DEFUND THE JOURNALS!

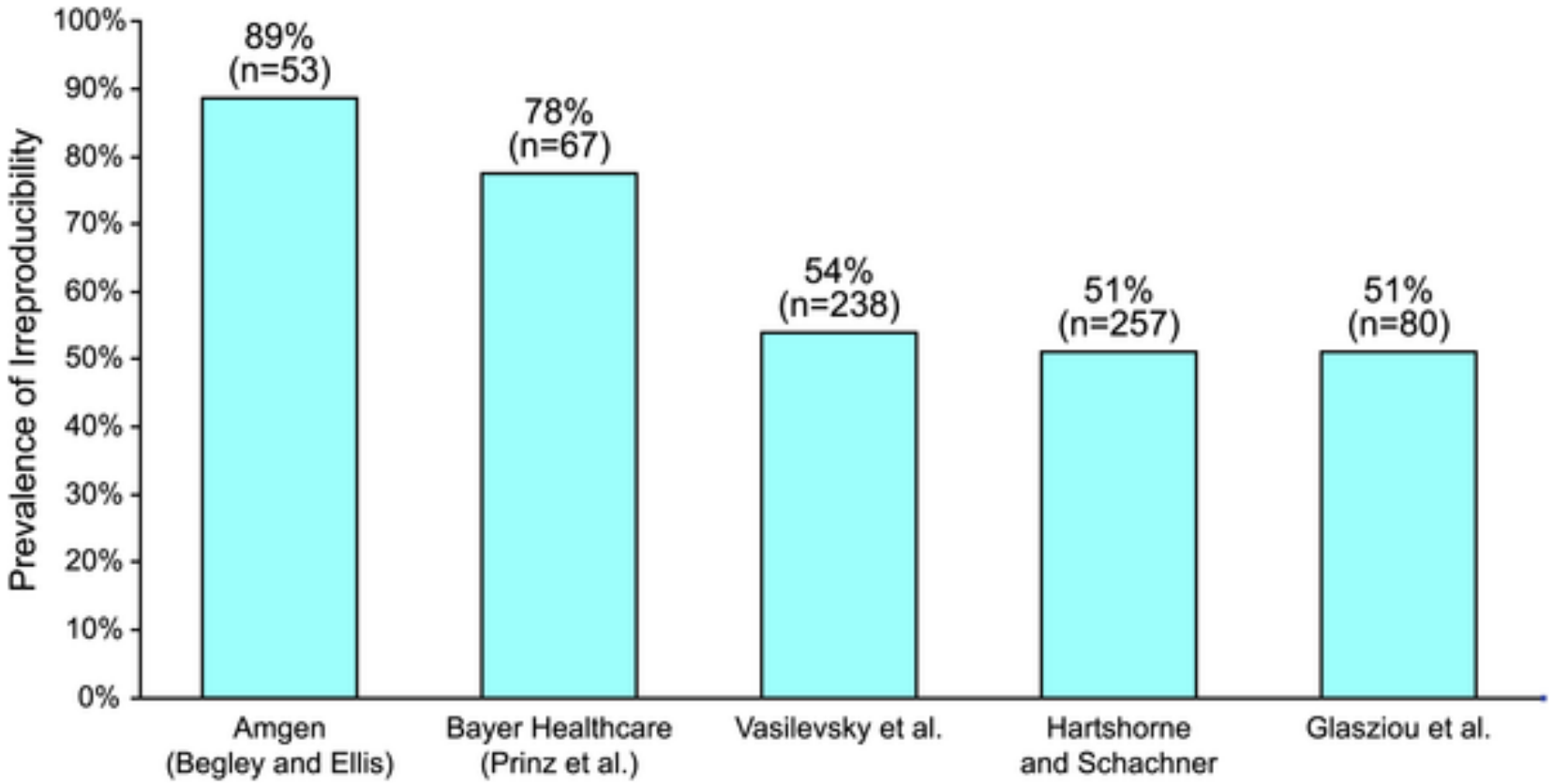
And fund repositories instead

Björn Brembs
Universität Regensburg
http://brembs.net - @brembs

RELIABILITY
AFFORDABILITY
FUNCTIONALITY

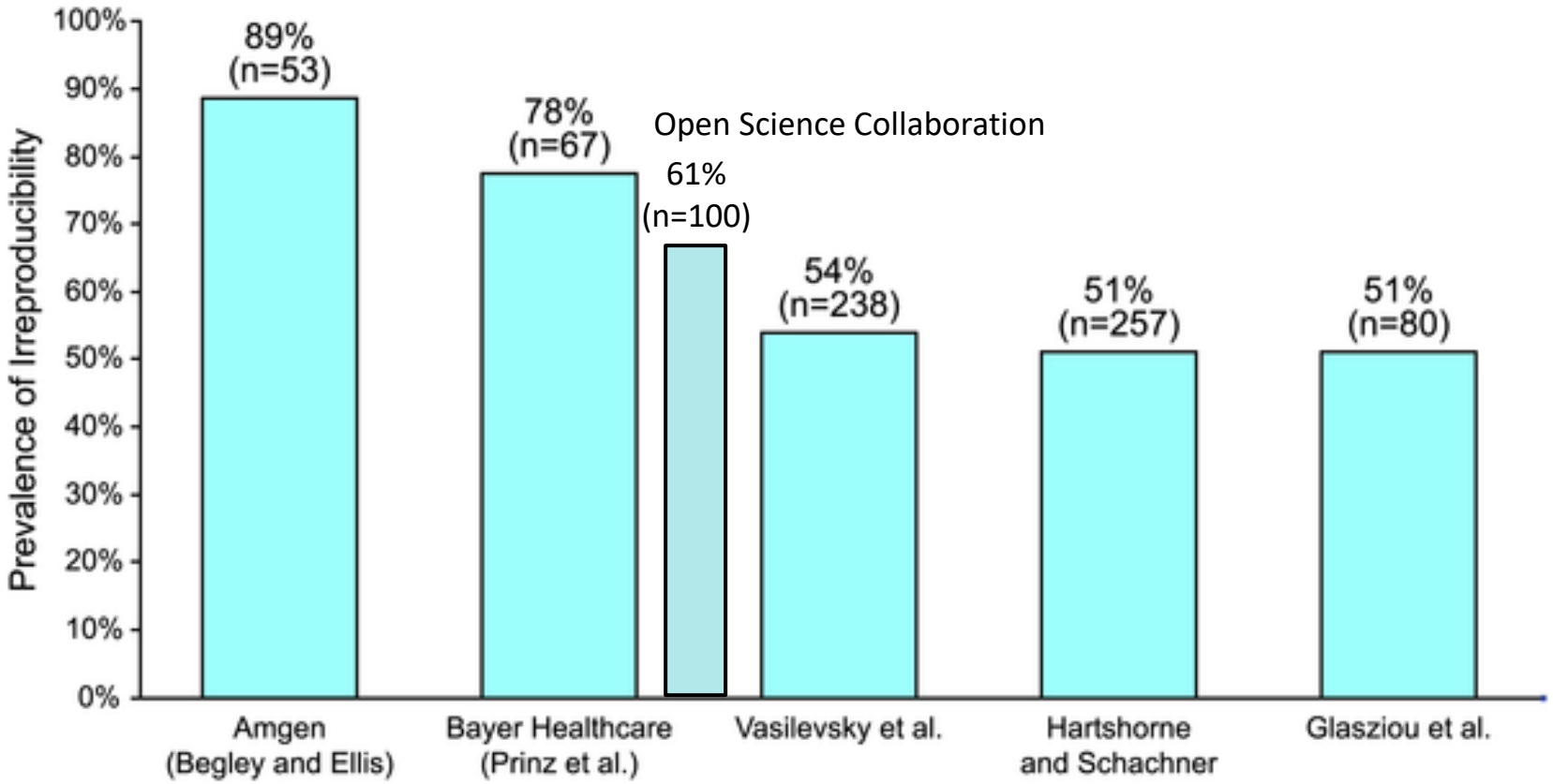
The disaster that is scholarly information infrastructure

Irreproducibility



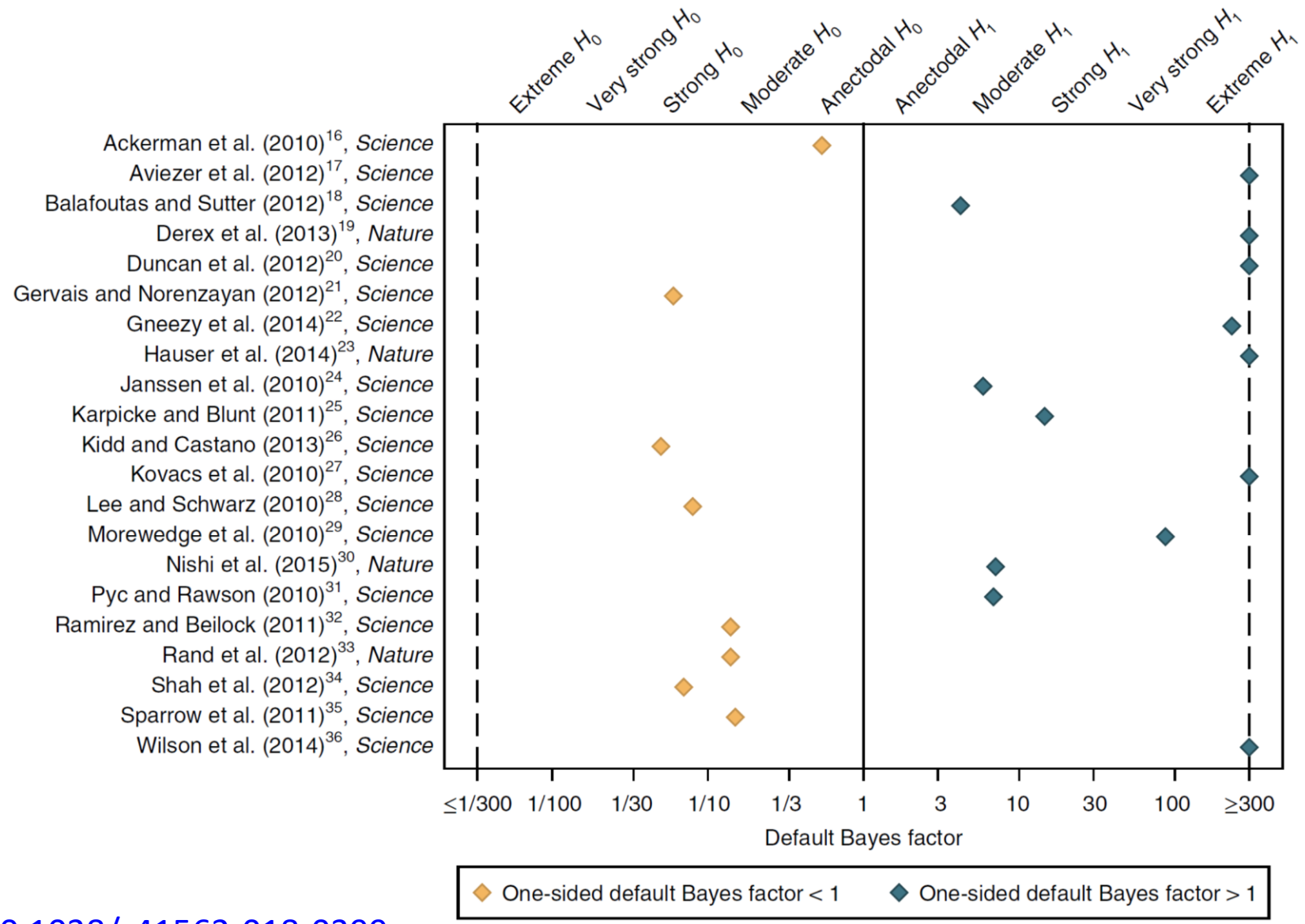
Freedman LP, Cockburn IM, Simcoe TS (2015) http://journals.plos.org/plosbiology/article?id=info:doi/10.1371/journal.pbio.1002165

Irreproducibility



Freedman LP, Cockburn IM, Simcoe TS (2015) http://journals.plos.org/plosbiology/article?id=info:doi/10.1371/journal.pbio.1002165

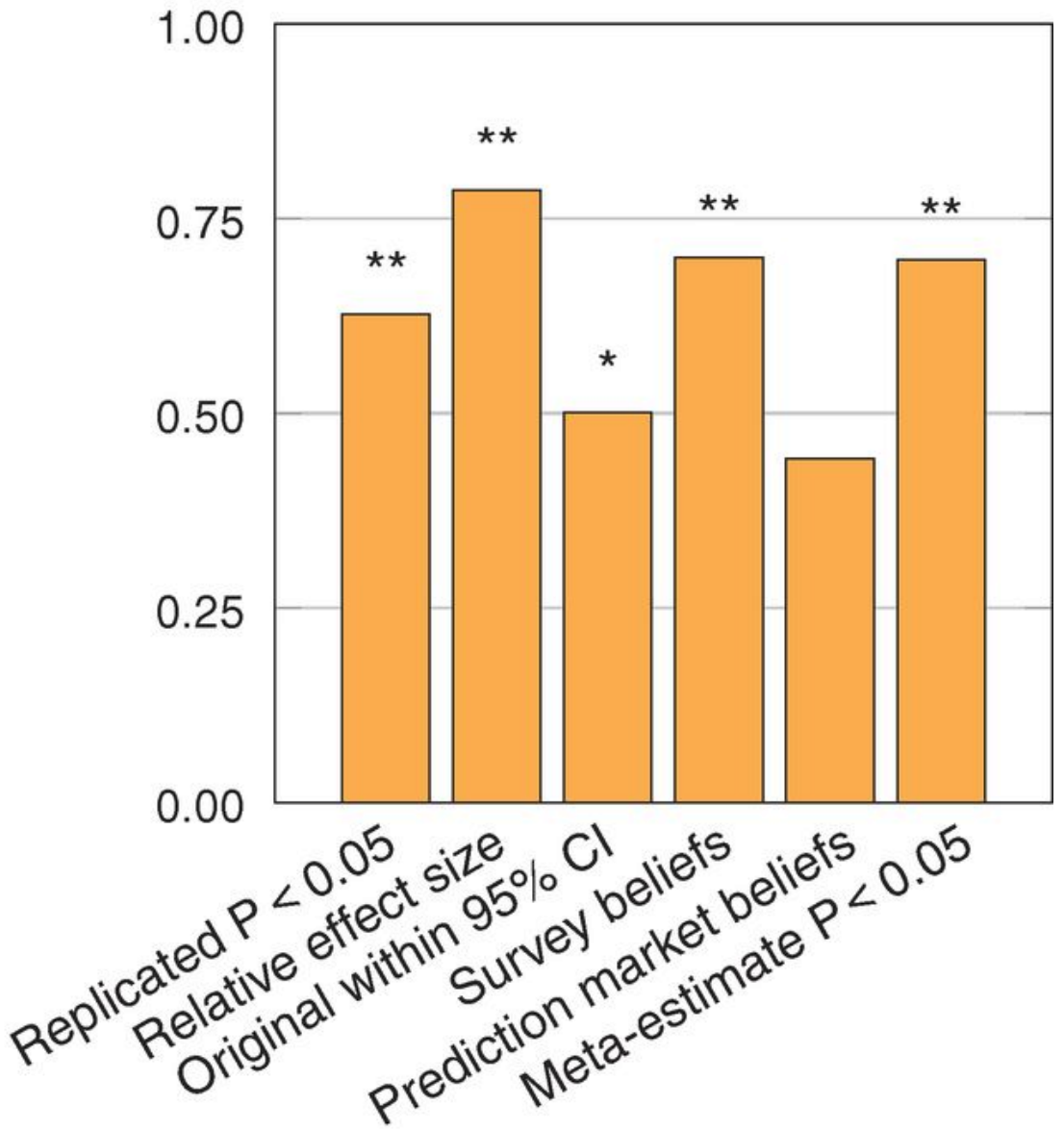
Social Sciences



Successful:
13/21: 62%

10.1038/s41562-018-0399-z

Economics



Successful:
11/18: 61%

10.1126/science.aaf0918

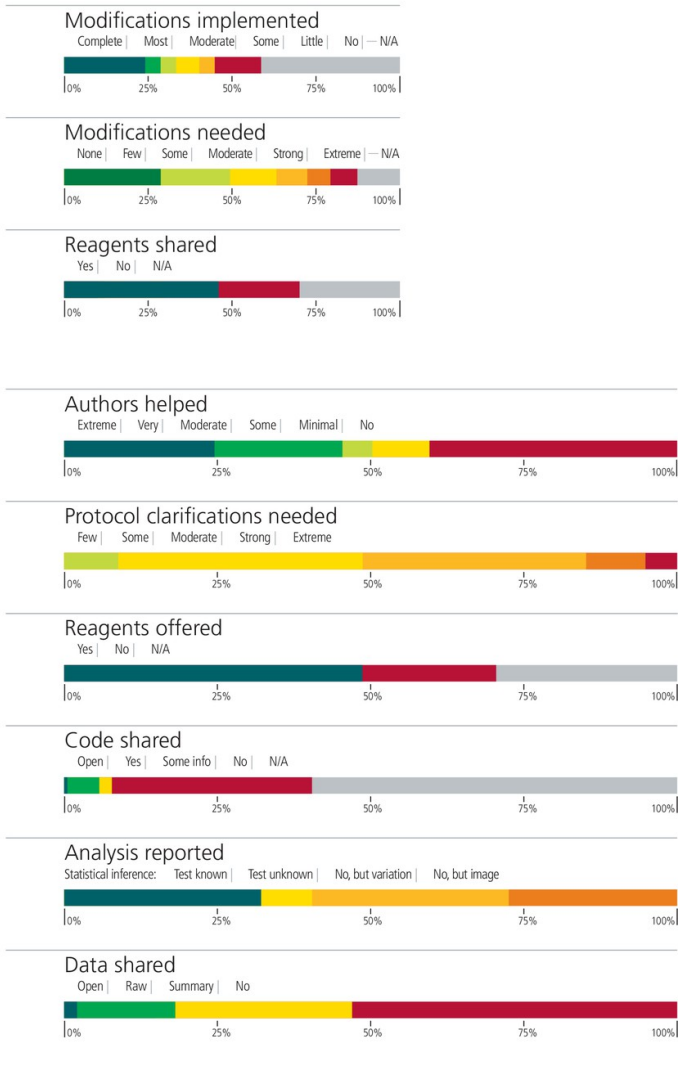
Cancer Research

COMPLETED
50 experiments

INITIATED
87 experiments

DESIGNED
193 experiments

BARRIERS



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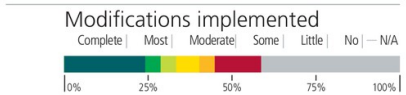
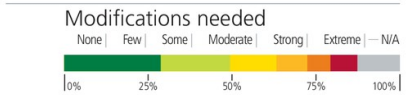
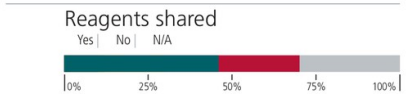
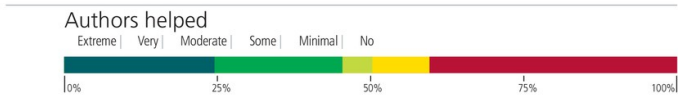
BARRIERS

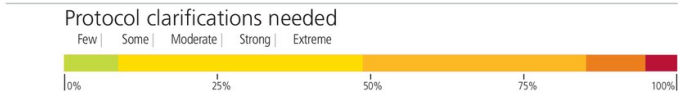
	Papers	Experiments	Effects	All outcomes
Total number	23	50	158	188

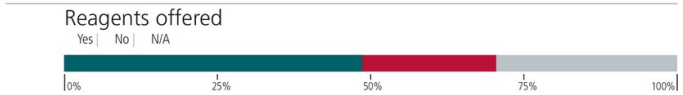


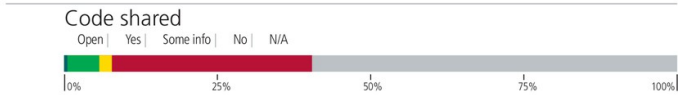


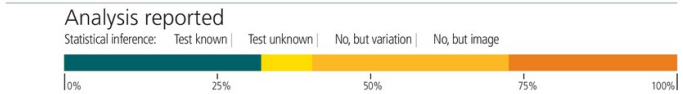


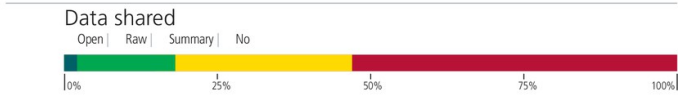












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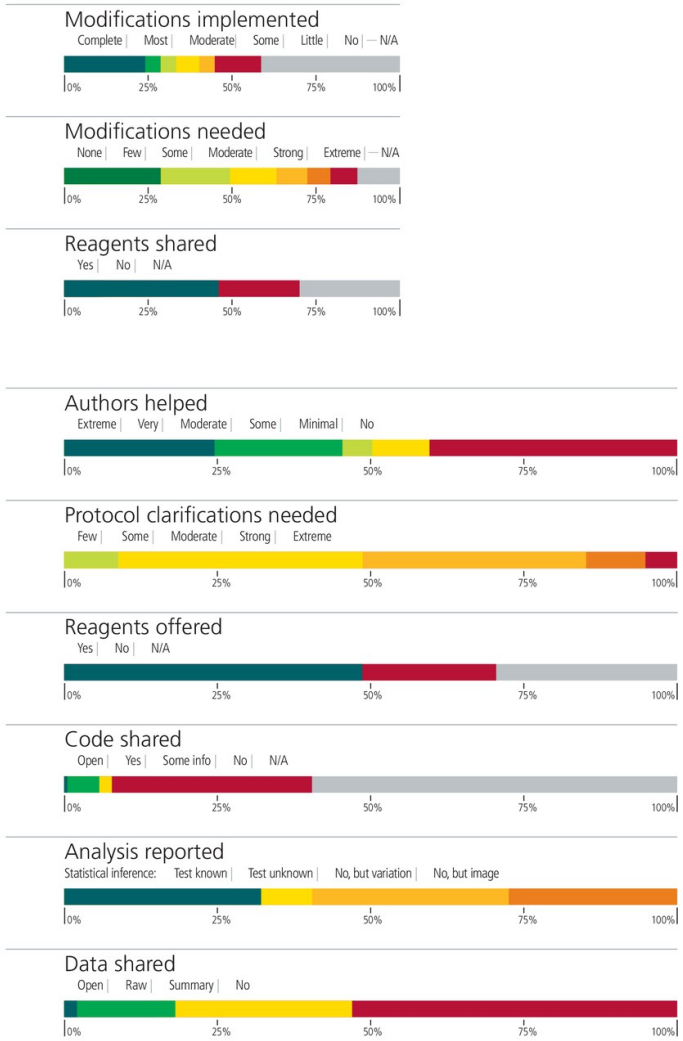
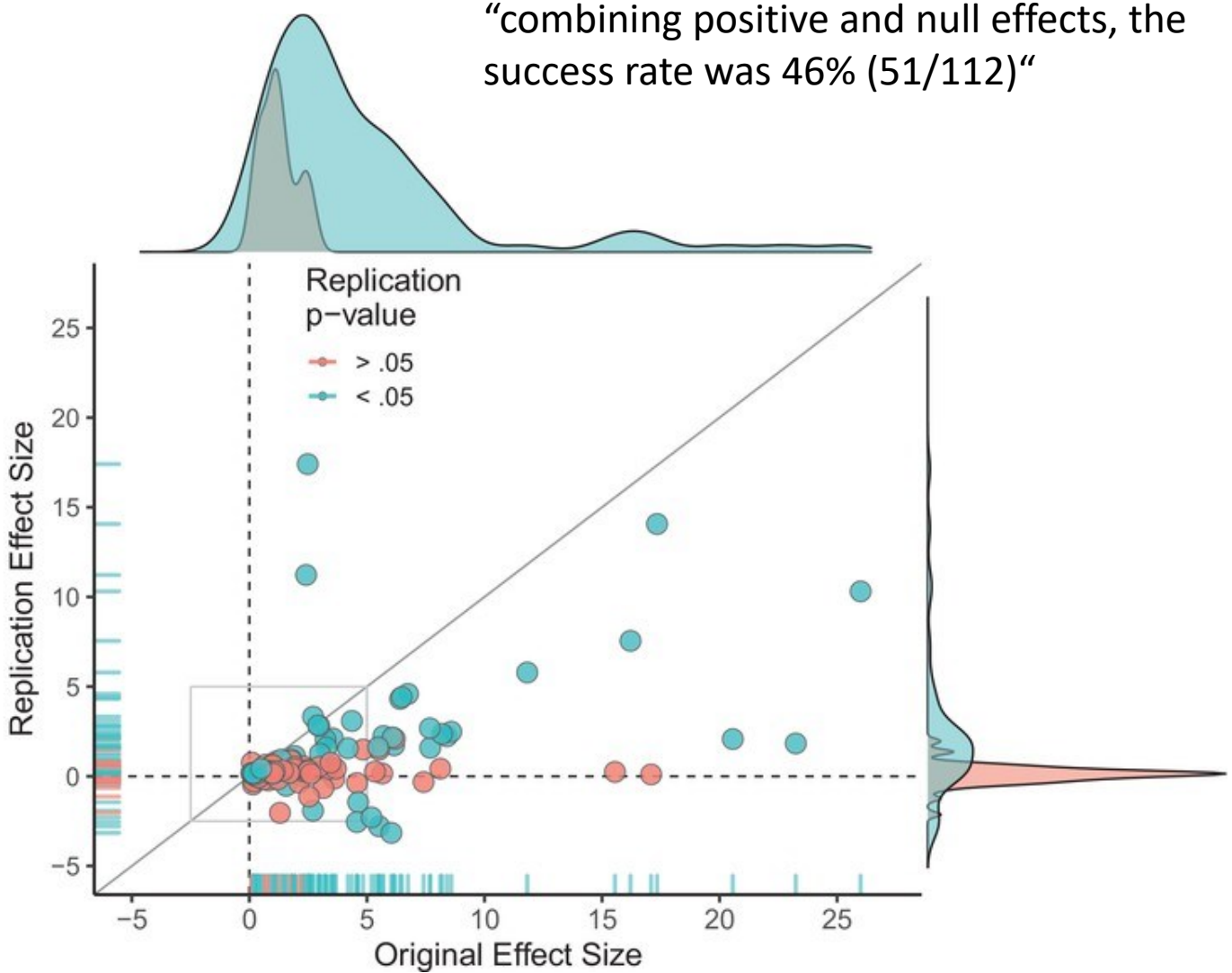


	Papers	Experiments	Effects	All outcomes
Total number	23	50	158	188

"combining positive and null effects, the success rate was 46% (51/112)"



MICHAEL SCHULSON SCIENCE 04.20.2018 09:00 AM

Science's "Reproducibility Crisis" Is Being Used as Political Ammunition

A report from the National Association of Scholars takes on the reproducibility crisis in science. Not everyone views the group's motives as pure.

Trump's budget director pick: “Do we really need government-funded research at all”

Mick Mulvaney suggested Zika science is uncertain, so we shouldn’t bother to fund it.

By Julia Belluz | @juliaoftoronto | julia.belluz@voxmedia.com | Updated Jan 24, 2017, 11:07am EST

SHARE

Rep. Mick Mulvaney, R-S.C., asked during Congress’ Zika budget gridlock: “Do we really need government funded research at all.” | Tom Williams/CQ Roll Call

Office of Management and Budget

The Office of Management and Budget (OMB) serves the President of the United States in overseeing the implementation of his vision across the Executive Branch. Specifically, OMB’s mission is to assist the President in meeting his policy, budget, management and regulatory objectives and to fulfill the agency’s statutory responsibilities.

Mick Mulvaney

Director of OMB

Mick Mulvaney is the current director of the Office of Management and Budget (OMB). He was nominated to the post by President Donald J. Trump in December 2016 and confirmed by the Senate on February 16, 2017.

Massive cuts to science and medicine in Trump budget

Roger Collier

CMAJ June 12, 2017 189 (23) E812-E813; DOI: https://doi.org/10.1503/cmaj.1095437

NEWS | 11 March 2019

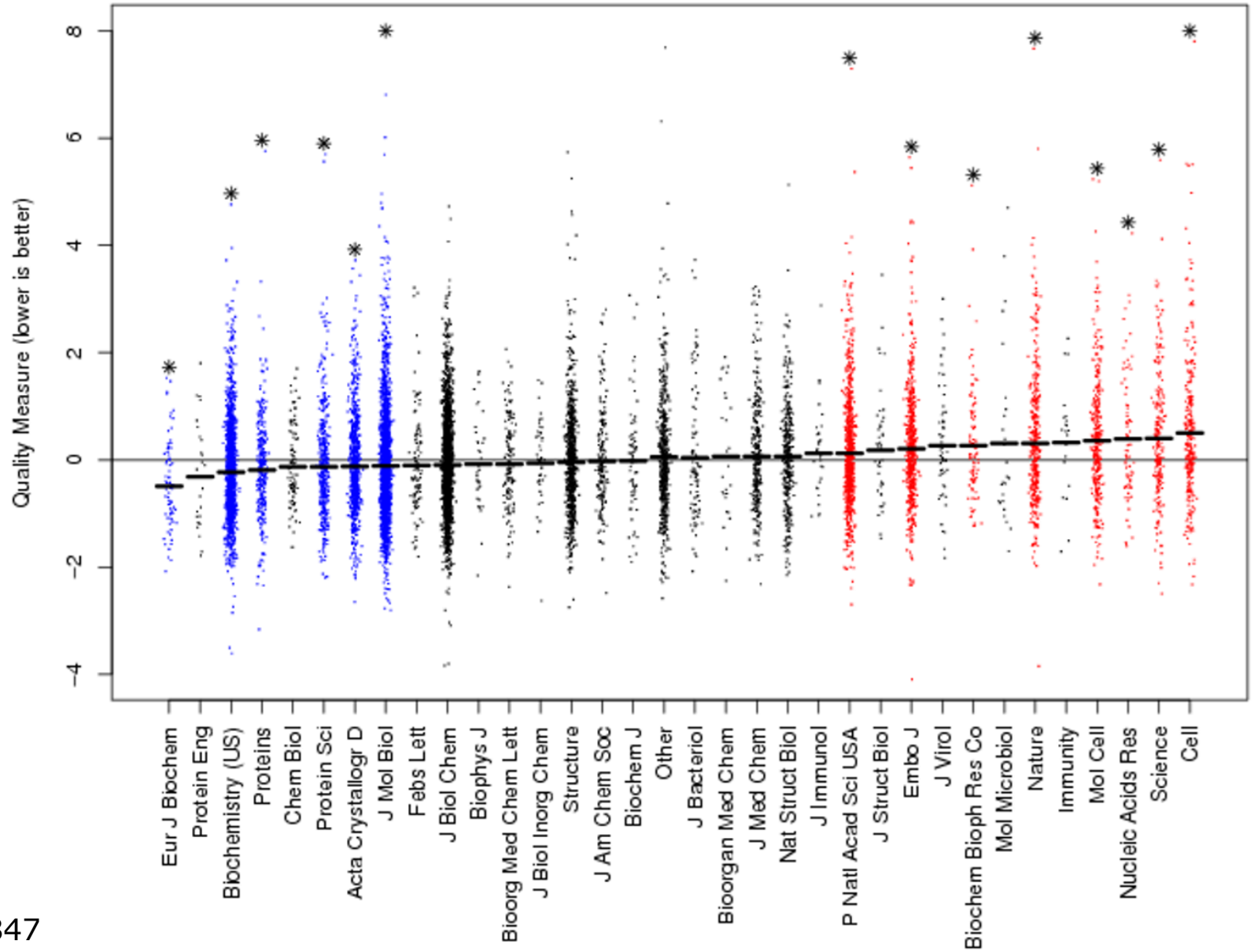
Trump seeks big cuts to science funding — again

The US president wants to cut spending at the National Institutes of Health and Environmental Protection Agency, but it's not clear whether Congress will go along.

“HIGH IMPACT”

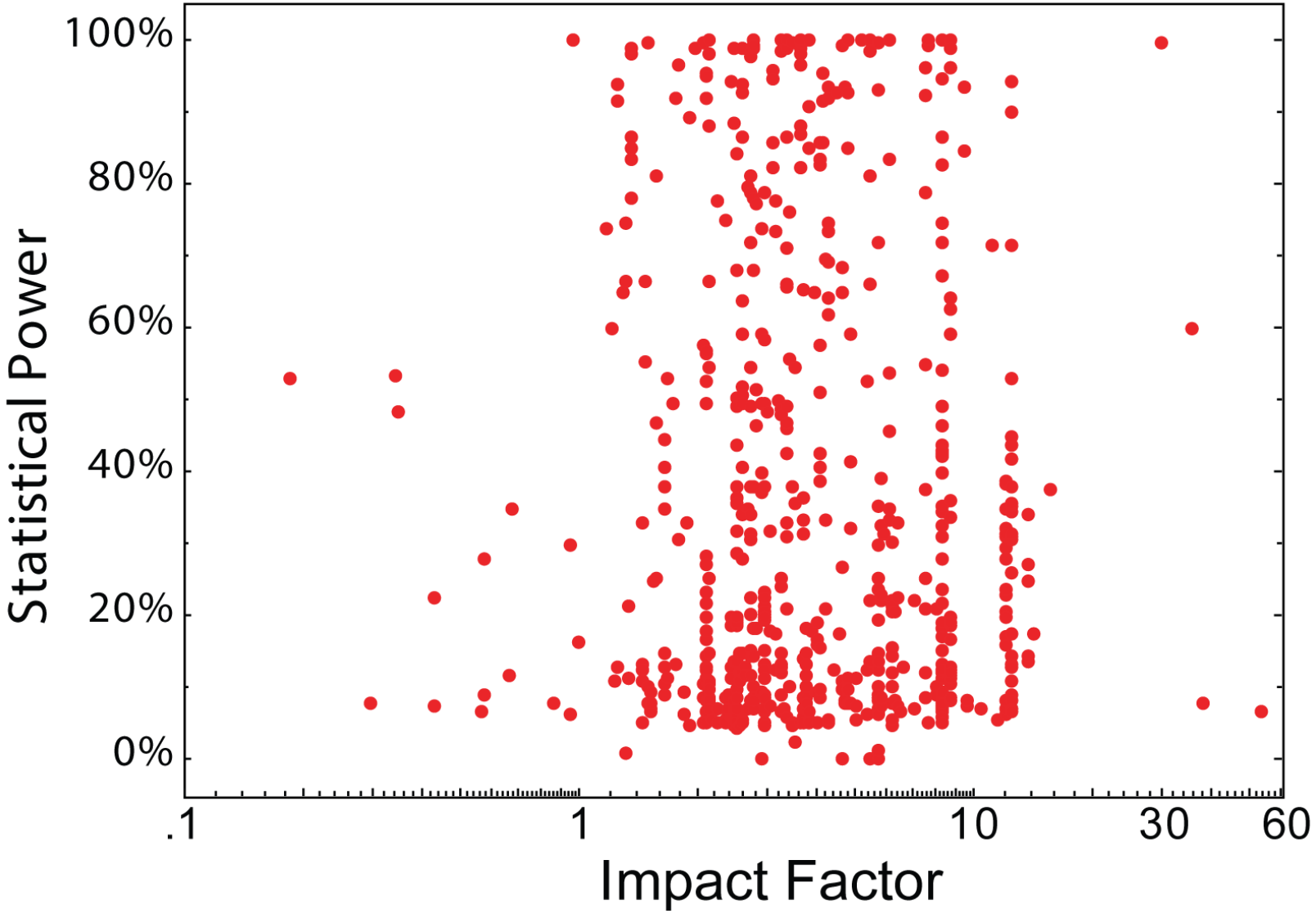
How reliable is the research in our most prestigious journals?

‘Quality’



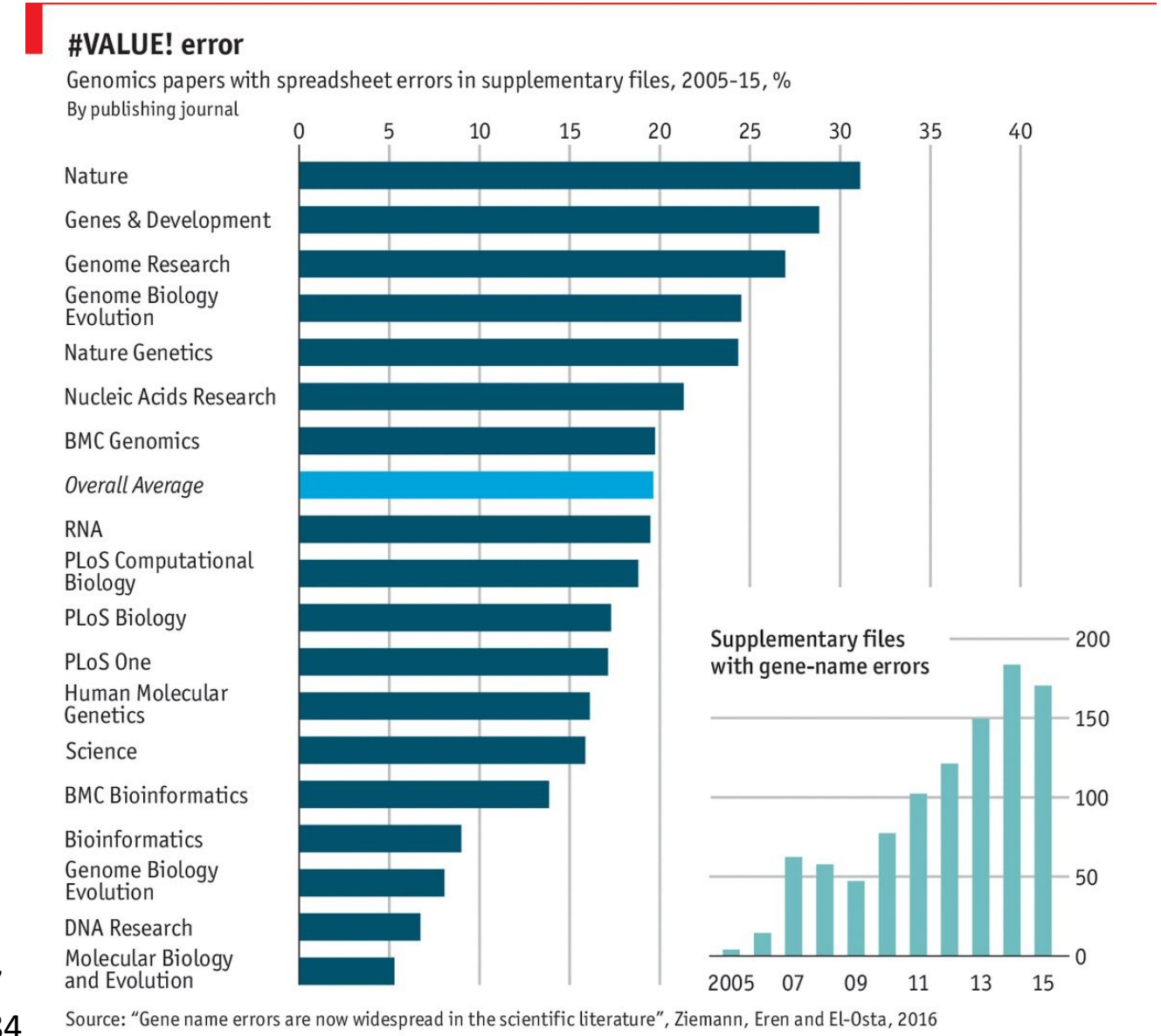
10.1107/S0907444907033847

Methodology



Brembs, B., Button, K., & Munafò, M. (2013). Deep impact: unintended consequences of journal rank. Frontiers in Human Neuroscience, 7. doi:10.3389/fnhum.2013.00291

Errors



DOI: 10.1186/s13059-016-1044-7
And 10.1371/journal.pcbi.1008984

-omics studies

QUALITY?

“High-Impact” journals attract the most unreliable research

RELIABILITY
AFFORDABILITY
FUNCTIONALITY

The disaster that is scholarly information infrastructure

NATURE APC

More than 10.000€ for one article

Actual Costs

Online submission	US$ 21.70
DOI	US$ 1.94
Plagiarism detection	US$ 0.95
Fundref	US$ 0.31
Bibliographic reference normalization	US$ 25.00
Production of XML, PDFWeb, PDF for Print and EPUB	US$ 100.00
indexing, online publication and interoperability	US$ 66.45
Kosten pro Artikel	**US$ 216.35**

Scholastica

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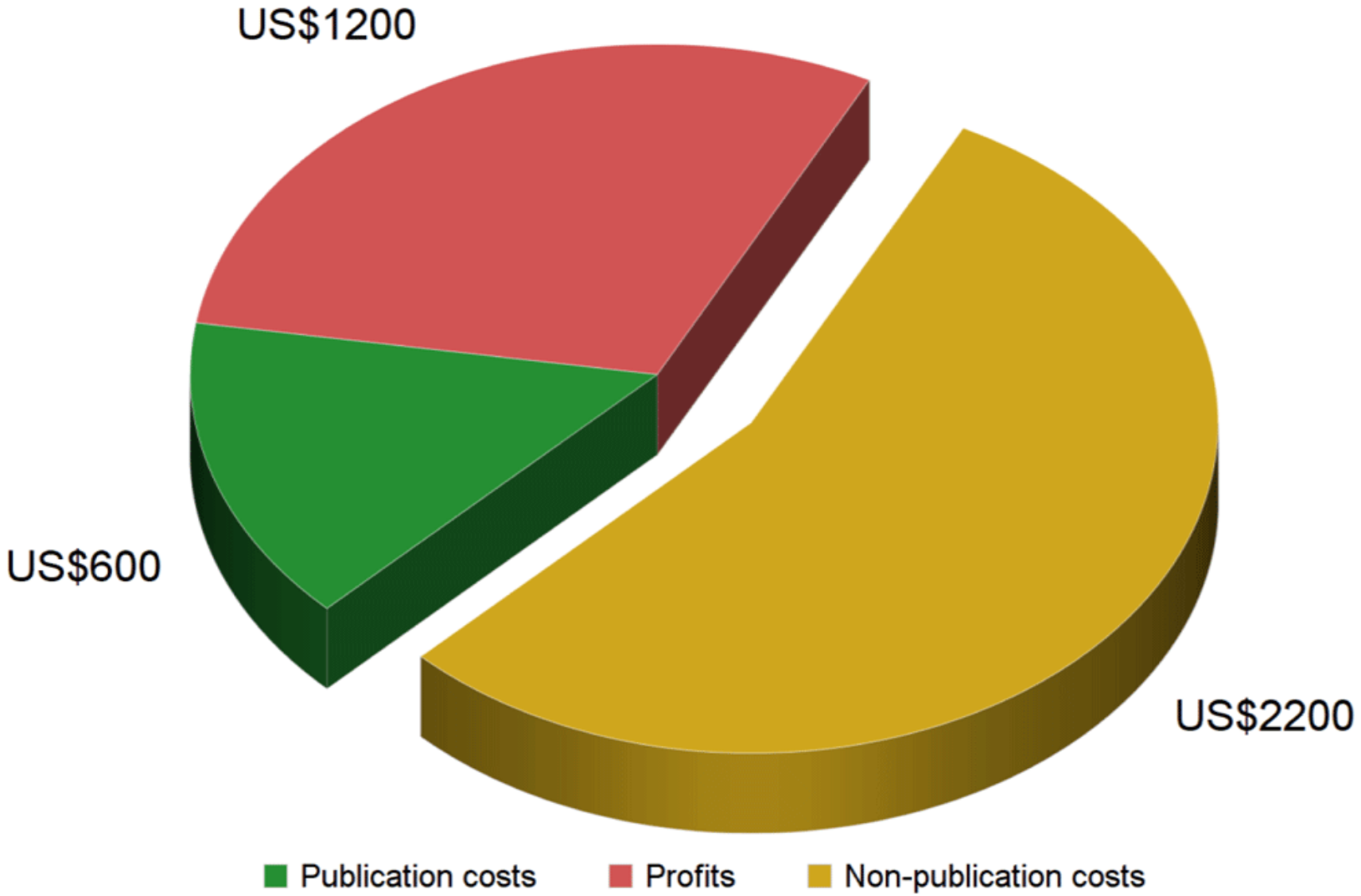
scienceOPEN.com research+publishing network

SciELO

ubiquity press open scholarship

What to do with all that money?



10.12688/f1000research.27468.2

Invest in Quality Control?

Elisabeth Bik ✓
@MicrobiomDigest

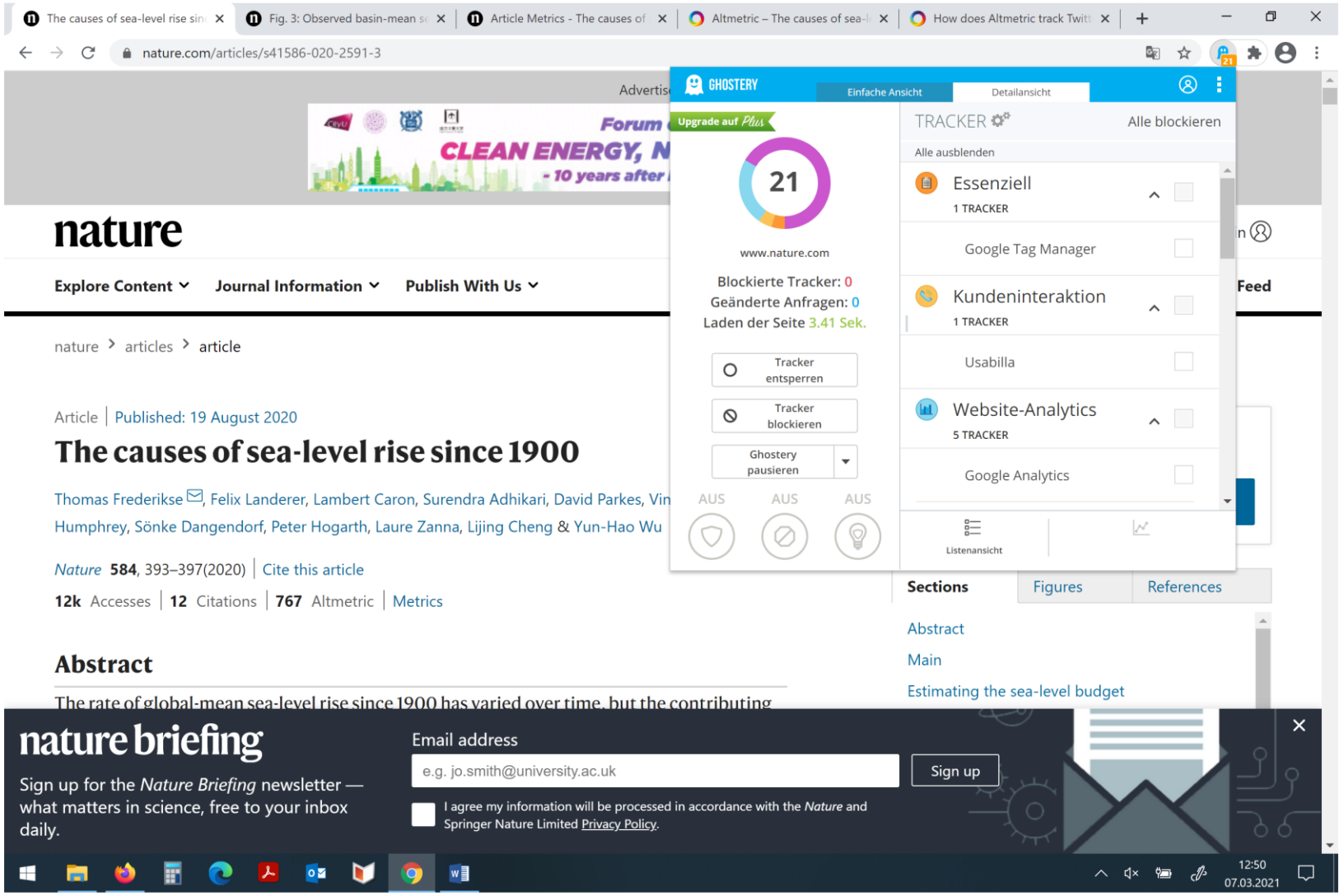
Replying to @brembs and @jamesheathers

It would be nice if scientific publishers could be spending some of the millions of $$$ we pay them, on hiring staff to screen manuscripts for errors and fraud, and to quickly deal with concerns raised about published papers. Like a decent quality control.

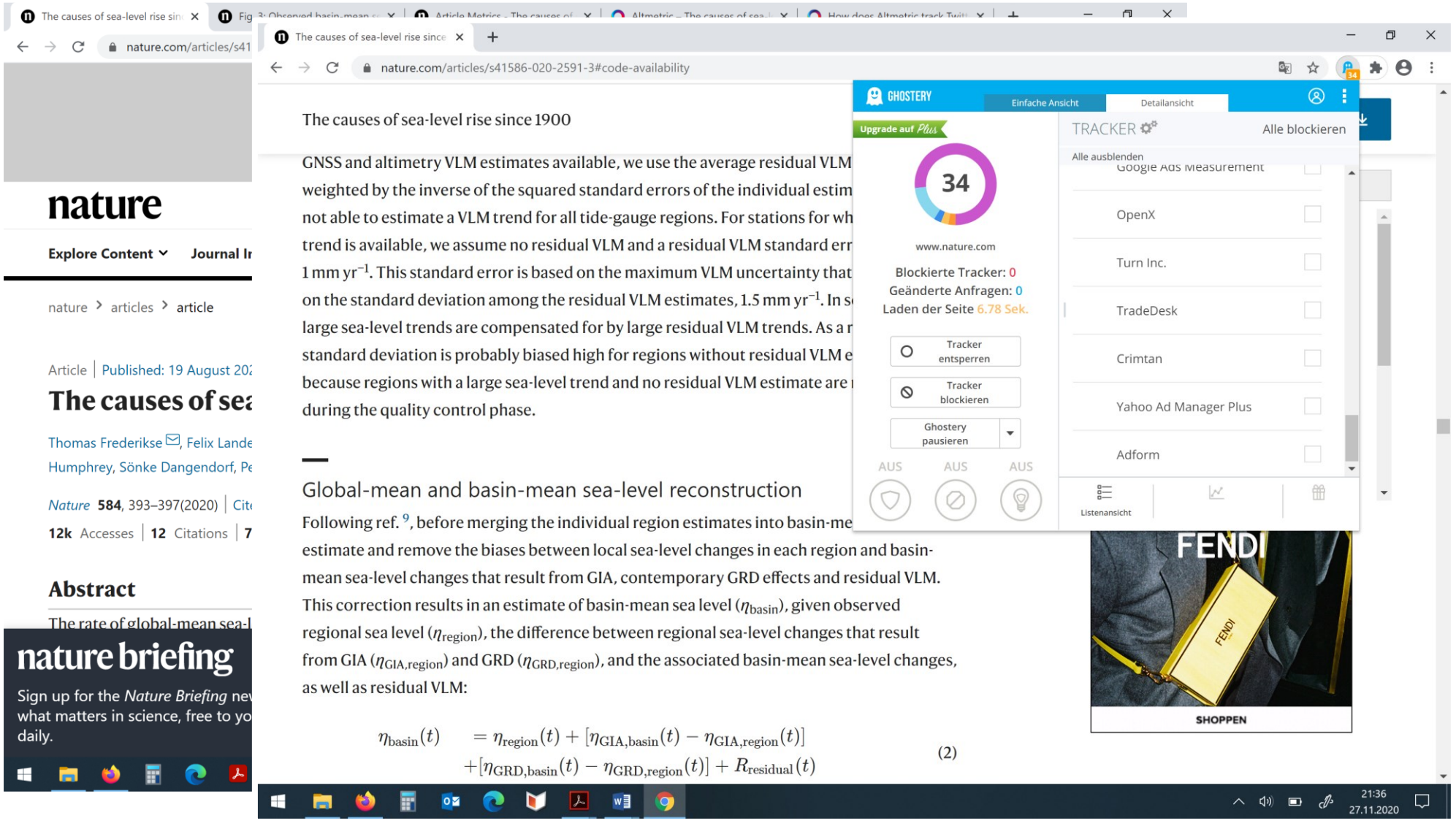
3:23 PM · Oct 19, 2021 · Twitter for iPhone

1 Retweet **10** Likes

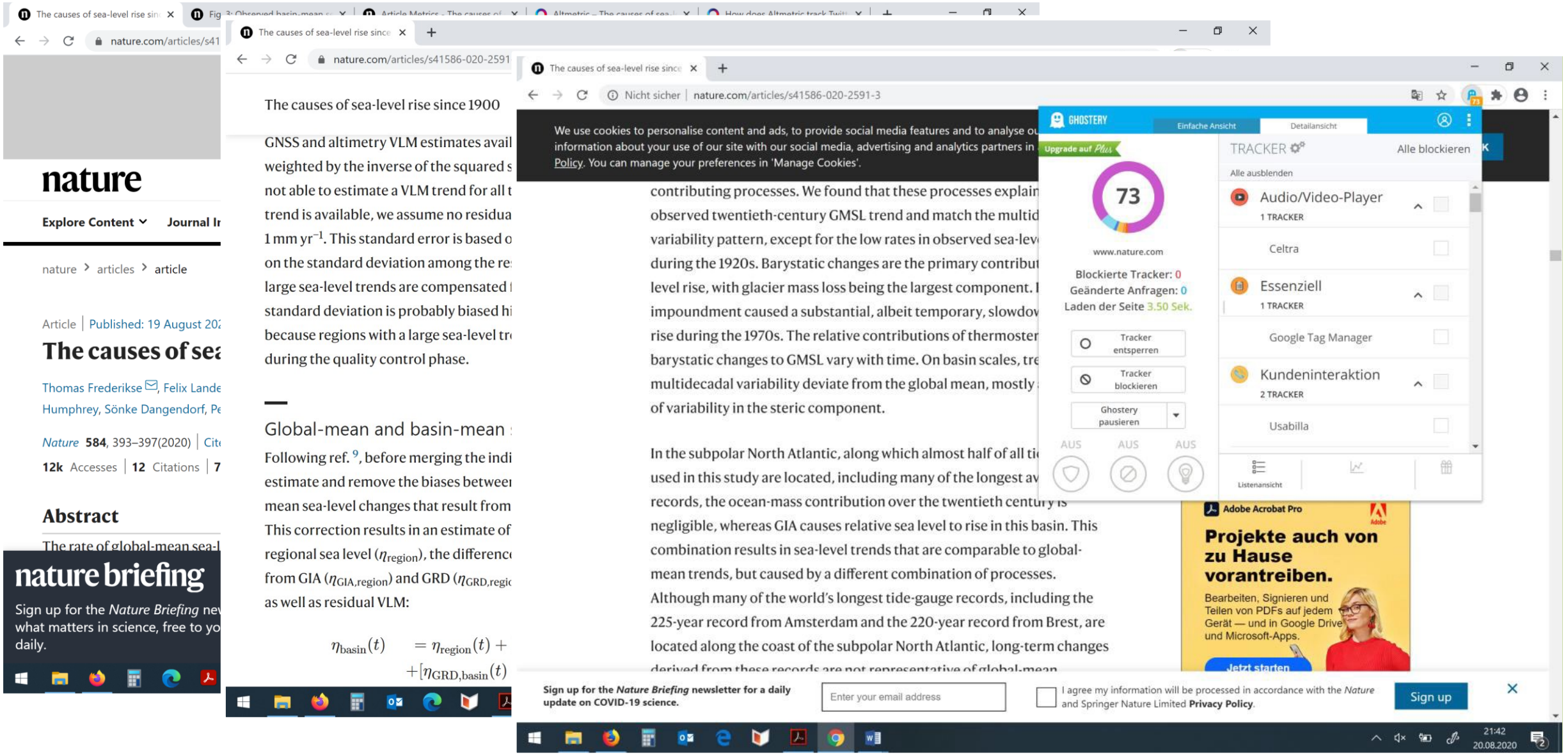
Journals that read you



Journals that read you



Journals that read you



Journals that read you

Data tracking in research: aggregation and use or sale of usage data by academic publishers

A briefing paper of the Committee on Scientific Library Services and Information Systems of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation)
28 October 2021

Deutsche Forschungsgemeinschaft
Kennedyallee 40 · 53175 Bonn · Mailing address: 53170 Bonn
Phone: + 49 228 885-1 · Fax: + 49 228 885-2777 · postmaster@dfg.de · www.dfg.de

DFG

[JEP] the journal of electronic publishing

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Article

Surveillance Publishing

Abstract

This essay develops the idea of *surveillance publishing*, with special attention to the example of Elsevier. A scholarly publisher can be defined as a surveillance publisher if it derives a substantial proportion of its revenue from prediction products, fueled by data extracted from researcher behavior. The essay begins by tracing the Google search engine's roots in bibliometrics, alongside a history of the citation analysis company that became, in 2016, Clarivate. The essay develops the idea of surveillance publishing by engaging with the work of Shoshana Zuboff, Jathan Sadowski, Mariano-Florentino Cuéllar, and Aziz Huq. The recent history of Elsevier is traced to describe the company's research-lifecycle data-harvesting strategy, with the aim to develop and sell prediction products to unviersity and other customers. The essay concludes by considering some of the potential costs of surveillance publishing, as other big commercial publishers increasingly enter the predictive-analytics business. It is likely, I argue, that windfall subscription-and-APC profits in Elsevier's "legacy" publishing business have financed its decade-long acquisition binge in analytics. The products' purpose, moreover, is to streamline the top-down assessment and evaluation practices that have taken hold in recent decades. A final concern is that scholars will internalize an analytics mindset, one already encouraged by citation counts and impact factors.

Keywords: elseiver, scholarly publishing, data, prediction products, analytics

How to Cite:

Pooley, J., (2022) "Surveillance Publishing", *The Journal of Electronic Publishing* 25(1), doi: https://doi.org/10.3998/jep.1874

https://doi.org/10.3998/jep.1874

Expand Monopolies

Reverse the flow of information

RELIABILITY
AFFORDABILITY
FUNCTIONALITY

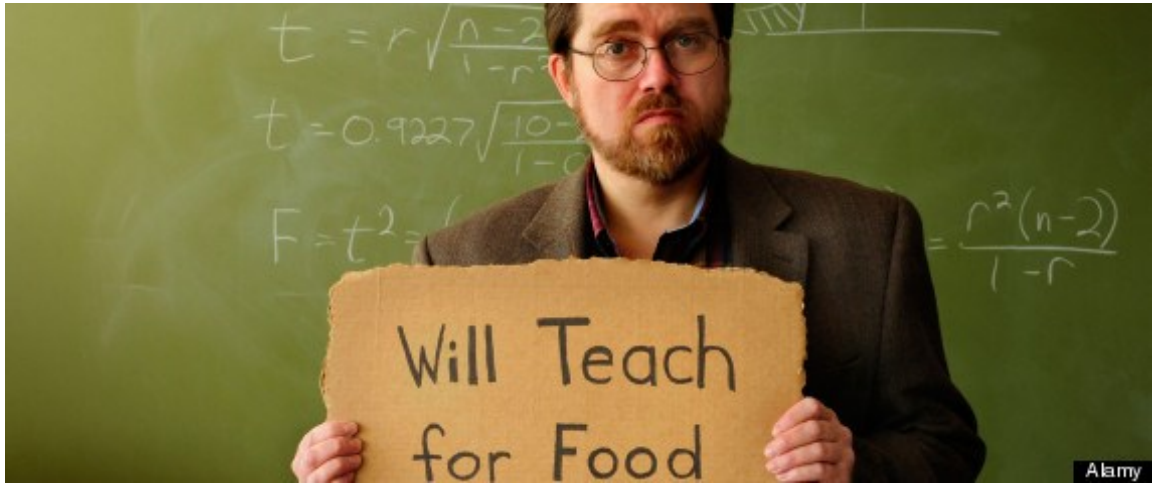
The disaster that is scholarly information infrastructure

QC just one missing functionality

…it's like the internet in 1995!

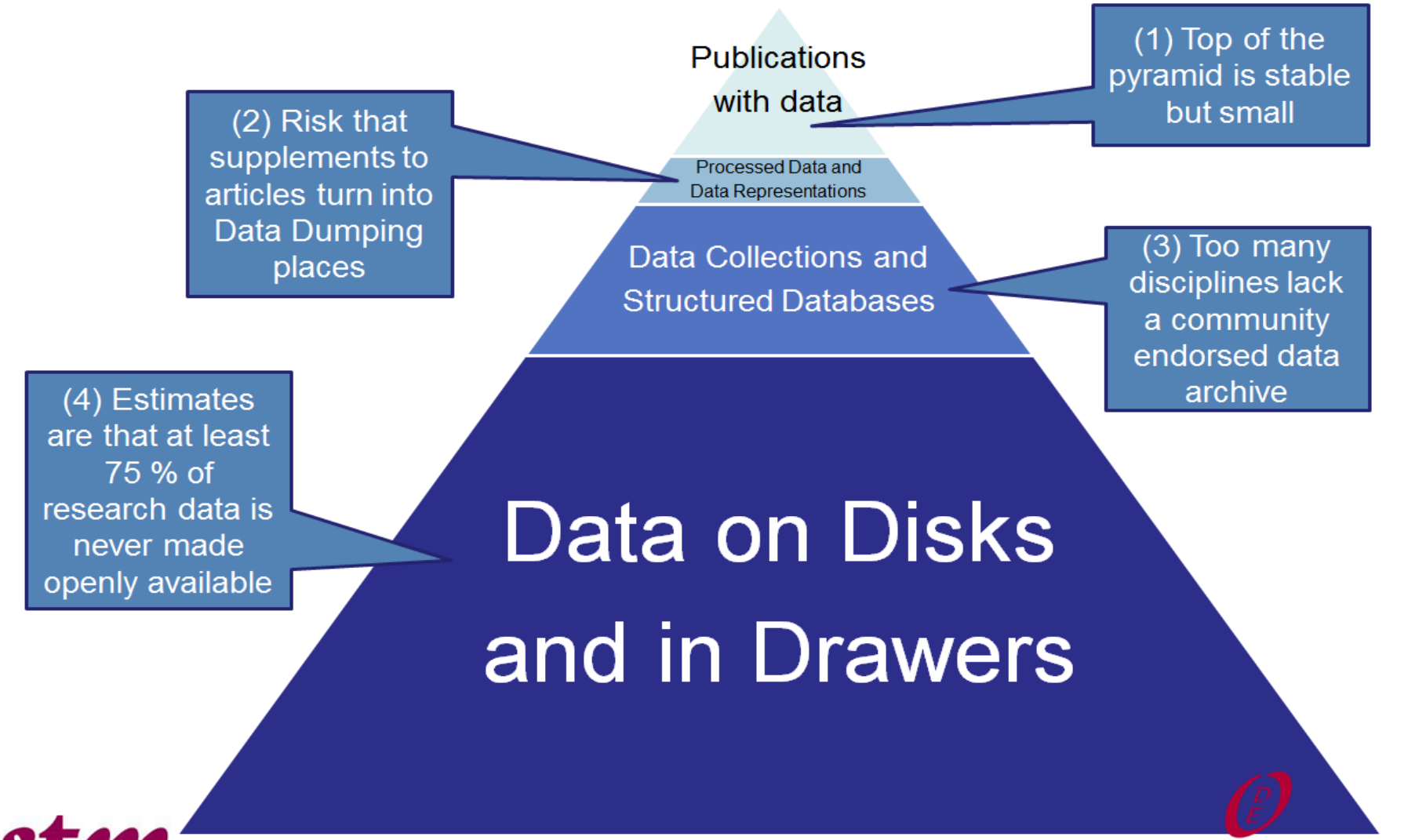
- Obsolete modes of access
- Journal prestige correlates with unreliability
- No scientific impact analysis
- Suboptimal peer-review
- Massive transparency issues
- No effective sort, filter and discover solution
- No functional hyperlinks
- Static data visualizations
- No content mining
- No social component
- No global search
- Hardly any user statistics
- etc.

NOT JUST PAPERS



Scientists produce text, data and code

Data in peril



stm

Opportunities for Data Exchange

Report on Integration of Data and Publications, ODE Report 2011

http://www.alliancepermanentaccess.org/wp-content/plugins/download-monitor/download.php?id=ODE+Report+on+Integration+of+Data+and+Publications

SWISS-PROT should have been 10 years old in July 1996, but it may disappear on June 30, 1996

Due to funding problems, SWISS-PROT as well as PROSITE, and the ENZYME nomenclature databases will disappear on June 30, 1996 if no solution is found before that date. The ExPASy WWW server and all services associated with it will also shut down. The distribution of the SWISS-2DPAGE database will also be discontinued. Other external databases, WWW services and software packages that depend on SWISS-PROT,

21

IN DEPTH | BIOMEDICAL RESOURCES

Funding for key data resources in jeopardy

Jocelyn Kaiser

Science 01 Jan 2016:
Vol. 351, Issue 6268, pp. 14
DOI: 10.1126/science.351.6268.14

Data is disappearing

Current Biology

REPORT | VOLUME 24, ISSUE 1, P94-97, JANUARY 06, 2014

The Availability of Research Data Declines Rapidly with Article Age

Timothy H. Vines • Arianne Y.K. Albert • Rose L. Andrew • ... Jean-Sébastien Moore • Sébastien Renaut • Diana J. Rennison • Show all authors

Open Archive • Published: December 19, 2013 •

DOI: https://doi.org/10.1016/j.cub.2013.11.014 •

Check for updates

Non-existent software/code archives

UNIVAC (A-2) 1953: share and re-use code

Microsoft

GitHub

NEWS

Microsoft has closed its e-bookstore, and everything you purchased will vanish in July

NEWS

Microsoft has closed its e-bookstore, and everything you purchased will vanish in July

Microsoft Is Closing Its Ebook Store and Taking the Books With It

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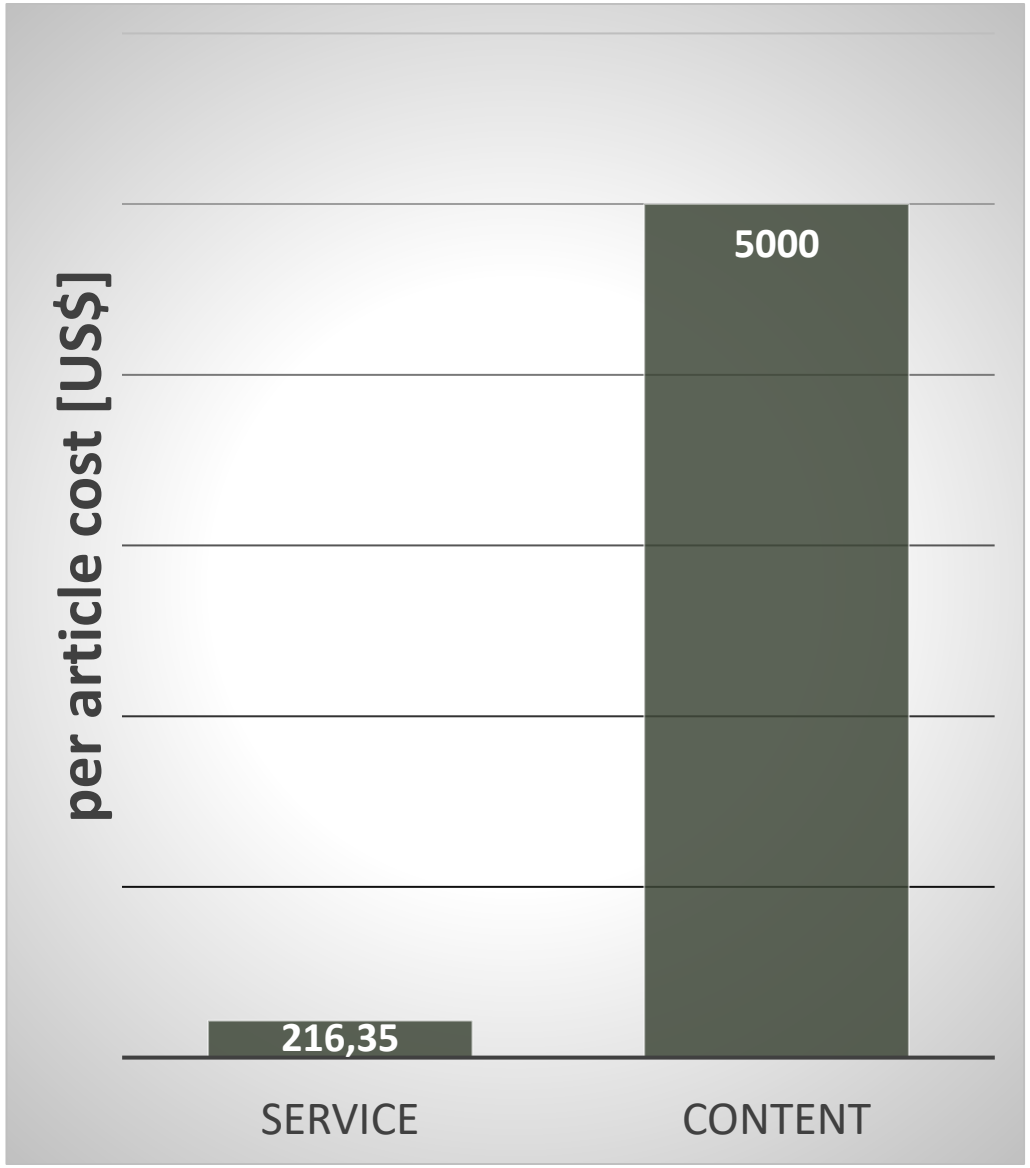
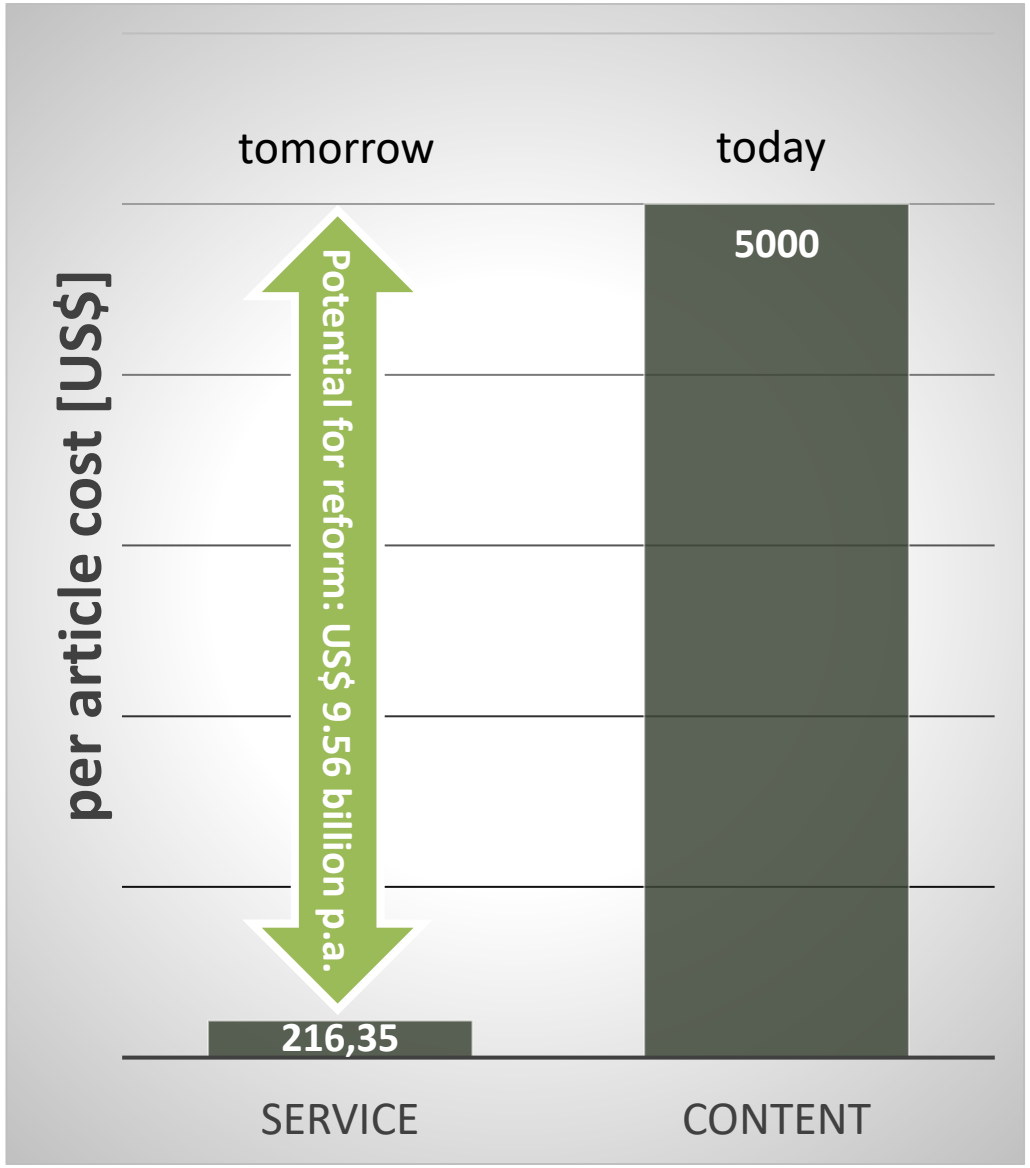
Microsoft's Ebook Apocalypse Shows the Dark Side of DRM
Microsoft has closed its ebook store—and will soon make its customers' libraries disappear along with it.
Microsoft Is Closing Its Ebook Store and Taking the Books With It
Even the ones you bought and paid for.

Tackle RAF root: stop paying for journals



Tackle RAF root: defund the journals



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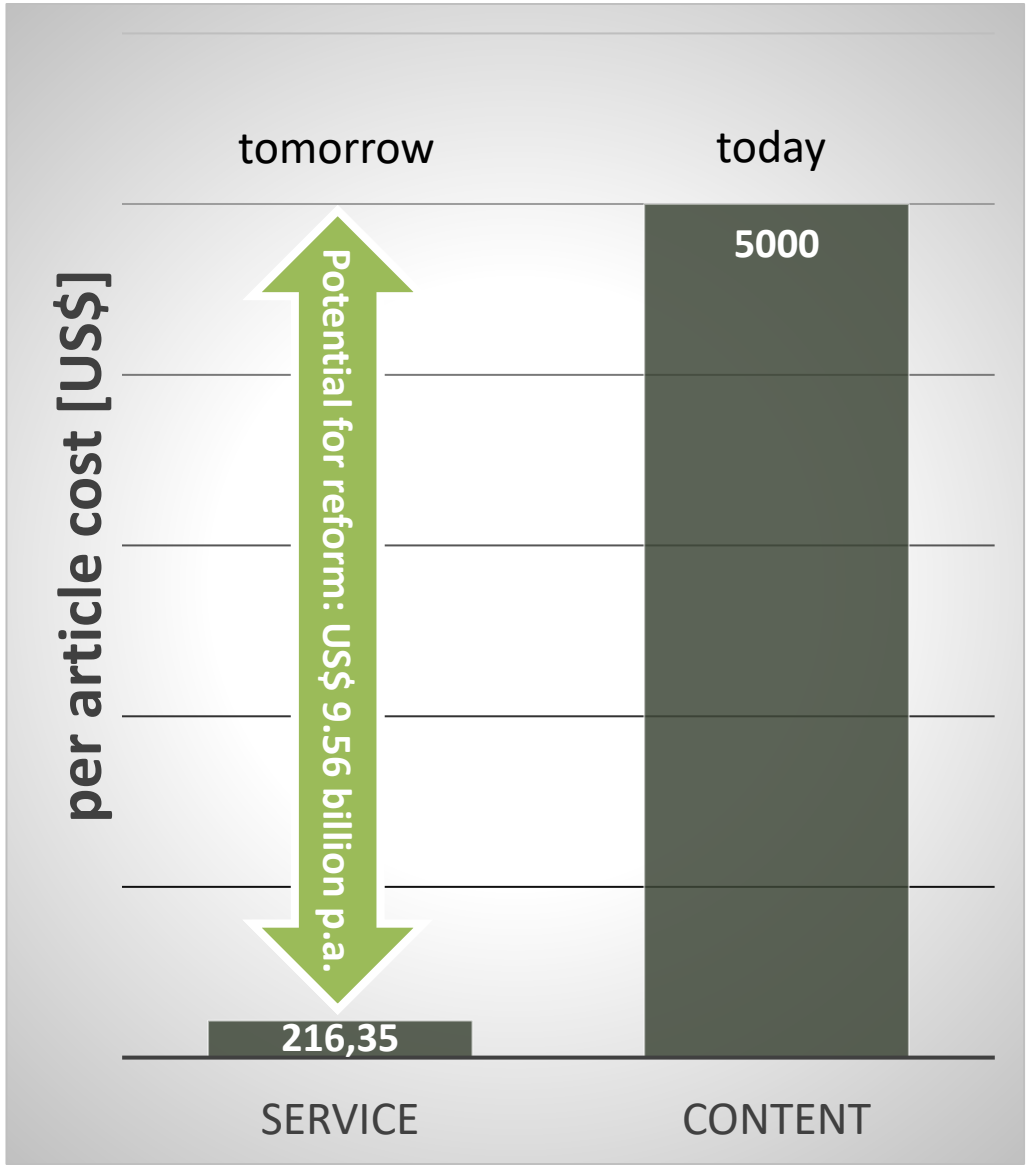

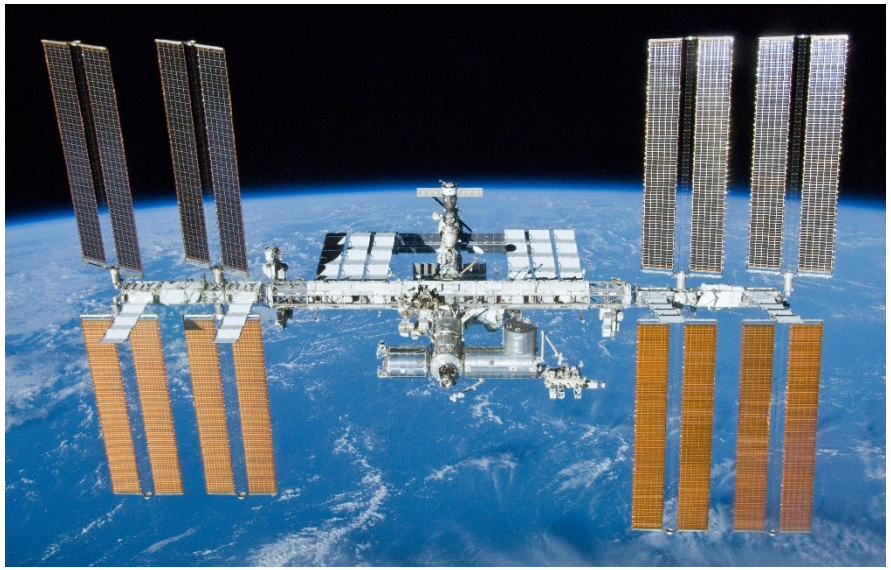

~3 billion / year

~2 billion / year

How to get there?

Case No COMP/M.3197 - CANDOVER / CINVEN / BERTELSMANN-SPRINGER

Only the English text is available and authentic.

REGULATION (EEC) No 4064/89
MERGER PROCEDURE

Article 6(2) NON-OPPOSITION
Date: 29/07/2003

Also available in the CELEX database
Document No 303M3197

Office for Official Publications of the European Communities
L-2985 Luxembourg

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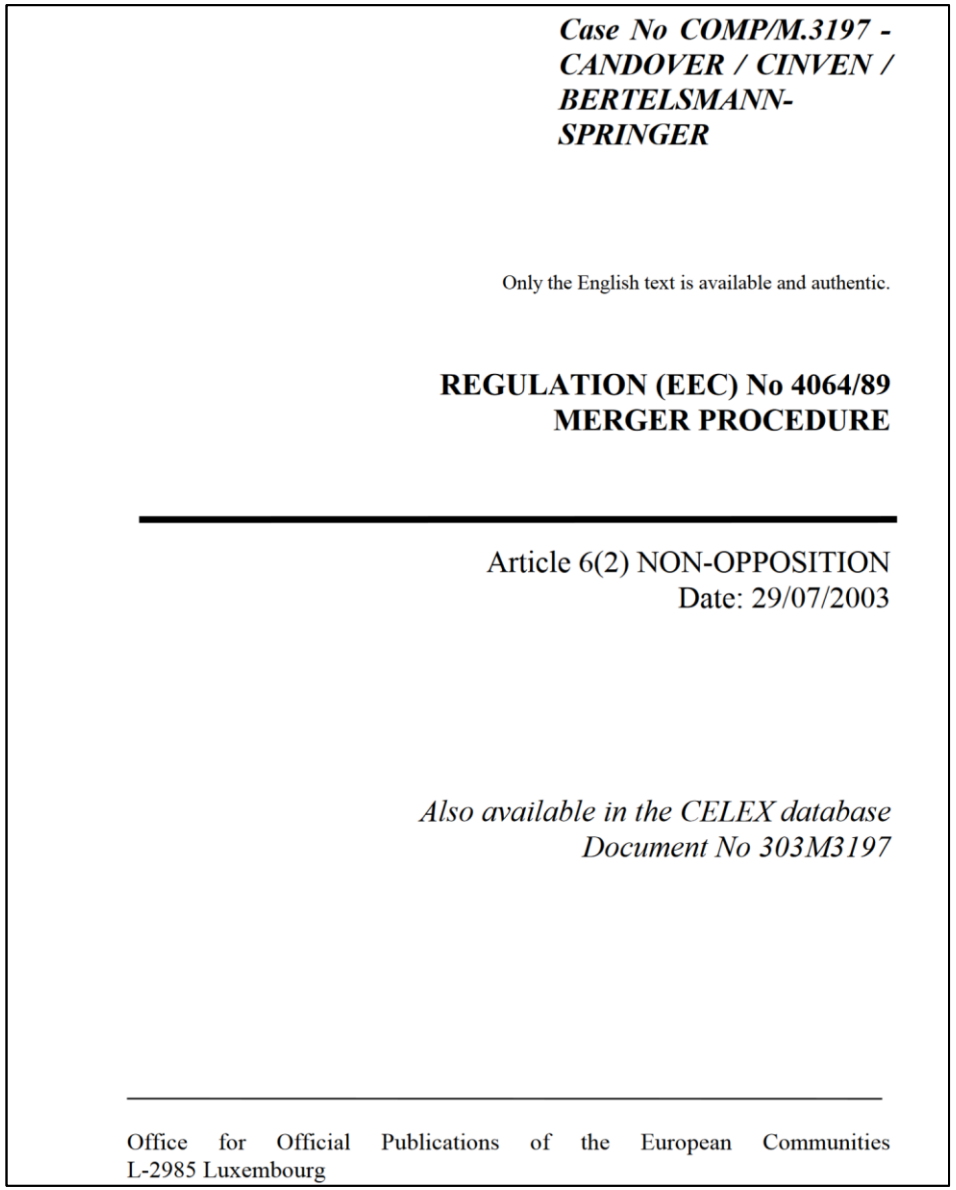

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Office for Official Publications of the European Communities
L-2985 Luxembourg

"From the point of view of functional interchangeability, two different publications could hardly be regarded as substitutable by the end-users, the readers."

How to get there?

WR | WISSENSCHAFTSRAT

Cologne 21 01 2022

Recommendations on the Transformation of Academic Publishing: Towards Open Access

How to get there?

WR | WISSENSCHAFTSRAT

Cologne 21 01 2022

Functioning, competition-driven market structures do not exist due to this concentration in the case of journals. In addition to the non-substitutability of journal titles, the lack of transparency is the greatest obstacle to the development of a functioning publication market.

Recommendations on the Transformation of Academic Publishing: Towards Open Access

Incentives I: Defund the journals

- Current journal payments for *content* allowed only via “single source exemption”

How to get there?

WR | WISSENSCHAFTSRAT

Cologne 21 01 2022

than on the basis of the chosen publication organs. This is a prerequisite for making publication options substitutable and thus for enabling competition between publication service providers. At the same time, the data basis for assess-

Recommendations on the Transformation of Academic Publishing: Towards Open Access

Substitutability: Tender processes

European Commission

EN English

Search

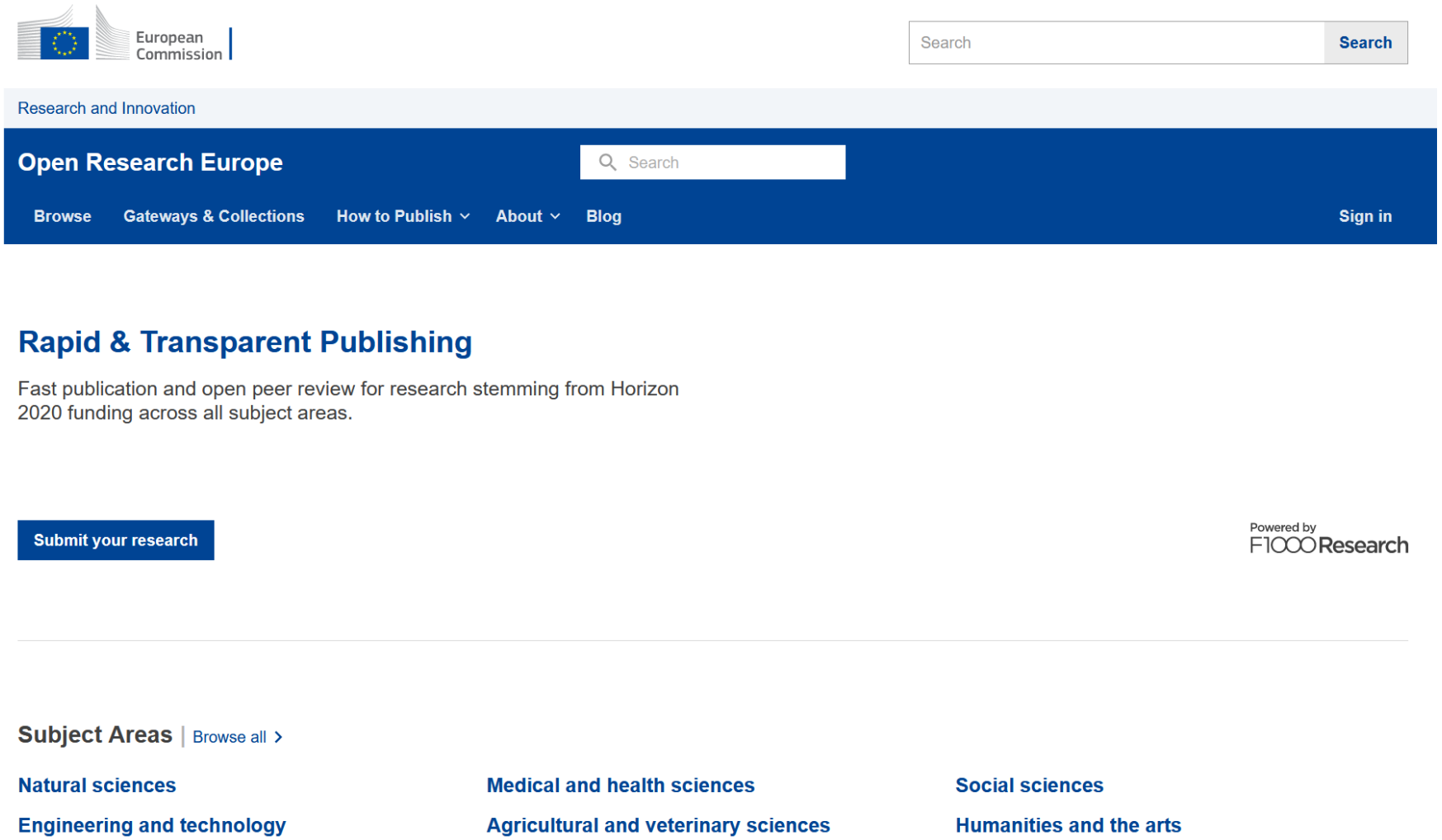
Home > News > The EC to launch a new a tender for an open access publishing platform

NEWS | 24 April 2019 | Brussels, Belgium | Research and Innovation

The EC to launch a new a tender for an open access publishing platform

The European Commission is committed to supporting beneficiaries in complying with open access requirements in Horizon 2020, as well as supporting open access publishing as the main mode of publishing research in the context of open science. To this end, the EC will soon launch a tender for an open access publishing platform, subsequent to a tendering procedure which led to a non-award in 2018. The intended result is an open access publishing platform where peer-reviewed articles and related pre-prints produced with the financial support of Horizon 2020 can be published efficiently and under high standards of quality.

Substitutability: Tender processes



Incentives I: Defund the journals

- Current journal payments for *content* allowed only via “single source exemption”
- Publishing *services* cannot be covered by this exemption and must be awarded by tender/bidding:
  - Open Research Europe
  - Hardware, Software, Services

Journal alternatives

European Commission

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Research and Innovation

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Rapid & Transparent Publishing

Fast publication and open peer review for research stemming from Horizon 2020 funding across all subject areas.

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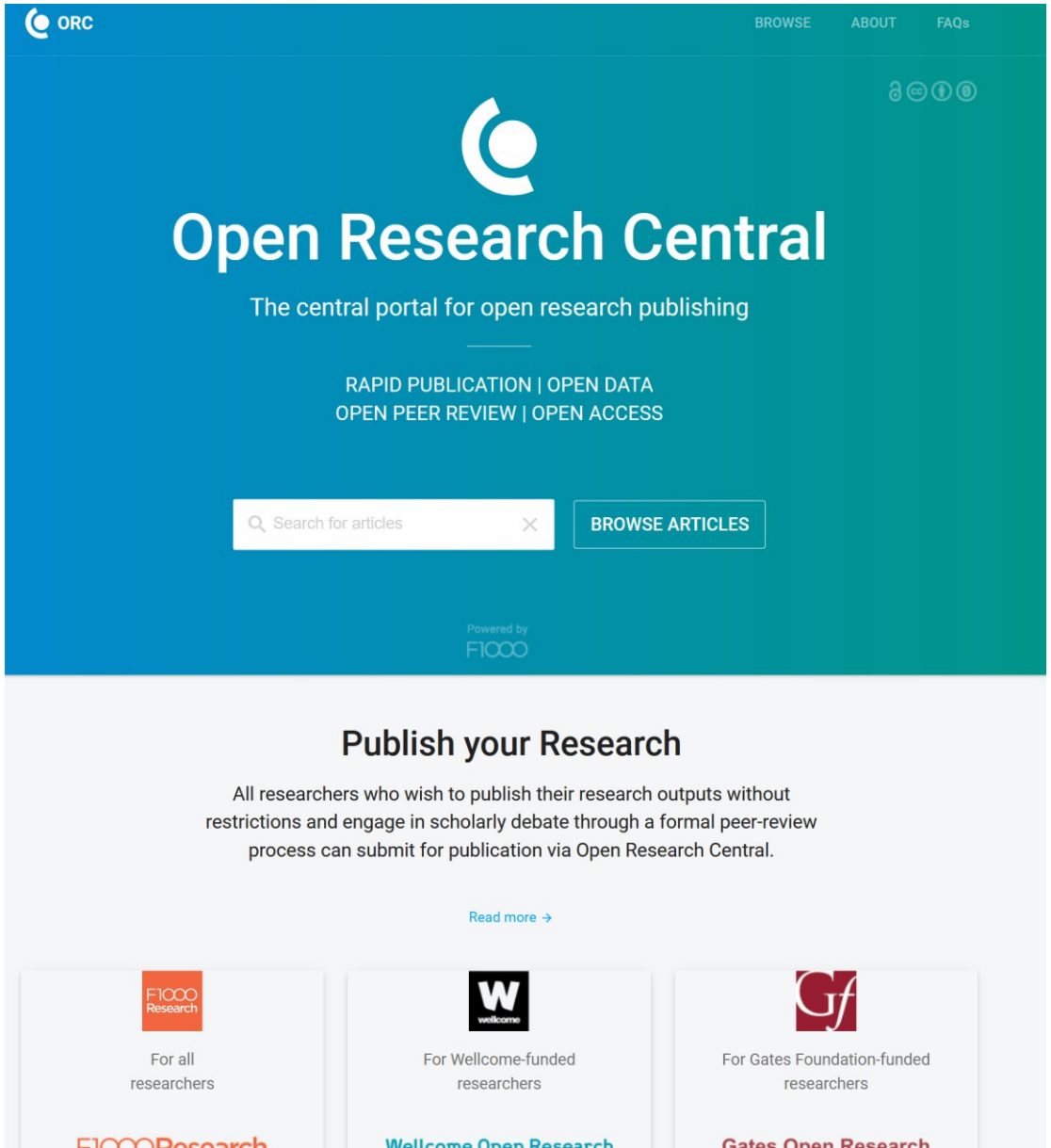
- Engineering and technology
- Medical and health sciences
- Agricultural and veterinary sciences
- Social sciences
- Humanities and the arts

Journal alternatives

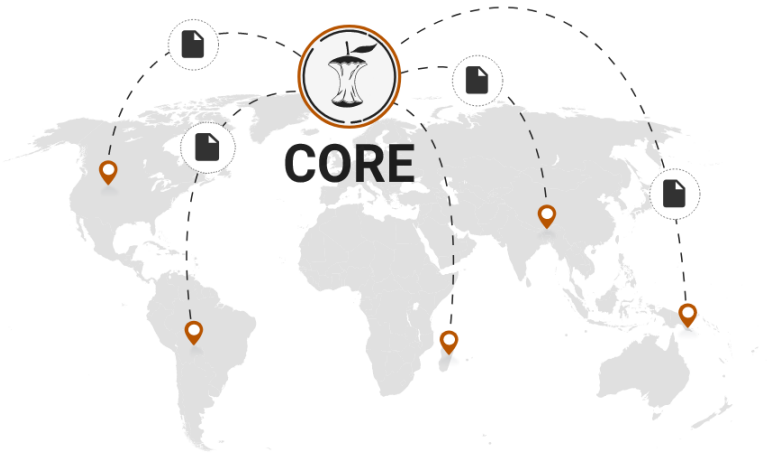


Journal alternatives

CORE make metadata, not war

Services About

The world's largest collection of open access research papers



Search 207,255,818 from papers around the world

SEARCH

Global aggregator

We serve the global network of open access repositories and journals

Harmonized data access

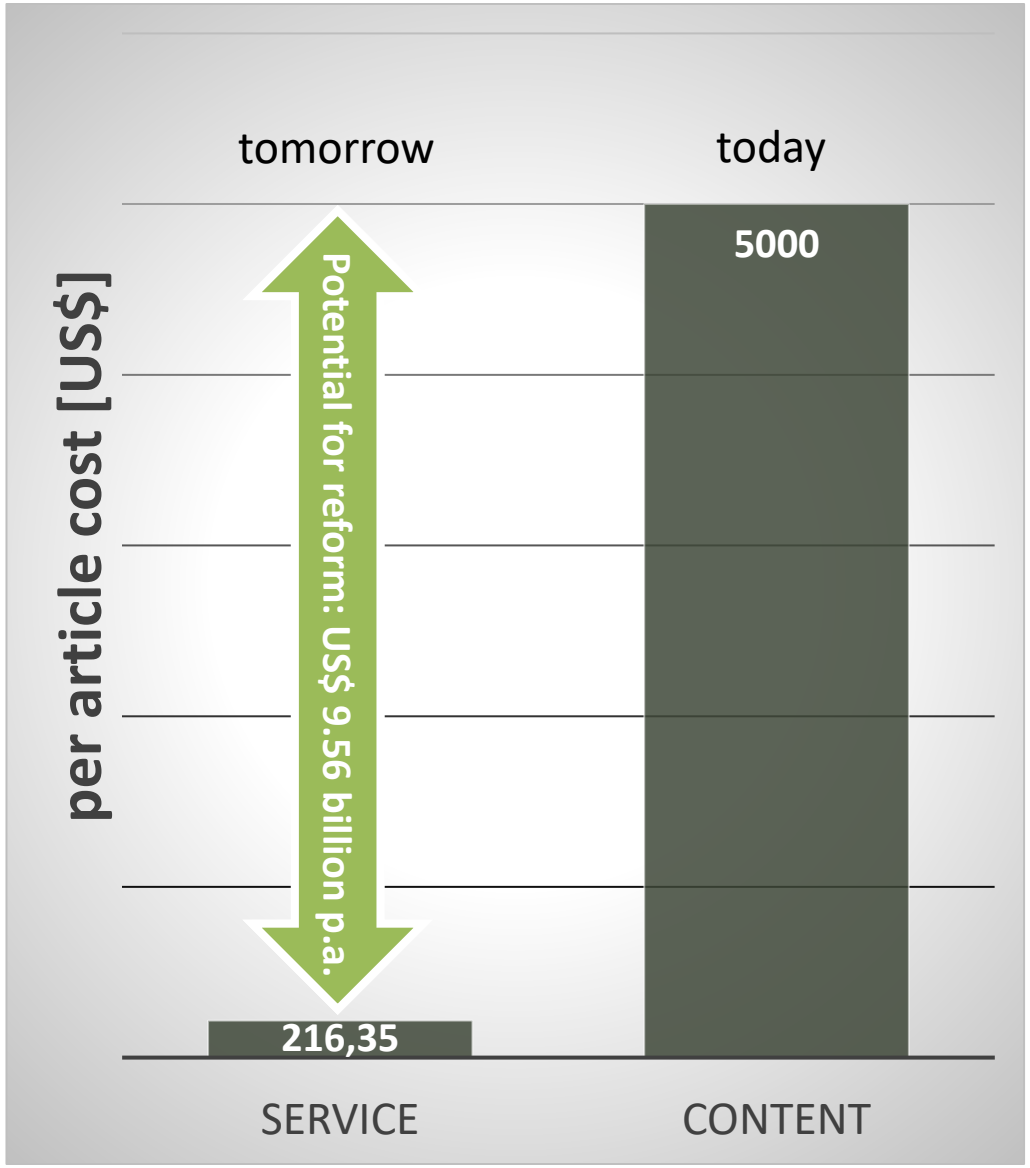
We provide seamless access to content and data, through our unique APIs and Datasets

New

Powerful services

We create powerful services for researchers, universities, and industry

Tackle RAF root: defund the journals

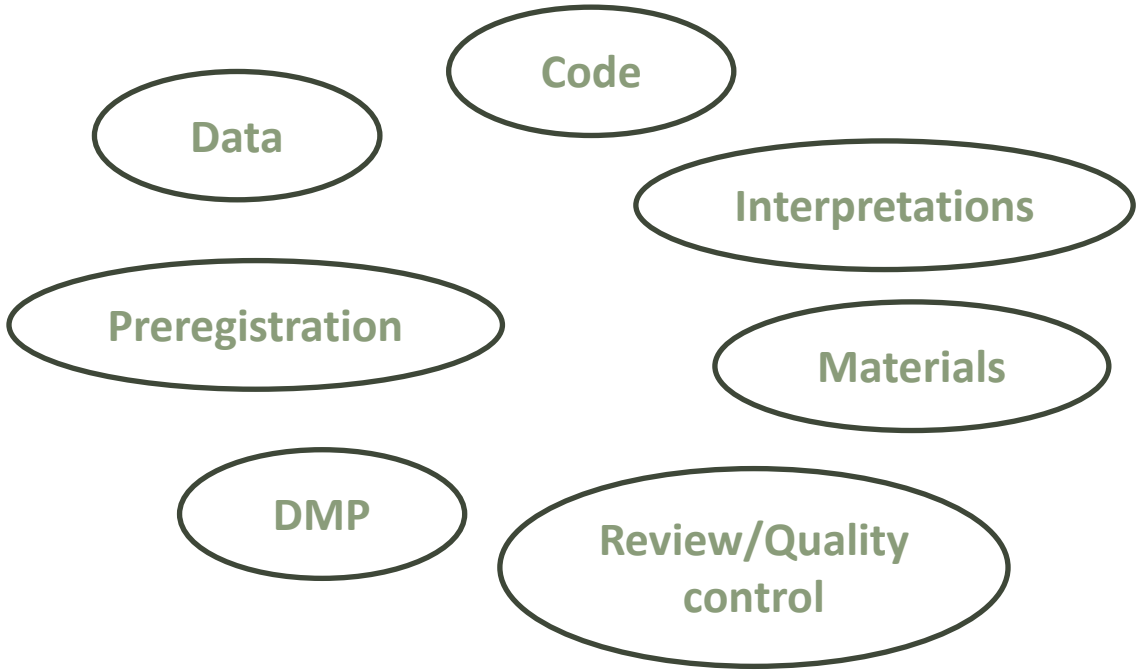


A sustainable scholarly infrastructure:

- Substitutable Services (-> competition!)
- No author facing costs
- Journal functionalities can be copied
- Cost-neutral solutions for data/code
- No individual mandates necessary
- No journals, no need to judge journal quality
- …
- …
- …
- …
- …
- …
- …
- Side effect: permanent, legal, public access

A system of interoperable digital research objects

- Dynamic, version controlled
- Can be searched and text-mined
- Near-immediate publication
- Different models for post-publication review exist
- Contributorship in diverse roles
- Open to everyone



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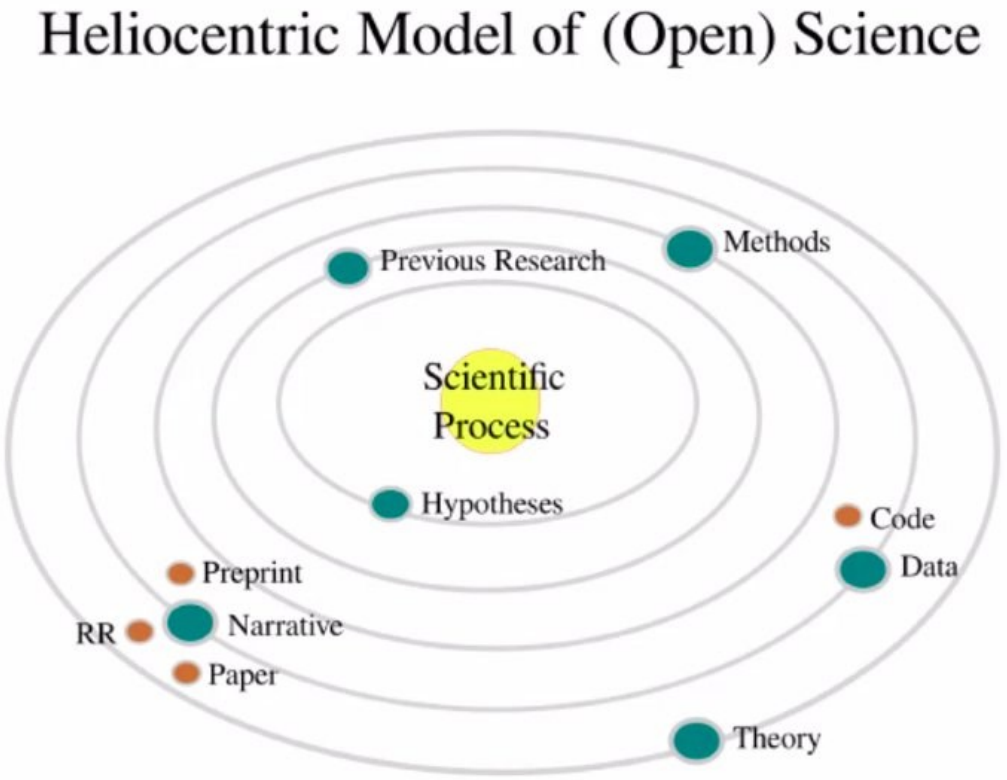

Orbits are not hierarchical

Incentives II: Keeping the money

cOAlition S members and their policies

Which of these funding agencies have specific eligibility criteria in place for institutions to receive funding? For instance, these can be infrastructure requirements, requirements to support good scientific practice or accreditation requirements.

Name	country	Eligibility criteria (Y/N)?	Policy link(s)
SAMRC	ZA	?	
FWF	AT	Y	1) https://www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF/Publikationen/FWF-relevante_Publikationen/fwf_foerderungsrichtlinien.pdf 2) https://www.fwf.ac.at/en/research-funding/decision-making-procedure-evaluation/funding-guidelines/eligibility-to-apply-application-requirements
AKA	FI	Y	1) https://www.aka.fi/en/research-funding/apply-for-funding/how-to-apply-for-funding/az-index-of-application-guidelines2/guidelines-for-sites-of-research/ 2) https://www.aka.fi/globalassets/1-tutkimusrahoitus/1-hae-rahoitusta/nain-kaytat-rahoitusta/funding-terms-and-conditions-1jan-31dec-2021.pdf
ANR	FR	?	https://anr.fr/fileadmin/documents/2020/ANR-RF-2019-05082019-corrections-oct-2020.pdf
SFI	IE	Y	https://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information
INFN	IT	?	
FNR	LU	Y	https://www.fnr.lu/fnr-beneficiaries
NWO	NL	Y	https://www.nwo.nl/sites/nwo/files/media-files/NWO%20Grant%20rules%202017%20-%20version%20January%202019%20-%20EN.pdf
FR	NO	Y	https://www.forskningsradet.no/sok-om-finansiering/hvem-kan-soke-om-finansiering/forskningsorganisasjoner/godkjente-forskningsorganisasjoner
NSC	PL	?	https://ncn.gov.pl/finansowanie-nauki/pomoc-publiczna?language=en
SRA	SI	?	
Forte	SE	Y	https://forte.se/sok-finansiering/att-soka-bidrag/vem-kan
			-soka
Formas	SE	Y	https://www.formas.se/soka-finansiering/sa-har-gar-det-till/vem-kan-soka-finansiering/vem-kan-bli-medelsforvaltare.html
UKRI	UK	Y	https://www.ukri.org/apply-for-funding/before-you-apply/check-if-you-are-eligible-for-research-and-innovation-funding/apply-to-become-an-eligible-organisation/#contents-list
NSTC	ZM	Y	https://nstc.org.zm/index.php/registration
HCST	JO	?	
Vinnova	SE	Y	Different in each call
(VR)	SE	Y	https://www.vr.se/soka-finansiering/att-soka-bidrag.html (https://www.vr.se/download/18.2ee651b8163094d763ecfeaf/1529480568380/Kriterier+godk%C3%A4nda+medelsf%C3%B6rvaltare.pdf) (not a member in but stands behind the PlanS principles; maybe not relevant...) https://www.vr.se/aktuellt/evenemang/evenemangsarkiv/2018-12-28-hearing-om-plan-s.html

https://docs.google.com/document/d/1uG1mcOEkLFFaJm9PDvink_Tabjzsb4aIiNf4pw7LJOg/edit?usp=sharing

Incentivize institutions to replace scholarly journals

1. Enforce procurement rules once substitutability is established:
   -> publication payments awarded exclusively via tenders

2. Funders incentivize institutions to make investments in modern infrastructure via eligibility rules:
   -> antiquated infrastructure, no funding