

# Scholarly Communication Models in Flux!

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GRIPS Seminar: Policy for Higher Education and  
University-Industry Cooperation

December 26<sup>th</sup>, 2018

Miho Funamori  
National Institute of Informatics

# Today's Talk

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1. Serials Crisis and E-Journals
2. Open Access Movement among the Academia
3. Move at Governmental-level
4. Various Publishing Platforms and Funding Schema
5. Issues of OA and the Flipping to OA
6. Latest Bold Move by European Funding Agencies and China
7. Future of Scholarly Communication

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# 1. Serials Crisis and E-Journals

# How it started: “Serials Crisis”

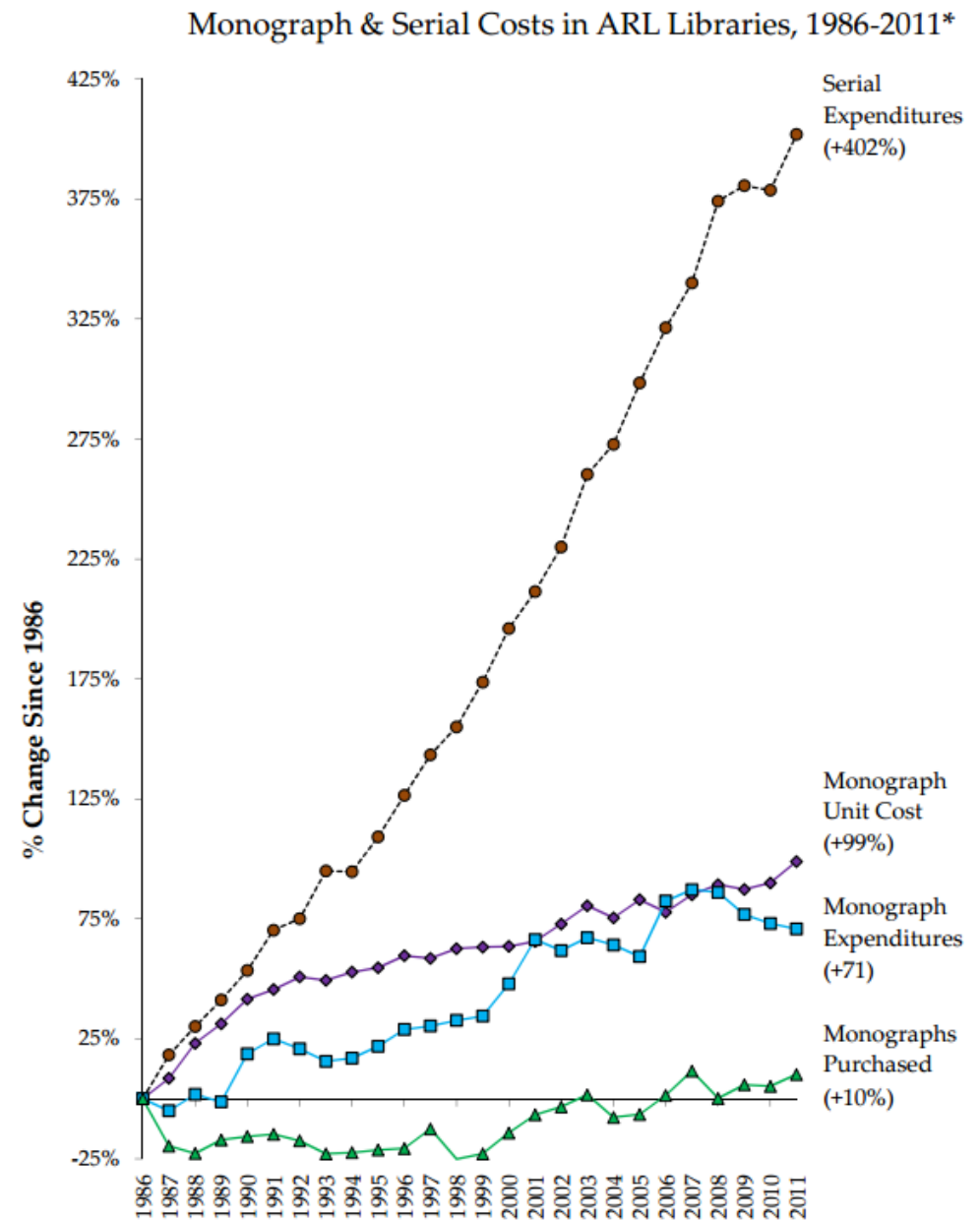
□ Journal subscription cost rising faster than the inflation speed

■ Four times higher in 2011 than 1986

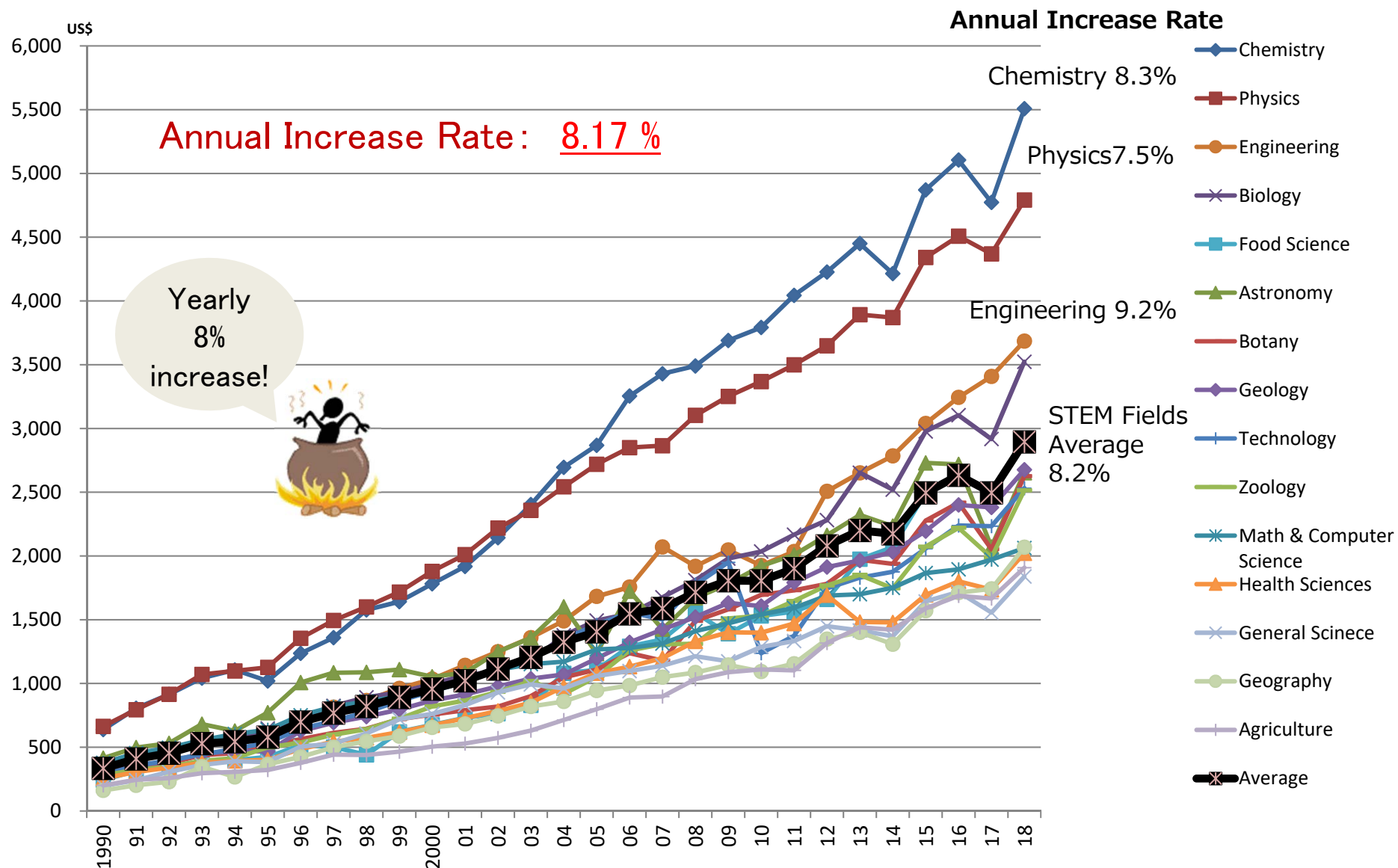
Source: ARL Statistics 2010-11 Association of Research Libraries, Washington, D.C.

\*Includes electronic resources from 1999-2011.

<http://www.arl.org/storage/documents/monograph-serial-costs.pdf>

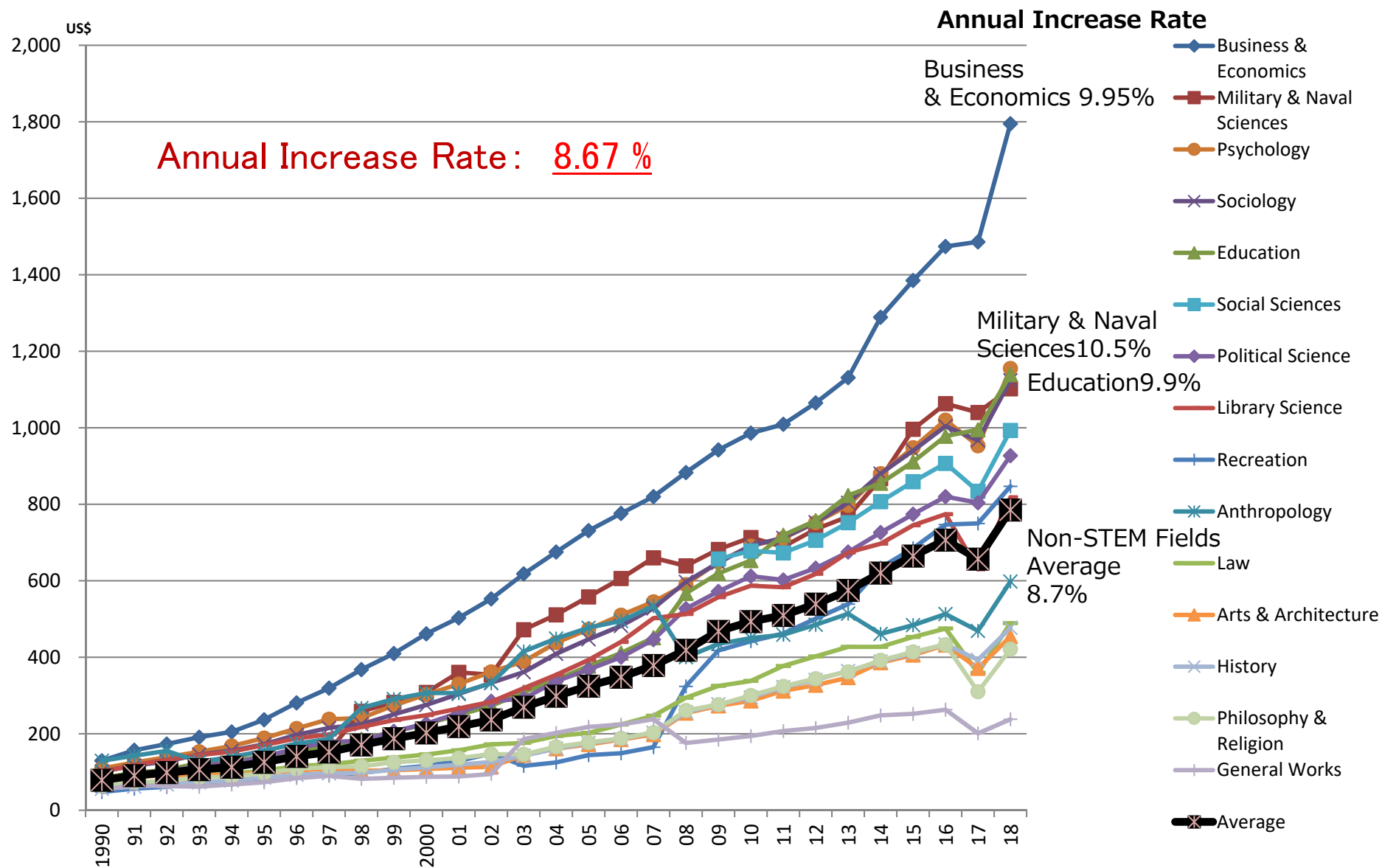


# Subscription Cost Trends in STEM Fields (Printed Bulletins)



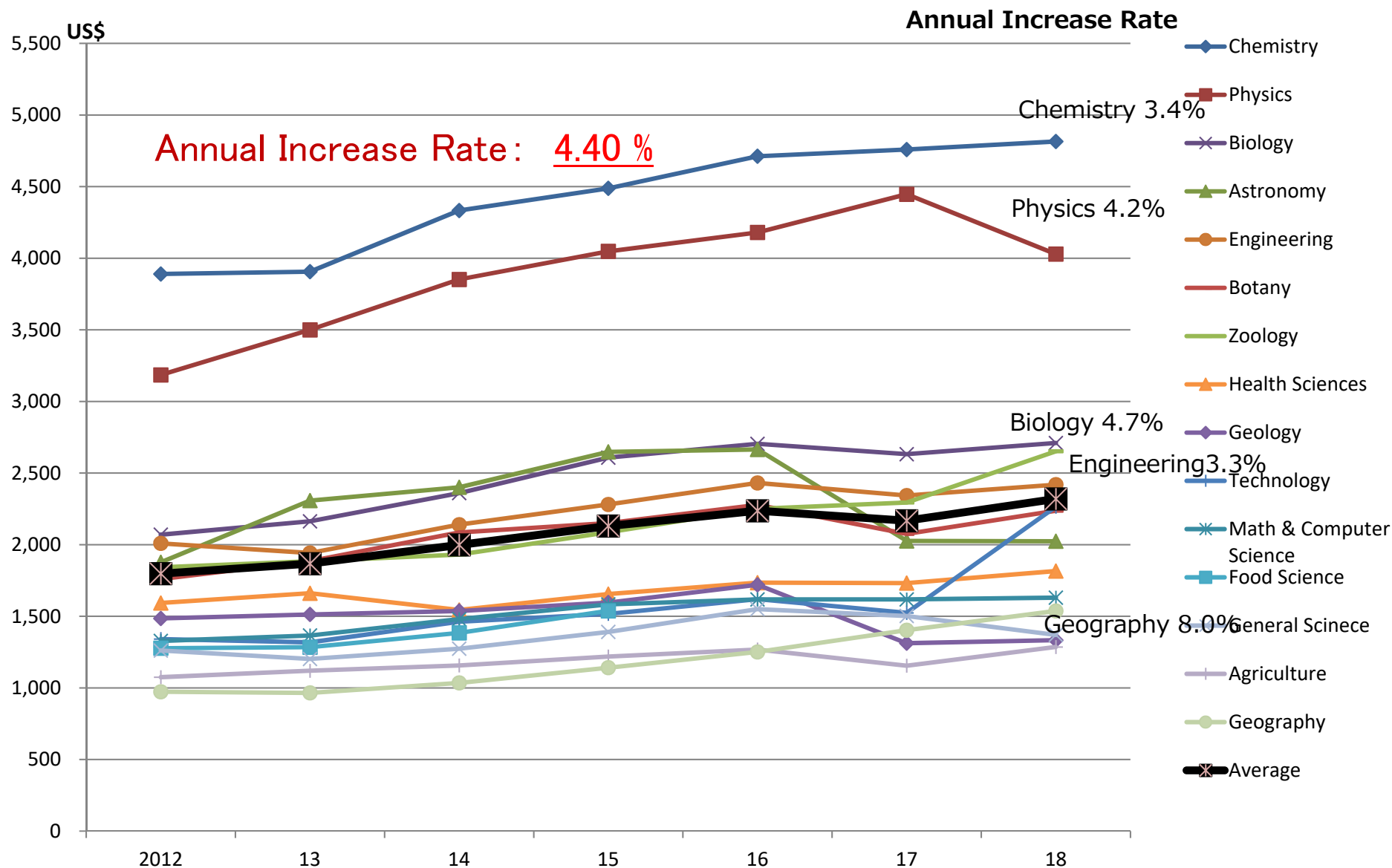
Source: "Periodicals Price Survey," Library Journal (edited by JUSTICE)

# Subscription Cost Trends in non-STEM Fields (Printed Bulletins)



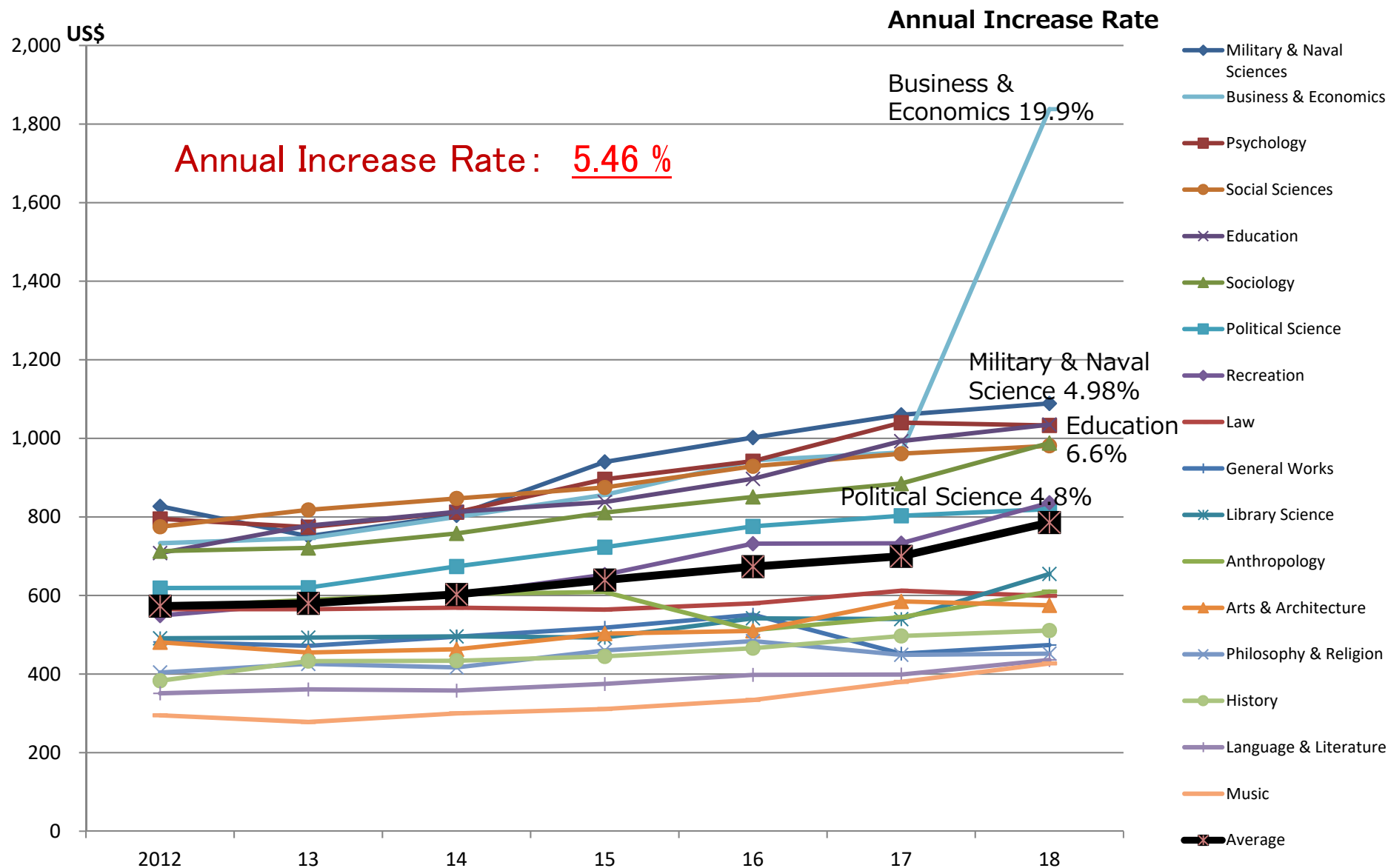
Source: "Periodicals Price Survey," Library Journal (edited by JUSTICE)

# Subscription Cost Trends in STEM Fields (Electric Journals)



Source: "Periodicals Price Survey," Library Journal (edited by JUSTICE)

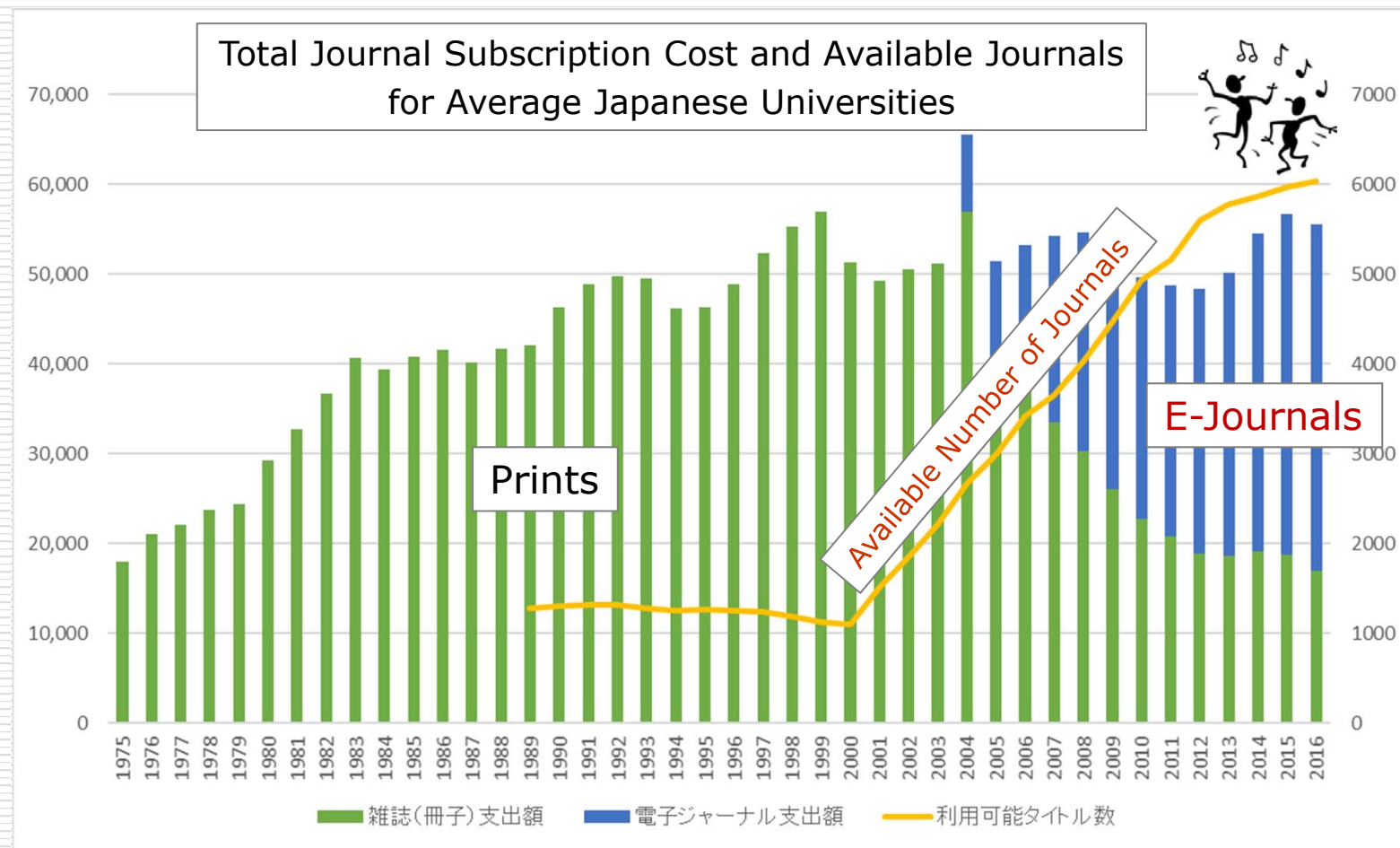
# Subscription Cost Trends in non-STEM Fields (Electric Journals)



Source: "Periodicals Price Survey," Library Journal (edited by JUSTICE)

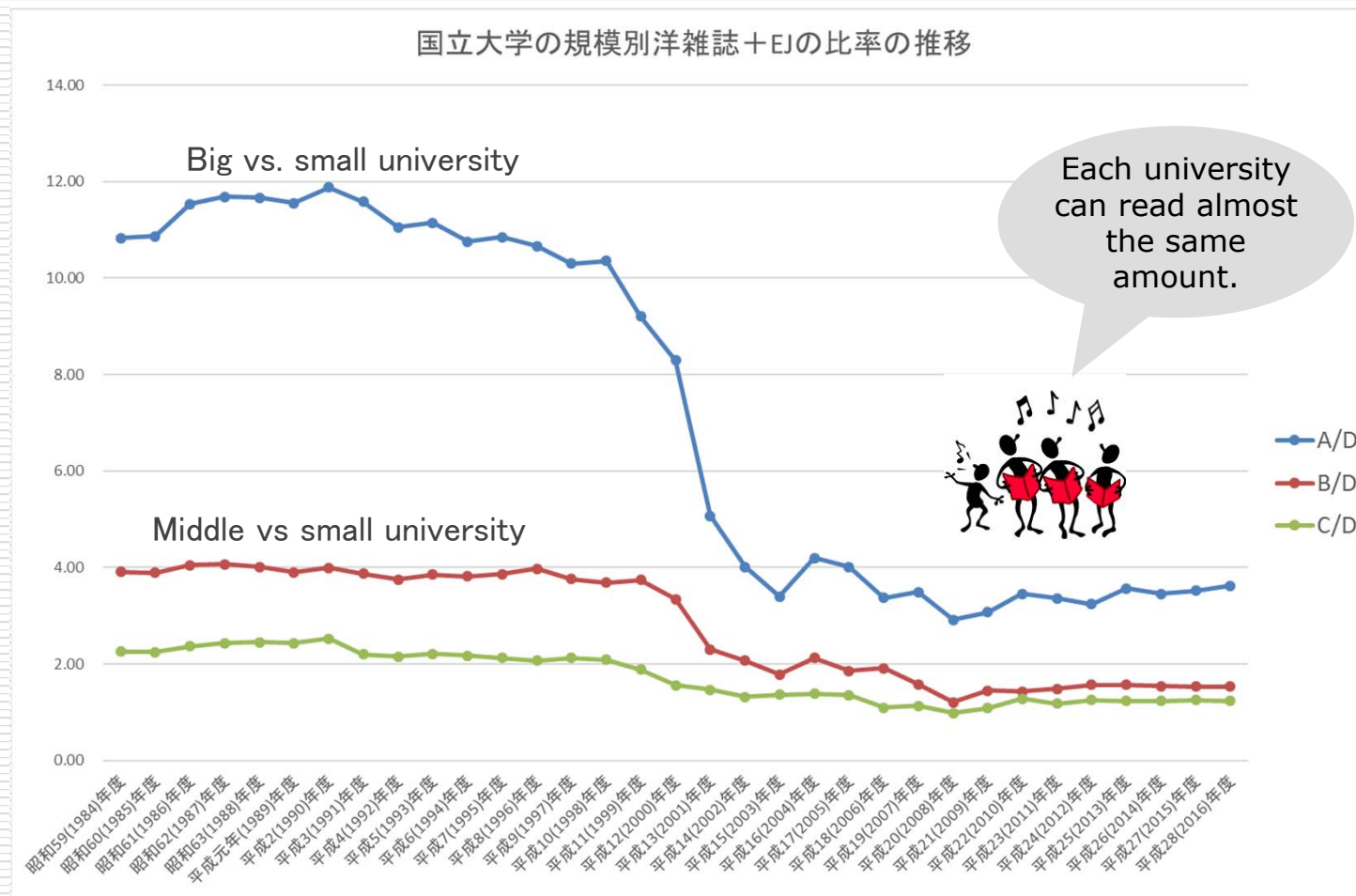


# Dramatic Increase in Available Journals through E-Journals



(出典)文部科学省「学術情報基盤実態調査結果報告」に基づき作成

# Shrinking the digital divide by the size of universities



# Comparing journals contracts by e-journals vs printed bulletins

E-journals  
are so easy  
to use!



	<u>E-Journals</u>	<u>Printed Bulletins</u>
Purchase Item	Access Right	Printed Matters
Purchase Unit	Bundled Package or by Periodicals	By Periodicals
Durability	<u>Not granted</u>	Almost forever!
Available Titles	Many! As much as offered by package	Purchased titles only
Usability	Instant Use, anytime, everywhere	Burdensome
Manageability	Easy to manage! Statistics also available	Burdensome

# Elsevier's Full-text DB: Science Direct

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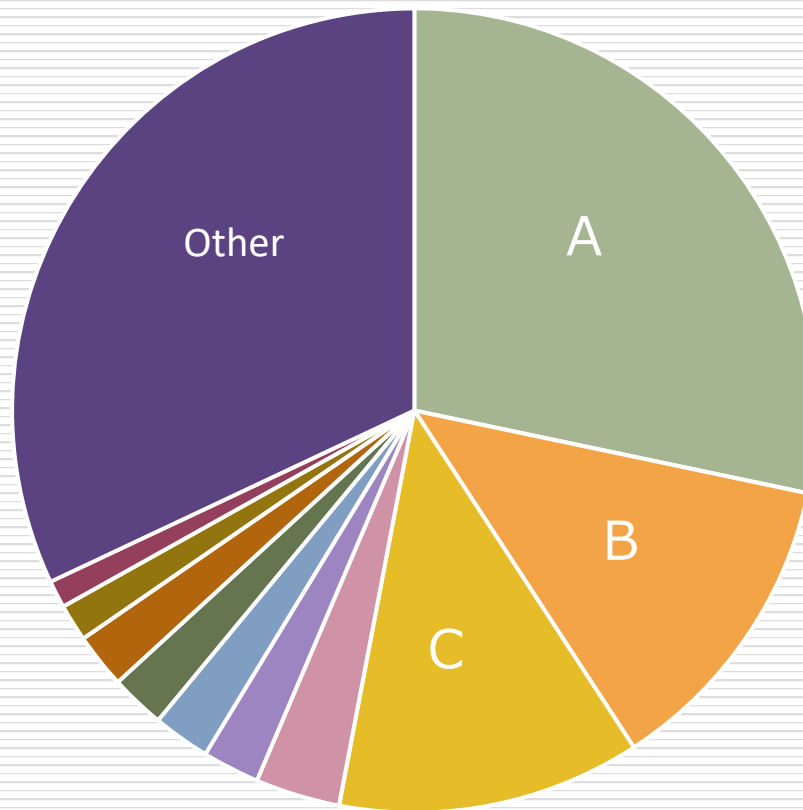
- Over 15 million publications
- Over 3,800 journals & serials, representing more than 612,000 issues
- Over 37,000 books, including reference works
- Digital archives that reach as far back as 1823



# Top three publishers make more than half of subscription cost

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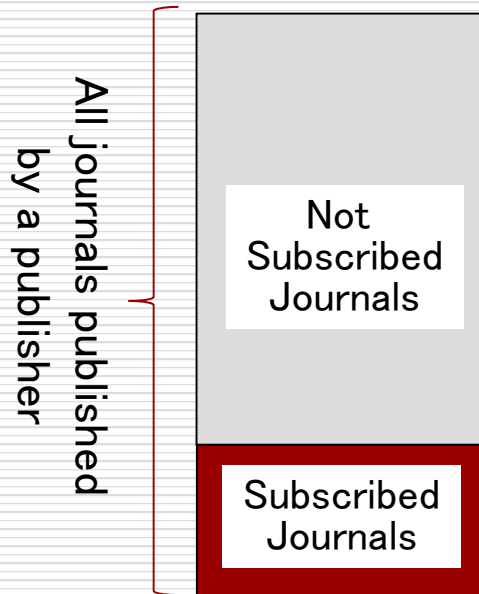
Subscription cost of Japanese universities  
to international academic journals F.Y. 2017



# The package contract of academic journals (Big Deal)

## □ Big Deal:

A package contract which allows access to all journals which a publisher publishes.



- Journals which a university had no access.
- By paying a small amount of additional charges, they become accessible.
- The amount varies by the size of FTE of respective university.
- Number of subscribed journals when switching from print to e-journals
- This becomes the earmark of contract price. This amount is not allowed to change.



Attractive!  
But also  
dangerous!

# Varying cost by universities

パッケージ契約  
への移行負担  
軽減方法として  
生み出された



Univ. A (Big)



Subscribed 1.8m US\$ +  
Non-subscribed 0.2m US\$  
**= 2mil US\$**

Univ. B (Medium)



Subscribed 0.9m US\$ +  
Non-subscribed 0.1m US\$  
**= 1mil US\$**

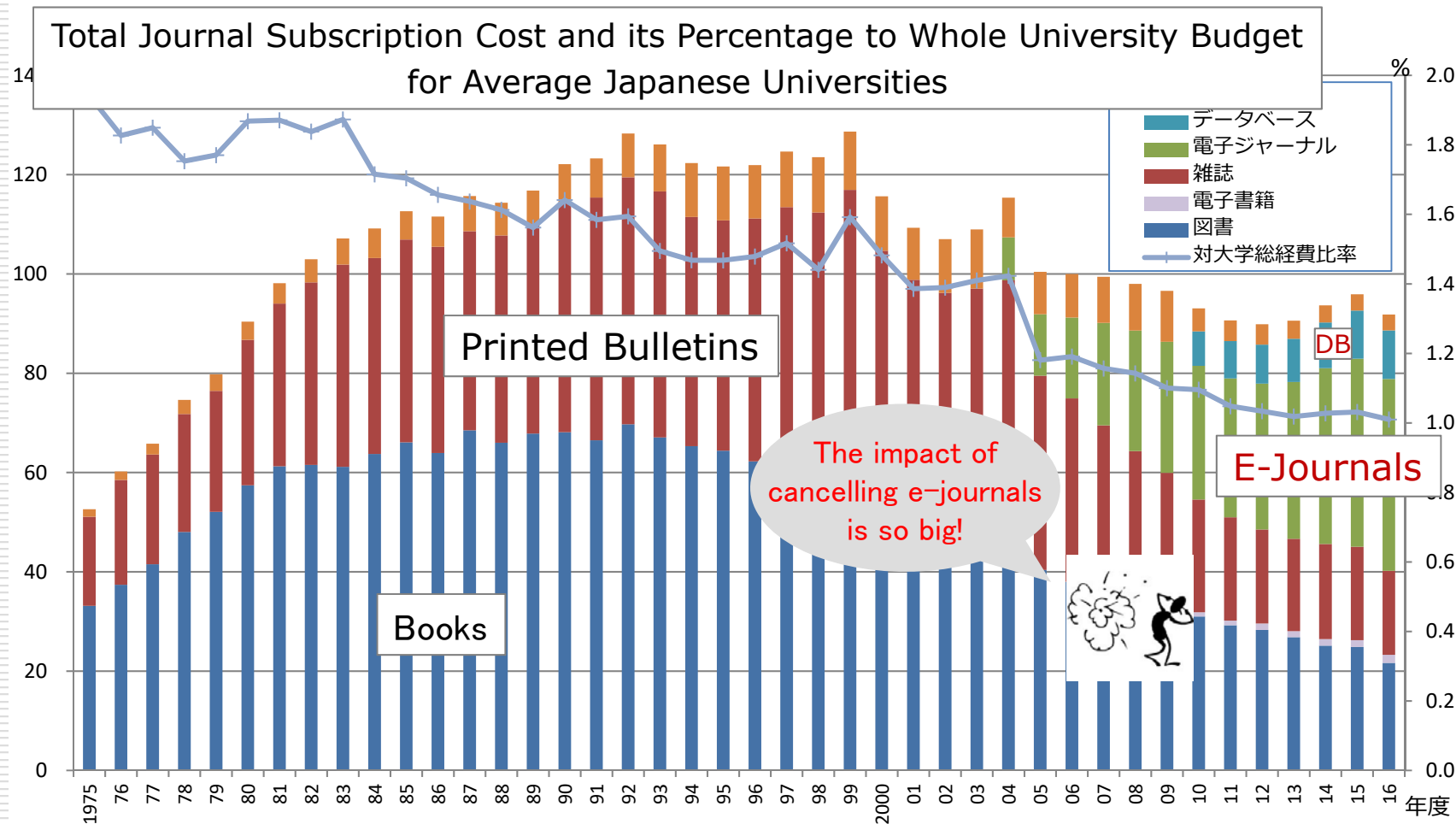
Univ. C (Small)



Subscribed 0.25m US\$ +  
Non-subscribed 0.05m US\$  
**= 0.3mil US\$**

**Every university has access to 2000 journals!**

# E-Journals squeezing the books and printed matters

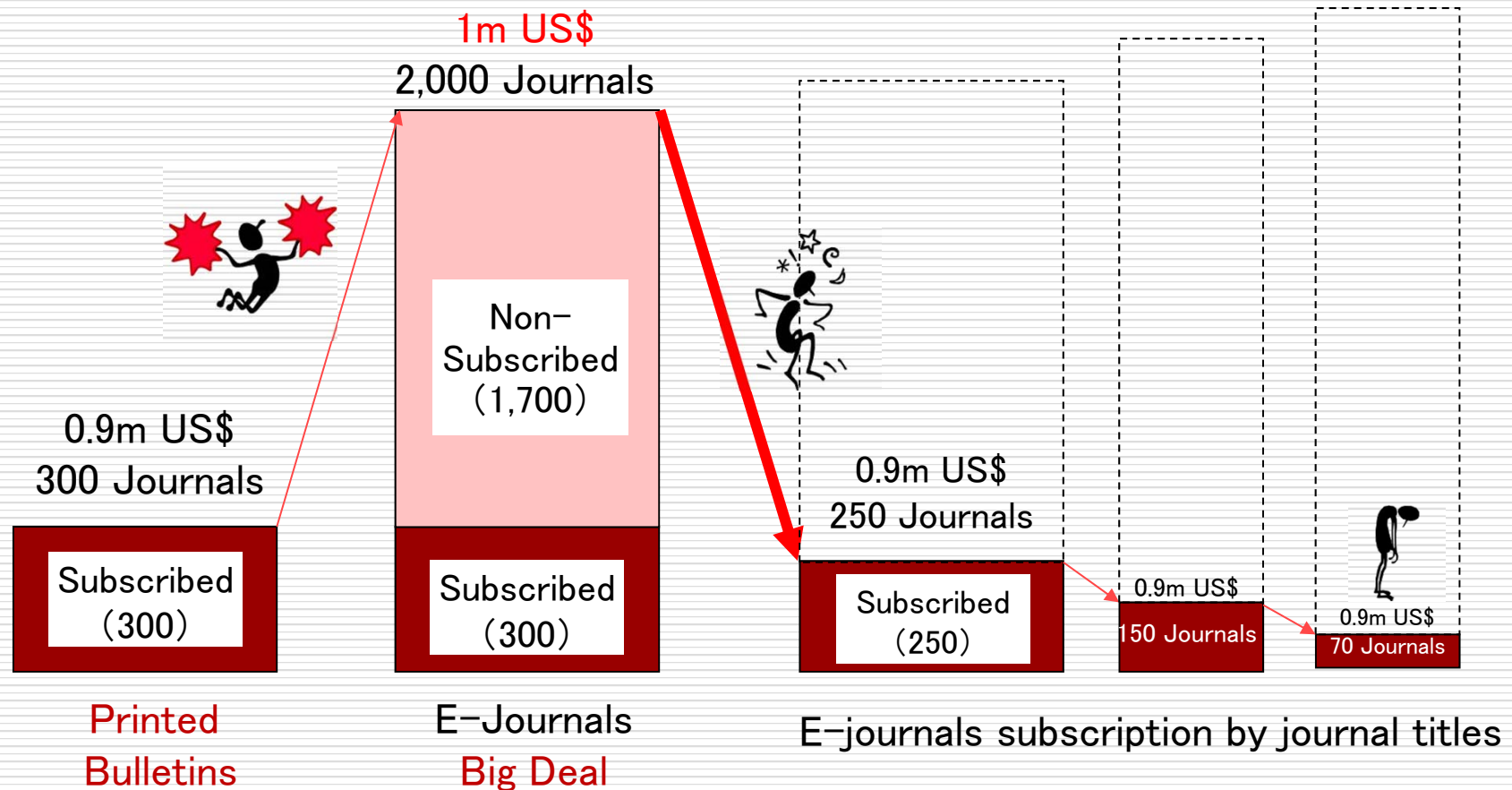


(出典)文部科学省(旧文部省)の「学術情報基盤実態調査結果報告」(旧「大学図書館実態調査結果報告」)による[JUSTICE事務局作成]

<https://www.nii.ac.jp/content/justice/documents/>

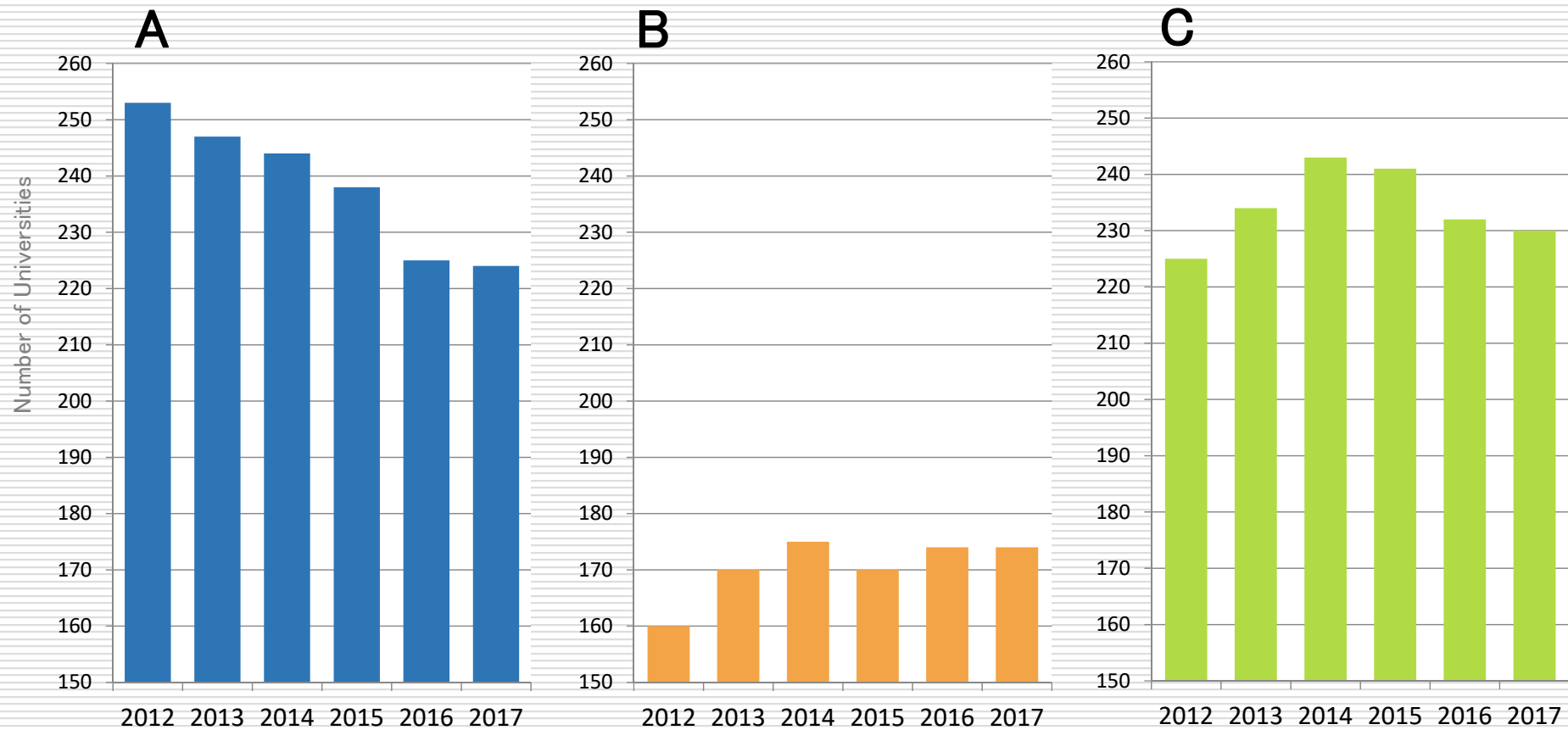


# When cancelling the Big Deal

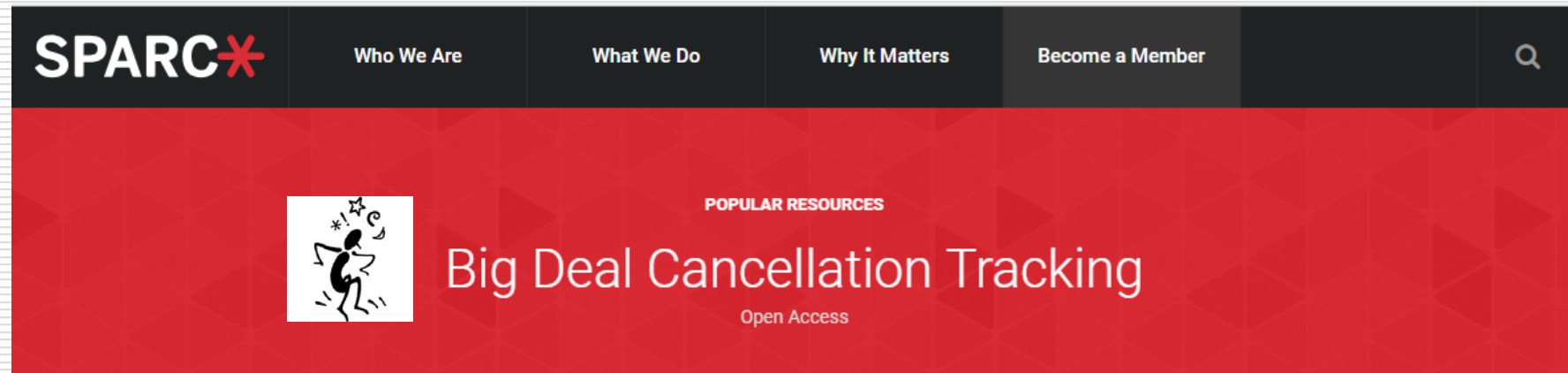


# Japanese universities giving up on package subscription

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# All Universities in the World suffering



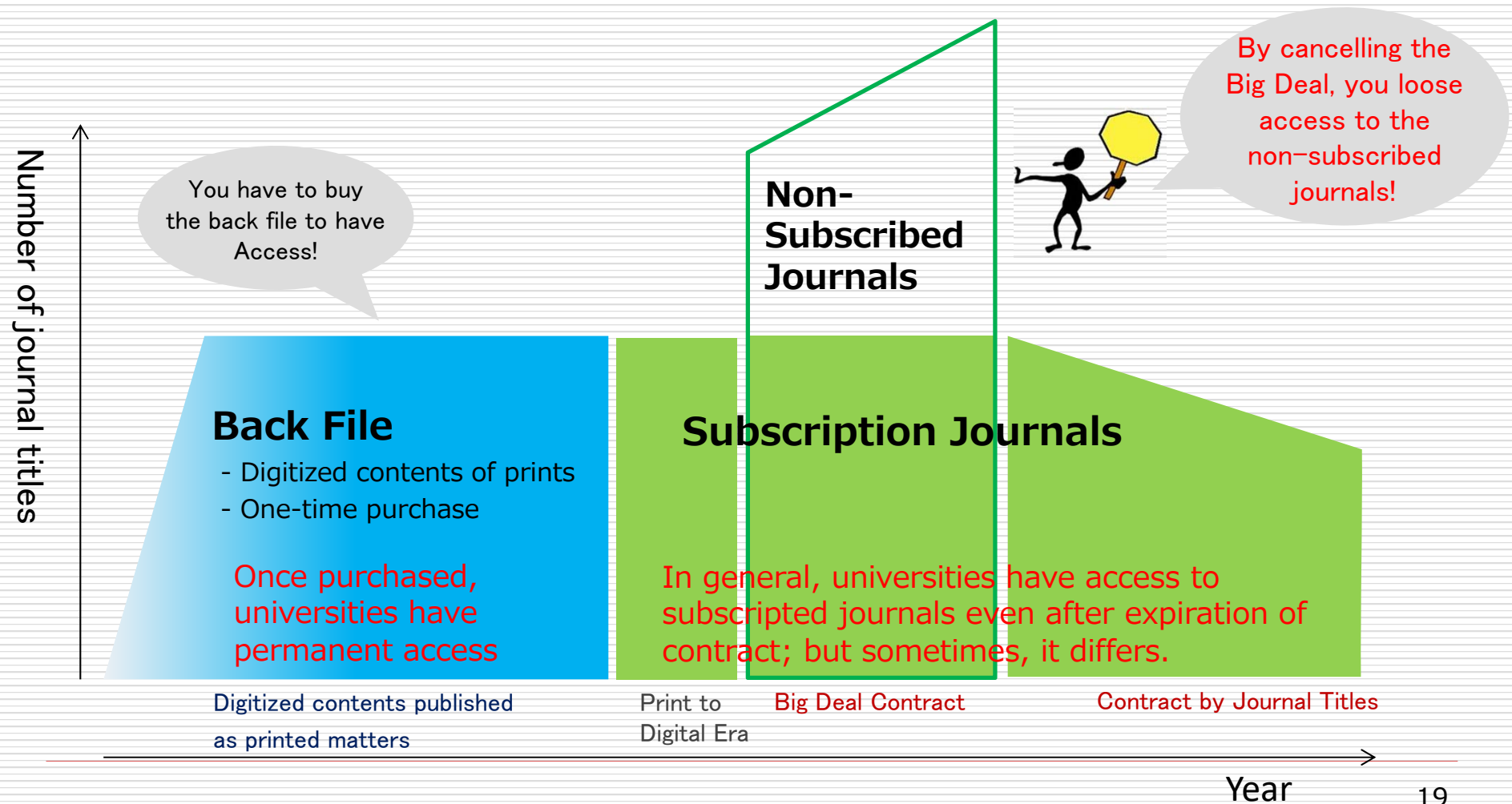
Over time, however, the actual value of these “big deals” has grown less clear. Publishers have often raised the price of the packages by 5-15%, far outpacing library budgets.

Institution/ Consortium	Date	Region	Publisher(s)	Strategic Considerations	Outcome	Estimated Annual Savings (USD)
Florida State University	2019	United States	Elsevier	Florida State University	The FSU Faculty	Undisclosed

(出典)SPARC, “Big Deal Cancellation Tracking”

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

# Attention required in the details of the contract



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## 2. Open Access Movement among the Academia

# Protest from Academia (1)

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We are  
writing the  
articles!

Isn't it unfair  
that the publishers are making profit,  
and many academics cannot even afford  
to read the articles?!



The journal  
subscription is  
too expensive!

# Protest from Academia (2)

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## □ “Subversive Proposal”

- Steve Harnad (1994)
- Called for scholarly articles to be freely available on the Internet, instead of published in print for the sake of royalties.

## □ “An Open Letter to Scientific Publishers”

- 34,000 scholars worldwide (2001)
- Called for the establishment of an online public library and pledging to refrain from publishing in traditional non-open-access journals.

# Petition for Boycotting Elsevier — Cost of Knowledge



**The Cost of Knowledge**

**17091 Researchers Taking a Stand.** *See the list*

Academics have protested against Elsevier's business practices for years with little effect. These are some of their objections:

1. They charge exorbitantly high prices for subscriptions to individual journals.
2. In the light of these high prices, the only realistic option for many libraries is to agree to buy very large "bundles", which will include many journals that those libraries do not actually want. Elsevier thus makes huge profits by exploiting the fact that some of the journals are essential.
3. They support measures such as SOPA, PIPA and the Research Works Act, that aim to restrict the free exchange of information.

The key to all these issues is the right of authors to achieve easily-accessible distribution of their work. If you would like to declare publicly that you will not publish with Elsevier and that you will radically change how they operate, then you can do so by filling in your details on this page.

More information:

- [Statement of Purpose](#)
- [PolyMath journal publishing reform page](#)

[Read our blog](#), and follow the boycott on Twitter [here](#).

**17091 people from All Subjects have signed.**

Name or affiliation   Directory: [A](#)[B](#)[C](#)[D](#)[E](#)[F](#)[G](#)[H](#)[I](#)[J](#)[K](#)[L](#)[M](#)[N](#)[O](#)[P](#)[Q](#)[R](#)[S](#)[T](#)[U](#)[V](#)[W](#)[X](#)[Y](#)[Z](#)

**Clayton A**  
iRoost - Biology  
won't publish,  
won't referee,  
won't do editorial work  
Restrictive access to knowledge is one of the most harmful bottlenecks to human progress.

**Gaëll Mainguy A**  
S.A.P.I.E.N.S - Environmental Sciences  
won't publish,  
won't referee,  
won't do editorial work  
Open access is the only way to integrate knowledge successfully to foster advances in sustainability research and other key multidisciplinary challenges.

**Gonzalez A**  
UQAM-Geology - Earth and Planetary Sciences  
won't publish,  
won't referee,  
won't do editorial work  
In support of an open publishing online portal and foremost the advancement of science.

□ Cambridge mathematician Timothy Gowers calling for Elsevier Boycott (2012.1.21)

□ Asking not to publish, peer-review, edit at Elsevier journals.

➤ 34 eminent mathematicians signing the "Cost of Knowledge" (2012.2.8)

➤ More than 17 thousand people signing (2018.7)。



# Elsevier's Profit Margin at around 40%



We are not writing articles for publishers to make money!

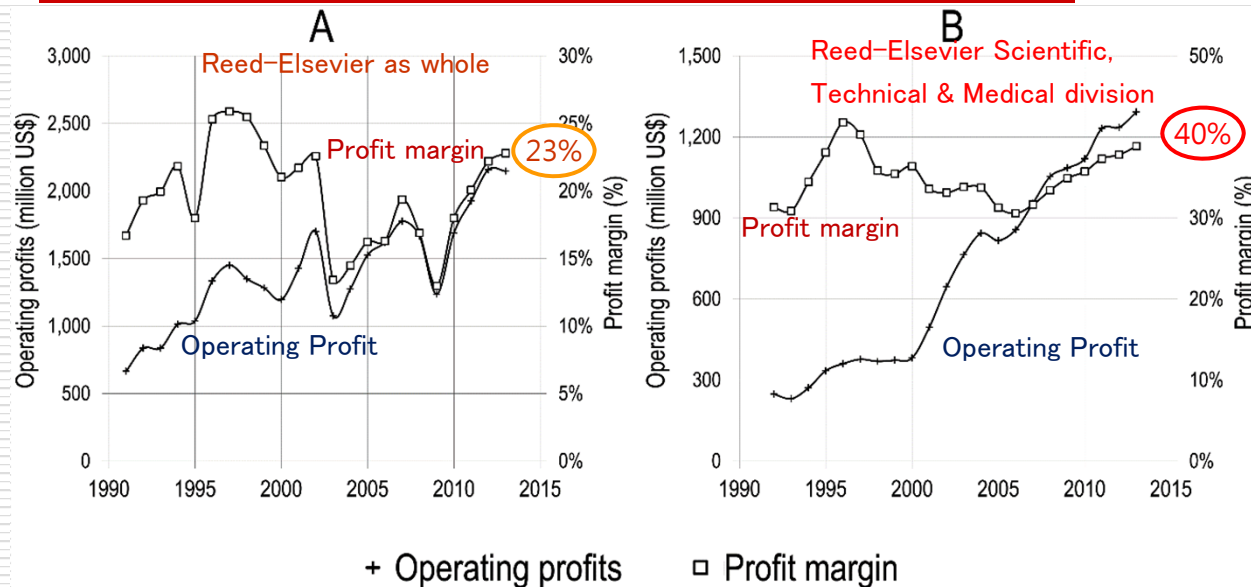


Fig 7. Operating profits (million USD) and profit margin of Reed-Elsevier as a whole (A) and of its Scientific, Technical & Medical division (B), 1991-2013.

- Springer Science+Business Media (2012): **35%**
- John Wiley & Sons' Scientific, Technical, Medical and Scholarly division (2013) : **28.3%**
- Taylor and Francis (2013): **35.7%**

## REVENUE



## ADJUSTED OPERATING PROFIT



Reed-Elsevier  
**37% Profit Margin !**  
(FY 2017)

# Protest from Academia (3)



## □ “Budapest Open Access Initiative (BOAI)”, (2002)

- Provided definition of OA
- Two ways to achieve OA:

### 1. Self-Archiving (green OA)

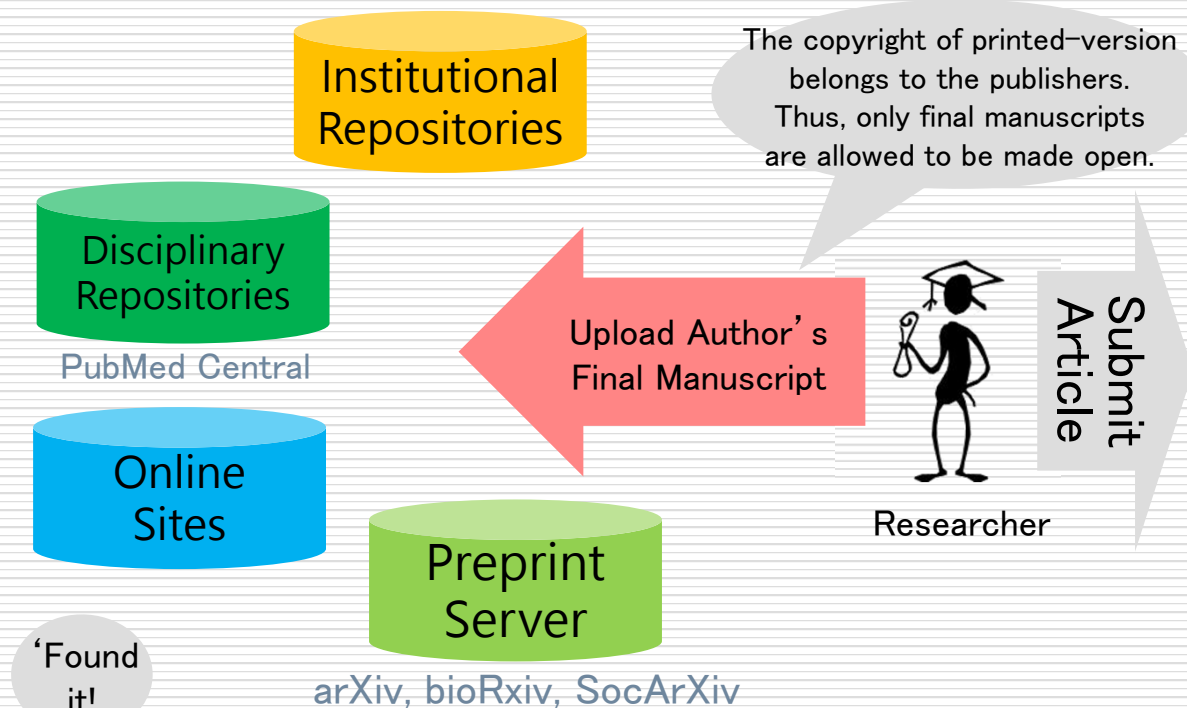
- Author’s final manuscript or the publisher’s version after a certain embargo period is archived on a website accessible worldwide.

### 2. Open-access Journals (gold OA)

- Subscription fees are omitted instead of a fee charged to the author, usually called the article processing charge (APC).

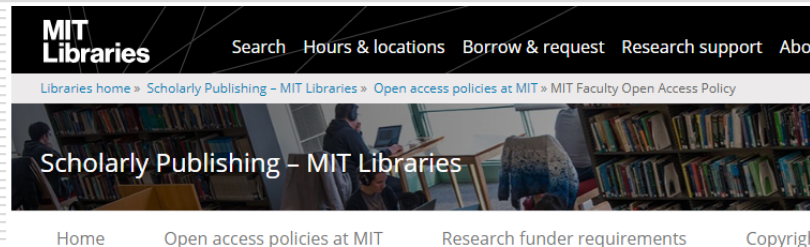
# Self-Archiving —green OA

Making research articles available  
on the Internet.



- Some libraries inputs the bibliographic metadata for the researchers.
- Contents at repositories are searchable through research article discovery services such as OpenAIRE.
- Most journals allow printed-version to be made available after certain embargo period.

# OA policy for enabling universities to publish author's final manuscript



## OA policy, voted unanimously by MIT faculty

### MIT FACULTY OPEN ACCESS POLICY

Policy adopted by unanimous vote of the Faculty on 3/18/2009

The Faculty of the Massachusetts Institute of Technology is committed to disseminating the fruits of its research and scholarship as widely as possible. In keeping with that commitment, the Faculty adopts the following policy: Each Faculty member grants to the Massachusetts Institute of Technology nonexclusive permission to make available his or her scholarly articles and to exercise the copyright in those articles for the purpose of open dissemination. In legal terms, each Faculty member grants to MIT a nonexclusive, irrevocable, paid-up, worldwide license to exercise any and all rights under copyright relating to each of his or her scholarly articles, in any medium, provided that the articles are not sold for a profit, and to authorize others to do the same. The policy will apply to all scholarly articles written while the person is a member of the Faculty except for any articles completed before the adoption of this policy and any articles for which the Faculty member entered into an incompatible licensing or assignment agreement before the adoption of this policy. The Provost or Provost's designate will waive application of the policy for a particular article upon written notification by the author, who informs MIT of the reason.

To assist the Institute in distributing the scholarly articles, as of the date of publication, each Faculty member will make available an electronic copy of his or her final version of the article at no charge to a designated representative of the Provost's Office in appropriate formats (such as PDF) specified by the Provost's Office.

The Provost's Office will make the scholarly article available to the public in an open-access repository. The Office of the Provost, in consultation with the Faculty Committee on the Library System, will be responsible for interpreting this policy, resolving disputes concerning its interpretation and application, and recommending changes to the Faculty. The policy is to take effect immediately; it will be reviewed after five years by the Faculty Policy Committee, with a report presented to the Faculty.

The faculty calls upon the Faculty Committee on the Library System to develop and monitor a plan for a service or mechanism that would render compliance with the policy as convenient for the faculty as possible.

Source: MIT Faculty Open Access Policy

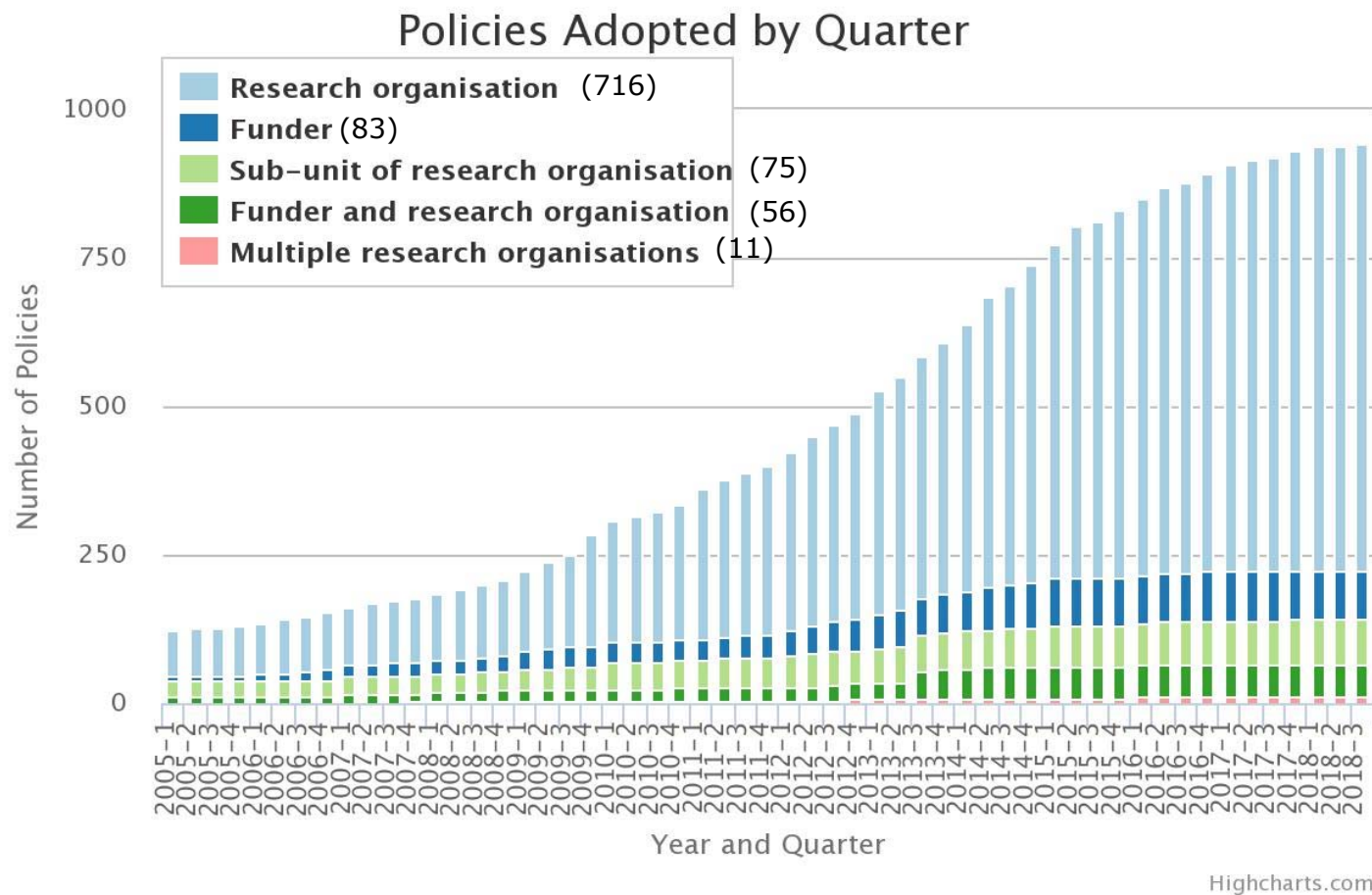
<https://libraries.mit.edu/scholarly/mit-open-access/open-access-policy/>

- ❑ Faculty of Arts and Sciences at Harvard to adopt the first OA policy to enable green OA.
- ❑ Hereinafter, other universities following.
- ❑ MIT to become the first university to adopt university-wide OA policy. (2009.3.18)

## 【OA Policy】

1. Faculty grants university right to disseminate the author's final manuscript.
2. Author has the right to decide by each article.
3. Faculty deposits e-copy to institutional repository.
4. University makes article OA through institutional repository

# Number of OA policies adopted



941 institutions

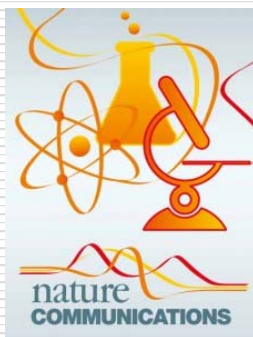
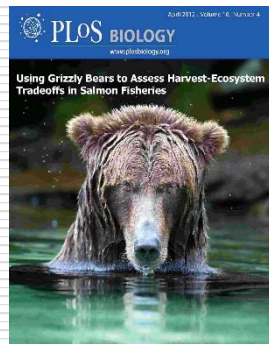
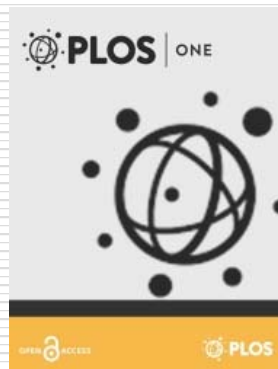
The OA policies vary by institutions





# Open Access Journals —gold OA

OA journals make articles available open, instantly!



OA articles have chance for higher citation!

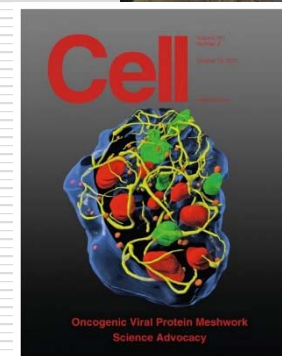
Submit Article  
Publish OA



Researcher

Submit Article

Hybrid Journals



Open accessed by articles



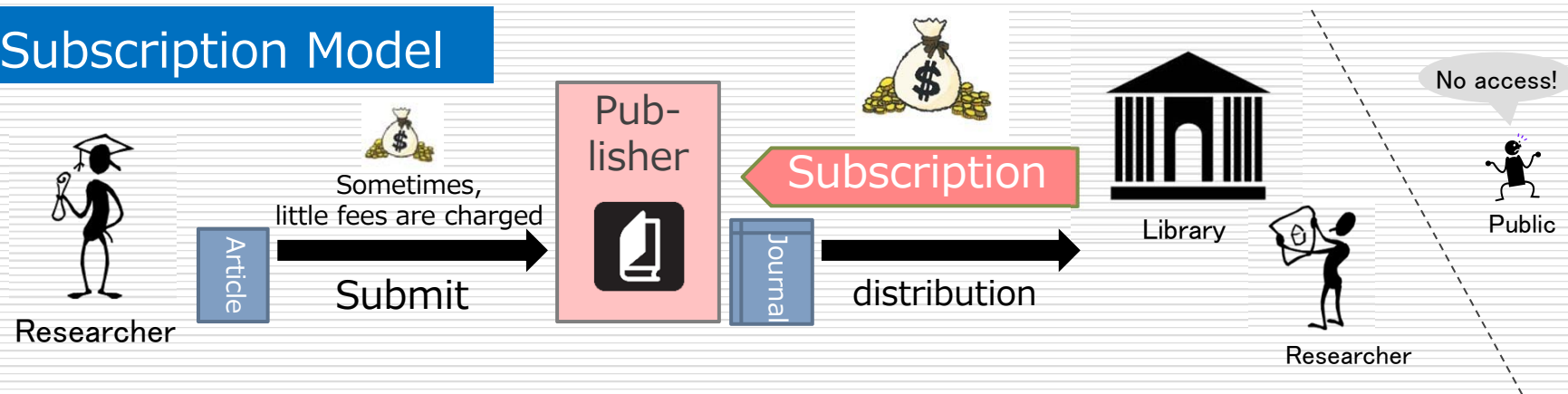
Openly accessible!



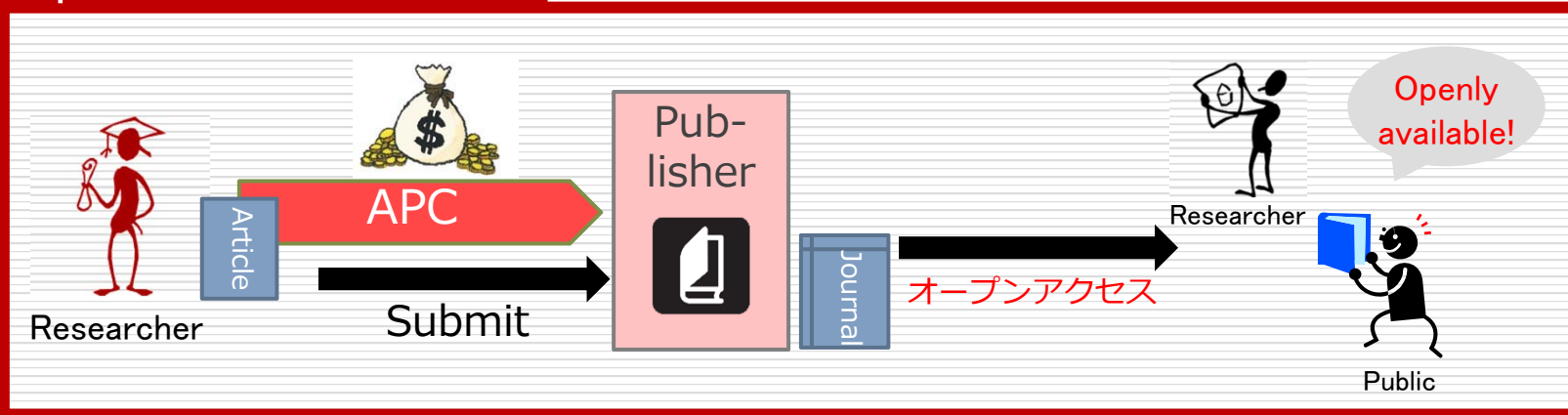
Reader

# OA Journals ask researchers, not the readers and universities, to cover the publishing cost.

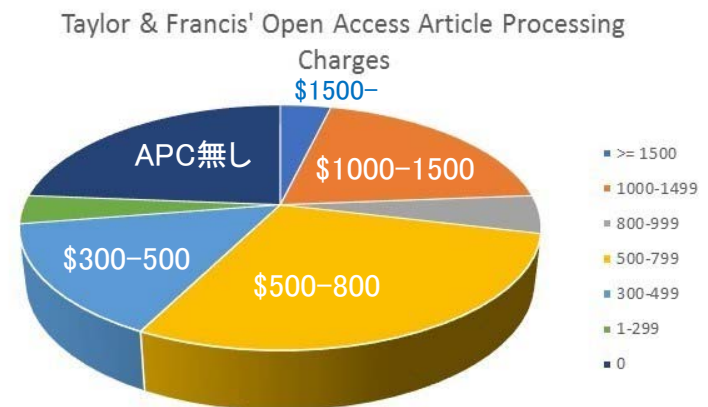
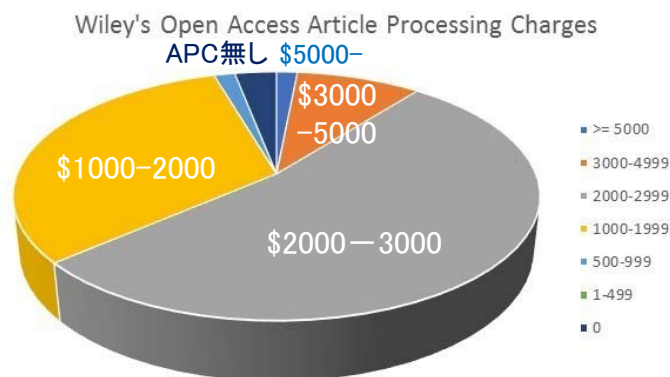
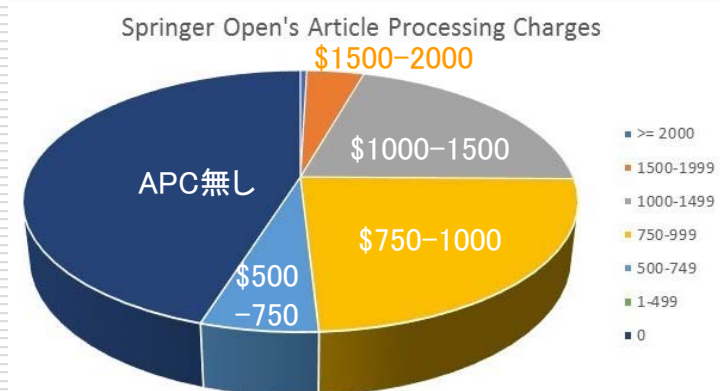
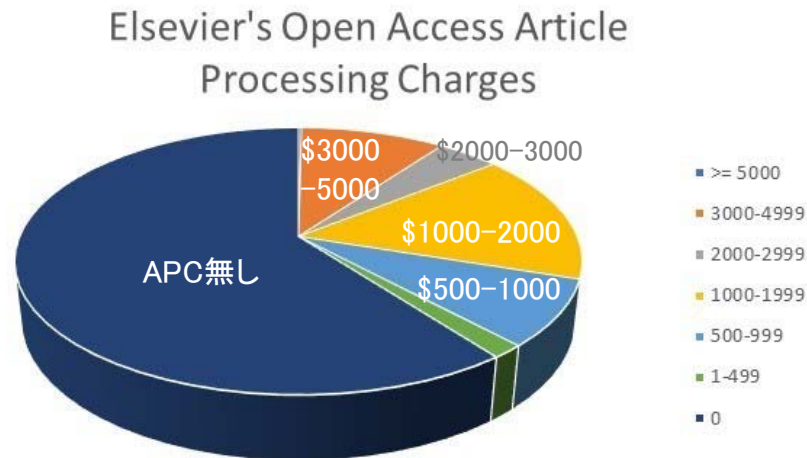
## Subscription Model



## Open Access Model



# How many articles can you publish with average APC US\$1000-2000?





# Compact for OA Publishing Equity(COPE) —Universities committing to support APCs

## Compact for Open-Access Publishing Equity

### THE COMPACT FOR OPEN-ACCESS PUBLISHING EQUITY

*We the undersigned universities recognize the crucial value of the services provided by scholarly publishers, the desirability of open access to the scholarly literature, and the need for a stable source of funding for publishers who choose to provide open access to their journals' contents. Those universities and funding agencies receiving the benefits of publisher services should recognize their collective and individual responsibility for that funding, and this recognition should be ongoing and public so that publishers can rely on it as a condition for their continuing operation.*

*Therefore, each of the undersigned universities commits to the timely establishment of durable mechanisms for underwriting reasonable publication charges for articles written by its faculty and published in fee-based open-access journals and for which other institutions would not be expected to provide funds. We encourage other universities and research funding agencies to join us in this commitment, to provide a sufficient and sustainable funding basis for open-access publication of the scholarly literature.*

Source: Compact for Open-Access Publishing Equity  
<http://www.oacompact.org/>

### COPE Signatories

Cornell University  
Dartmouth College  
Harvard University  
MIT  
University of California at Berkeley  
University of Ottawa  
Columbia University  
Memorial Sloan-Kettering Cancer Center  
Universitat de Barcelona  
Duke University  
University of Calgary  
Simon Fraser University  
European Organization for Nuclear Research (CERN)  
Karlsruhe Institute of Technology  
University of Utah  
University of Pittsburgh  
University of Tennessee, Knoxville  
Texas A&M University  
Emory University  
University of Rhode Island

### OA出版助成を行う大学 (COPE署名なし)

Brandeis University  
Carnegie Mellon University  
Colorado State University  
ETH Zurich  
George Mason University  
Indiana University-Purdue University Indianapolis  
Johns Hopkins University  
Lund University  
Northern Illinois University  
Southern Illinois University Carbondale  
Tufts University  
University of Bielefeld  
University of California, Davis  
University of California, Irvine  
University of California, Merced  
University of California, San Diego  
University of California, San Francisco  
University of California, Santa Barbara  
University of California, Santa Cruz  
University of Colorado  
University of Florida  
University of Illinois at Chicago  
University of Iowa  
University of Kansas  
University of Manitoba  
University of Minnesota  
University of North Carolina at Chapel Hill  
University of North Carolina at Charlotte  
University of Oklahoma  
University of Oregon  
University of Tromsø  
University of Wisconsin - Madison  
Wake Forest University

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## 3. Move at Governmental-level

# Move at Governmental-level

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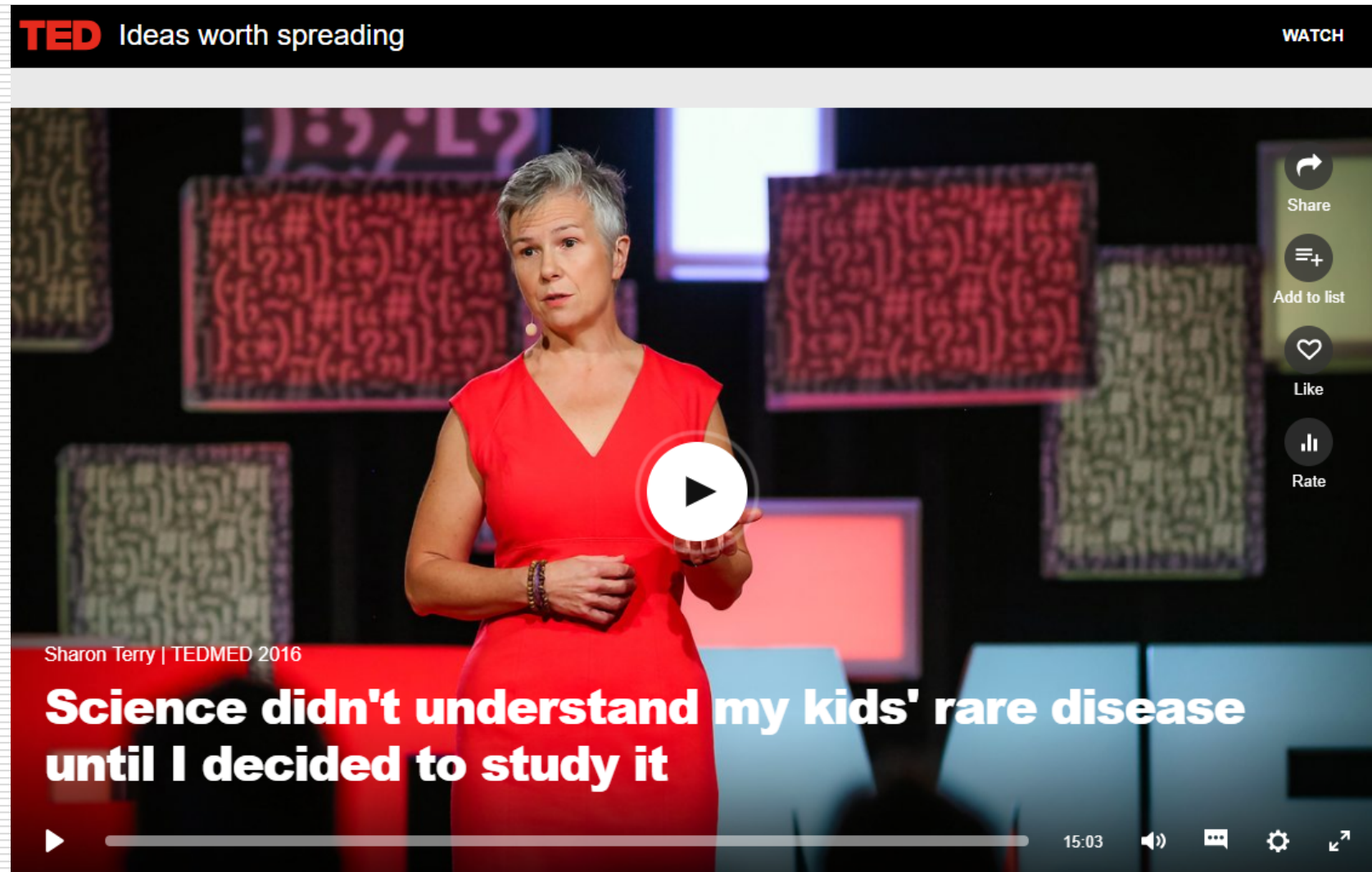
## □ Protest from a medical patient

- *"It is unfair that taxpayers do not have access to academic articles and thus cannot study their own medical condition, as the price of academic journals is exorbitant".*

## □ Funding agencies start making OA a mandate for scholarly articles funded publicly

- NIH(US)-2008-"NIH Public Access Policy"
- RCUK(UK)-2013-provides grant to universities for APC

# The push which triggered US government to adopt OA policy



## PubMed Central (PMC)—The first digital repository established by a funder to comply for OA mandate

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- ❑ Online research articles archive in biomedical and life sciences established by NIH.
- ❑ As of 2007, NIH made OA a mandate for research outputs funding by NIH.
  - ✓ Researchers must archive their author's final version on PMC.
- ❑ As of July 2018, about 5 million articles available.

(Note) PubMed Central is renamed to PMC in 2012.

5 MILLION  
Articles

*are archived in PMC.*

*Content provided in part by:*

2158	332	4723
<u>Full</u> <u>Participation</u> Journals	<u>NIH</u> <u>Portfolio</u> Journals	<u>Selective</u> <u>Deposit</u> Journals

# UK Funders to support APC



The screenshot shows the GOV.UK website header with a search bar and navigation links. Below the header, the 'Home' link is underlined, and 'News story' is displayed. The main headline reads: 'Government invests £10 million to help universities move to open access'. The text below the headline states: 'The investment will enable a number of research-intensive UK institutions to kick-start the process of developing policies and setting up funds to meet the costs of article processing charges (APCs). This is in line with the recommendations of the Finch report on open access, published in June.'

GOV.UK

Search

Departments Worldwide How government works Get involved  
Policies Publications Consultations Statistics Announcements

[Home](#)

News story

## Government invests £10 million to help universities move to open access

The investment will enable a number of research-intensive UK institutions to kick-start the process of developing policies and setting up funds to meet the costs of article processing charges (APCs). This is in line with the recommendations of the Finch report on open access, published in June.

(2012.9.7)

# RCUK Open Access Block Grant

- ❑ RCUK awards universities with block grants based on number of publications the previous year.
- ❑ Each university supports researchers with APCs within the respective institution.

## Summary of APC costs (FY 2016/17)

	Total	Full OA	Hybrid Js
Value of block grant awarded	US\$18M (£14M)		
Number of Articles which an APC was paid	10K	2.5K	7.5K
Average APC	US\$2500 (£1988)	\$2100	\$2653
Total RCUK spend on APCs	US\$23M (£18M)	US\$5M	US\$20M

## OA block grant awards

### Top 10

UCL	(£1.63M)
Cambridge U	(£1.27M)
Manchester U	(£1.08M)
Oxford U	(£0.91M)
Edinburgh U	(£0.88M)
Sheffield U	(£0.62M)
Glasgow U	(£0.61M)
Warwick U	(£0.50M)
Leeds U	(£0.48M)
Bristol U	(£0.48M)

# OA mandate of doctoral thesis

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□ “Open Access of PhD dissertation through internet” made mandate by Ministry of Education (MEXT).

- Change announced in March 2013, regulation in enforcement since April 2013.



# Governmental agencies providing publishing platforms

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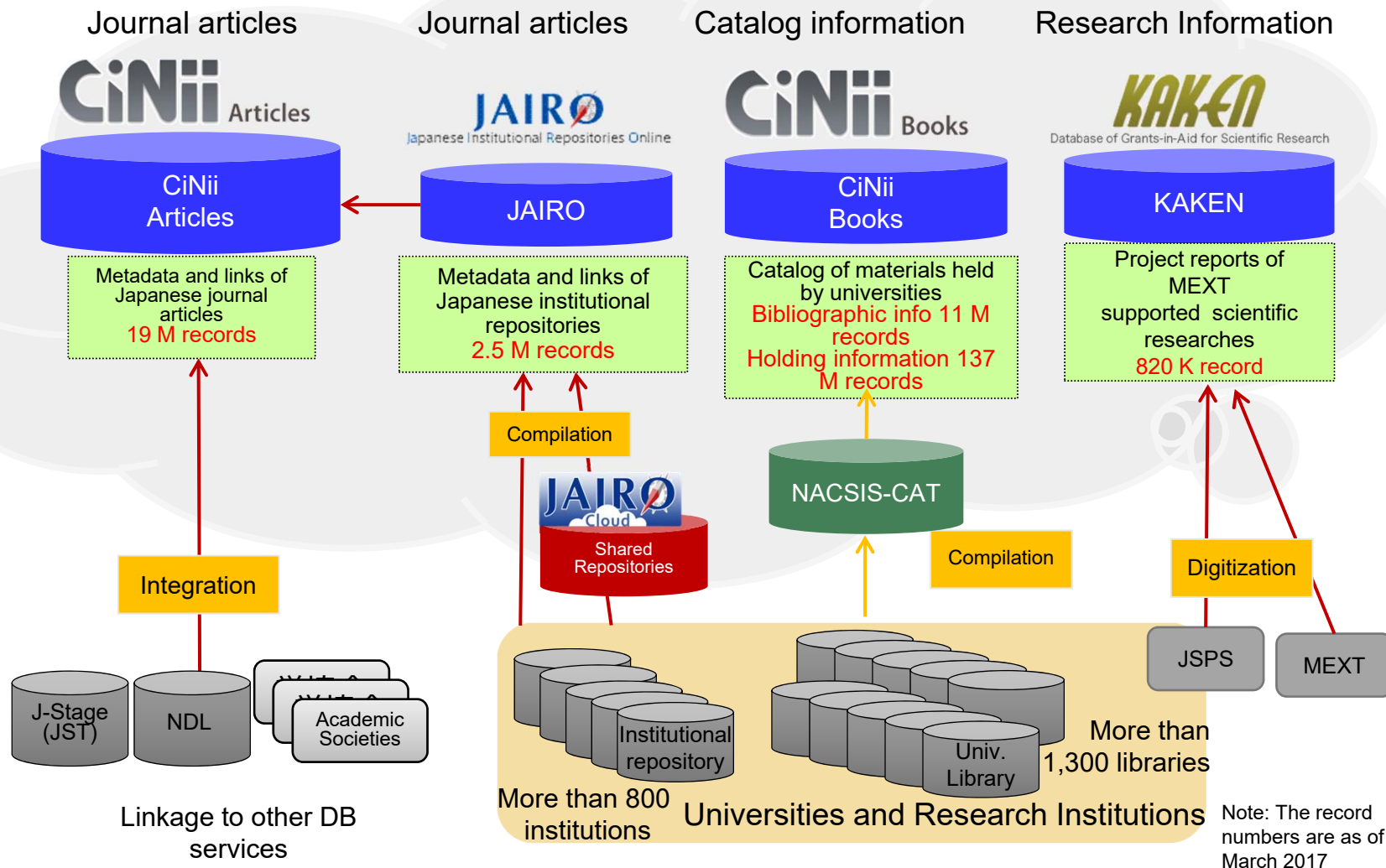
## □ J-Stage

- An electronic journal platform for science and technology information in Japan, developed and managed by the Japan Science and Technology Agency (JST).

## □ SciELO

- An electronic library covering a selected collection of Brazilian scientific journals.

# Scholarly Information Infrastructure





# WEKO3

## • Current System WEKO2

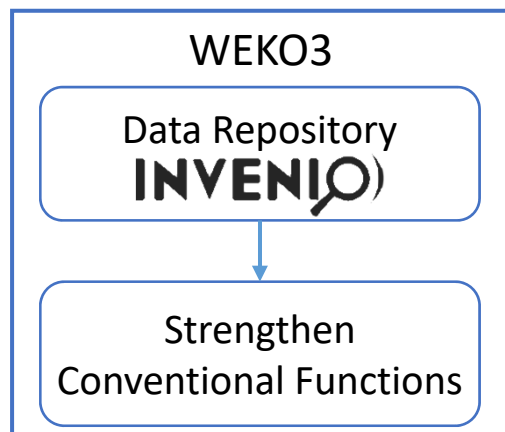
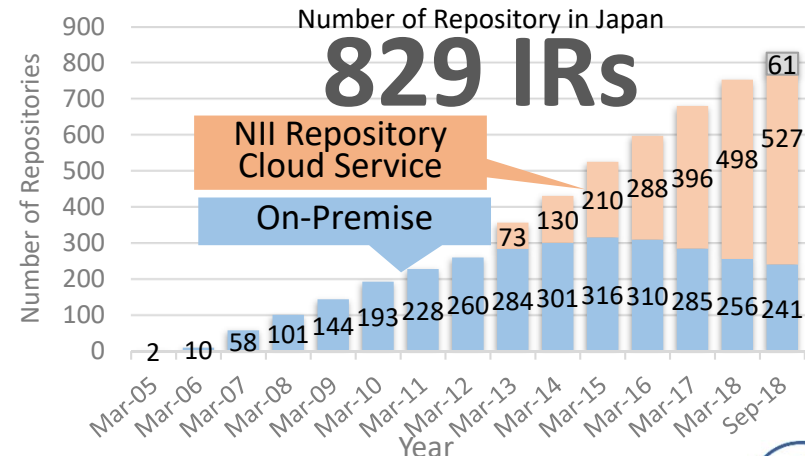
- Journal Article Repository
- Add Functions more and more



Research Data Handling

## • New System WEKO3

- Based on Invenio3 which is originally focused as Data Repository
- Integrate WEKO2 Functions into Invenio3



Realize New Publication Platform based on sophisticated Invenio3 Architecture  
(Invenio3 = our RDM Platform in Architecture)



Effective Development and Operation



Domain Use-case by Extensibility

# European Open Science Cloud (EOSC)

- ❑ EOSC aims to accelerate and support the current **transition to more effective Open Science and Open Innovation** in the Digital Single Market.
- ❑ KEY FACTORS:
  - New modes of scholarly communication
  - **Modern reward and recognition practices** need to support data sharing and re-use.
  - **Core data experts** need to be trained and their career perspective significantly improved.
  - A real stimulus of **multi-disciplinary collaboration** requires specific measures in terms of review, funding and infrastructure.
  - The transition **from scientific insights towards innovation needs** a dedicated support policy.



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## 4. Various Publishing Platforms and Funding Schema

# OA Models without APCs

## ...Crowd Funding by Libraries

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- ❑ Library consortium pools money from member organizations and publish journals and monographs.
- ❑ OA publishing model without authors paying for APCs.

arXiv.org



UNIVERSITY  
of CALIFORNIA  
PRESS

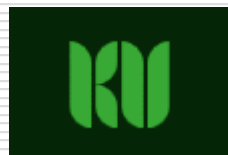
Luminos

Lever Press

REVEAL DIGITAL



SCOAP<sup>3</sup>

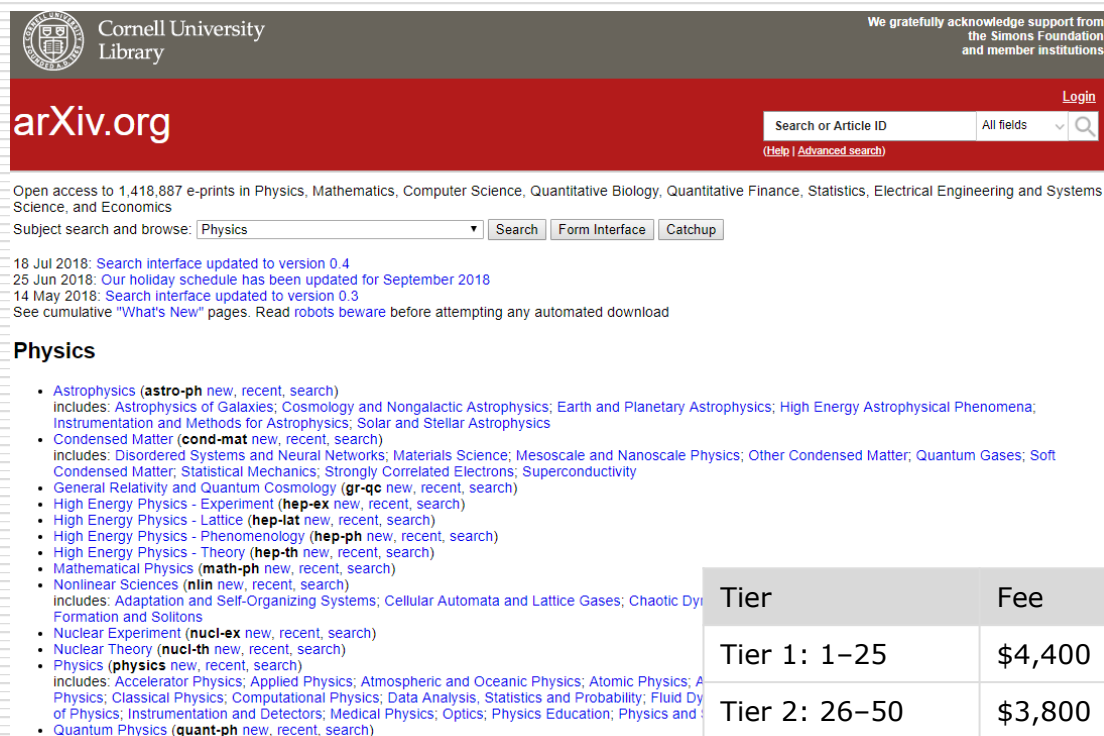


unglue.it

OpenBook  
Publishers



# Preprint Server ...arXiv.org



Cornell University Library

We gratefully acknowledge support from the Simons Foundation and member institutions

arXiv.org

Search or Article ID All fields

Open access to 1,418,887 e-prints in Physics, Mathematics, Computer Science, Quantitative Biology, Quantitative Finance, Statistics, Electrical Engineering and Systems Science, and Economics

Subject search and browse:

18 Jul 2018: Search interface updated to version 0.4  
25 Jun 2018: Our holiday schedule has been updated for September 2018  
14 May 2018: Search interface updated to version 0.3  
See cumulative "What's New" pages. Read [robots beware](#) before attempting any automated download

**Physics**

- **Astrophysics** ([astro-ph new](#), [recent](#), [search](#))  
Includes: Astrophysics of Galaxies; Cosmology and Nongalactic Astrophysics; Earth and Planetary Astrophysics; High Energy Astrophysical Phenomena; Instrumentation and Methods for Astrophysics; Solar and Stellar Astrophysics
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- **General Relativity and Quantum Cosmology** ([gr-qc new](#), [recent](#), [search](#))
- **High Energy Physics - Experiment** ([hep-ex new](#), [recent](#), [search](#))
- **High Energy Physics - Lattice** ([hep-lat new](#), [recent](#), [search](#))
- **High Energy Physics - Phenomenology** ([hep-ph new](#), [recent](#), [search](#))
- **High Energy Physics - Theory** ([hep-th new](#), [recent](#), [search](#))
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Includes: Adaptation and Self-Organizing Systems; Cellular Automata and Lattice Gases; Chaotic Dynamics; Formation and Solitons
- **Nuclear Experiment** ([nucl-ex new](#), [recent](#), [search](#))
- **Nuclear Theory** ([nucl-th new](#), [recent](#), [search](#))
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Includes: Accelerator Physics; Applied Physics; Atmospheric and Oceanic Physics; Atomic Physics; Atomic and Molecular Optics; Biological Physics; Classical Physics; Computational Physics; Data Analysis, Statistics and Probability; Fluid Dynamics; High Energy Physics; Instrumentation and Detectors; Medical Physics; Optics; Physics Education; Physics and Society; Quantum Physics
- **Quantum Physics** ([quant-ph new](#), [recent](#), [search](#))

高エネ物理学で  
利用されていたが、  
近年、複数の分野に  
導入

However,  
there is no  
peer-review!

Tier	Fee
Tier 1: 1-25	\$4,400
Tier 2: 26-50	\$3,800
Tier 3: 51-100	\$3,200
Tier 4: 101- 150	\$2,500
Tier 5: 151-200	\$1,800
Tier 6: 201+	\$1,000

- ❑ Cornell U is the host and funds US\$175k annually.
- ❑ Simon Foundation commits US\$100k annually.
- ❑ University libraries across the world contribute membership fees based on its tier.

Source: arXiv, "2018-2022: Sustainability Plan for Classic arXiv"  
<https://confluence.cornell.edu/display/arxivpub/2018-2022%3A+Sustainability+Plan+for+Classic+arXiv>

# A gold OA framework in High-Energy Physics ...Supporting APCs institutionally and achieve full-OA—SCOAP<sup>3</sup>

## SCOAP<sup>3</sup> Journals

- ❑ Acta Physica Polonica B (APPB)
- ❑ Advances in High Energy Physics (AHEP)
- ❑ Chinese Physics C (CPC)
- ❑ The European Physical Journal C (EPJC)
- ❑ The Journal of High Energy Physics (JHEP)
- ❑ Nuclear Physics B (NPB)
- ❑ Physics Letters B (PLB)
- ❑ Physical Review C (PRC)
- ❑ Physical Review D (PRD)
- ❑ Physical Review Letters (PRL)
- ❑ Progress of Theoretical and Experimental Physics (PTEP)

Open to  
read!



Reader



Open  
Access

Submit  
Article



Researcher

'Can submit articles  
without APC  
worries.'



Membership  
Fee



SCOAP<sup>3</sup> = Sponsoring Consortium for Open Access Publishing in Particle Physics

Source: SCOAP<sup>3</sup>, "Journals, 2017–2019"  
<https://scoap3.org/phase2-journals/>

Source: SCOAP<sup>3</sup> 日本からの参加機関  
<https://www.nii.ac.jp/sparc/scoap3/#4>

- ✓ Coordinated by CERN
- ✓ 3000 institutions at 44 countries participating
- ✓ 67 Japanese institutions participating (2018)



# OA publishing of journals in humanities funded by library community —Open Library of Humanities



- ❑ Libraries form consortium, collects membership fee, and publishes OA journals with this fund.
- ❑ Publishes ca. 20 journals in humanity area.
- ❑ More than 200 libraries in North-America and UK supporting OLH.
- ❑ Average annual membership fee is ca. US\$1000.
- ❑ For one journal, a library supports ca. US\$55 annually.

<https://www.openlibhums.org/>



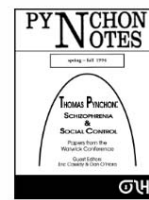
C21 Literature:  
Journal of 21st-  
Century Writings



Studies in the  
Maternal



Architectural  
Histories



Pynchon Notes

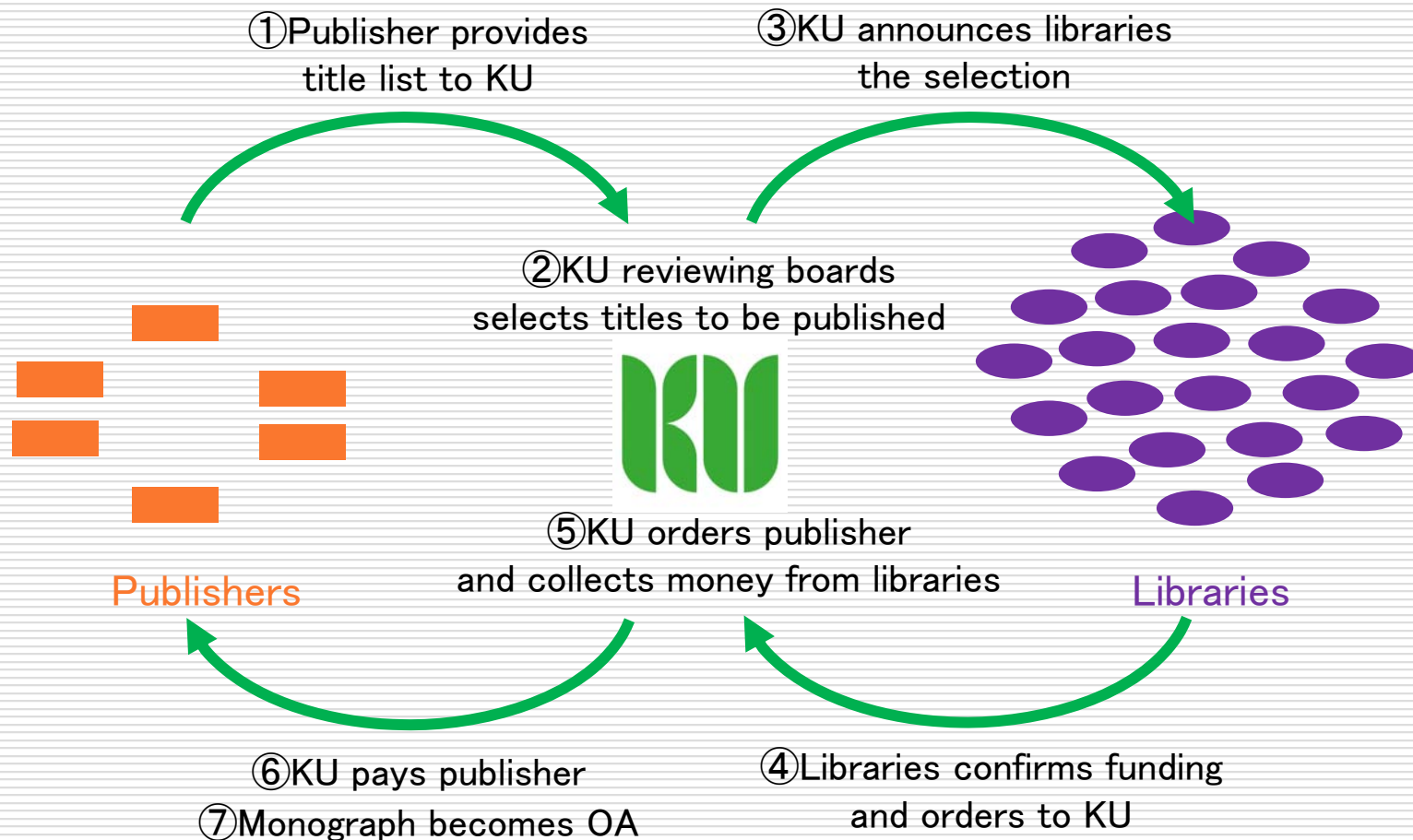


Theoretical Roman  
Archaeology  
Journal



Open Screens

# OA publishing of books in humanities and social sciences funded by library community—Knowledge Unlatched



# Private funders demanding immediate OA publication

**F1000Research**  
Open for Science

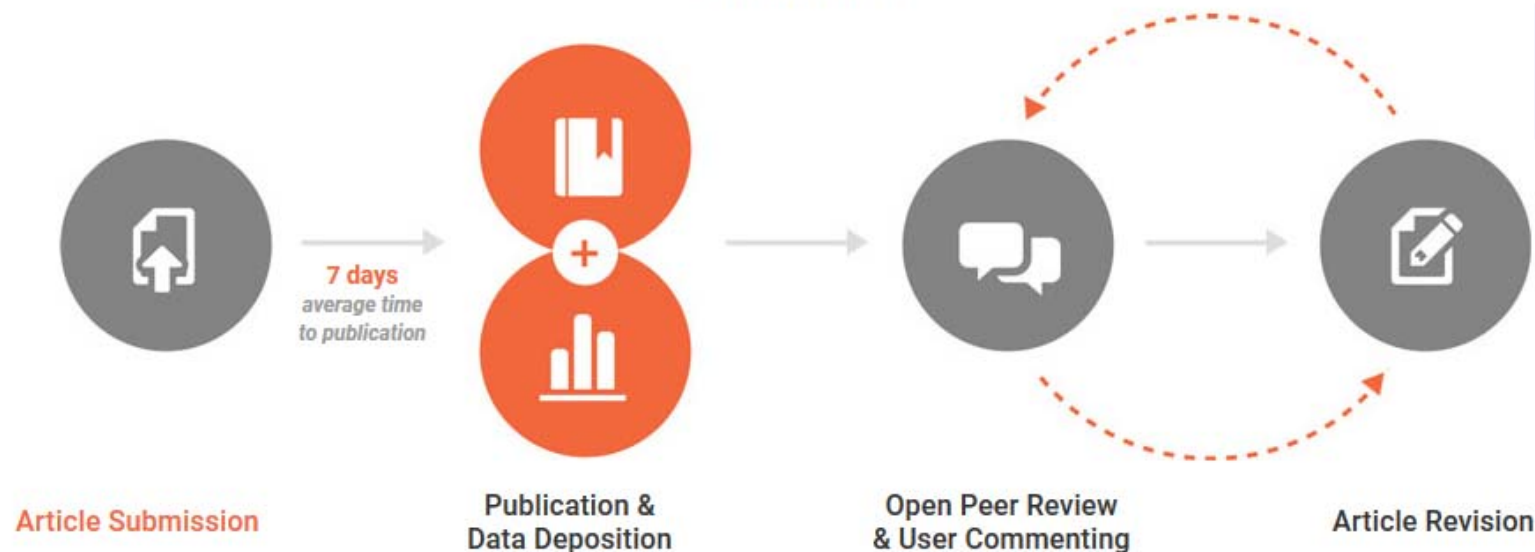


BILL & MELINDA  
GATES foundation

**HR<sup>B</sup>** Health  
Research  
Board

## Our Publishing Processes

### For Articles



# EU following the path of private funders—demanding immediate OA

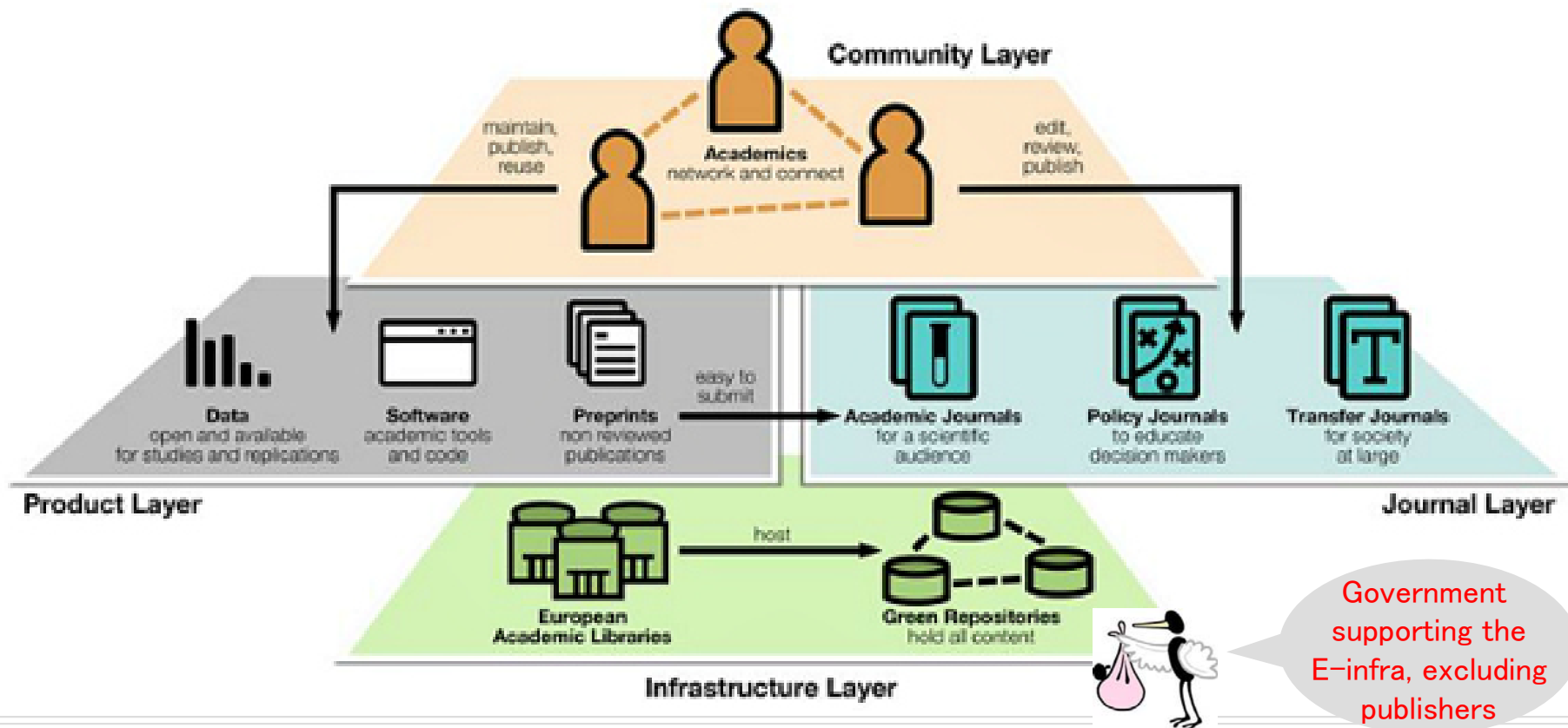
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## □ Open Research Publishing Platform

- A OA publishing platform for peer-reviewed articles and preprints funded by Horizon2020.
- Investing 6.4mil Euro in 4 years.
- Taking the model of Wellcome Trust and Gates Foundations.

Proposal) EU provides the e-infrastructure where articles can be submitted, peer-reviewed, published, made available OA.

## European Open Access Platform



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## 5. Issues of OA and the Flipping to OA

# Limits and Merits

## ...Green OA

### □ Limits

- Burdensome to deposit the author's final manuscript after publication.
  - ✓ Researchers are not cooperative.

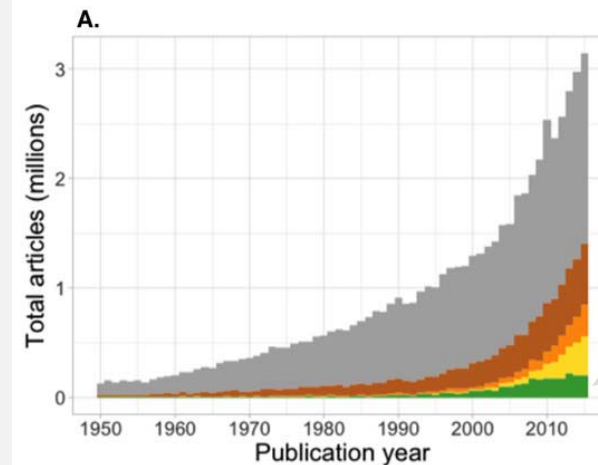
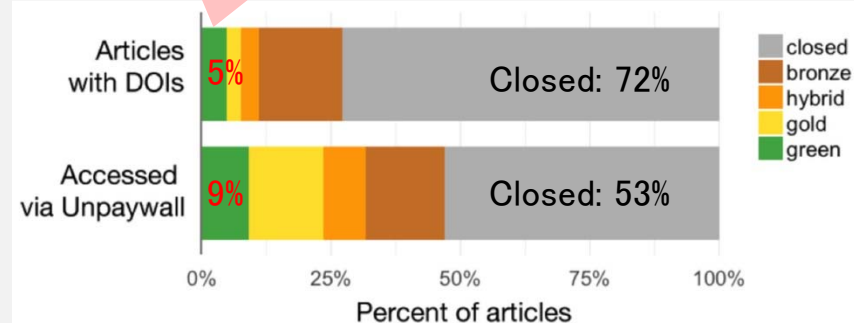
### □ Merits

- Even if the share of green OA is 10%, it gives bargeoning power against publishers.

However, green OA provides alternate way for publishing!



Green OA is less than 10%!



On top, green OA is not growing anymore!

# Limits and Merits

## ...Gold OA

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### □ Limits

- OA journals, difficult to go beyond established prestigious journals.
- For many researcher, the APCs are too expensive to afford.
  - ✓ Difficult to get the support of researchers.

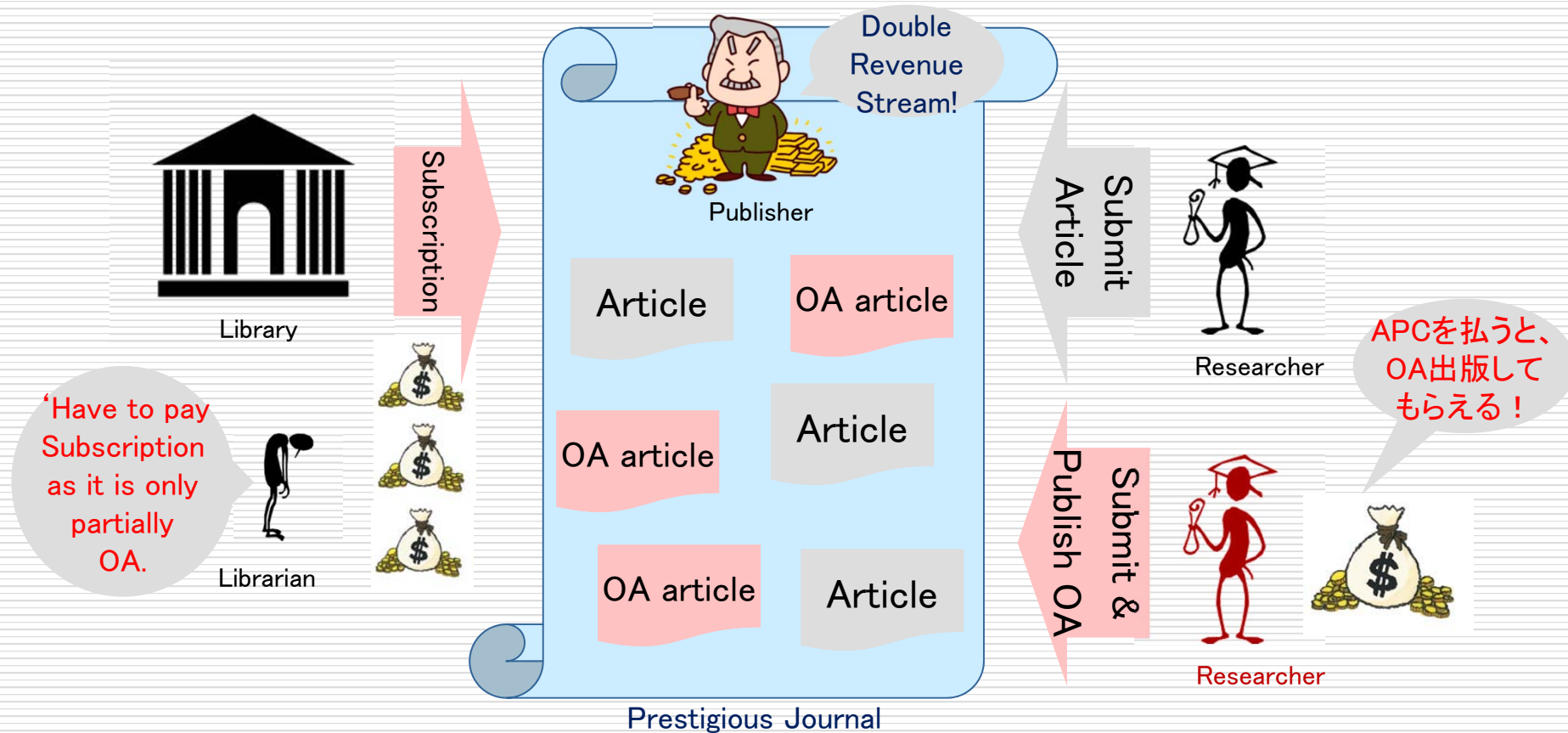
### □ Merits

- OA journals contributed significantly in increasing the OA rate. It led also to various OA ways, such as hybrid journals.
- Now, 30-50% of articles are OA and people became to expect articles to be OA.
  - ✓ Possibility for full OA world?



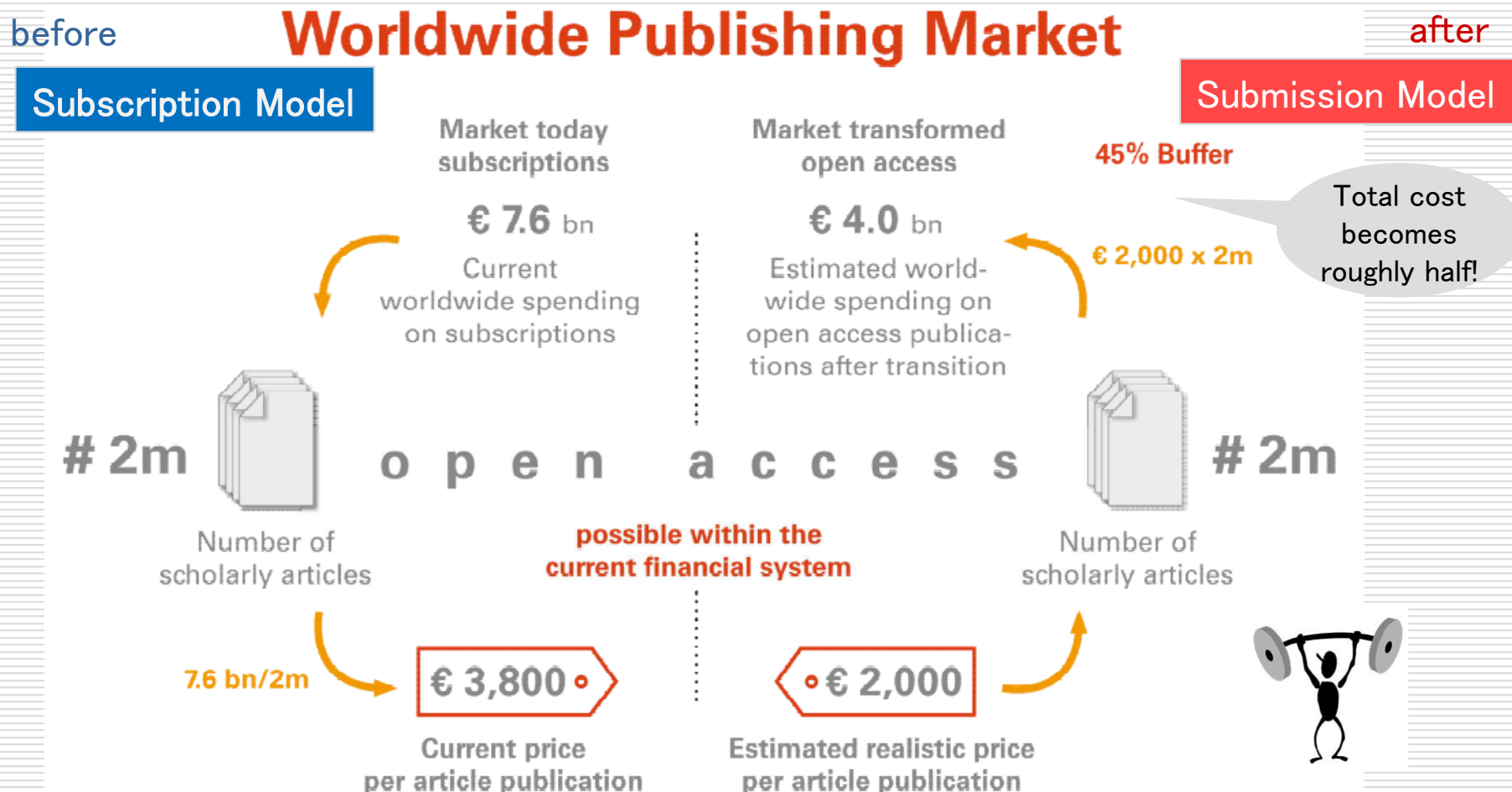
# Hybrid journals and double dipping ...The smart publishers

## Hybrid Journals



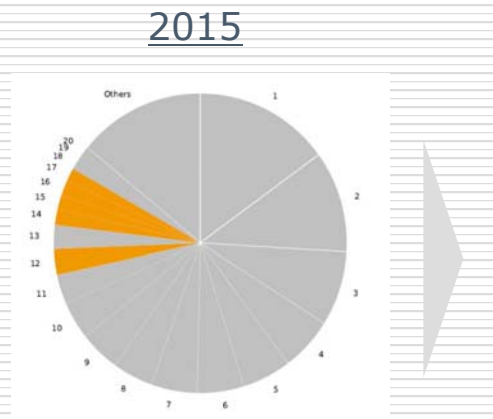
# Max Planck's Proposal

## ...Flipping from subscription to APCs—OA2020

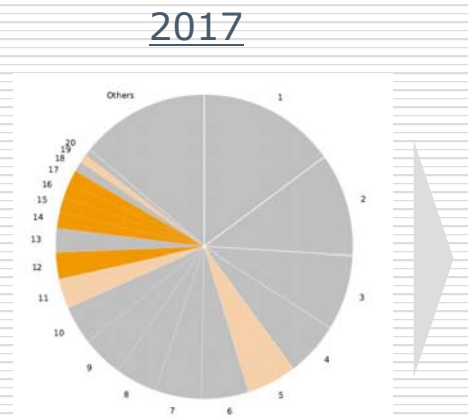


# Max Planck to form transformative OA agreements with top 20 publishers

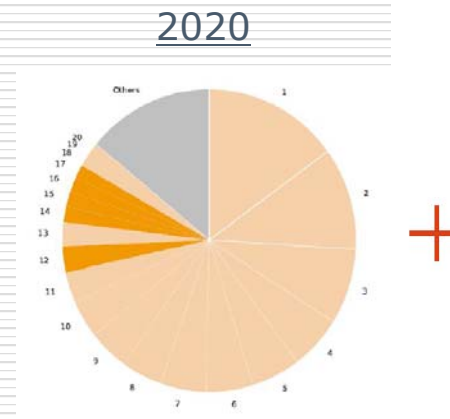
Journal distribution of MPG article submission



- The top 20 journals where MPG submits articles reaches 80%
- Among the 20, 5 are OA journals



- In 2017, MPG signed transformative OA agreement with three publishers.
- Other journals to follow?

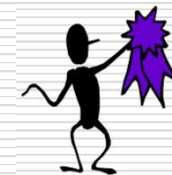
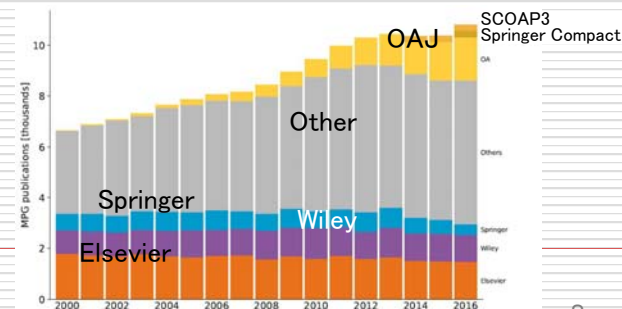


- By 2020, there should be no more subscription payment for the top 20 journals.

Accumulative OA2020 signee by country

# of institutions	Cumulative
United States	15
China	25
Great Britain	32
Germany	39
Japan	45
South Korea	50
Italy	55
France	60
Canada	65
Australia	70
Spain	75
Brazil	79
Russian Federation	83
Netherlands	86
Poland	89
Switzerland	91
Sweden	93
Belgium	95
Denmark	97
Austria	99

Trend of MPG's article submission



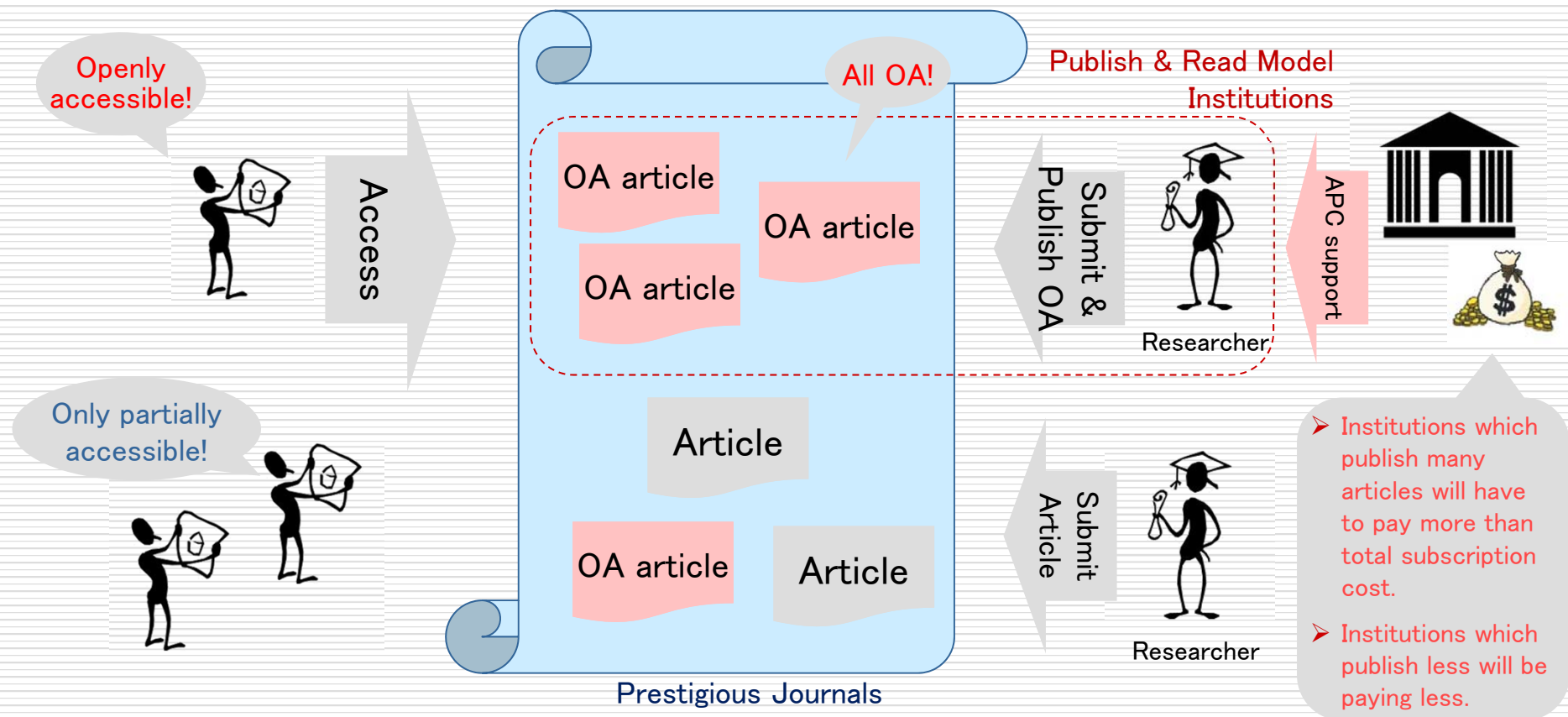
If the leading institutions at leading countries do also the transformative OA agreement, we get to the point of **NO RETURN!**

Source: MPDL, "What will it take to secure open access to today's scholarly journals?"

[https://www.knowledge.services/app/download/15426878896/9%202017-11-20\\_Campbell\\_OA2020\\_OpenScienceDays\\_Vienna.pptx.pdf?t=1529915786](https://www.knowledge.services/app/download/15426878896/9%202017-11-20_Campbell_OA2020_OpenScienceDays_Vienna.pptx.pdf?t=1529915786)

# Transformative OA agreement for realizing OA2020...Publish & Read Model

## Hybrid Journals



# The negotiation with Elsevier in Germany: Projekt-DEAL

---

- ❑ German Rector's Conference takes the lead to negotiate with Elsevier on a national license under Publish&Read agreement after FY 2017.
- ❑ No agreements made as of Dec. 2018.

(経過) As pf 2018.12

- Jan, 2017: 60 institutions loose access to Elsevier
- Feb, 2017: Elsevier restores access during negotiations
- Jan, 2018: Another 127 institutions not to update contract
- July, 2018: Germany to declare no more negotiations!  
→Elsevier cuts off access for institutions without contract

# Status of other countries with large publishers

---

## □ Netherland

- ✓ Netherland government has set a goal for 60% OA by 2018 and 100% OA by 2020. Based on this goal, Netherland formed Publish& Read agreement with Elsevier for 2016-18.
- ✓ However, as Elsevier retains the right to determine which journal to be made OA, the agreement is not as desirable as Netherland wants it to be.

## □ Sweden

- ✓ No agreement with Elsevier since July 2018.

## □ Peru, Taiwan

- ✓ No agreement with Elsevier since January 2017.

## □ France

- ✓ No agreement with Springer-Nature since April 2018.

# OA publishing agreement by Springer-Nature—Springer Compact

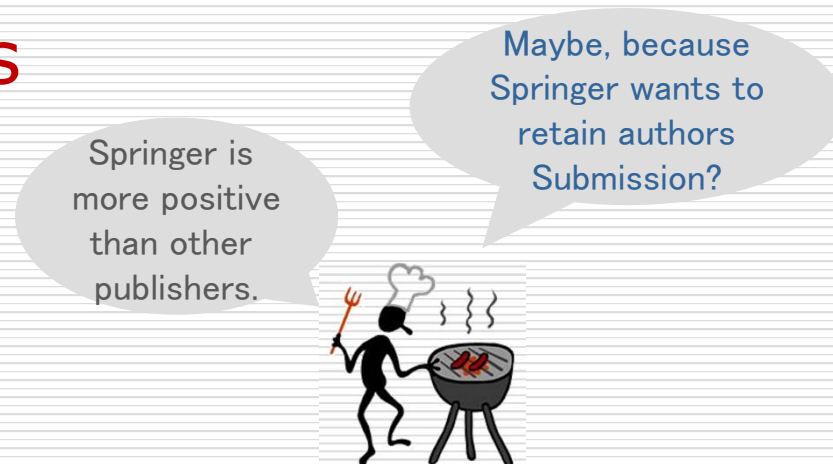
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## □ The Compact

- Researcher at signed institutions and countries can submit and publish OA without paying APCs.

## □ Agreement Partners

- ✓ Netherland
- ✓ UK
- ✓ Max Planck
- ✓ Austria
- ✓ Sweden
- ✓ Finland



---

## 6. Latest Bold Move by European Funding Agencies and China



# 11 European research funders demand immediate OA...the Plan S of cOAlition S

- ❑ Declaring that publicly-funded research outputs from respective funders must be published OA immediately after 2020.
  - Articles can only be published on compliant OA journals or platforms. Hybrid journals are explicitly excluded.
  - Aiming to transform hybrid and subscription journals to OA journals.
- ❑ Supporting funders
  - Austria, France, Ireland, Italy, Luxembourg, Netherland, Norway, Poland, Slovenia, Sweden, UK
  - ✓ Remaining 18 European funders also expected to participate



Prestigious  
high-quality  
journals to be  
eliminated?!



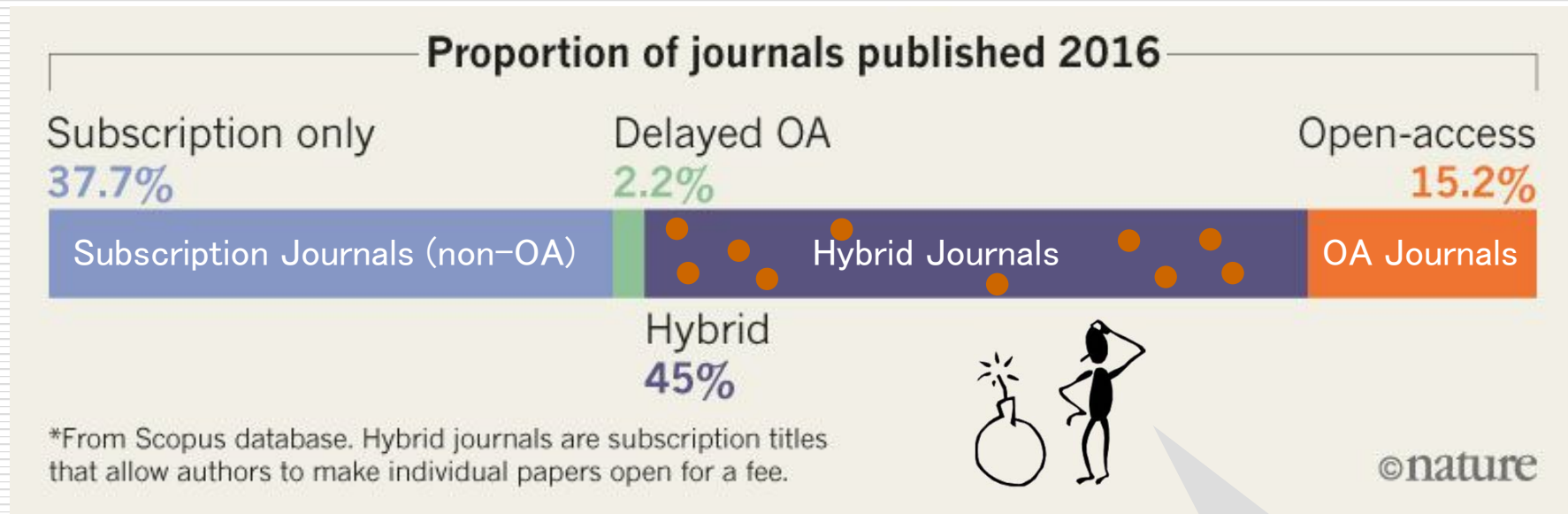
# China backs bold plan to tear down journal paywalls

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- ❑ *Officials pledge support for European-led 'Plan S' to make research papers immediately free to read — but it's unclear whether China will adopt all the plan's policies. (Nature, 2018.12.5)*



# Academic journals by the type of OA



The hybrid journals allow double-dipping through subscription and APC!

# The impact of Plan S

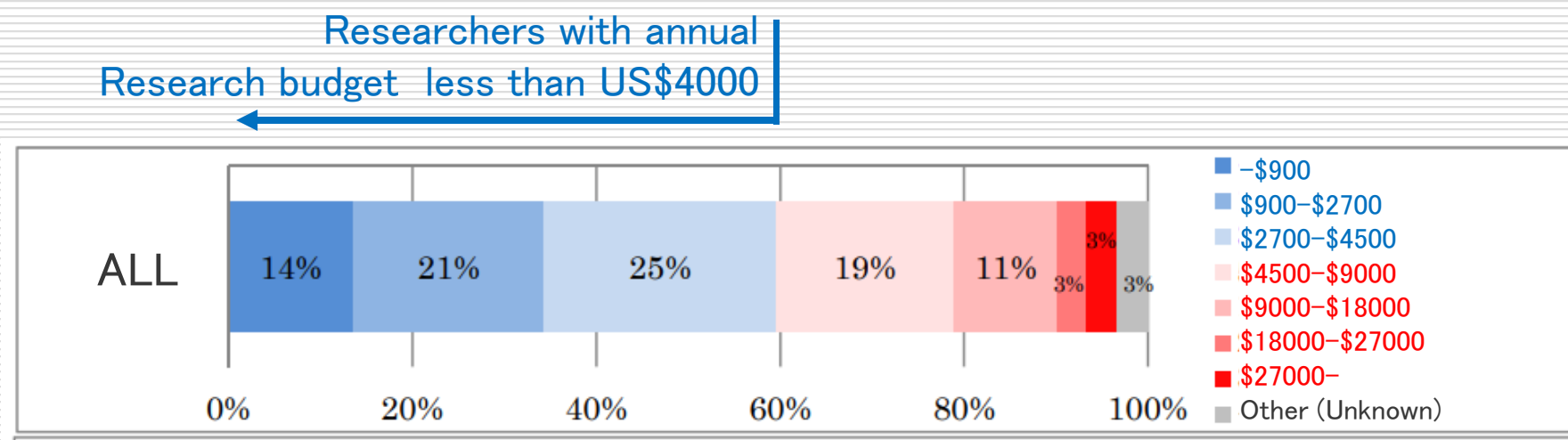
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- ❑ As China joined the 11 European countries, the impact is huge!
- ❑ Many of the prestigious hybrid journals will turn to full OA journals.
  - For smaller publishers which do not have the necessary e-infrastructure, there is a chance that they extinct or will be merged to large publisher even though the 11 funders are promising some funds for e-infrastructure.
- ◆ For other countries:
  - If most journals flip to OA journals, researchers will need many APCs to publish.
  - There needs to be some scheme to support APCs at respective countries.

Are other countries able to establish institutional APC support schema by 2020?



# The annual research budget of a Japanese researcher (FY2015)



- If more than half of Japanese researchers rely on less than \$4000 for annual research budget, the strong reliance on APCs \$1000-2000 can be damaging for number of research outputs.

# How to establish funding schema for APCs

---

Offset agreement!

## 1. Turning subscription budget to APCs

- For many universities, the subscription budget is bigger than the total APCs spent. Thus, this is feasible.
- However, for transitional period, some additional budget for APCs may be needed.
- Also, for big research-intensive universities which produce many articles, turning subscription to APCs is not enough.

## 2. Acquiring grants from funding agencies

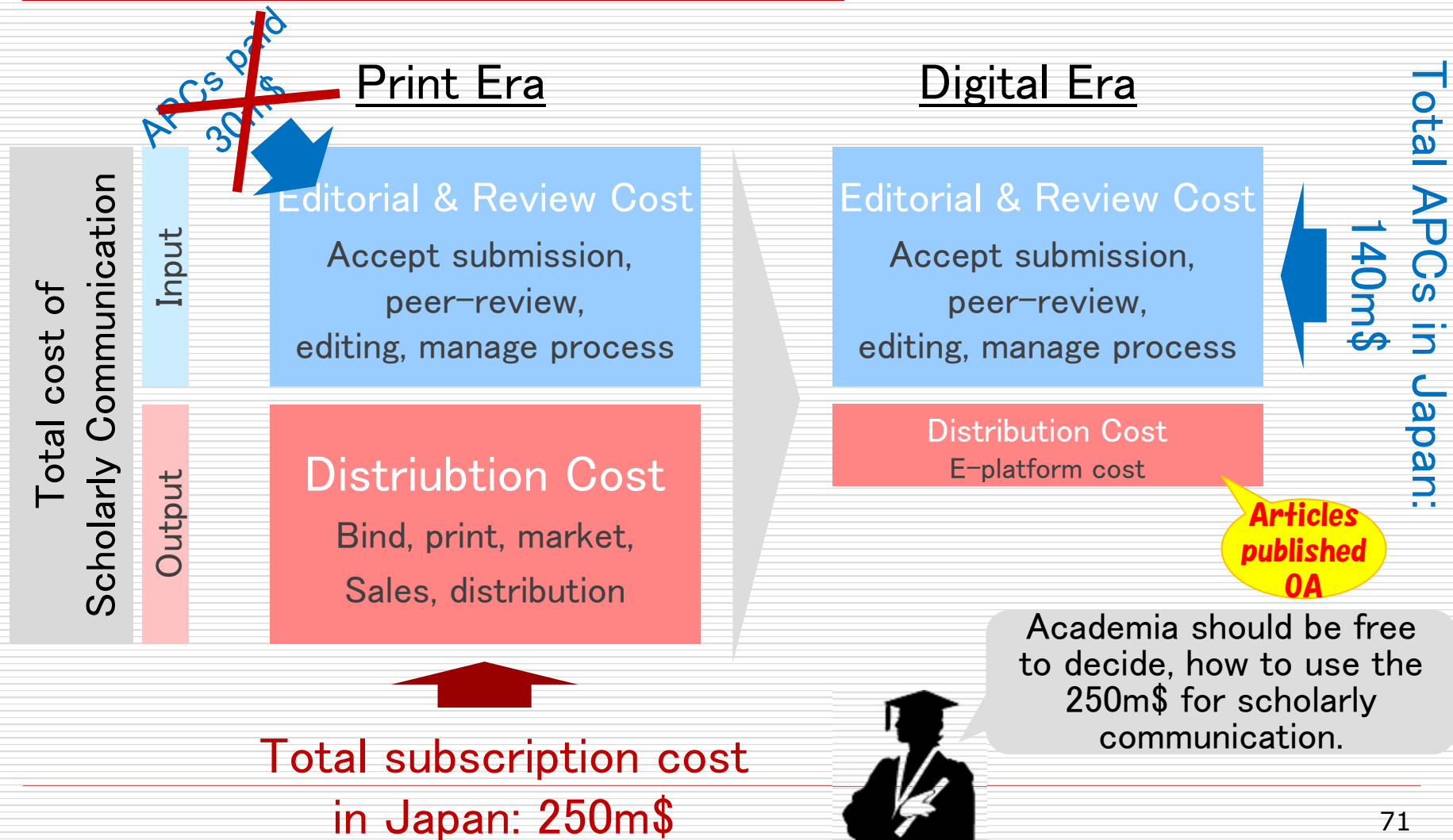
- Funders could provide grants based on research grants allocated or number of published articles.
- Funders could also support bigger research universities which need excess money for the many research publications.

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## 7. Future of Scholarly Communication

# The transformation of scholarly communication system

## ...From Print to Digital Era





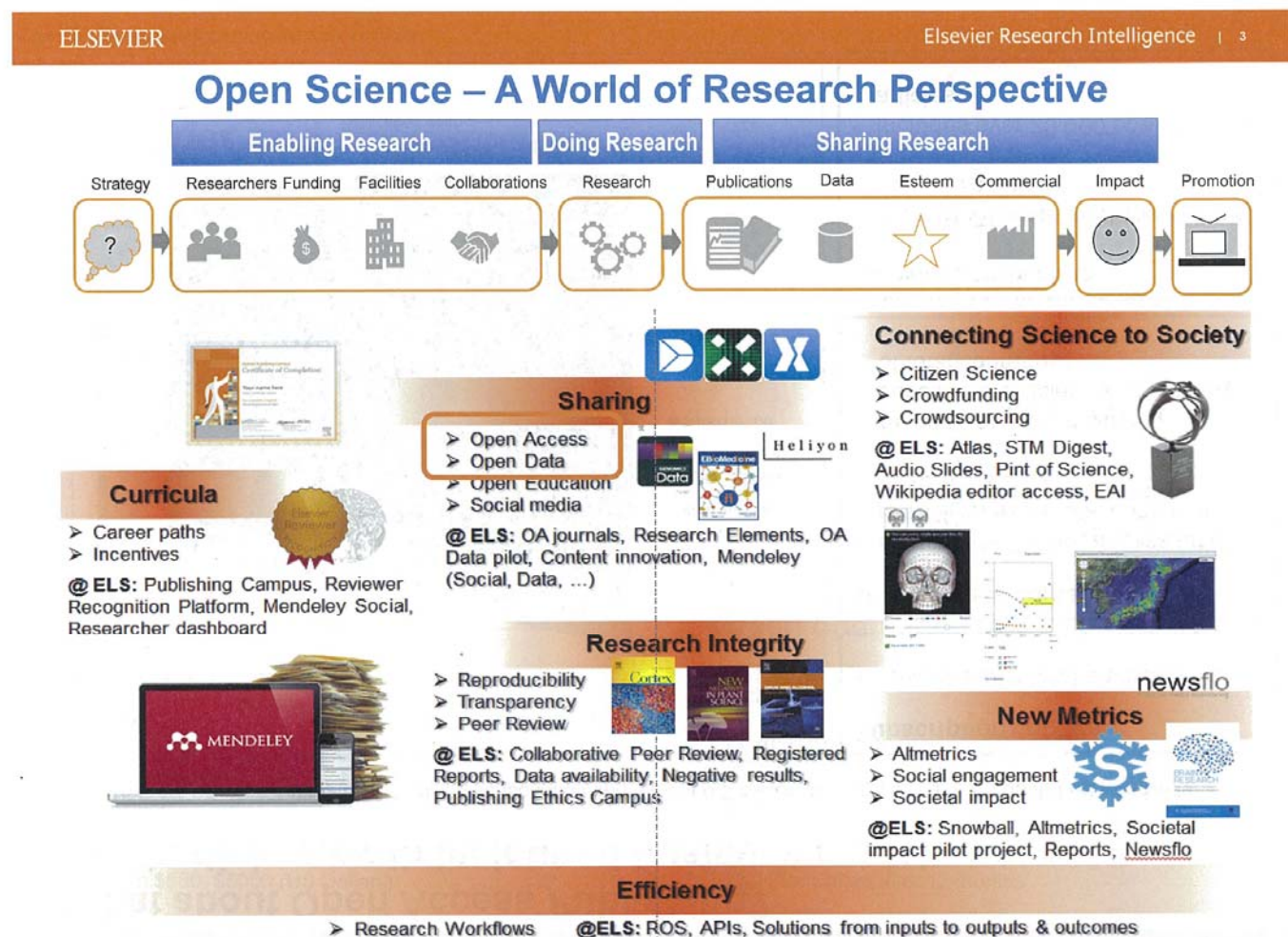
# International Association of STM Publishers ...Position Paper on Open Science

- ❑ In general, supportive of Open Science.
  - ❑ In reality however, they are very much concerned of the consequence of full OA.
- Copyright law is an enabler that allows for the development of new services and innovations across the sciences; not a barrier to such innovations. As such, copyright must be protected and supported in any Open Science framework. Licensing options are strongly recommended by STM ...
  - STM believes that authors should have the freedom to publish in a journal of their choice where publication will have the greatest potential to advance their field and help foster their careers. Research funders and government policies with overly restrictive policies – such as unsustainably low embargo periods, coupled with limited or no funding for gold open access – work against this.

Full OA means  
almost  
business  
suspension!



# Changing business from Publisher to Platform Provider for Research Support!



Changing from Contents to Context!



# The M&As of Elsevier



There is no escape from Elsevier!



Researcher

The publishers are controlling research!



(Publisher)  
Platformer

We are providing excellent research environment!

# From Access to Research Publications to Access to Research Data

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Publicly-  
funded  
Research

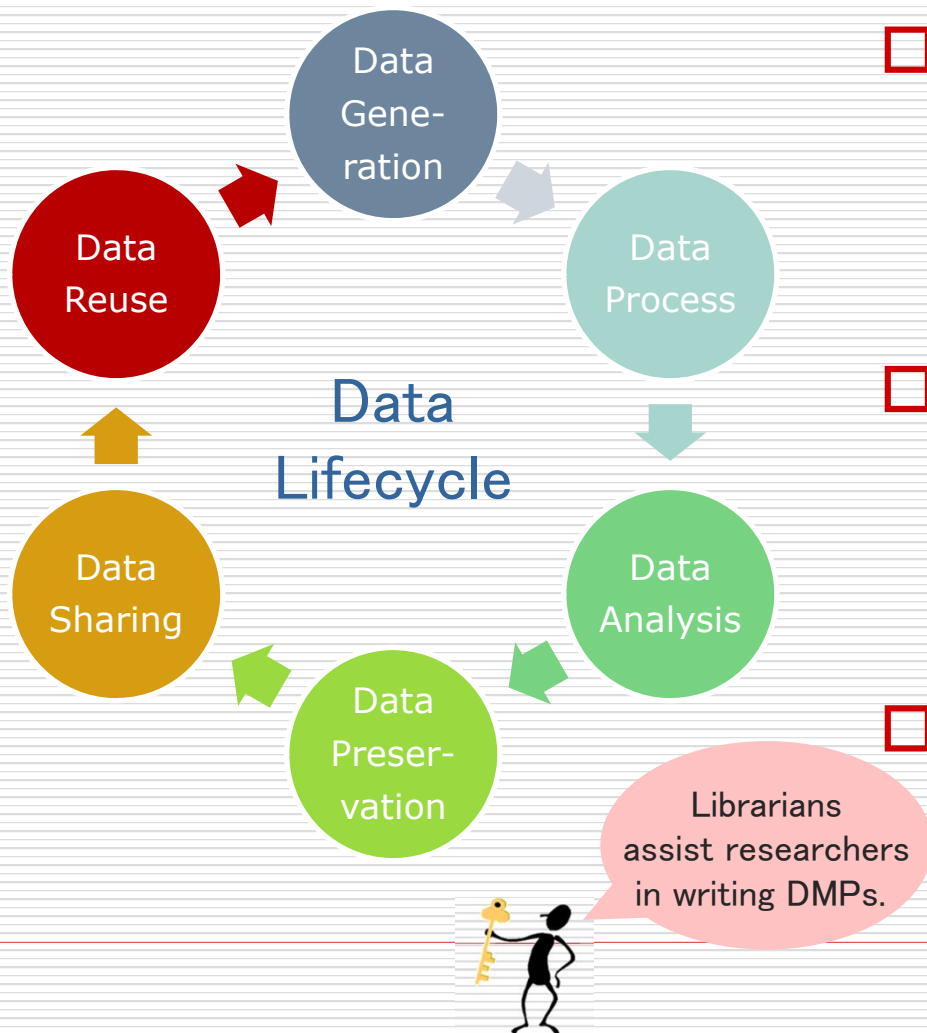
Research  
Data



Research  
Publications



# Data Management Plan (DMP)



- ❑ DMP – A plan where researcher state the treatment of data used during research process.
- ❑ More and more, research funders are requiring to submit DMP along with research proposal.
- ❑ In Japan, JST is asking for DMP since FY2018.

# Data Journals and Supplemental Data

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## □ Data journals established (2014-)

### ■ Nature: Scientific Data

The logo for Scientific Data, featuring the text "SCIENTIFIC DATA" in white on a dark blue rectangular background.

- *Scientific Data is an open-access, online-only journal for descriptions of scientifically valuable datasets.*

### ■ Elsevier: Data in Brief



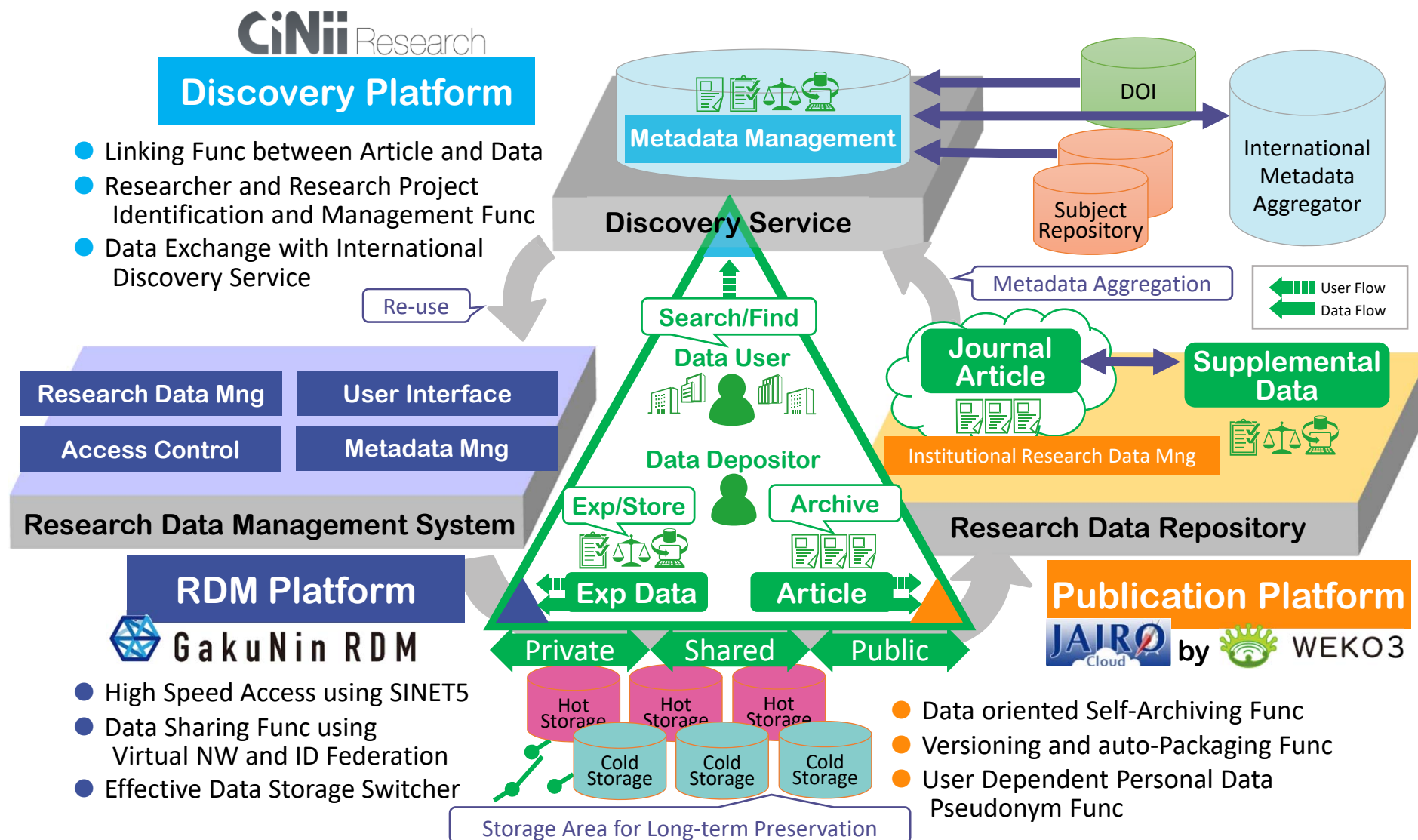
- *Data in Brief provides a way for researchers to easily share and reuse each other's datasets by publishing data articles.*

## □ Supplemental Data

- *Supporting material that cannot be included, and which is not essential for inclusion, in the full text of the manuscript, but would nevertheless benefit the reader.*



# NII Research Data Cloud



# Research Evaluation is closely tight to current scholarly communication venues

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## □ Excellent research as of now:

- Publication in high-impact journals
- Highly cited articles
- High number of publications
- High in World University Rankings

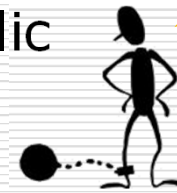
To move to the next generation scholarly communication system fit to digital era, the scholarly value system is also likely to change.



# Changing Scholarly Communication ...Peer Review System

## ❑ Open Peer Review

- Reviewer's comments are open to public with/without the name of reviewer
- Enabling transparent peer review



It takes too long until published!

## ❑ Post Publication Peer Review

- Peer review done after publishing
- Speeding up publishing, and allowing to count impact in peer review

Too many paper to review!



## ❑ Cascading Peer Review

- Peer review comments transferred to next submission
- Reducing costs and improving efficiencies in peer review



Do the reviewers really understand my work?

# The push and resisting force towards Open Science

