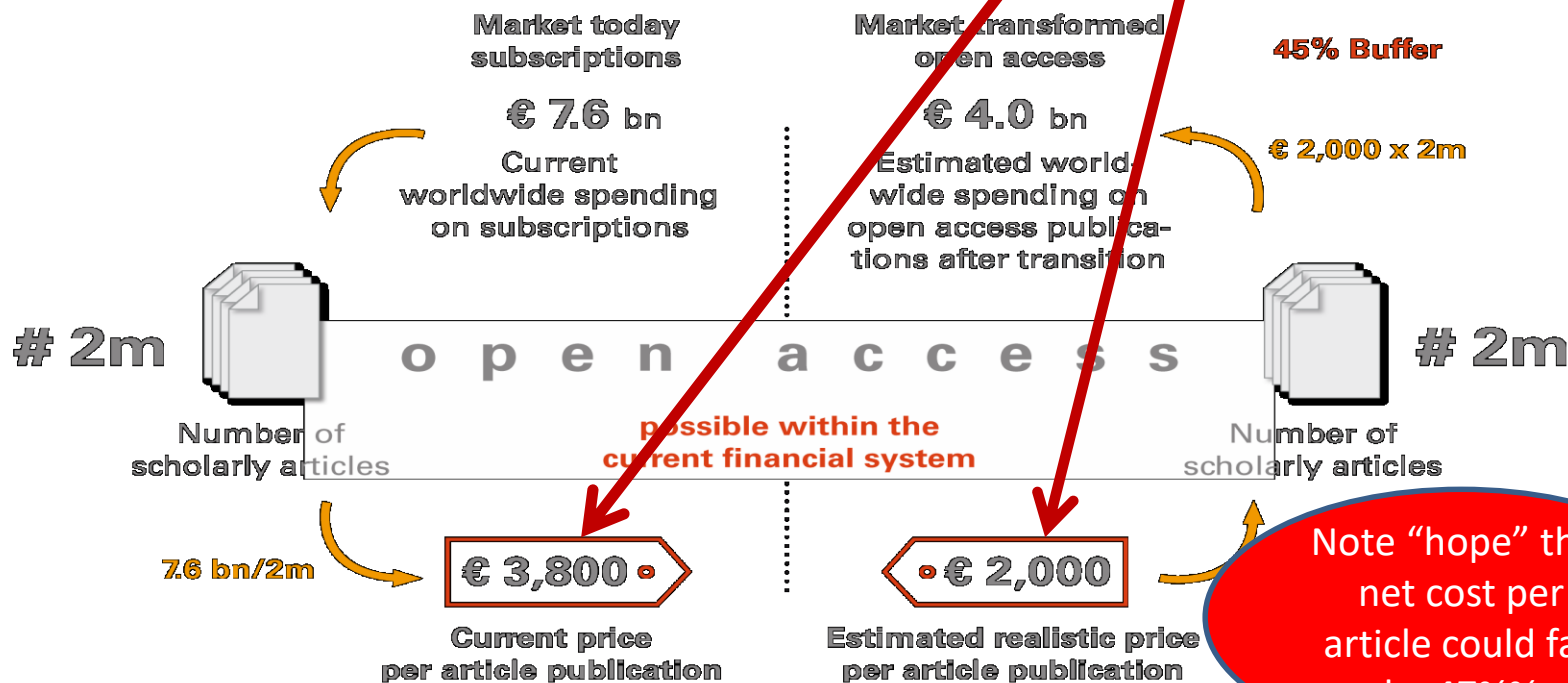
If remaining subscription journals could be “flipped” from subscription to OA-Gold overnight, then tomorrow 100% of all scholarly articles would be available for free.

Furthermore, OA2020 holds that the cost to libraries and scholars of obtaining scholarship would be reduced in flipped journals.

The OA 2020 mechanism is that faculty members, acting as effective consumers will force journal prices down by 47%.

Enough
mo

Worldwide Publishing Market



Note "hope" that
net cost per
article could fall
by 47%%

And the few devotees of OA 2020 in the US agree that Gold OA is the magic solution.

*“We want: **open** access and **cost-based** payments.
Gold OA can get us both.”*

Slide material from Jeffery Mackie-Mason's OAI 10 presentation

Why Does OA 2020 Believe that Flipping Will Result in Lower Journal Acquisition Cost?

Begins with observation that Publishing Industry Revenue is Far Greater than Its Costs

**Misunderstanding of what an APC is. APC is the acronym of Article Processing Charge but APCs aren't charges for processing.
They are very simply publication fees.**

OA 2020 is motivated by the mistaken belief that a switch to APCs will result in Journals charging only what it costs to process an article rather than a price that reflects what the market will bear.

ADVOCATING FLIPPING TO APCs IS HOPING THAT THE LAWS OF ECONOMICS WILL BE SUSPENDED

CHANGING FROM SUBSCRIPTION FINANCING TO APC CHARGES DOES NOT CHANGE PUBLISHER MOTIVE.

- ☐ **PROFIT MAXIMIZATION WOULD REMAIN THE MOTIVATION OF MOST JOURNALS THAT CHARGE APCs**
- ☐ **PROFIT MAXIMIZATION OCCURS AT HIGHER PRICES WHEN THE SELLER HAS MORE MARKET POWER THAN THE BUYER.**

NOR CAN ONE PREDICT WITH ANY DEGREE OF CONFIDENCE THAT THE TOTAL COST OF APCs WILL BE LESS THAN OR CLOSE TO THE SAME AS THEIR CURRENT SUBSCRIPTION PRICE.

- ☐ **THE EXPERIENCE OF THE VERY SMALL MINORITY OF JOURNALS THAT FINANCE THEMSELVES EXCLUSIVELY WITH APCs IS UNLIKELY TO GENERALIZE TO AN ENVIRONMENT IN WHICH APC CHARGING JOURNALS BECOME THE RULE RATHER THAN THE EXCEPTION.**

“FLIPPING” TAKES THE LIBRARY OUT OF THE PICTURE AND PITS THE INDIVIDUAL FACULTY MEMBER AGAINST HUGE PUBLISHERS

WITH SUBSCRIPTIONS AS THE BASIS FOR FUNDING JOURNALS:

- **OLIGOPOLY** POWER (FEW SELLERS OF SCHOLARLY JOURNALS) ON THE SELLER'S (PUBLISHER'S) SIDE AND **OLIGOPSONY** (FEW BUYERS) ON THE BUYER'S (LIBRARIES') SIDE

WITH APCs AS THE BASIS FOR FUNDING JOURNALS:

- ONCE A JOURNAL HAS ACCEPTED YOUR ARTICLE FOR PUBLICATION IT HAS **MONOPOLY** POWER AND YOU, THE AUTHOR OF THE PAPER, MUST CONFRONT THAT PUBLISHER WITH **ZERO MARKET POWER.**

ADVOCATING FLIPPING TO APCs IS HOPING THAT THE LAWS OF ECONOMICS WILL BE SUSPENDED

- CHANGING FROM SUBSCRIPTION FINANCING TO APC CHARGES DOES NOT CHANGE PUBLISHER MOTIVE.
- CHANGING FROM SUBSCRIPTION FINANCING TO APC DOES REDUCE THE RELATIVE POWER ON THE BUYERS SIDE OF THE MARKET AND RAISE IT ON THE SELLERS SIDE.

MY CONCLUSION

IT IS LIKELY THAT FLIPPING TO APCs WILL CAUSE THE SUM OF APC PAYMENTS TO EXCEED THE TOTAL AMOUNT NOW GENERATED BY SUBSCRIPTIONS PAYMENTS.

What does the University of California Library “Pathways to Open Access” Reveal about the Mechanisms for Flipping?

- **That there is no magic bullet**

“It must be noted that APC-based Gold OA strategies require a coordinated approach in order to advance OA on a large scale.” SCOAP3 has accomplished this for a portion of the High-Energy Physics literature

1- APC Payment possibilities

- Authors pay directly, out of grant, departmental, or discretionary professional funds
- Funders pool resources to pay APCs for all awardees (e.g. [RCUK](#), [Wellcome Trust](#), [Gates Foundation](#)).
- Institution or library offers subvention funds.
- Library or consortium engages in aggregated institutional memberships that pay APCs in full for authors (e.g. PeerJ, Hindawi).

2. Global partnerships to flip journals to OA

3. Supporting low-cost APCs charged by library, institutional, or mission-driven organizations

4. Offsetting deals

We should not latch onto “solutions” that strengthen the power of those who have controlled access to scholarly communications and used that control for their enrichment to the exclusion of society’s benefit.

“Flipping” to APCs is such a “cure.”

That cure would be worse than our present disease.

And we have not touched many other important reasons not to go to APCs to finance scholarly journals.

- APCs fit well only in disciplines where most of the research is grant funded. This does not include the humanities, arts, social sciences, mathematics, etc.
- APCs favor researchers in wealthy countries where resources exist to pay them
- APCs put the entire burden of research cost on research universities --
Non-research universities, corporations, government agencies, etc., don't have to pay to support the publication of scholarship.
- APCs are the mechanism of choice for **predatory journals**. Promoting APCs as the payment means for legitimate journals risk sullyng them.

OA 2020

– Status



OA 2020 – initiative for
the large-scale transition
to open access



OA2020 – The Initiative

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.

This important initiative is open to further institutional signatories. Please consider offering your support.



Status of the Initiative:

- 109 signatories world- wide
Expression of Interest
- “Berlin 13” Conference took place 21–22 March 2017

Only 8 US Research Universities have signed on to OA 2020

- UC Berkeley
- UC Davis
- UCLA
- UC Merced
- UC San Francisco
- UC Riverside
- Iowa State University
- Wayne State University

As we saw earlier, the proportion of published scholarship available for free on the internet is large and growing.

The collective and individual actions the OA movement has taken has caused this price moderation by making scholarship widely available for free.

We should stick with a winning strategy and double-down.

Ultimately, we should aim for a world in which all scholarship is available for free outside of the journal environment.

The National Academy of Science's
Open Science by Design
offers such a world.

And this is complemented by

The Confederation of Open Access Repositories (COAR) compelling vision of a
Sustainable Knowledge Commons

IN SUCH A WORLD JOURNAL PRICES WOULD MODERATE SIGNIFICANTLY

The rates of increase of Journal Prices and Library Budgets Would Converge

You only compete with “free” if you add very significant value to the product that is otherwise free and have a seductive price.

Stay on the path that works.

COLLECTIVE ACTION

