



We are generation Open

Jon Tennant
@protohedgehog

Hi

- Dinosaur hunter
- Freelance science writer
- Children's book author and consultant
- Tweets occasionally
- Representing myself, as these comments are likely to be quite irresponsible



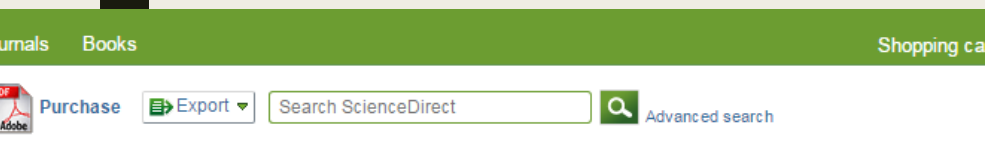
Disclaimer: some people get pretty angry at publishers

If you suffer from high blood pressure, it's probably best to sit this part out..



Some simple statistics

- Global STM publishing market is >\$25 billion USD
 - 55% from the USA
 - 28% from Europe, Middle East
- Journals core part of scholarly communication process
 - \$10 billion revenue for English language journals
 - About 70% of this from library budgets
- There are around 28,000 peer reviewed journals
- And around 130 million research papers, with ~2.5 million new per year
- Only around 20-25% of this is Open Access

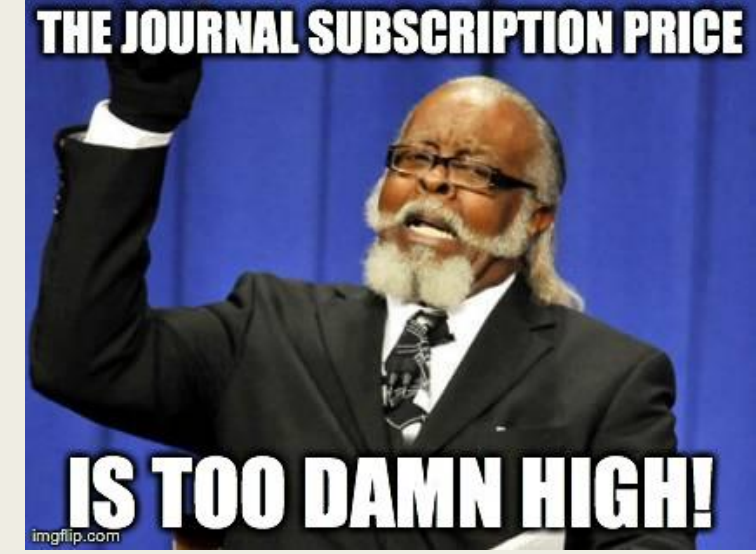
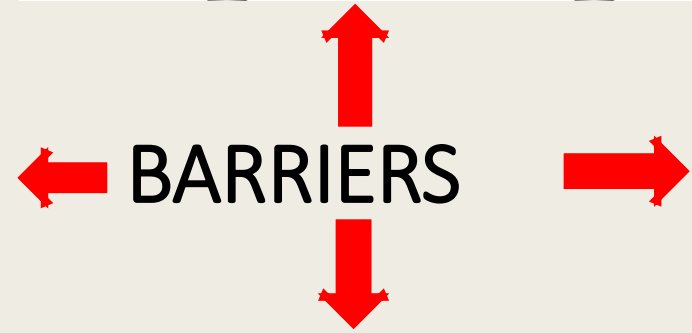


Cancer Cell
Volume 26, Issue 5, 10 November 2014, Pages 707–721

Article
Cancer Exosomes Perform Cell-Independent MicroRNA Biogenesis and Promote Tumorigenesis
Sonia A. Melo^{1,2}, Hikaru Sugimoto^{1,2}, Joyce T. O'Connell², Noritoshi Kato², Alberto Villanueva³, August Vidal⁴, Le Qiu⁵, Edward Vitkin⁵, Lev T. Perelman⁵, Carlos A. Melo^{6,7}, Anthony Lucci⁸, Cristina Ivan⁹, George A. Calin¹⁰, Raghu Kalluri^{1,2}

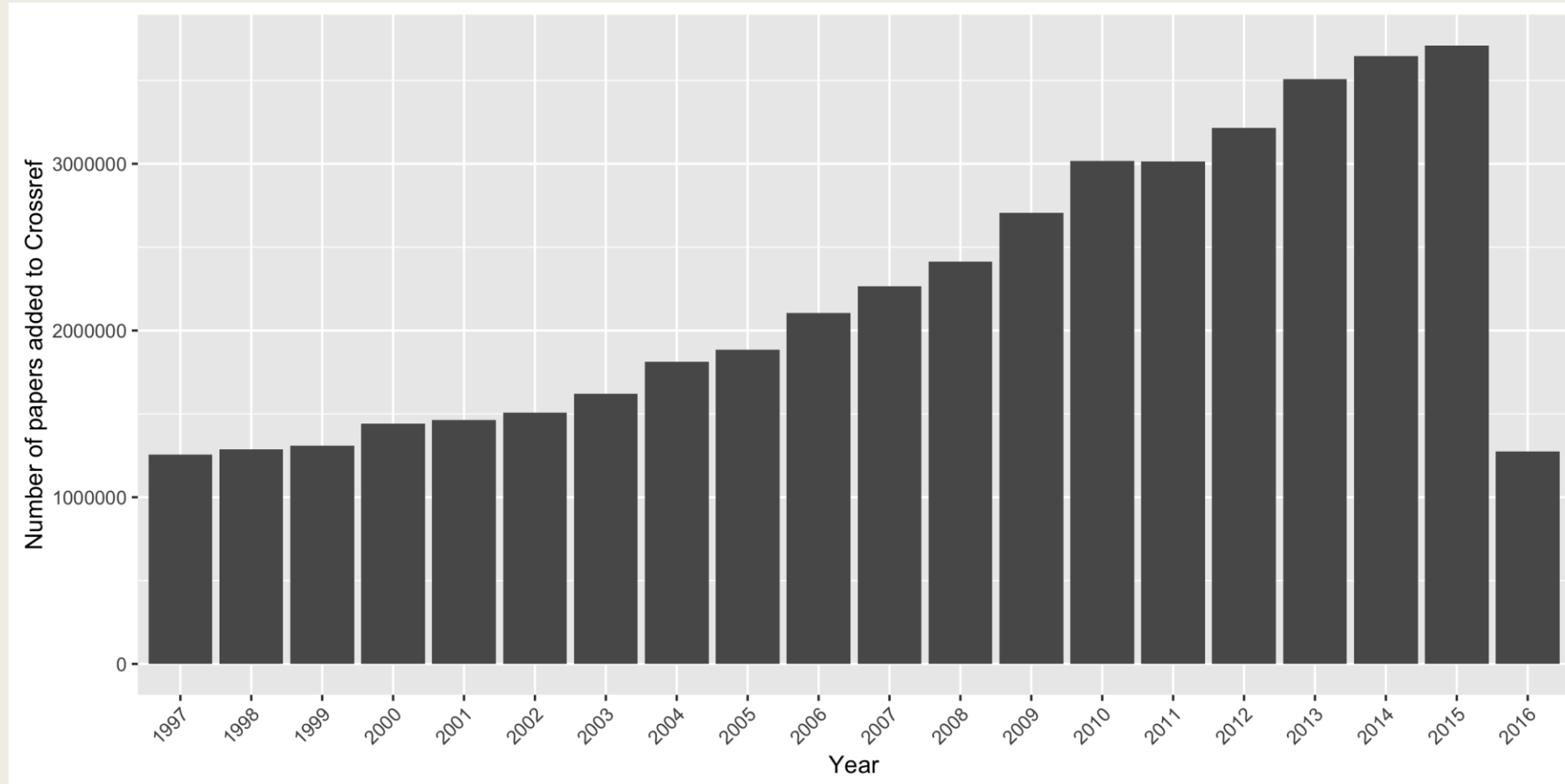
Choose an option to locate/access this article:

| | | |
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| <input type="checkbox"/> Check if you have access through your login credentials or your institution Check access | <input checked="" type="checkbox"/> Purchase \$31.50 | <input type="checkbox"/> Get Full Text Elsewhere |
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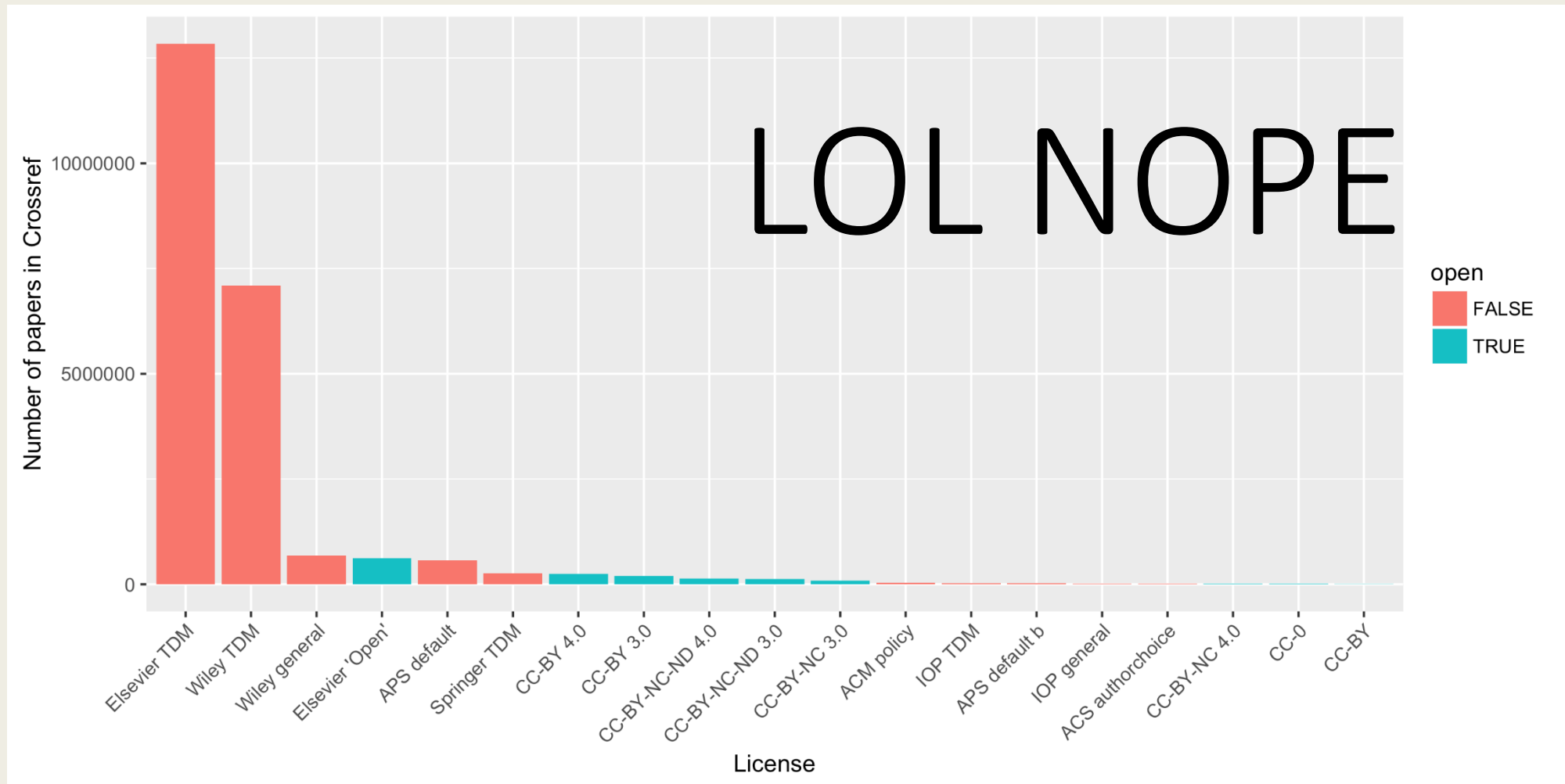
Total (as of 2016-02-05): **80,629,821**

You can get up-to-date data at: <http://api.crossref.org/works?facet=t&rows=0>



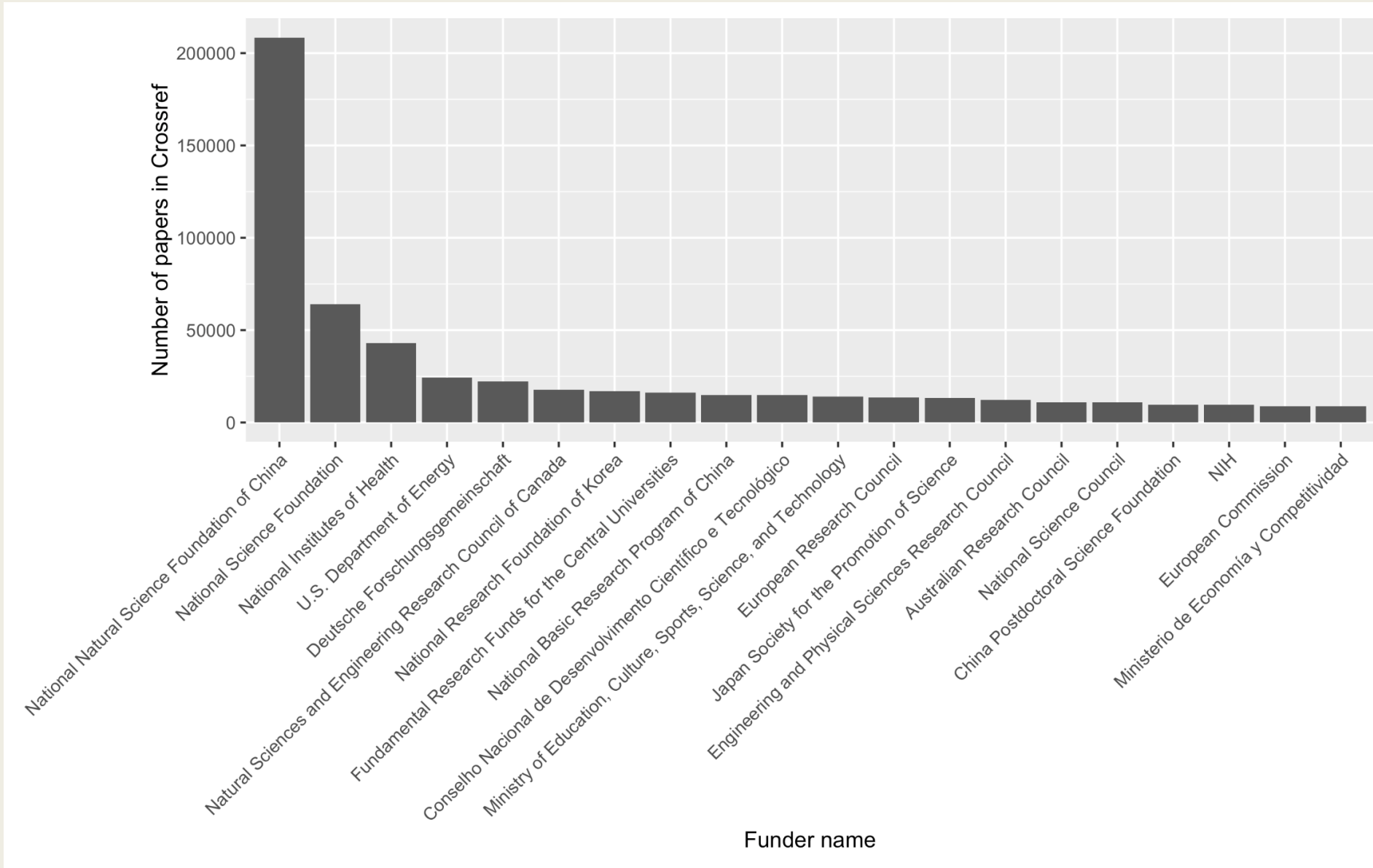
Wow! Such data! We must be learning loads, right?!

Same data by license type

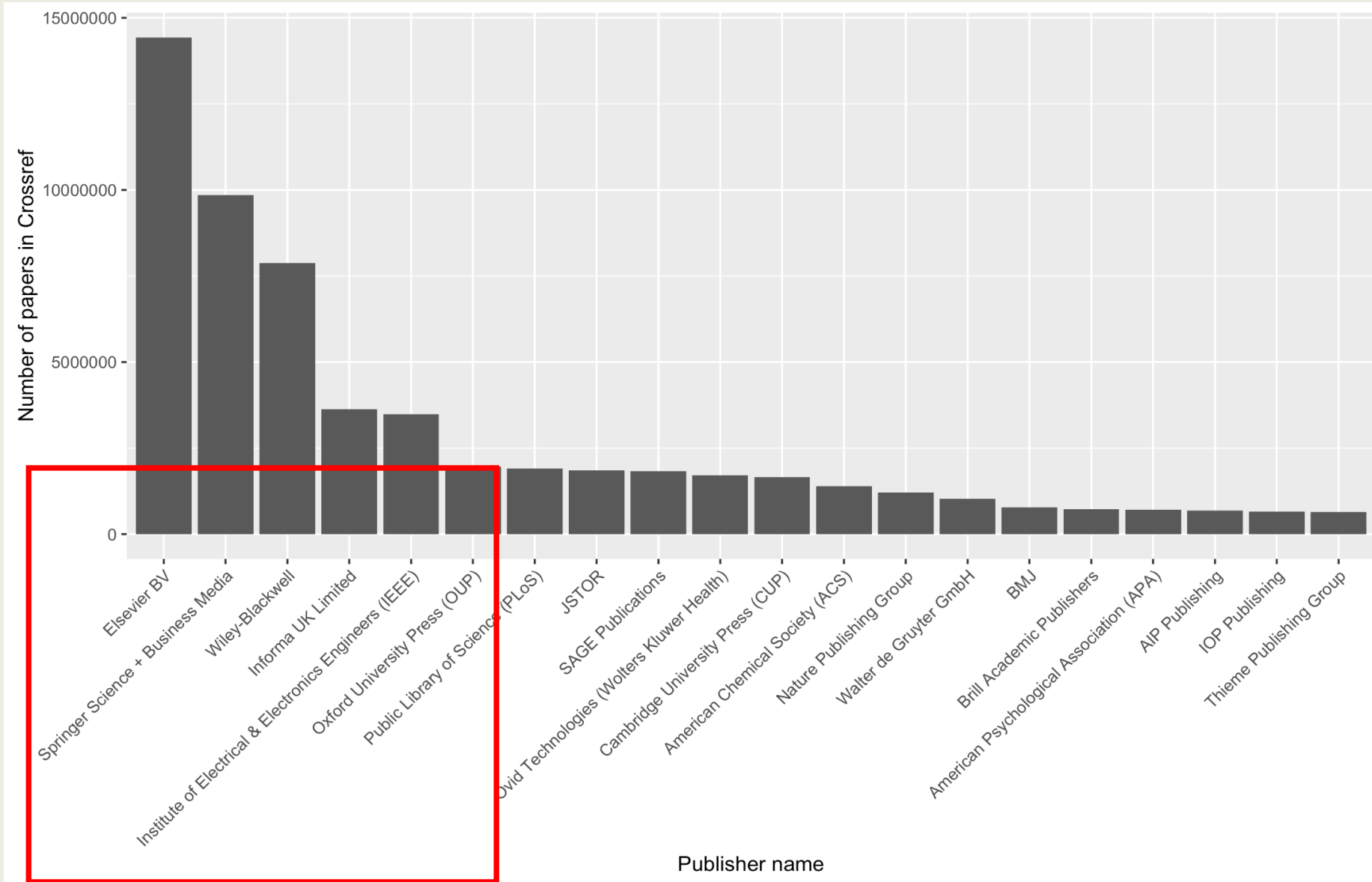


Just 1,435,841 (as of 2016-02-05) are legally reusable.
That's less than 1.8% of the published research literature.

Which is odd. Because you paid for it.

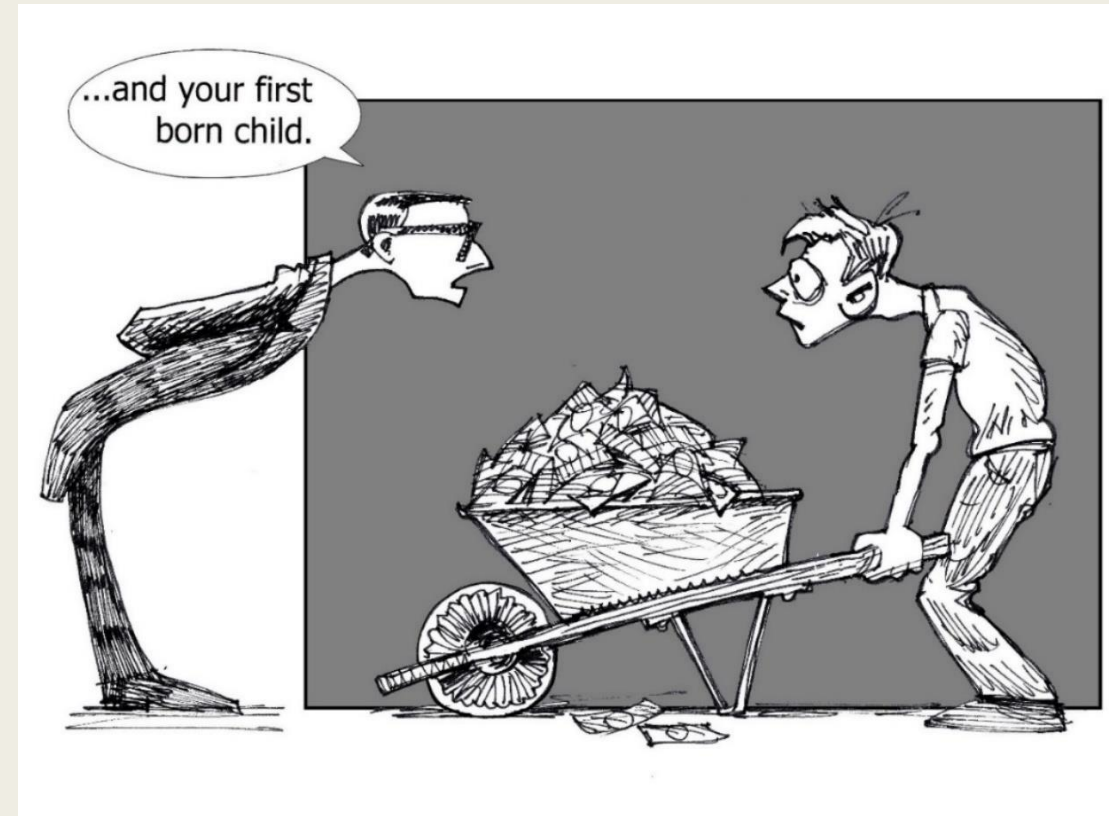


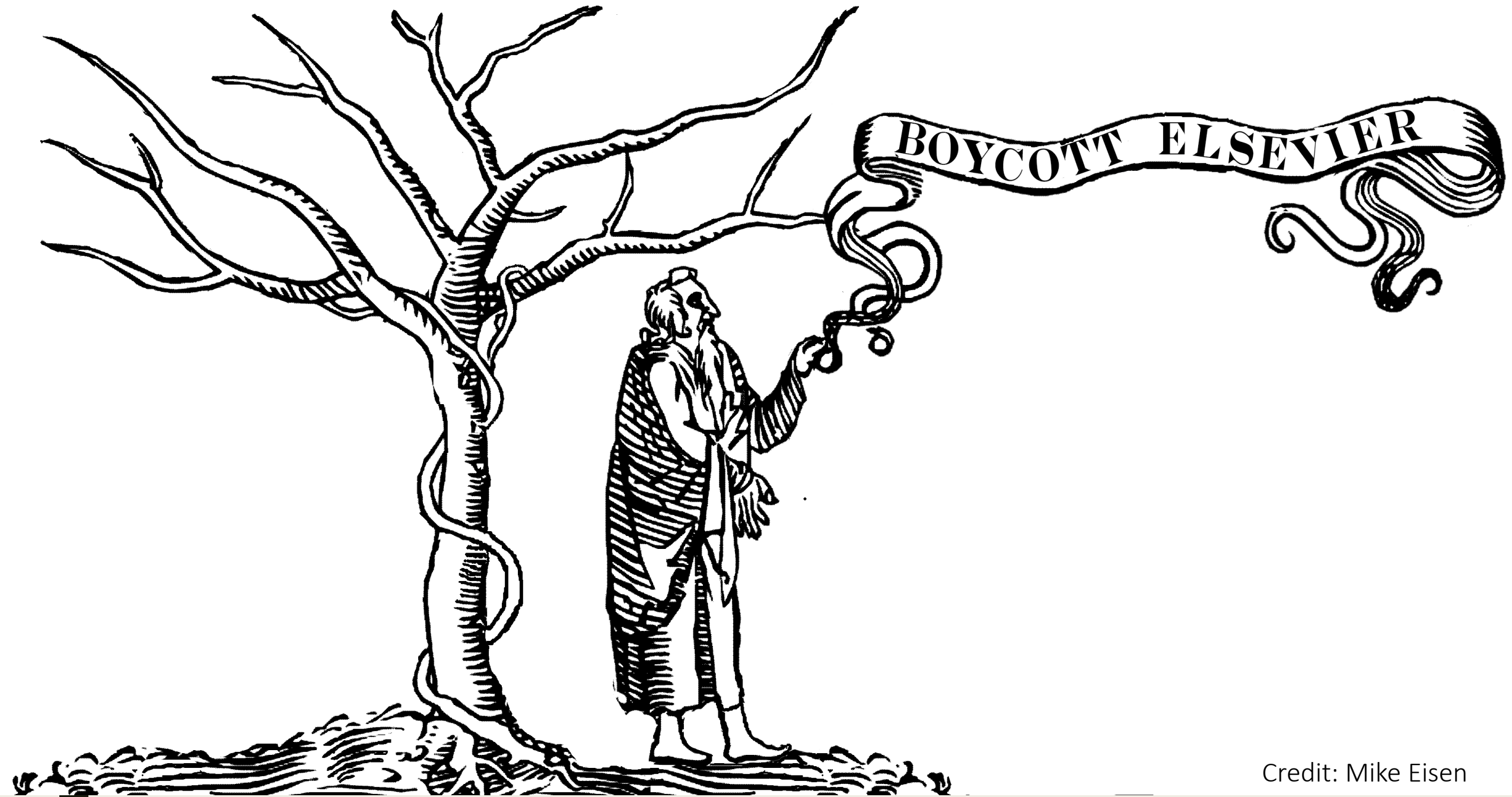
Because of these publishers



So what we have is a system that is..

- Largely funded by the public
- Governed by private interests
- Restricted in terms of what we can do with it
- Access is a financial or status privilege
- Research and communication is secondary to the business model

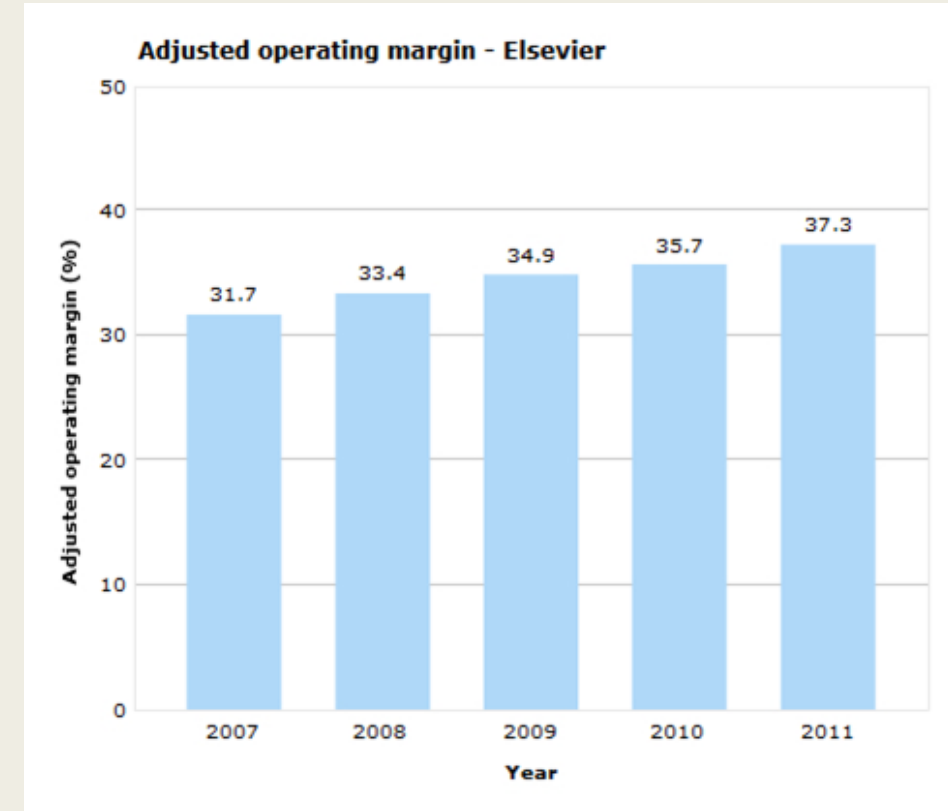




Credit: Mike Eisen

Elsevier and the chamber of secrets

- UK universities pay ~£25 million in subs each year
- Profit margins are 37% and climbing
- Massive scale takedown notices against academics
- Publish fake journals, sell OA articles
- Constantly lobby against progressive research policies
- Block legal text and data mining
- Oh, and have direct funding links to the arms trade..



https://tagteam.harvard.edu/hub_feeds/1998/feed_items/135763

Light at the end of the tunnel?

- <http://thecostofknowledge.com/> - 16,000 researchers and counting
- Editorial board resignation
- <http://www.michaeleisen.org/blog/?p=1915> – OA is not OA

People are noticing. People are taking a stand.

Publishers wake up and smell the profits

Things OA is about

- Freedom
- Equality
- Knowledge
- Access
- Education

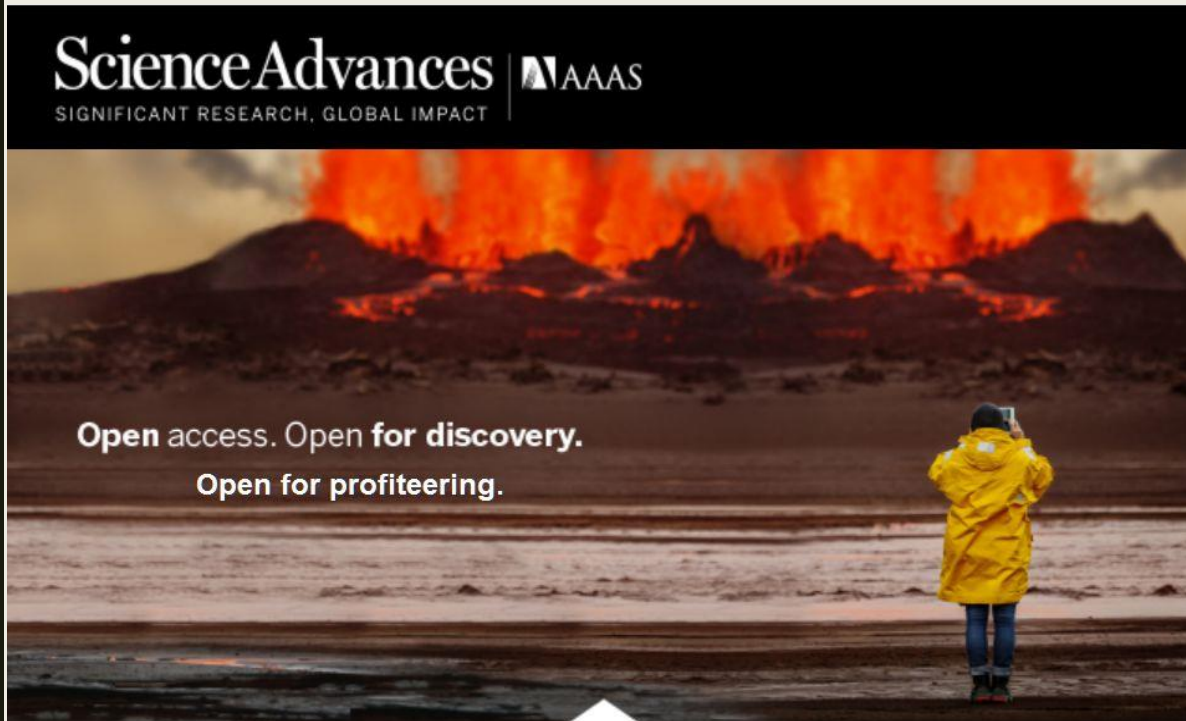
Things OA is not about

- Mandates
- Policy
- Article charges
- Embargoes
- Compliance



We are often having *VERY* different conversations about exactly the same thing

When publishers fail to innovate



<http://www.eigenfactor.org/openaccess>

Credit: Graham Steel

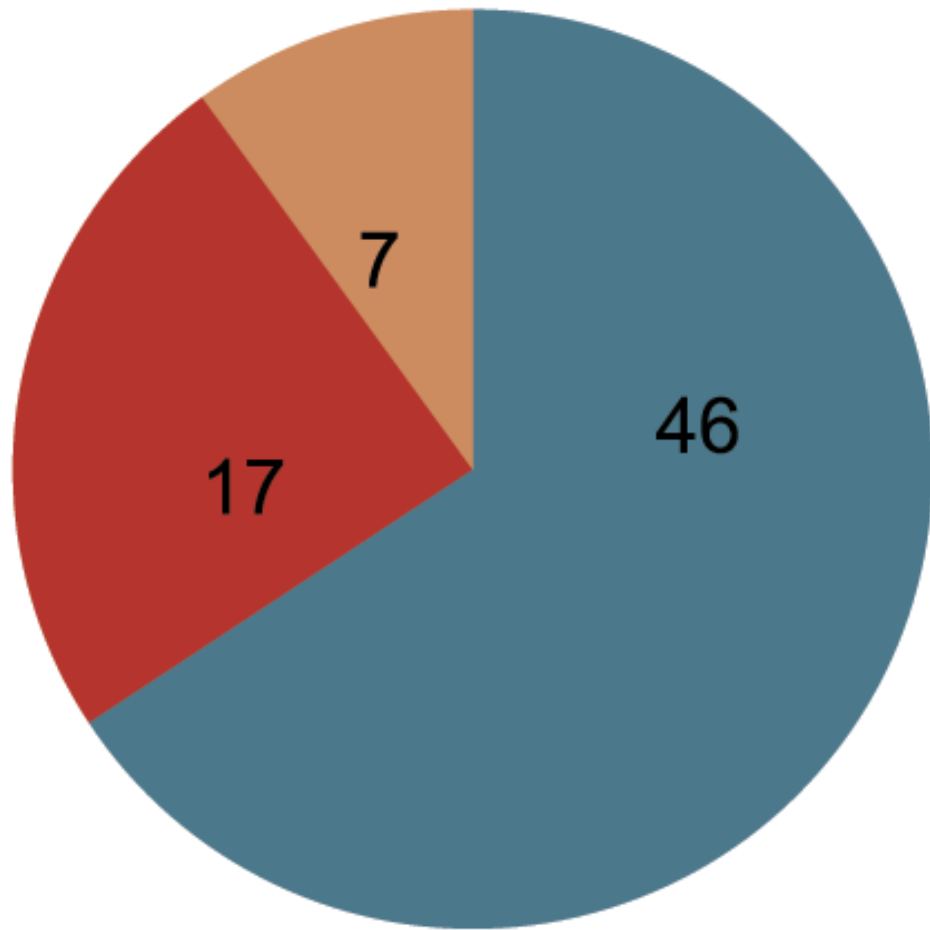
<https://thewinnower.com/papers/45-open-letter-to-the-american-association-for-the-advancement-of-science>

<https://thewinnower.com/papers/73-aaas-misses-opportunity-to-advance-open-access>

Why u no OA??

Open Access means anyone on this planet can read, re-use, and re-mix your work.





- Studies that found a citation advantage
- Studies that were inconclusive, found non-significant advantage, etc.
- Studies that found no citation advantage

Data from The Open Access Citation Advantage Service, SPARC Europe, accessed March 2016.

<http://f1000research.com/articles/5-632/v3>

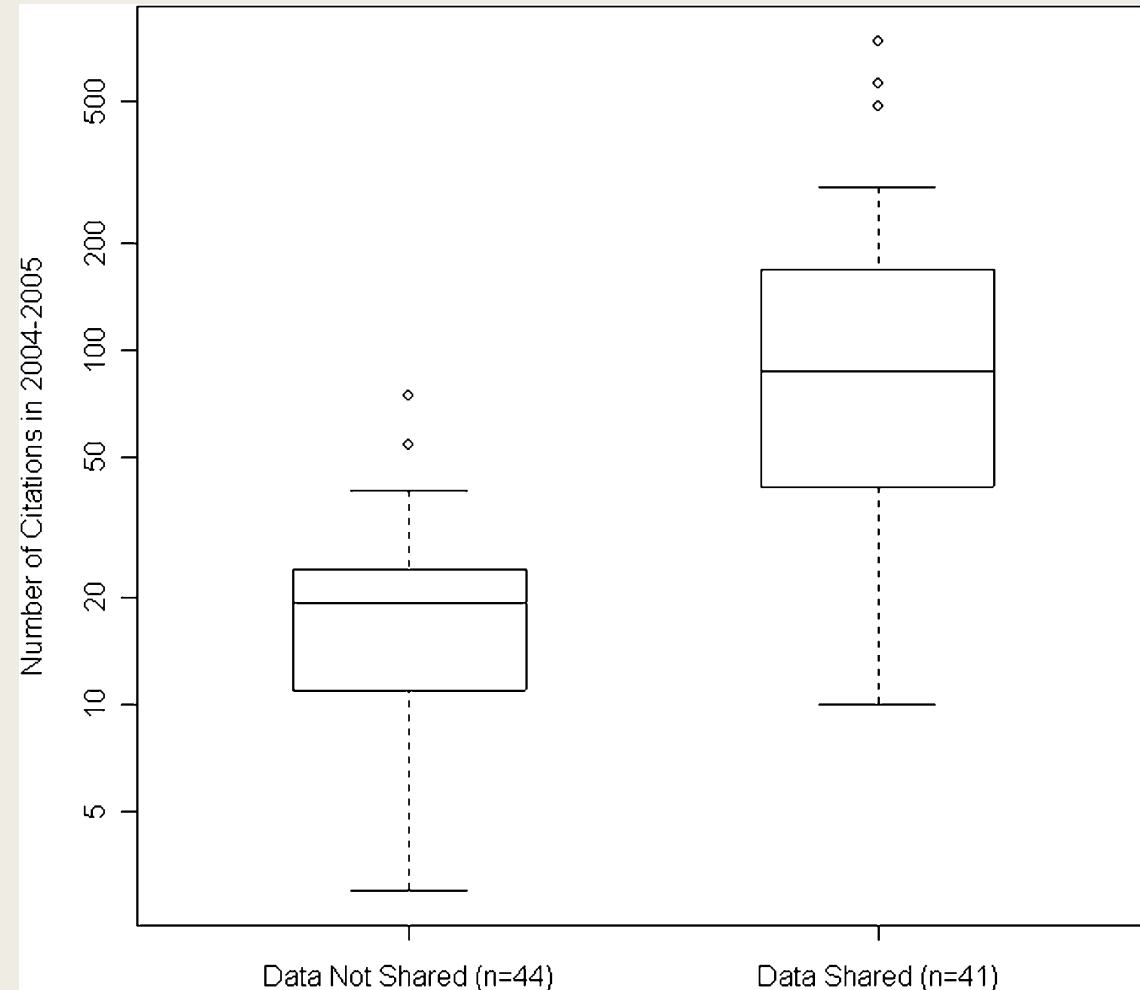
@protohedgehog

No reason not to share everything

- Share code = more citations
- Share data = more citations



Citations → ??? → Profit!





CC-BY Danny Kingsley & Sarah Brown

Being open doesn't have to break the bank!

~70% of OA journals do not charge.



eLIFE

Many OA journals have low-cost fees.

Most OA journals have fee waivers.



Some institutions have OA publisher memberships.

Some institutions have OA publishing funds.



Some funders provide OA publishing fee support.

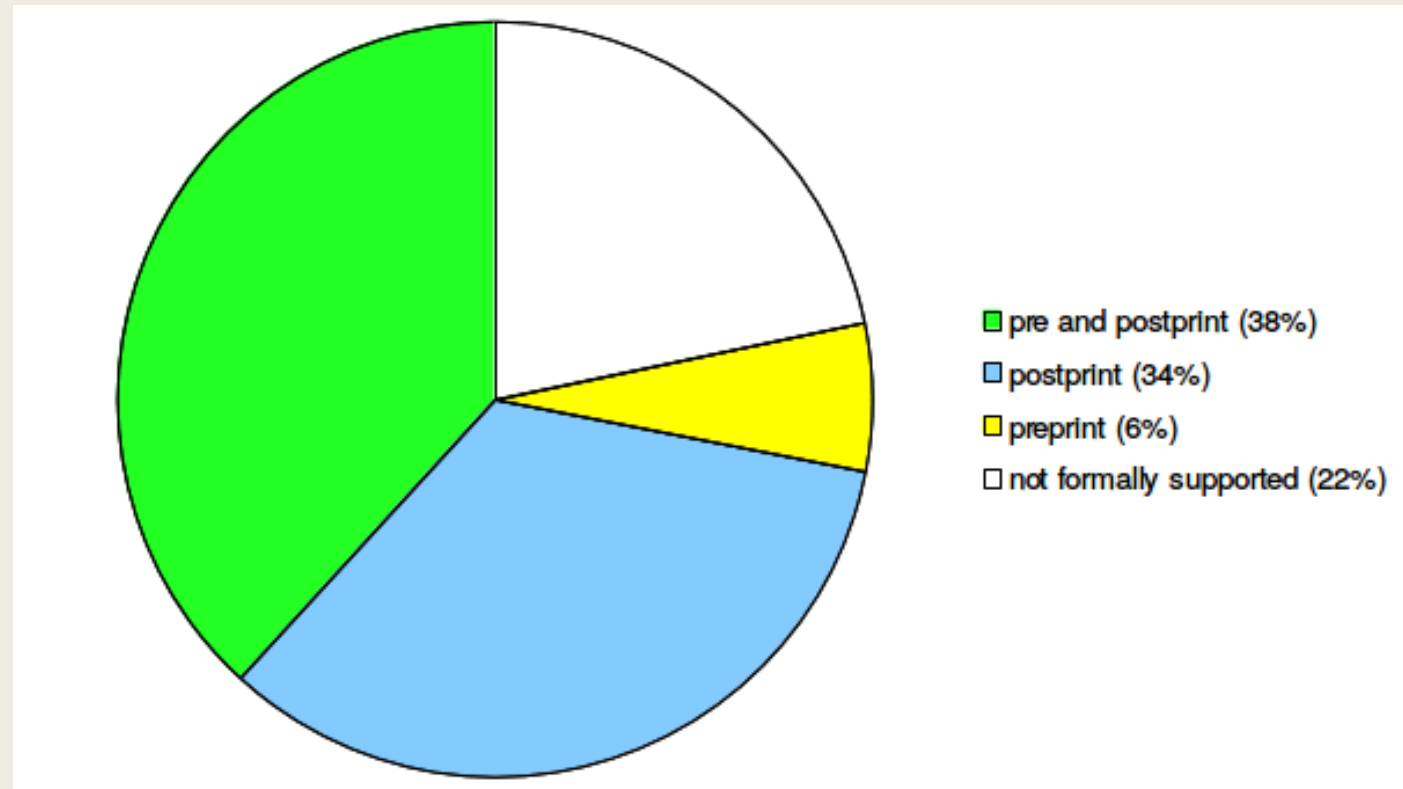
Self-archiving openly costs nothing.



figshare
credit for all your research

Pre-prints are frickin' awesome

- Most journals 'allow' free deposition of some version of your article (isn't that nice..)
- What's the deal with embargo periods?



Where can I archive my work?



arXiv.org

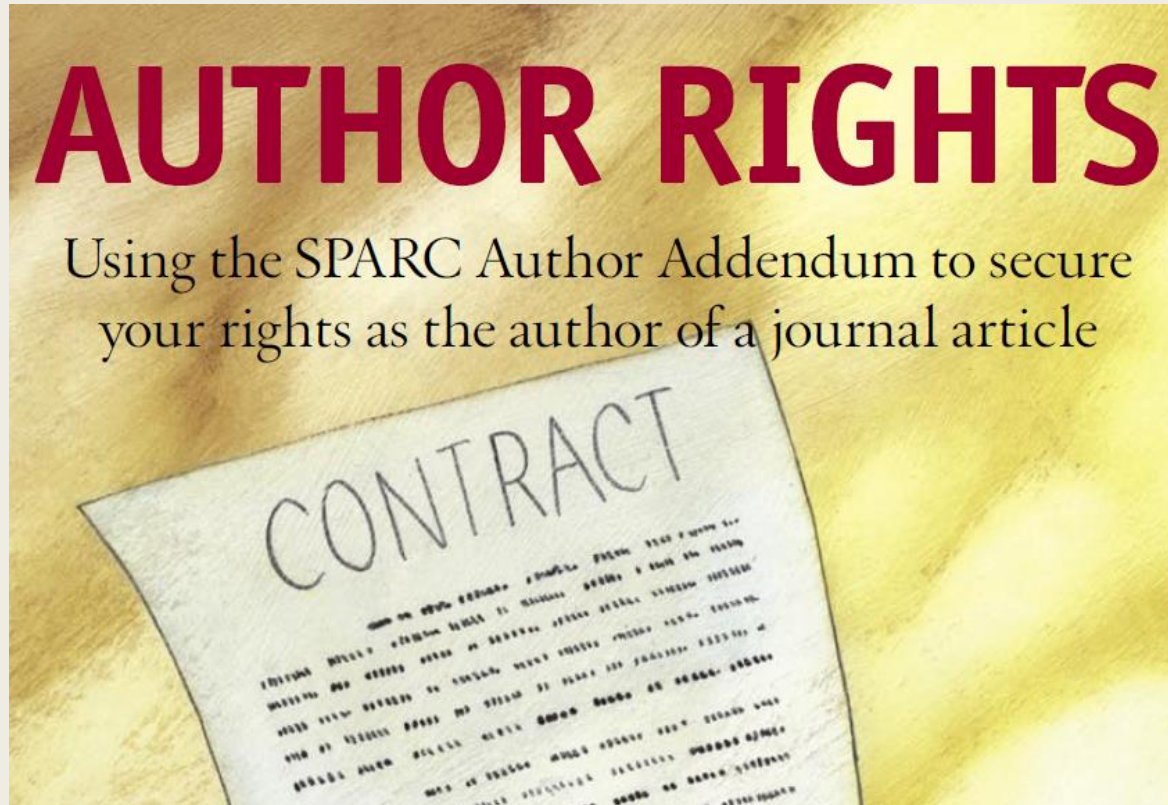



zenodo


It's your work. Publish where you want. But don't lock it up.

KNOW YOUR RIGHTS

- Copyright Transfer Agreements = eww
- SPARC author addendum



 **Jimmy O'Dea**
@jimmyodea

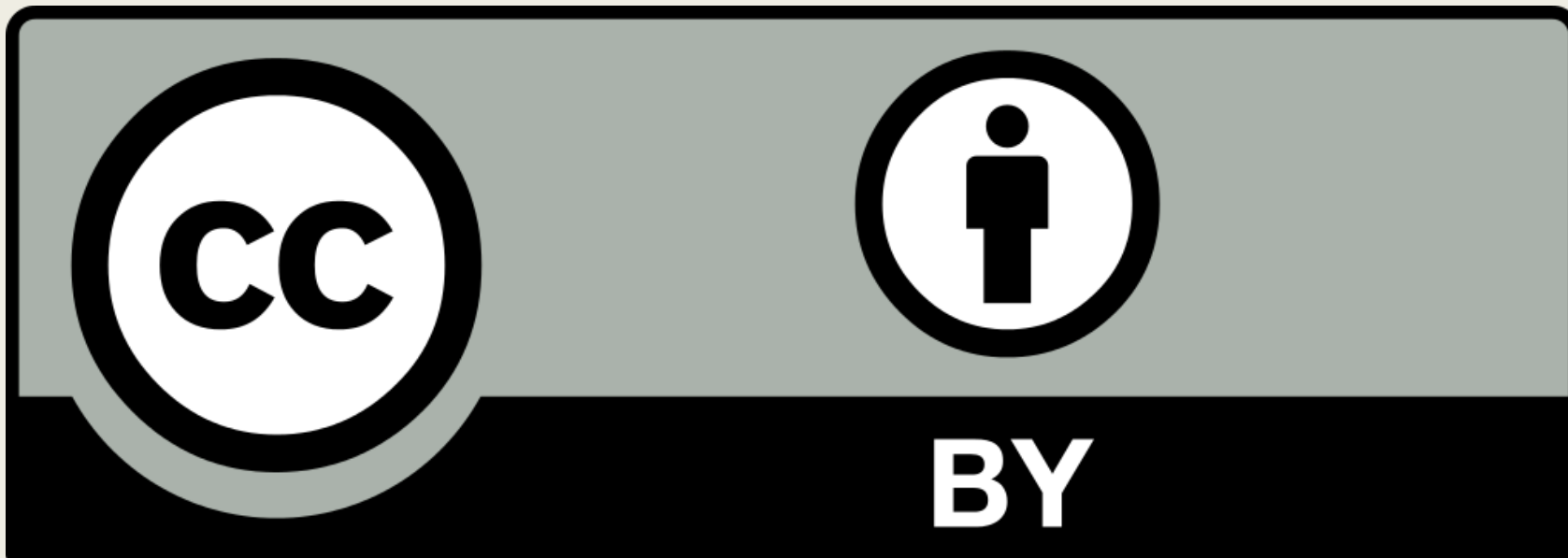
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Paper accepted with [@SPARC_NA](#) author addendum. Public funded, public access. [#openaccess](#)
sparc.arl.org/resources/auth...

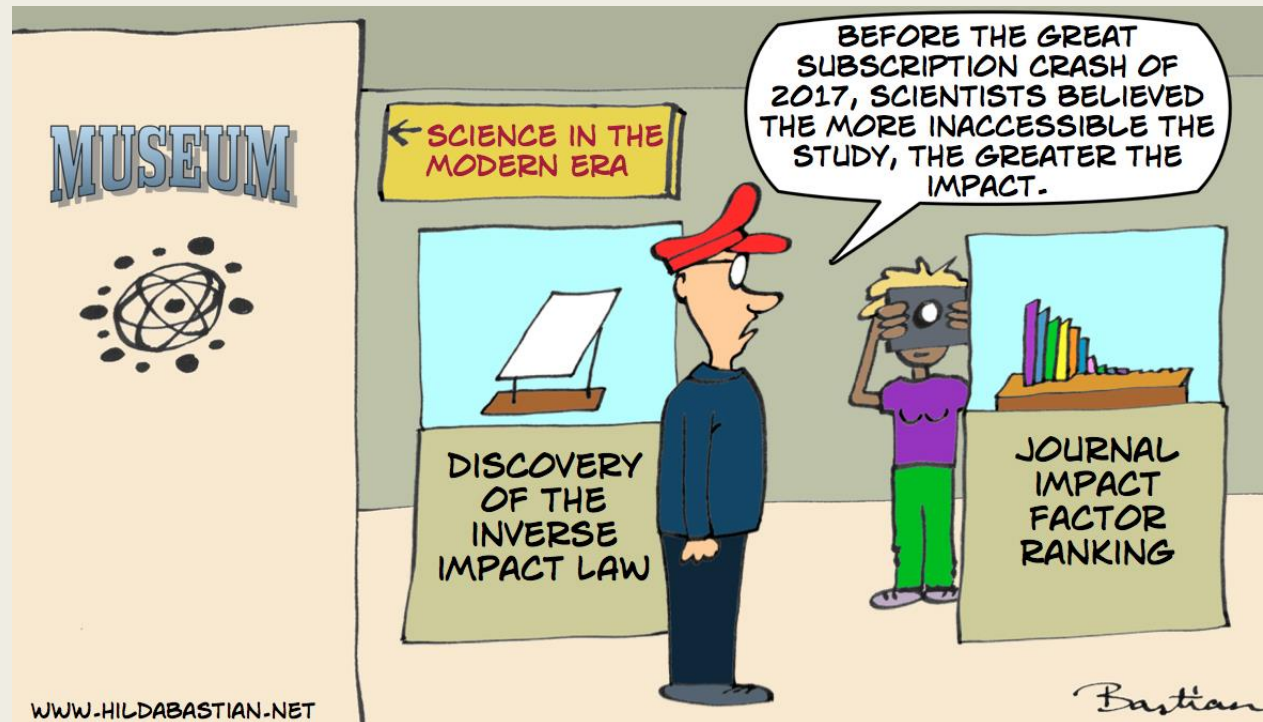
Let's put control over academic work where it should be: in the hands of the researchers.

Retain your rights

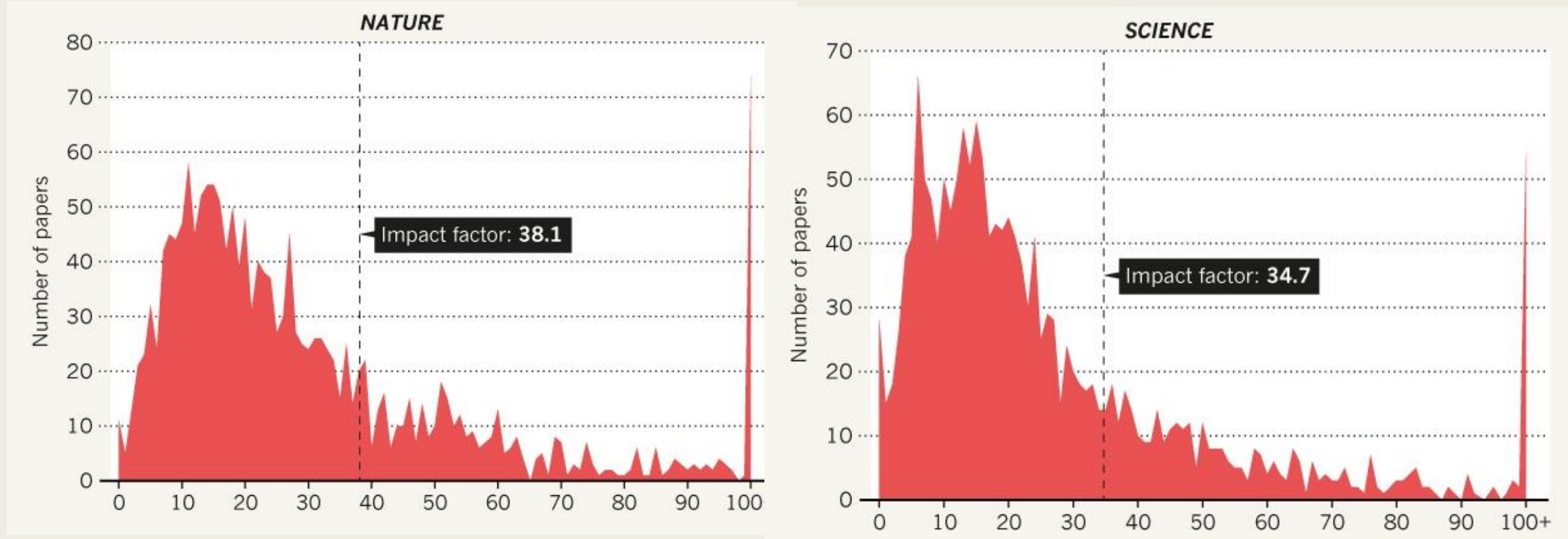
- Open Access allows you to keep your rights
- They use Creative Commons licenses



Let's talk about the impact factor.



Because it's a BS statistic



Skew is imposed by a very small number of highly cited papers

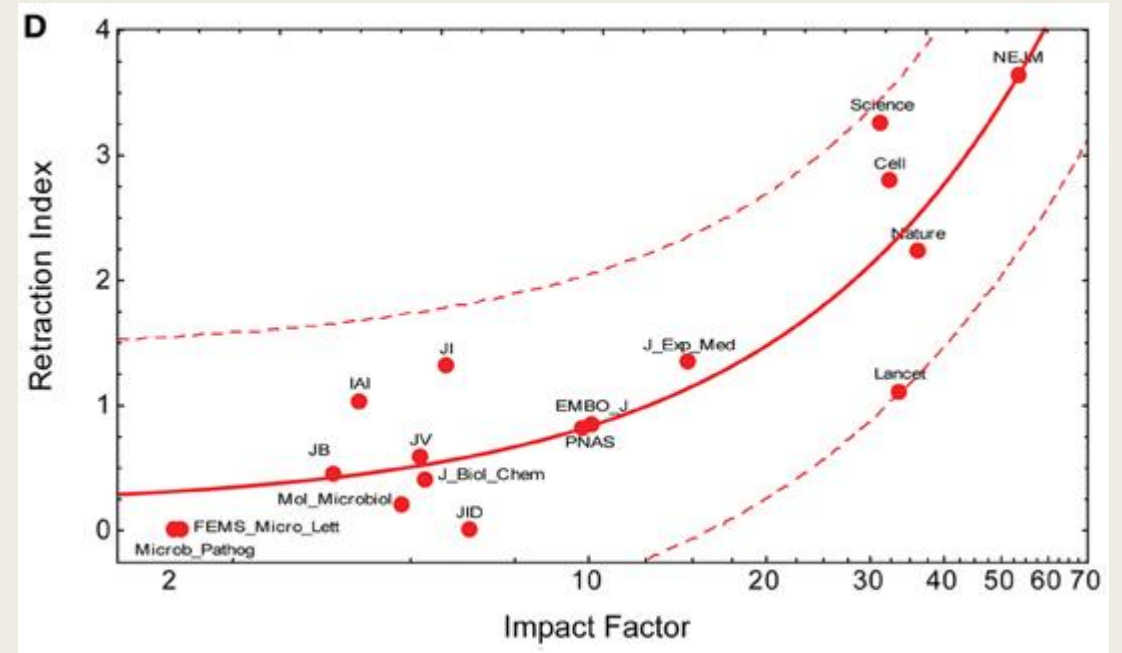
<http://biorxiv.org/content/early/2016/07/05/062109>

<http://www.nature.com/news/beat-it-impact-factor-publishing-elite-turns-against-controversial-metric-1.20224>

For the love of god, why?

- The Leiden Manifesto!
- DORA! (www.ascb.org/dora/)
- Altmetrics rule?
- Read the f*cking paper
- Don't hang around IF junkies
- Learn the facts

<http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351>
<http://blog.scienceopen.com/2016/04/how-can-academia-kick-its-addiction-to-the-impact-factor/>

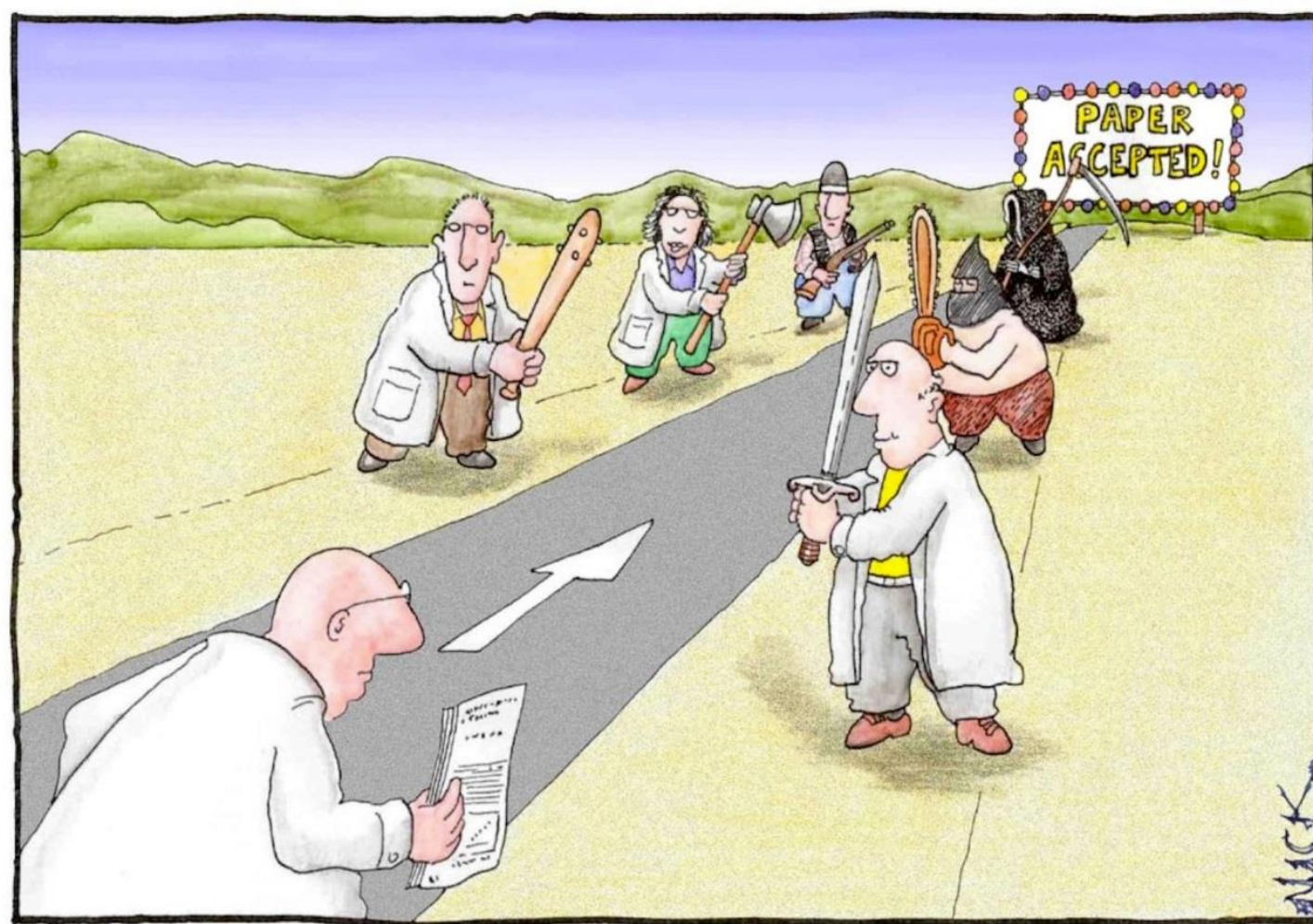


San Francisco

DORA

Declaration on Research Assessment

IT SHOULD NOT BE THIS DIFFICULT



Most scientists regarded the new streamlined peer-review process as "quite an improvement."

Open peer review

How is something secretive, exclusive, and closed supposed to be objective?



Everyone gets it



EUROPEAN
COMMISSION

“ *NIH expects the timely release and sharing of data to be no later than the acceptance for publication of the main findings from the final dataset.* ”

“ *All projects receiving Horizon 2020 funding will have the obligation to make sure any peer reviewed journal article they publish is openly accessible, free of charge.* ”

So you might as well get paid for it



“ *The Shuttleworth Foundation offers fellowships to individuals to implement their innovative idea for social change. We are most interested in exceptional ideas at the intersection between technology, knowledge and learning, with openness being the key requirement.* ”



“ *We're looking for researchers with a passion for open source and data sharing, already working to shift research practice to be more collaborative, iterative and open.* ”



“ *The Open Science Prize is a partnership between the Wellcome Trust, the US National Institutes of Health (NIH) and the Howard Hughes Medical Institute to unleash the power of open content and data to advance biomedical research and its application for health benefit.* ”

The current state of scholarly communication?

Slowly but surely
adapting to the Web of
1995

Stuff you can do right now

- Social media accounts.
- Build or join your community!
- Research isn't finished until it's been communicated.
- Learn about the problems. Help to find the solutions.
- Take a stand for what you believe in.
- Wear open on your sleeve.

More awesome stuff you can do

- <https://github.com/contentmine/getpapers>
- https://www.reddit.com/r/Open_Science/
- <http://mozillascience.github.io/working-open-workshop/index.html>
- <http://www.meetup.com/Berlin-Open-Science-Meetup/>
- <http://whyopenresearch.org/>
- <http://www.opencon2016.org/>



The public benefits. Your career
benefits. What are you waiting for?

BE OPEN

WHAT IS THE MOST IMPORTANT
THING YOU COULD BE WORKING ON
IN THE WORLD RIGHT NOW? ... AND
IF YOU'RE NOT WORKING ON THAT,
WHY AREN'T YOU?"

ARON SWARTZ, 1986 - 2013