

Open Access & Predatory Journals

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Outline

- Corporate control of publishing
- Open Access
- Predatory publishers
- Impact Factor
 - And fake impact factors...
- Outlook: What do we need journals for?

The digital era

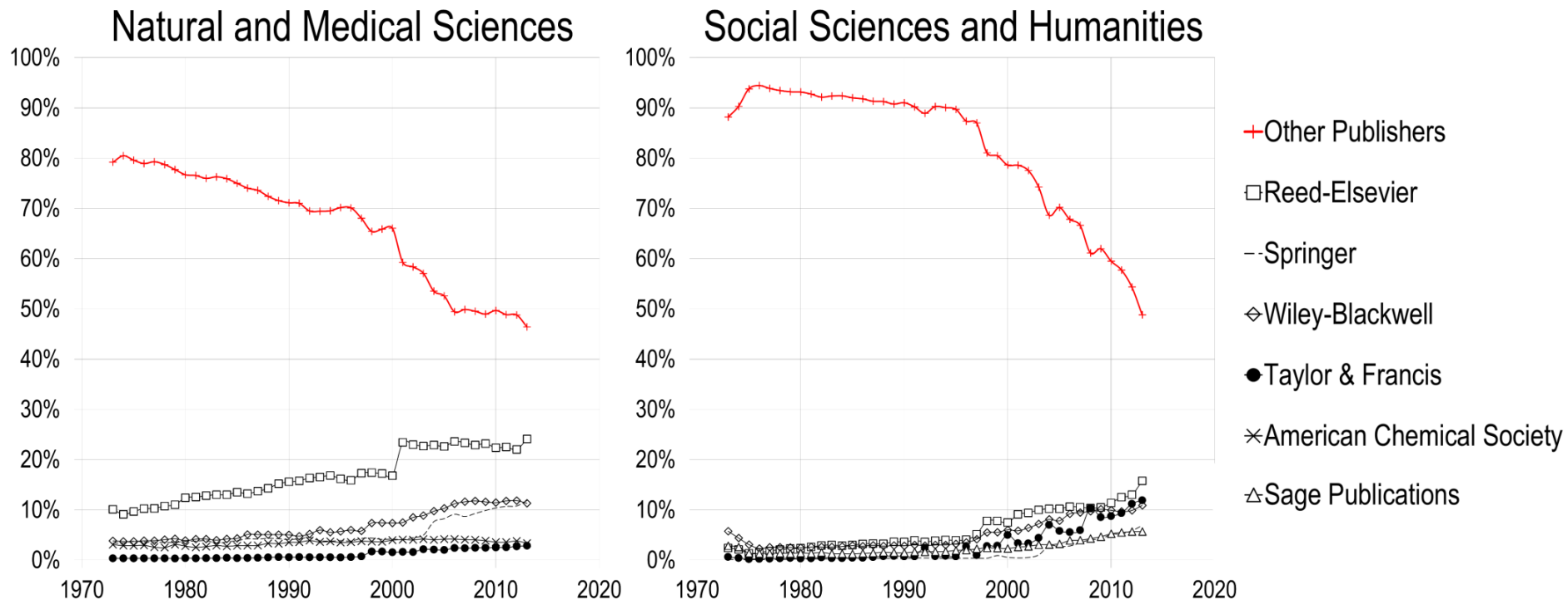
- Early 1990s typically considered as turning point
- Democratization of use mid 1990s
- Characteristics of digital scientific information:
 - Easy to create, update, reuse, access, transmit
 - Require less space

Financial Times et Elsevier (1995)

- Elsevier, the largest publisher of scientific journals, would be “the internet’s first victim”.
- “The web had been created to bring academics together; now it offered them a way of sharing their research online for free. What need would anyone have for fusty, expensive journals?”

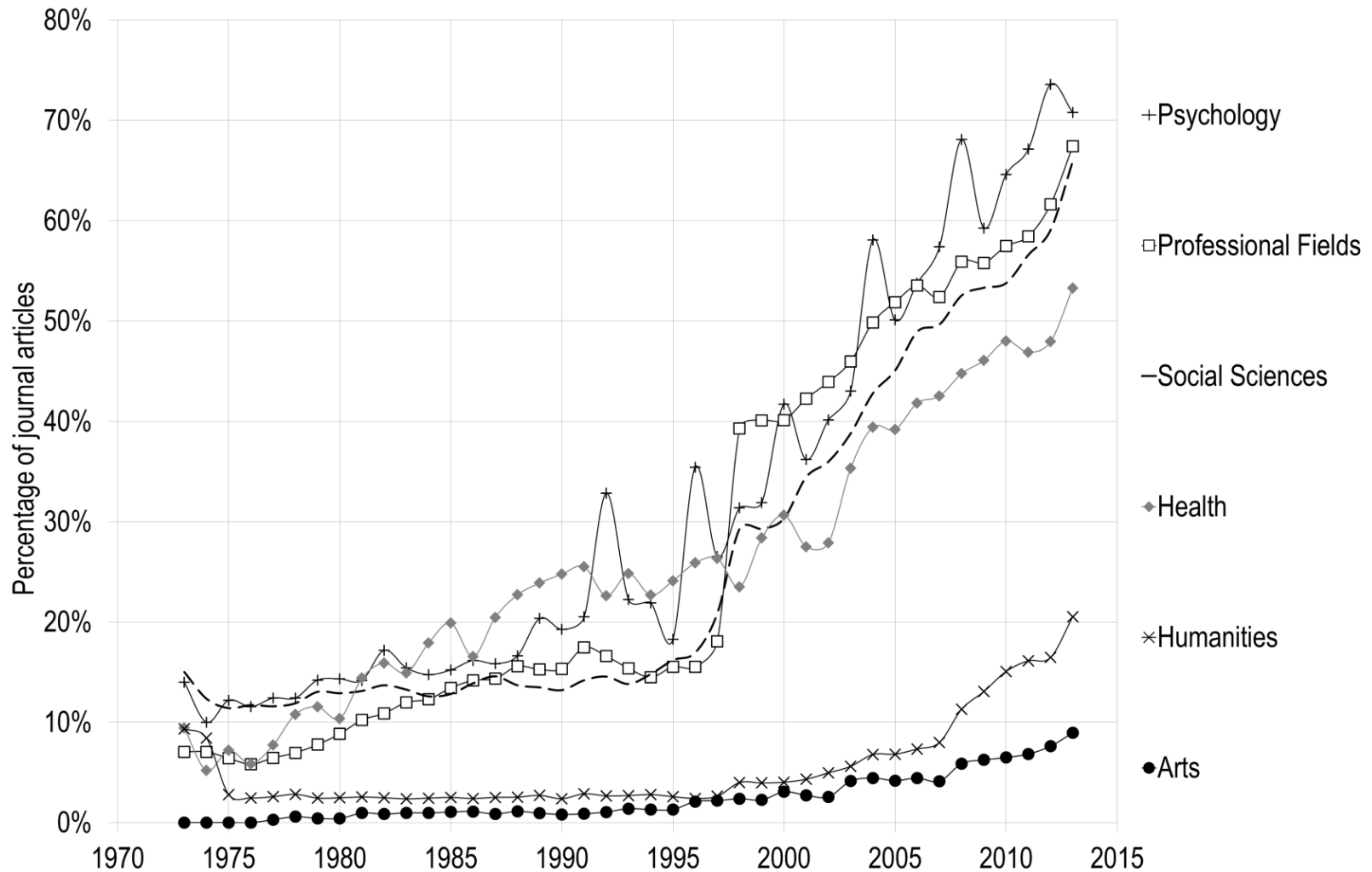
Consolidation of the publishing industry

Percentage of WoS papers controlled by 5 big publishers:



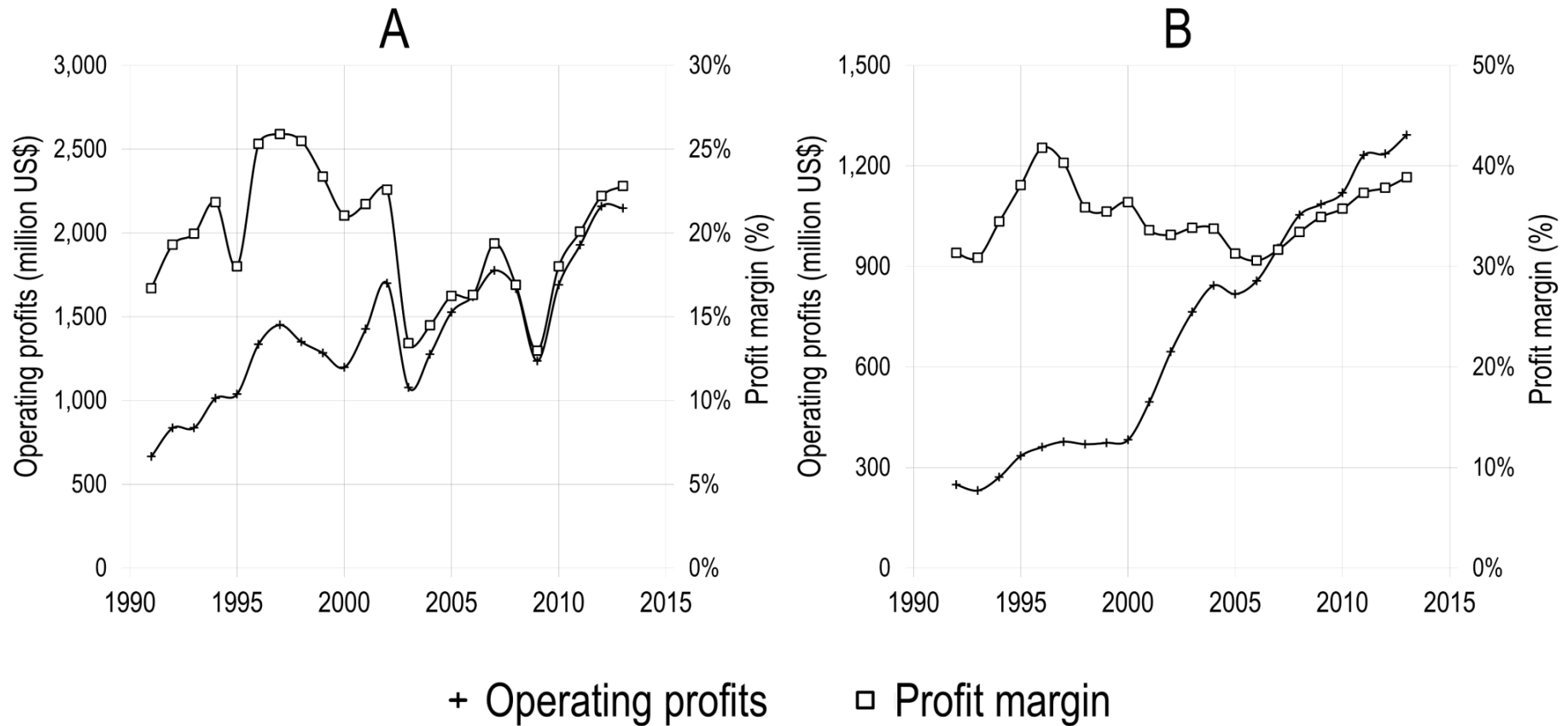
Consolidation of the publishing industry

Control of top 5 big publishers in the SSH:



Consolidation of the publishing industry

Profit margin of Elsevier:

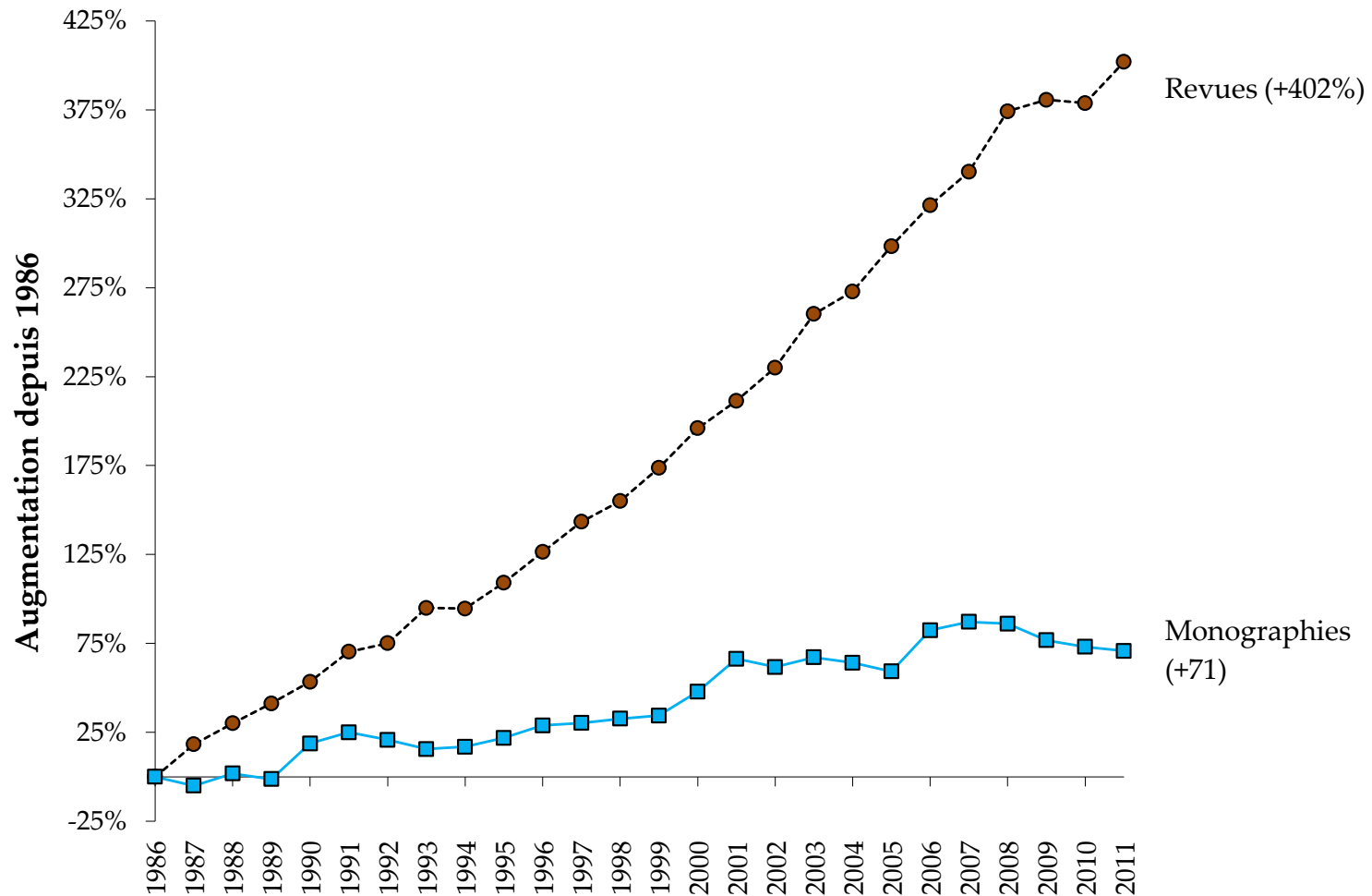


Profits of corporate publishers

	Elsevier	Springer's Science + Business Media	John Wiley & Sons	Taylor & Francis
Revenus 2012 (\$ CAN)	3,3 milliards	1,4 milliard	1 milliard	566 millions
Profits 2012 (\$ CAN)	1,3 milliard	483 millions	437 millions	210 millions
Marge	39,4%	34,5%	43,7%	37,1%

Consolidation of the publishing industry

ARL budget increase for periodicals and books



Open Access

- Starts with the advent of the digital age (1990s)
 - Computer scientists have been sharing preprints on FTP servers since the 1970s.
- Early adopters: physicists with e-print sharing on arXiv since 1991
 - Mainly in particle physics and in astronomy and astrophysics

Budapest Open Access Initiative (2002)

- “By open access, we mean its immediate, free availability on the public internet, permitting any users to read, download, copy, distribute, print, search or link to the full text of these articles, crawl them for indexing, pass them as data to software or use them for any other lawful purpose...”
- Simply put: immediate online access, without restriction to the results of peer reviewed research.

Gold Open Access

- Published version of paper freely available online
 - Free or fees for the author
 - Free: sometimes with an embargo (1-2 years).
- Two types of editors:
 - Non profit: PLOS-1500\$ per paper, PeerJ-300\$ lifetime)
 - For profit (most big publishers)
- Reappropriation of the concept by big publishers :
 - Springer Open Choice: 3000\$US
 - Elsevier: between 500\$US et 5000\$US
 - Wiley OnlineOpen: 3000\$US

Green open access

- **Self-archiving** of papers in an institutional or disciplinary repository or on an researcher's website
 - Submitted version
 - Final version accepted by journal
 - Original proofs
 - Corrected proofs

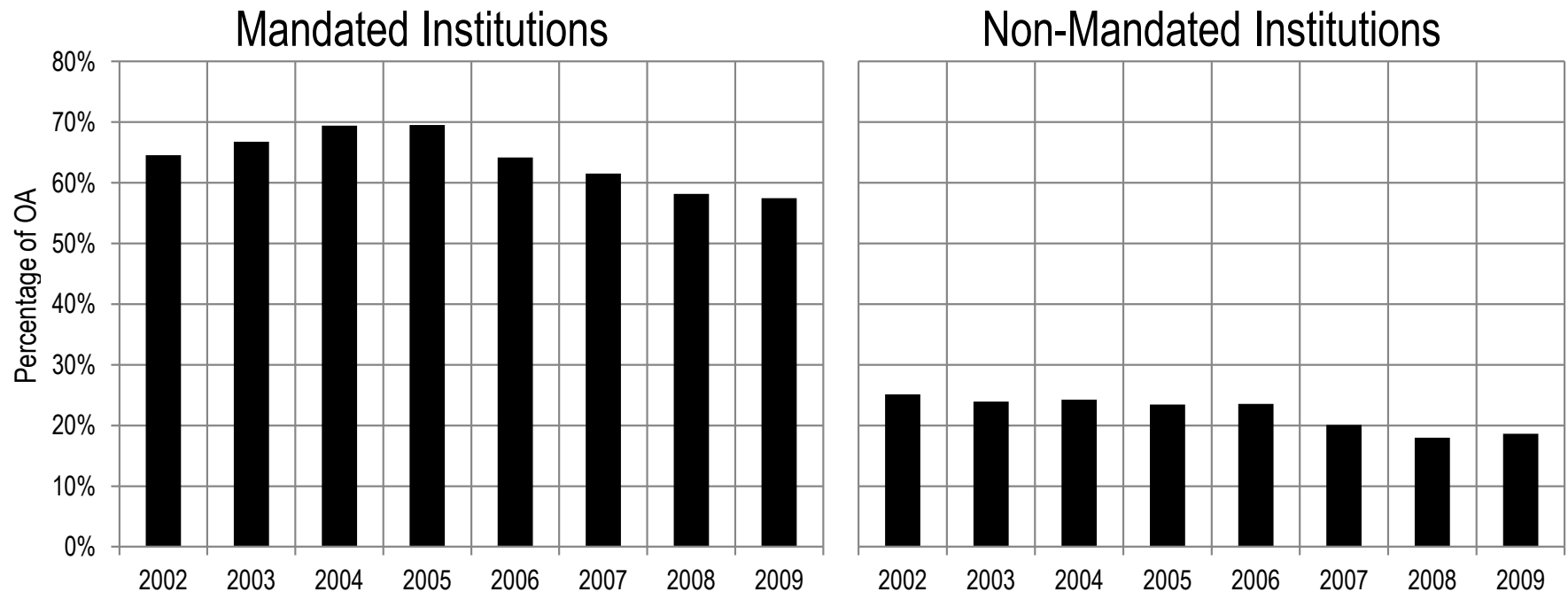
OA Mandates

- Obligation for researchers to make the paper open access
 - Institutional mandates
 - Generally less restrictive
 - FAS Harvard
 - Liège (evaluation of faculty)
 - Mandates from research councils (Contractual condition)
 - More restrictive
 - Embargo (typically 1 year)

Effects: Institutional mandates

Proportion of OA papers for mandated and non-mandates institutions

<http://arxiv.org/abs/1210.8174>



Prevalence: Publishers and journals

OA policy	N.	
	Publishers	%
Pre evaluated and post evaluation versions	497	32
Post evaluated version only	508	33
Pre evaluated version only	109	7
Forbidden	432	28

- At the level of journals: more than 85% allow it.
- IEEE, Springer, Elsevier, Wiley, Sage, American Physical Society allow self-archiving
- American Chemical Society, American Society of Mechanical Engineers (ASME) do NOT allow self-archiving

Proportion of OA articles (Science-Metrix, 2013)

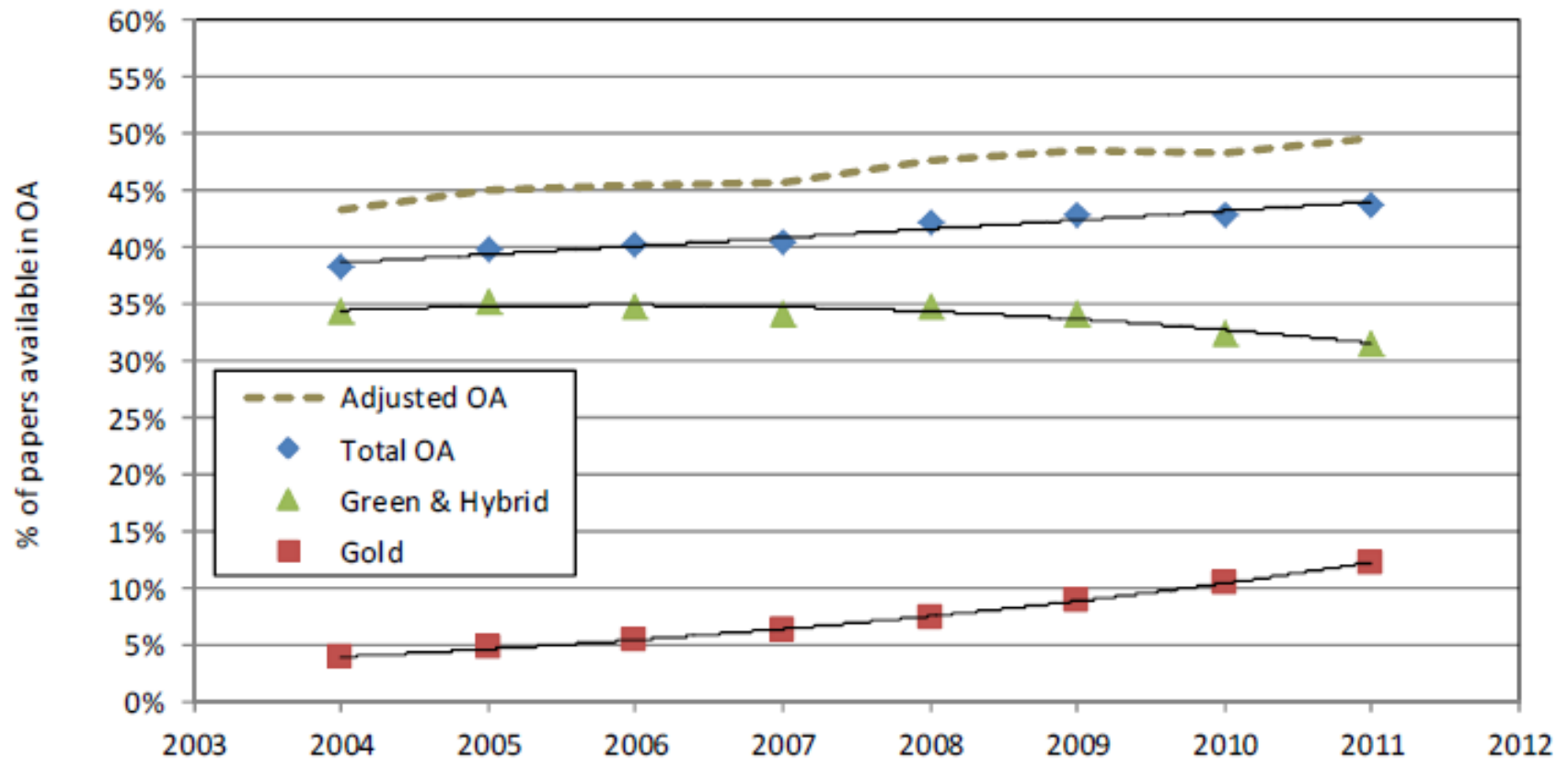
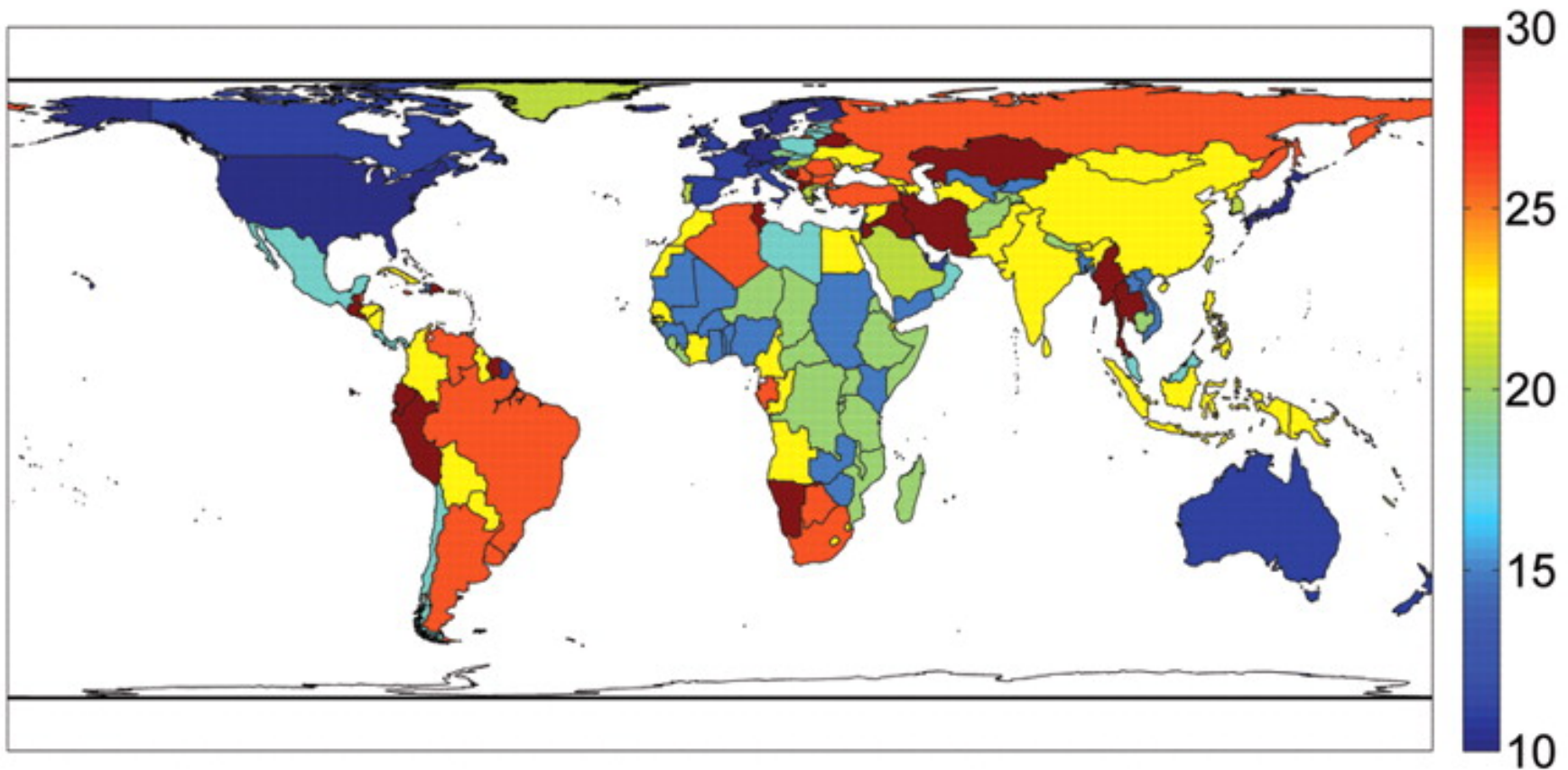


Figure 4 Per cent of freely available peer-reviewed papers, 2004-2011

Source: Computed by Science-Metrix using DOAJ, PubMedCentral, and Scopus.

Effects: OA and developing countries (Evans et Reimer, 2009)

- Developing countries proportionally cite OA papers more often than developed countries



Effects: Citation advantage of OA (Science-Metrix, 2013)

Table VI Rebased scientific impact (ARC) of OA publications, 2008-2011

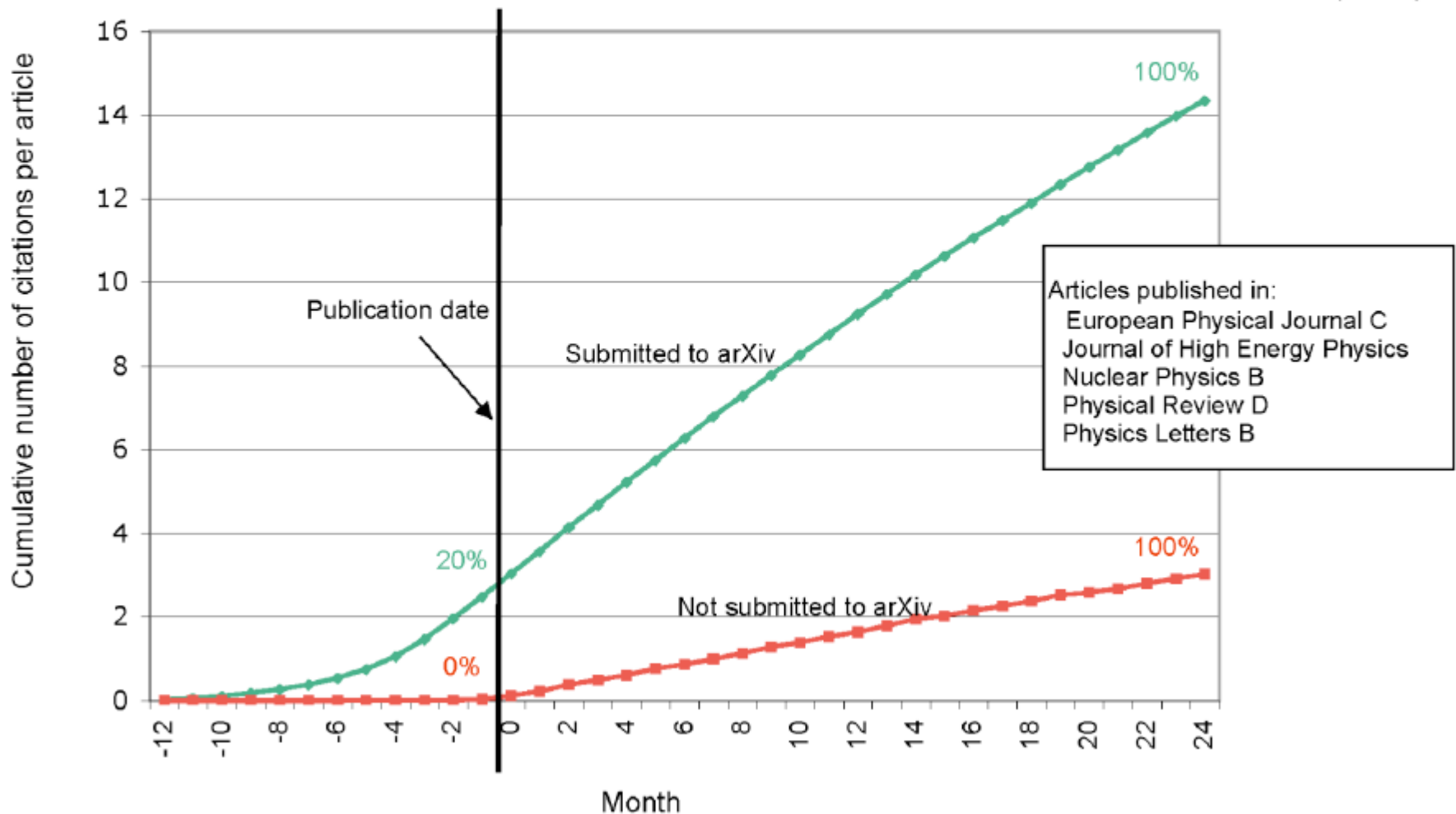
Field	All Publications	Green & Hybrid	Gold	OA
Agriculture, Fisheries & Forestry	1.00	1.38	0.52	1.06
Biology	1.00	1.41	0.48	1.15
Biomedical Research	1.00	1.25	0.76	1.17
Built Environment & Design	1.00	1.33	n.c.	1.23
Chemistry	1.00	1.38	0.36	1.09
Clinical Medicine	1.00	1.56	0.54	1.34
Communication & Textual Studies	1.00	1.66	0.88	1.46
Earth & Environmental Sciences	1.00	1.30	0.82	1.22
Economics & Business	1.00	1.32	0.22	1.20
Enabling & Strategic Technologies	1.00	1.43	0.75	1.25
Engineering	1.00	1.55	0.55	1.46
General Arts, Humanities & Social Sciences	1.00	1.53	0.10	1.46
General Science & Technology	1.00	2.57	0.54	1.54
Historical Studies	1.00	1.54	0.51	1.29
Information & Communication Technologies	1.00	1.37	0.89	1.27
Mathematics & Statistics	1.00	1.22	0.71	1.16
Philosophy & Theology	1.00	1.56	n.c.	1.54
Physics & Astronomy	1.00	1.36	1.01	1.32
Psychology & Cognitive Sciences	1.00	1.37	0.69	1.29
Public Health & Health Services	1.00	1.36	0.72	1.19
Social Sciences	1.00	1.52	0.55	1.26
Visual & Performing Arts	1.00	1.93	0.11	1.40
Total	1.00	1.41	0.60	1.24

Source: Computed by Science-Metrix using DOAJ, PubMedCentral, and Scopus.

Effects: Citation advantage of OA

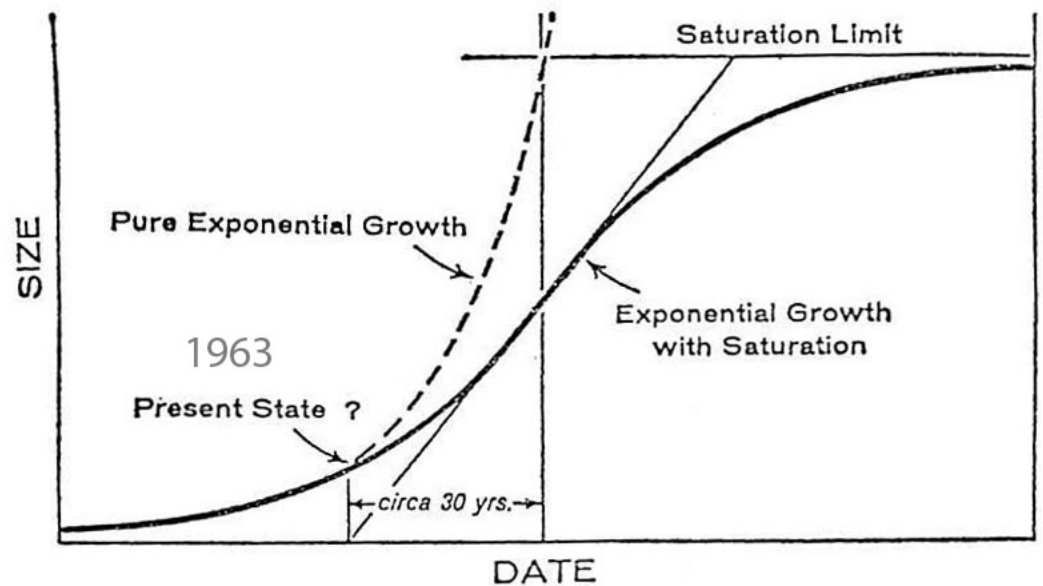
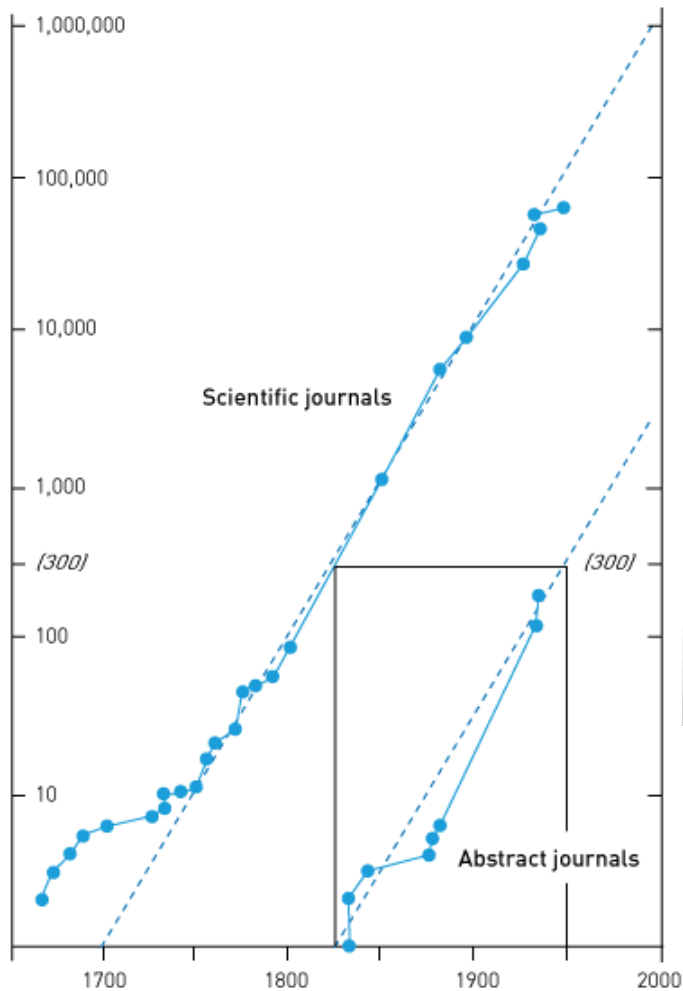
Early effect (cumulative)

<http://arxiv.org/abs/0906.5418> (Gentil-Beccot, Mele & Brooks, 2009)



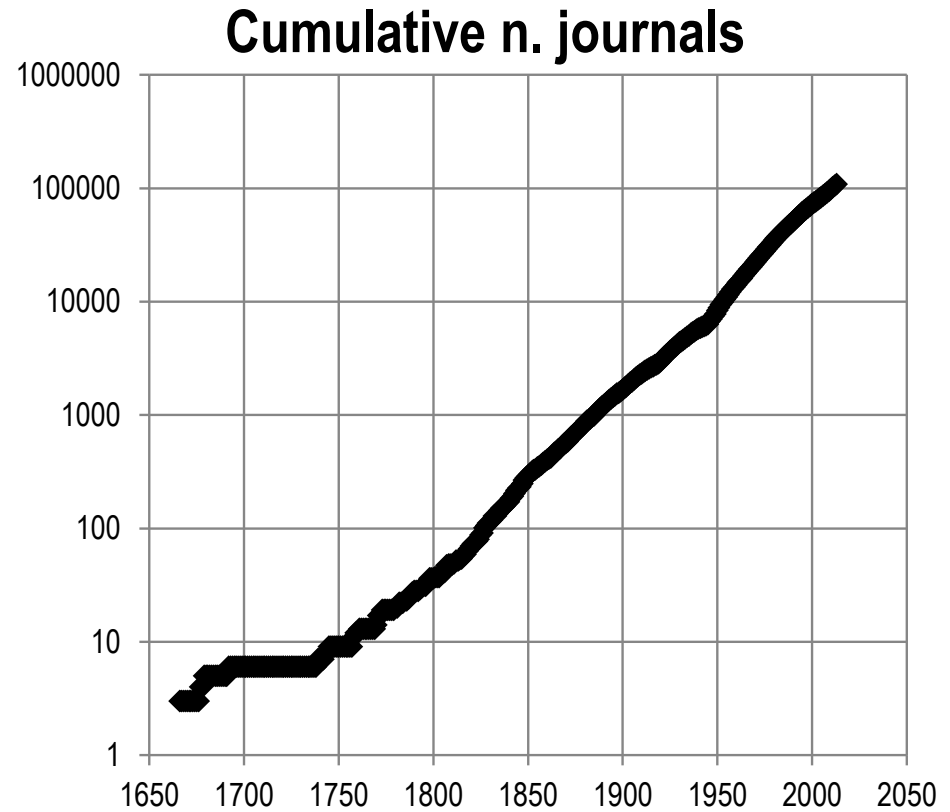
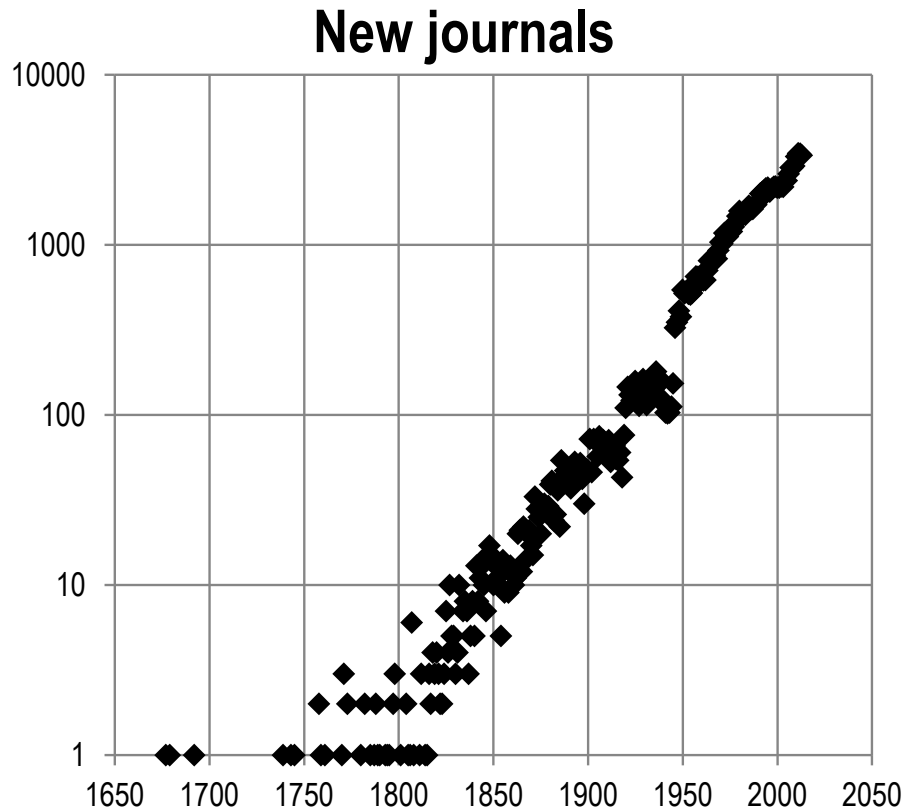
Growth of scholarly journals

Number of journals

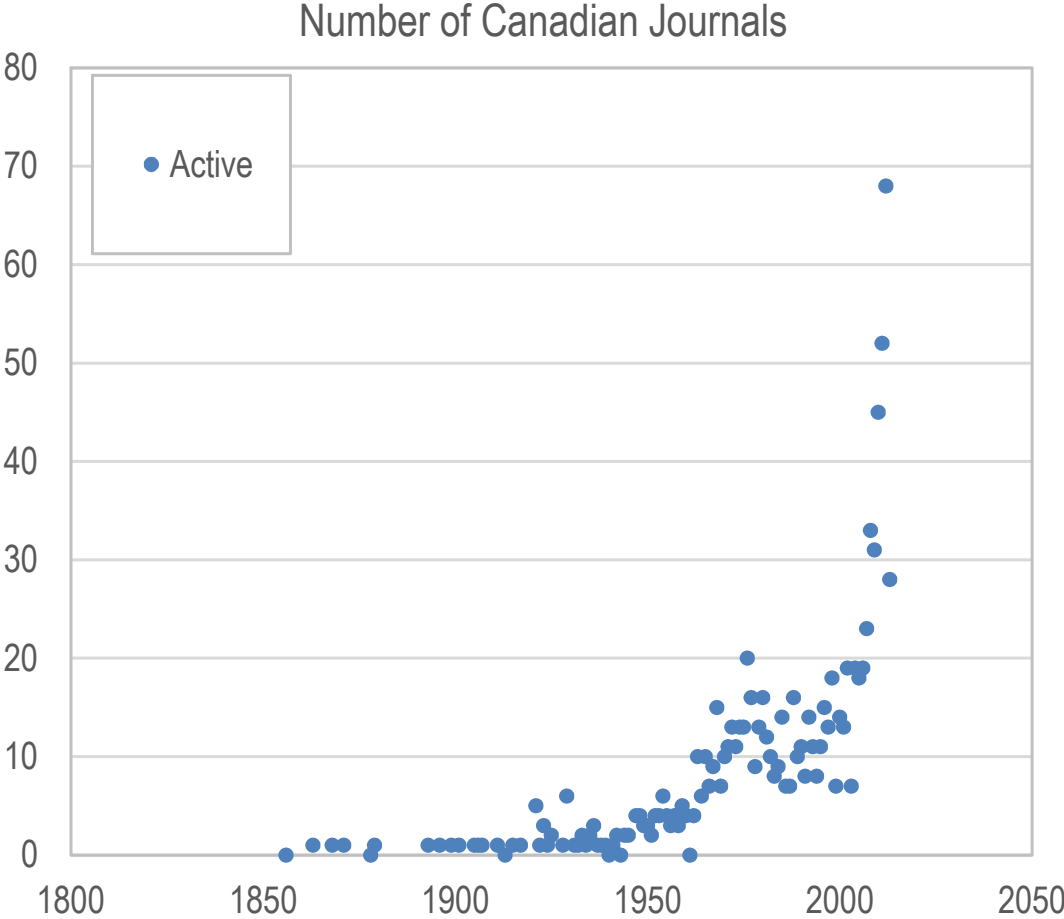


Exponential growth of science (1665-)

Creation of new journals (ULRICH)

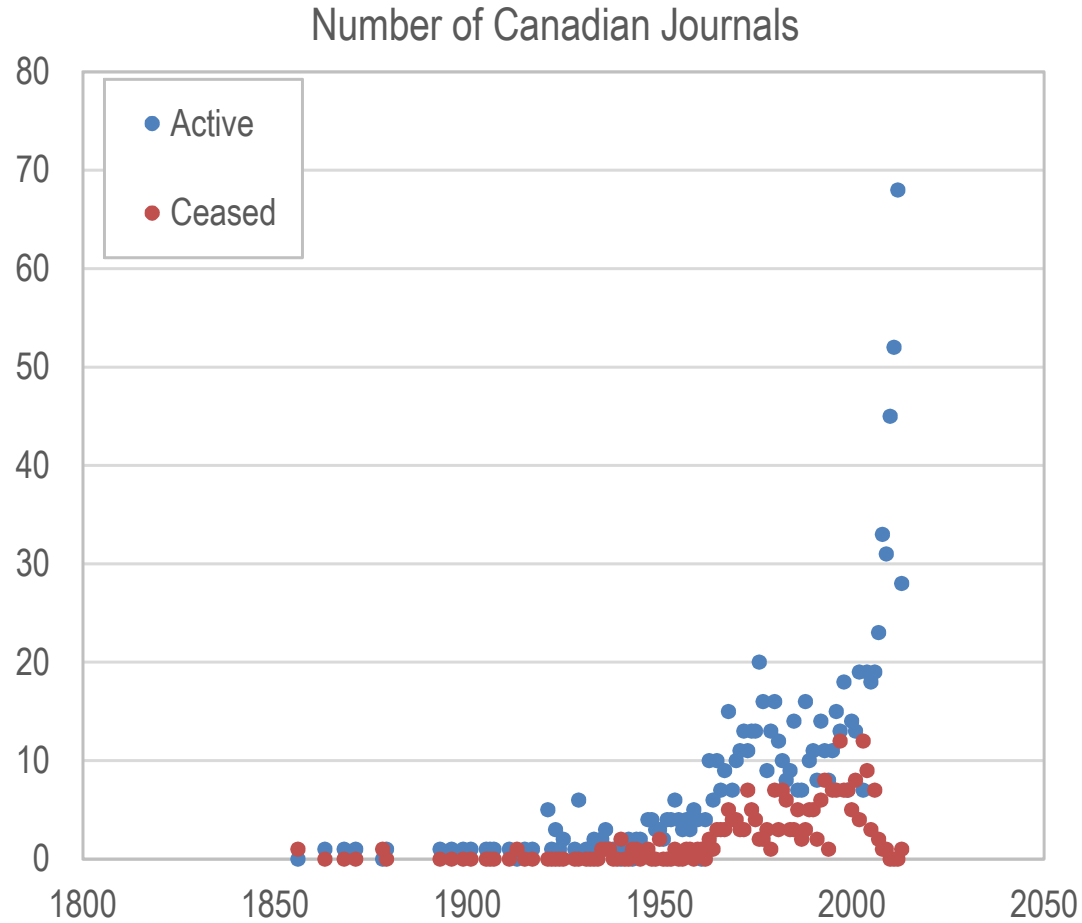


Exponential growth of journals in Canada



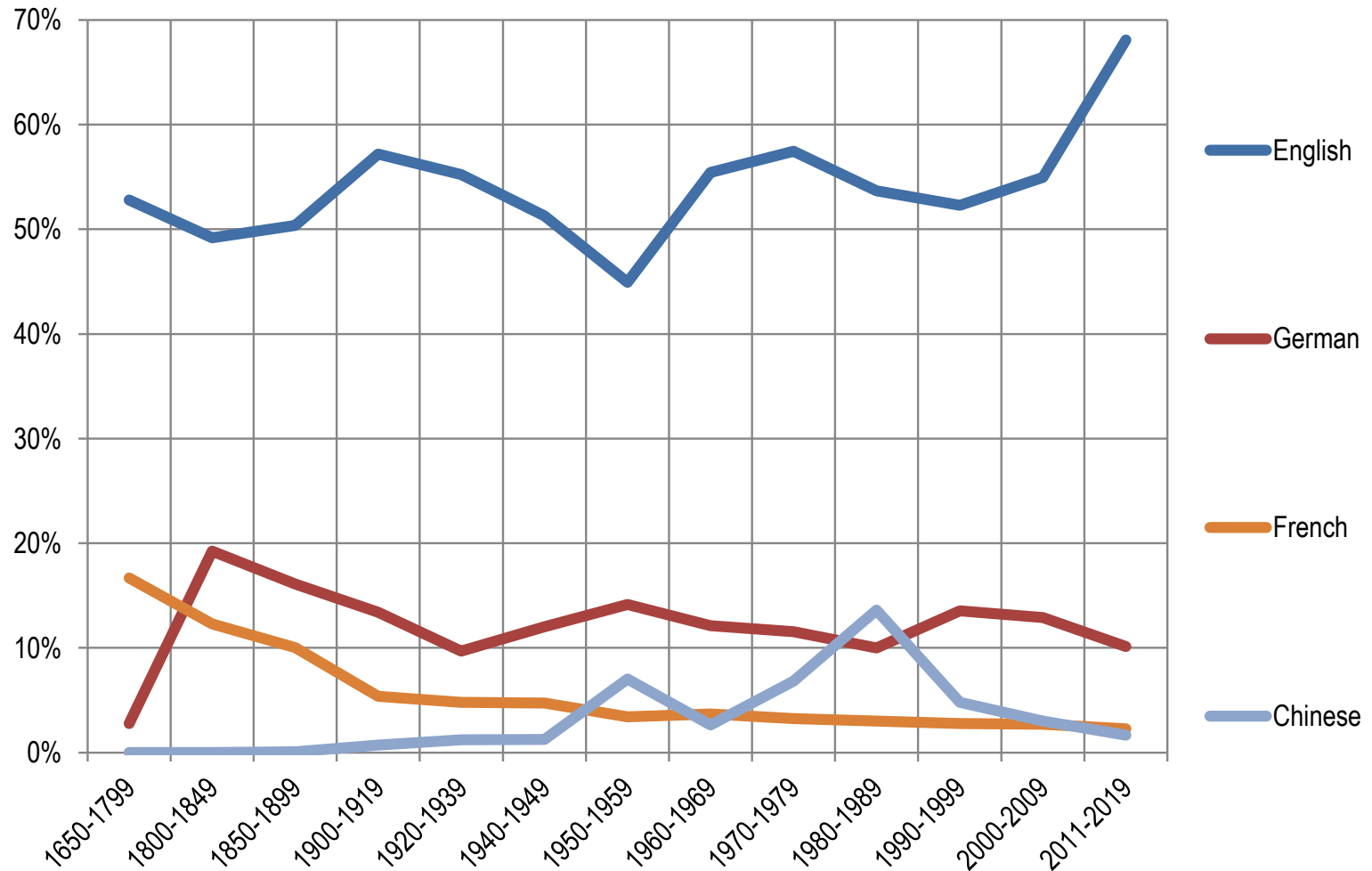
Exponential growth of journals in Canada

... and those that have ceased publication



Publication languages

Creation of new journal by language



Control of publishing in Canada

Publisher	N. active journals
Canadian Center of Science and Education	42
University of Toronto Press * Journals Division	37
Sciedu Press	26
N R C Research Press	18
University of Alberta Libraries	15
Lifescience Global	15
University of Calgary Press	12
Elmer Press Inc.	12
Canadian Research & Development	
Center of Sciences and Cultures	10
University of Ottawa Press	9
Carswell	9
Athabasca University	9
Pulsus Group, Inc.	8
Pontifical Institute of Mediaeval Studies	8
ACT A Press	8
J M I R Publications, Inc.	8
University of British Columbia	6
Growing Science	6
Canadian Medical Association	6
Les Presses de l'Universite de Montreal	6

- Scientific societies
- Universities
- Few « genuine » commercial publishers
- Predatory publishers

What organisations create new journals?

New journals in Canada (2011-)

Publisher	N. journals	Beall's list
Sciedu Press	26	Oui
Canadian Center of Science and Education	21	Oui
Lifescience Global	14	Oui
Elmer Press Inc.	10	Oui
Canadian Research & Development Center of Sciences and Ci	8	Oui
J M I R Publications, Inc.	7	Non
Growing Science	6	Oui
University of Alberta Libraries	6	Non
Pulsus Group, Inc.	5	Oui
Better Advances Press	4	Oui

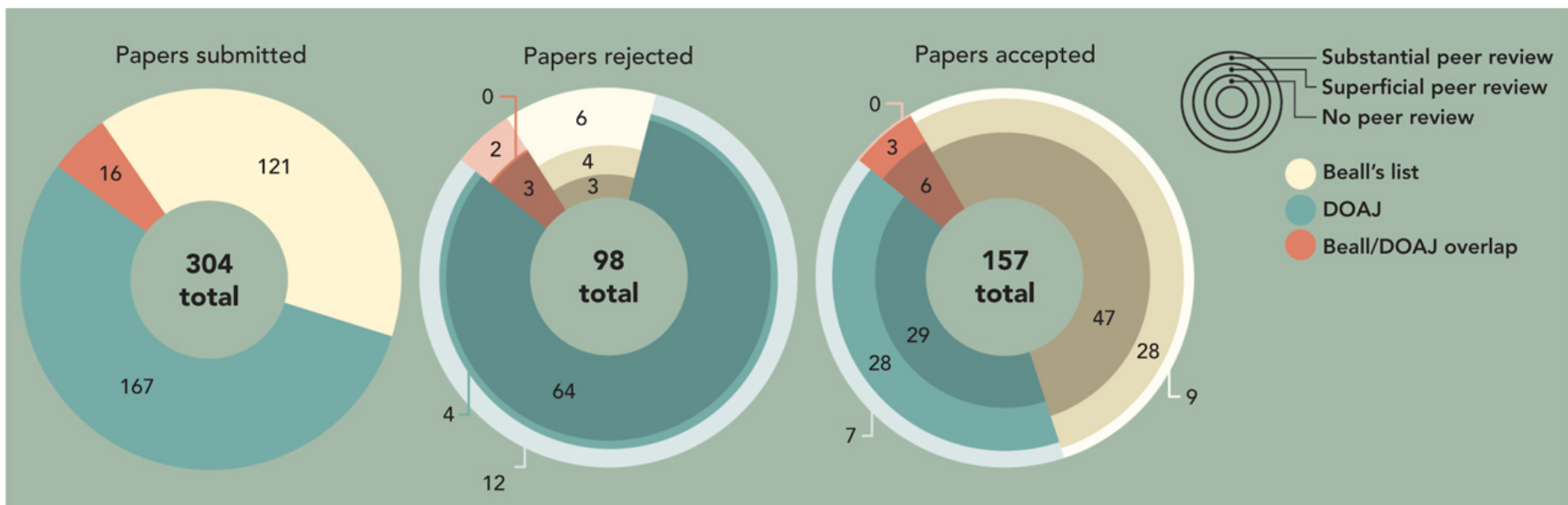
What organisations create new journals?

Creation of new journals at the World level (2011-)

Publisher	N journals	Beall's list
Springer	607	No
Elsevier	411	No
Hindawi Publishing Corporation	397	No
Peter Lang GmbH	291	No
Walter de Gruyter GmbH	264	No
Omics Publishing Group	216	Yes
Scientific Research Publishing, Inc.	204	Yes
Brill	160	No
Scientific & Academic Publishing Co.	116	Yes
M D P I AG	114	Yes/No

A tale of two stings

- Fake paper submitted to 304 journals
- Accepted by the majority of journals on Beall's list



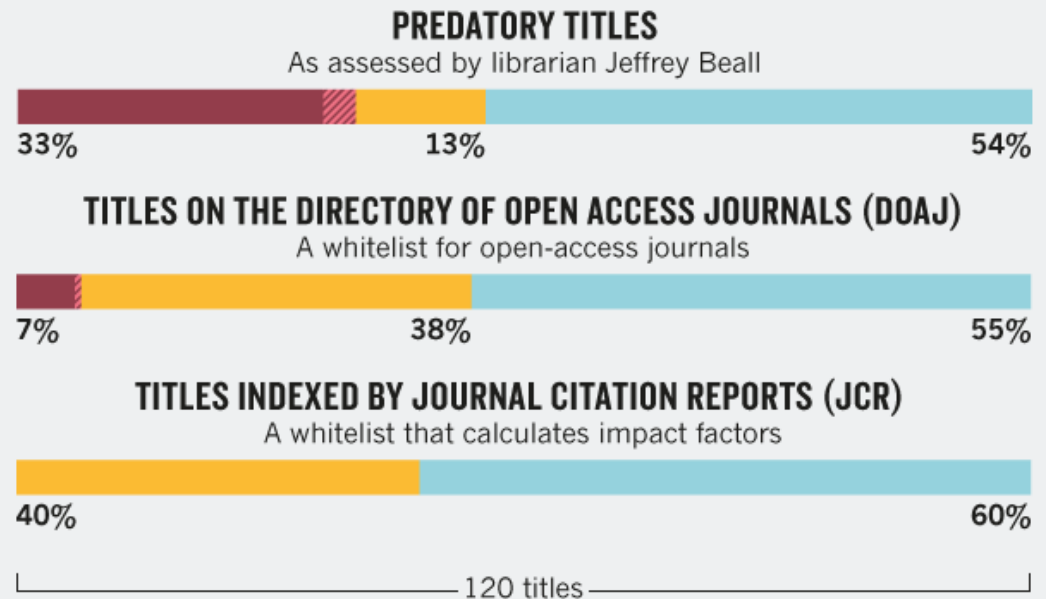
A tale of two stings

- Fake researcher Anna O. Szust
- Application for editorial board of 360 journals

WHO EMBRACED THE FAKE?

Journals deemed predatory were much more likely to accept a fake, subpar candidate as an editor.

■ Accepted ■ Accepted, but later disputed ■ Rejected ■ No Response



Predatory publishers

- What made this possible?
 - Open access (Gold)
 - Researchers' need to publish (evaluation age)
- If author pays, editors have little incentives to reject manuscripts!
- Beall's list (still available but not updated):
<http://beallslist.weebly.com/>
- Firm Cabell's to release a white list of journals shortly
 - <http://www.nature.com/news/pay-to-view-blacklist-of-predatory-journals-set-to-launch-1.22090>
- Not limited to journals: also conferences

OMICS example

- 700 titles covering all disciplines
- Most titles are empty
- Publication fees are sizeable:

<https://www.omicsonline.org/article-processing-charges.php>

- Use of fake impact factors:

<https://www.omicsonline.org/biochemistry-journals.php>

- Google Scholar advertising:

<https://www.google.ca/search?q=journal+citation+reports&oq=journal+citation+reports&aqs=chrome.69l68j0j7&sourceid=chrome&ie=UTF-8>

Characteristics (CARL)

- High manuscript acceptance rates or acceptance guarantees (and fast acceptance)
- The publisher sends you an un-solicited invitation to submit an article for publication
- Minimal (or non-existent) peer review process
- Little attention paid to digital preservation
- Not indexed in electronic databases (except G.S.)
- Journals may be short lived
- No archiving policy

Impact Factor

- Average number of citations received by articles published in a journal two years after their publication
- Impact Factor of a given journal in 2014 would be calculated as follows:

Number of citations received in 2014 by articles
published in the journal in 2012-2013

Number of articles
published in the journal in 2012-2013

Impact Factor

Pros

Rapidly available (faster than waiting for citation counts)

Cons

Cannot be used for inter-field evaluation

Asymmetry between numerator and denominator

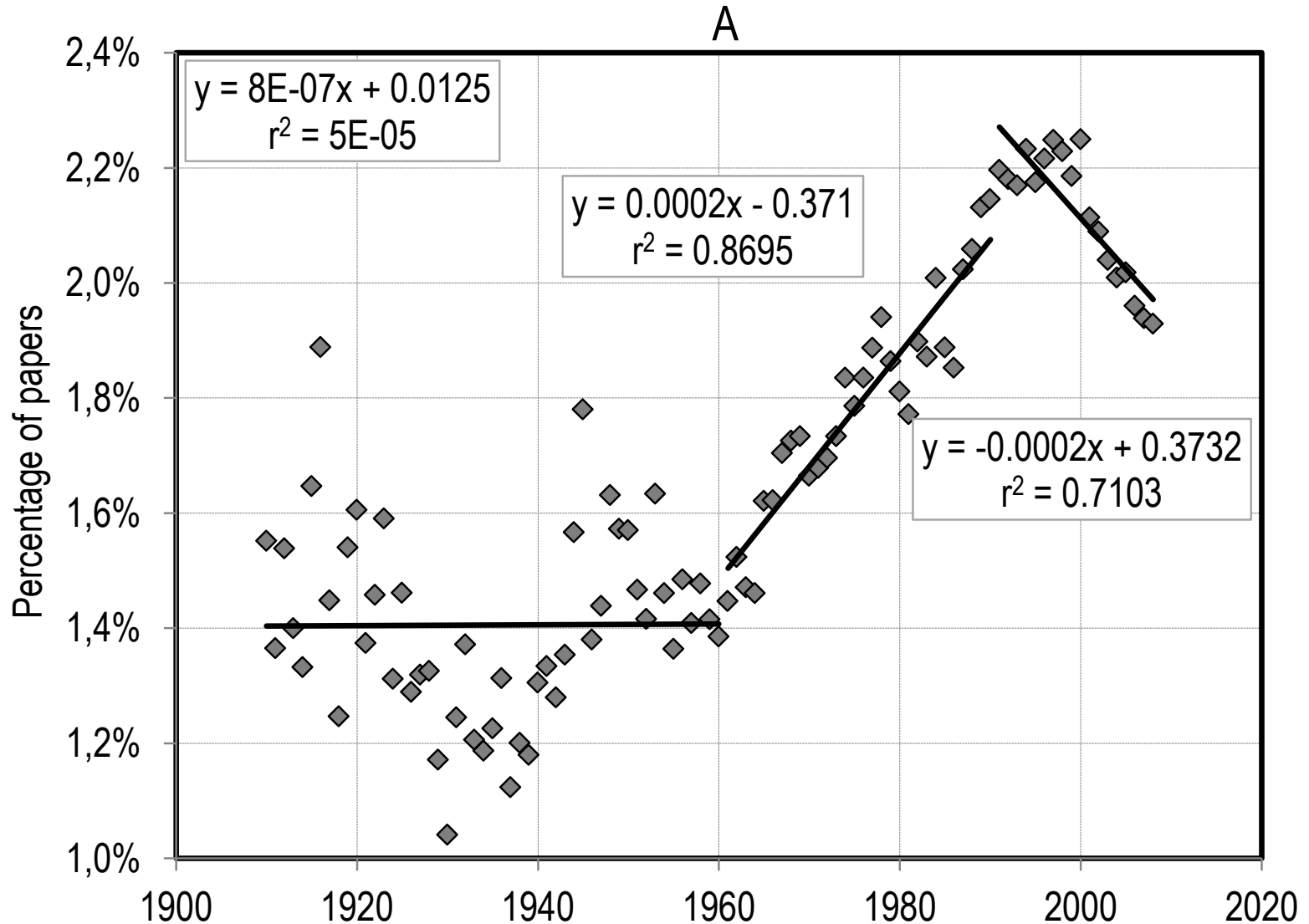
Two-year citation window

Based on a skewed distribution

Decreasing “predicting” power

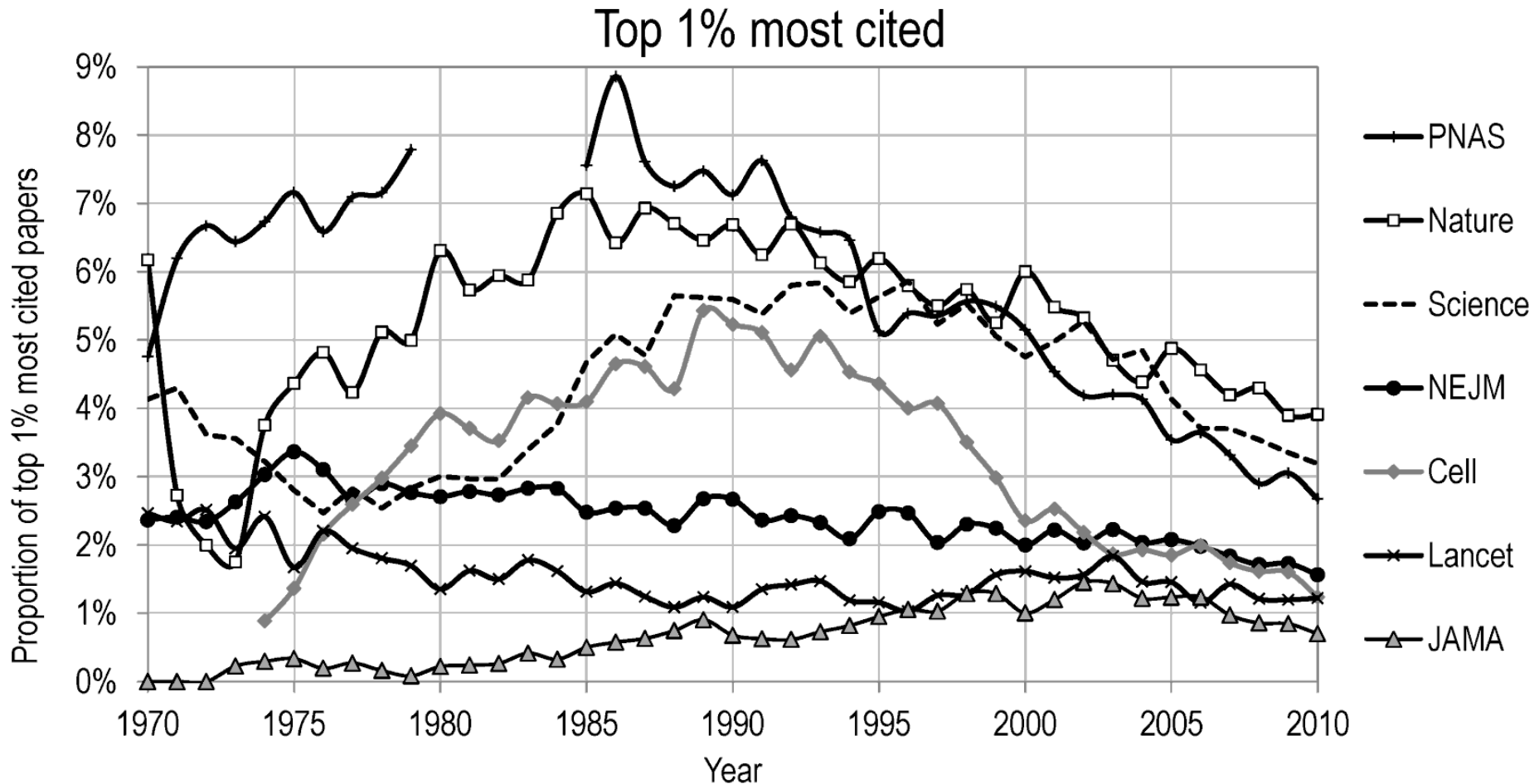
Diversification of publication venues

More top papers published outside top journals:



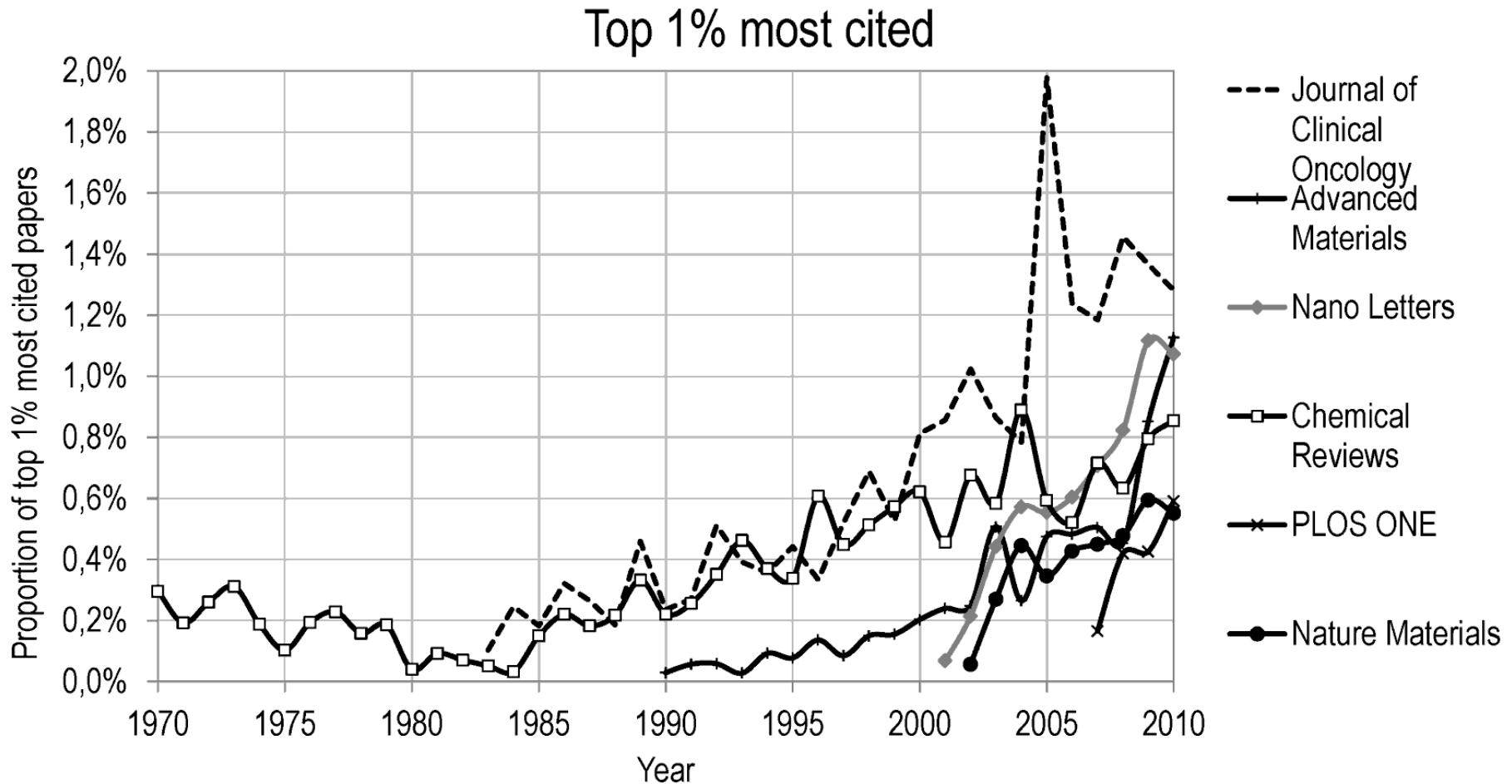
Diversification of publication venues

The decline of elite journals:



Diversification of publication venues

Growth of new journals' share of top cited papers:

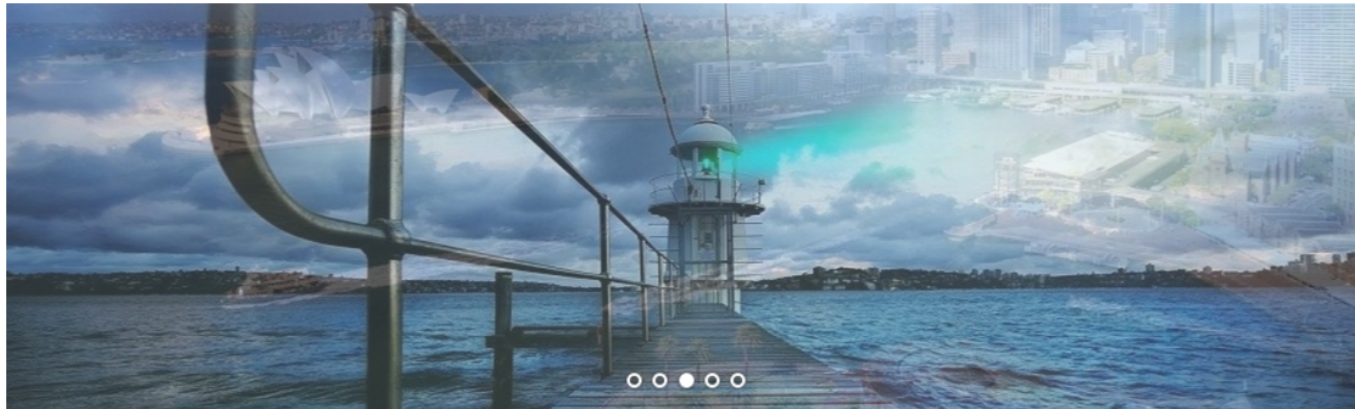


Fake Impact Factors



Institute for Information Resources

News Updates Publishers can ask the status of their journals after 7 days by mailing at: review.gif@gmail.com



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1

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About Global Impact Factor

The **Global Impact Factor (GIF)** provides quantitative and qualitative tool for ranking, evaluating and categorizing the journals for academic evaluation and excellence. This factor is used for evaluating the prestige of journals. The evaluation is carried out by considering the factors like peer review originality, scientific quality, technical editing quality, editorial quality and regularity.


We perform the in-depth analysis method. The acceptance and rejection rates of journals can be a determining factor. Low acceptance rate, high rejection rate journals are considered the best and most prestigious journals as the acceptance criteria is of high quality standard. Many journals and societies have web pages that give publication data and style requirements and often includes acceptance/rejection rates. The paper copy of the journal occasionally includes this data and will always provide current contact information.

Whether a journal is indexed in the major indexing/abstracting service in the field is another criteria that can be used to assess the worth and quality of a journal.

Fake Impact Factors

← → ↻ ⓘ www.citefactor.org/page/about-us

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Top Publication Journals

- BUSINESS, ECONOMICS & MANAGEMENT
- CHEMICAL & MATERIAL SCIENCES
- ENGINEERING & COMPUTER SCIENCE
- HEALTH & MEDICAL SCI
- HUMANITIES, LITERATURE & ARTS
- LIFE SCIENCES & EARTH SCIENCES
- PHYSICS & MATHEMATICS
- SOCIAL SCIENCES

Categories

Articles	96724
Journals	17248

News

[Journal Impact Factor List 2014 \(Now Online !!! \)](#)
Date: 02nd August, 2014

[Real Time Impact Factor](#)
Date: 25th May, 2014


[Getting Your Journal Indexed](#)
Date: 08th May, 2014

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Outlook

What do we need journals for?

- Diffusion of research results
- Establish the priority of findings
- Provide with the 'recipe' and allow for reproducibility of research
- Peer review
- Federate research communities
 - Extension of scientific societies
- Provide with a hierarchy of discoveries... and of authors, institutions, countries
 - Symbolic capital

Roles of journals

- Diffusion of research results
- Peer review → trust
- Archiving knowledge
- Federate communities
- Provide a hierarchy of discoveries... and authors, institutions, countries
 - Vector of symbolic capital (and economic capital)
 - Paper as unit of knowledge → unit of measurement

Roles of journals

- Not all journals provide the same capital
 - History
 - Language
 - Editor / Country

Journal type	"Canada" in Abstract (%)
Canadian journal	18.7%
U.S. Journal	5.7%
Other journals	7.0%

Questions?

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