

Towards universal Open Access: what we can do about it, and who should do it.

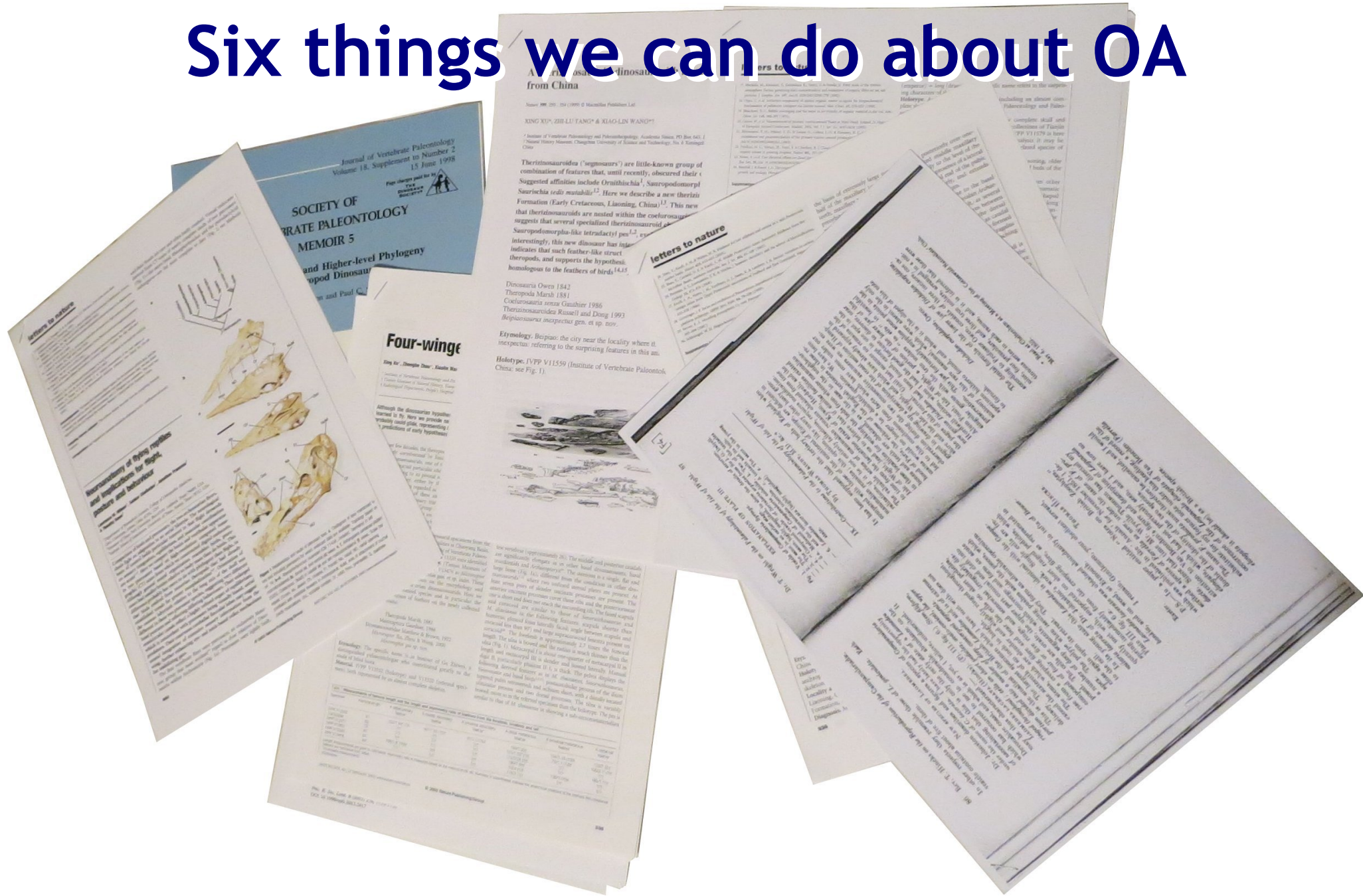


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`@MikeTaylor`

Part 1:

Six things we can do about OA



What we can do 1: publish our work open access

At this point, if your work isn't OA, you're an idiot.



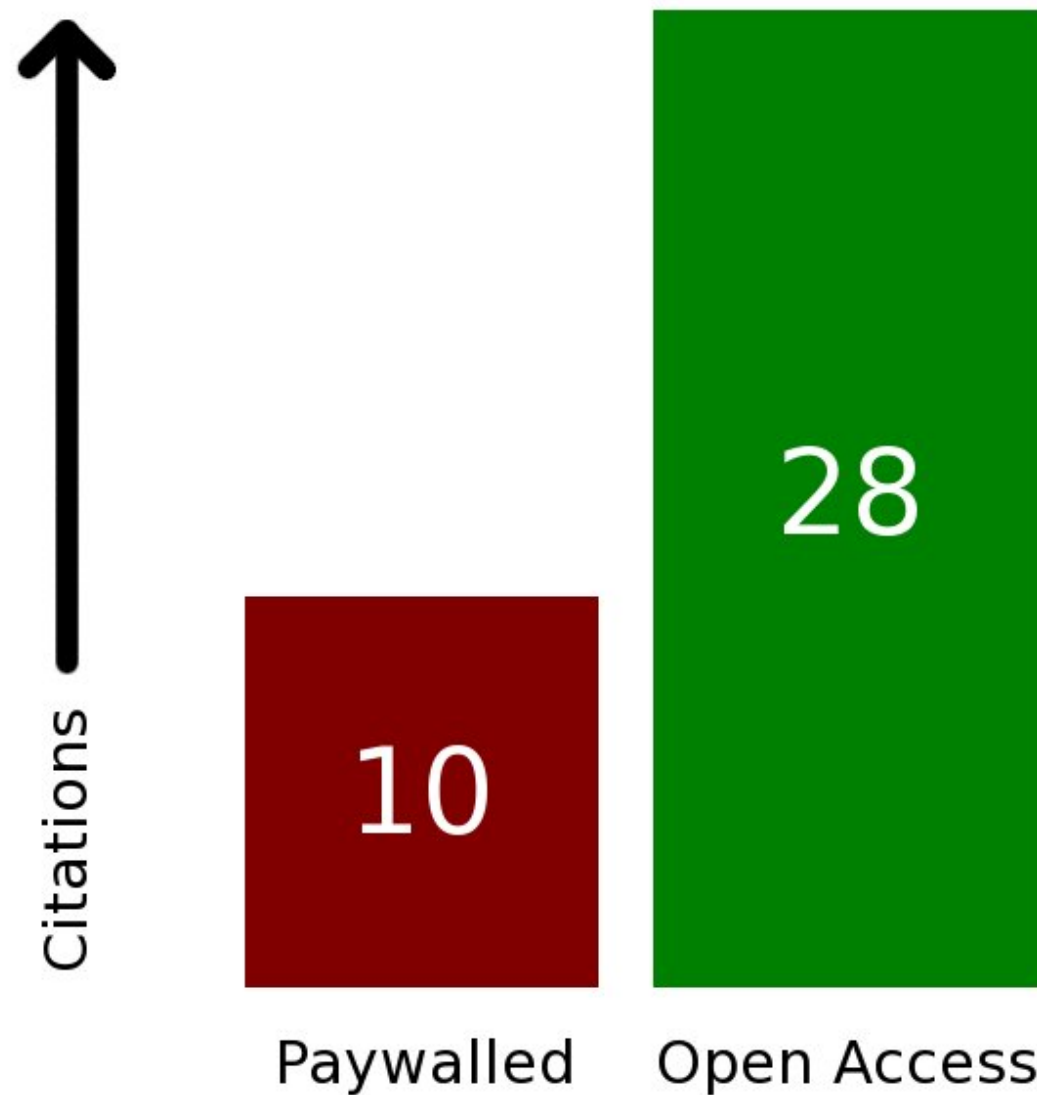
The Open Access citation advantage

Citation-advantage meta-analysis of Swan (2010)
27 of 31 studies of the OACA found an advantage

Size of OA citation advantage when found (and where explicitly stated by discipline)	% increase in citations with Open Access
Physics/astronomy	170 to 580
Mathematics	35 to 91
Biology	-5 to 36
Electrical engineering	51
Computer science	157
Political science	86
Philosophy	45
Medicine	300 to 450
Communications studies (IT)	200
Agricultural sciences	200 to 600

Average advantage: 176% (2.76 x)

What we can do 1: publish our work open access



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----- Two equally valid approaches -----

Gold open access

Publish in open-access
journals



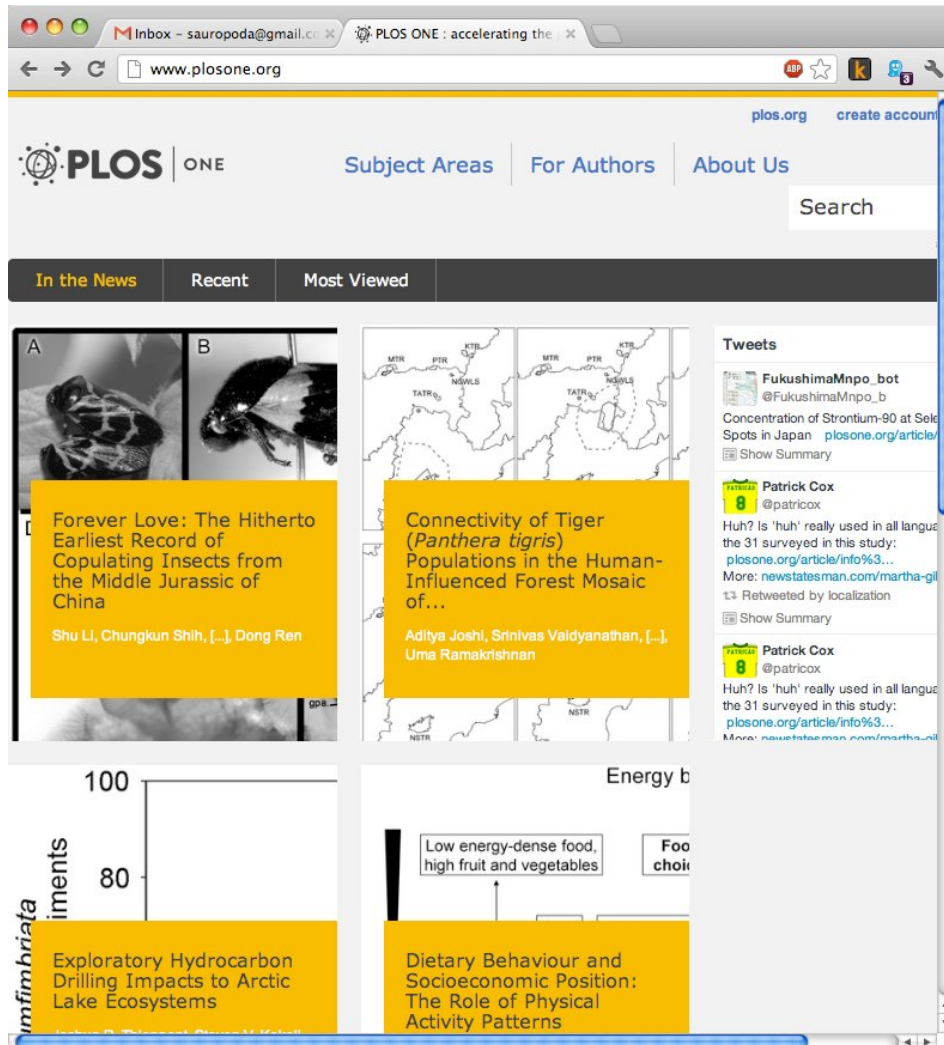
Green open access

Deposit peer-reviewed
postprint in a repository

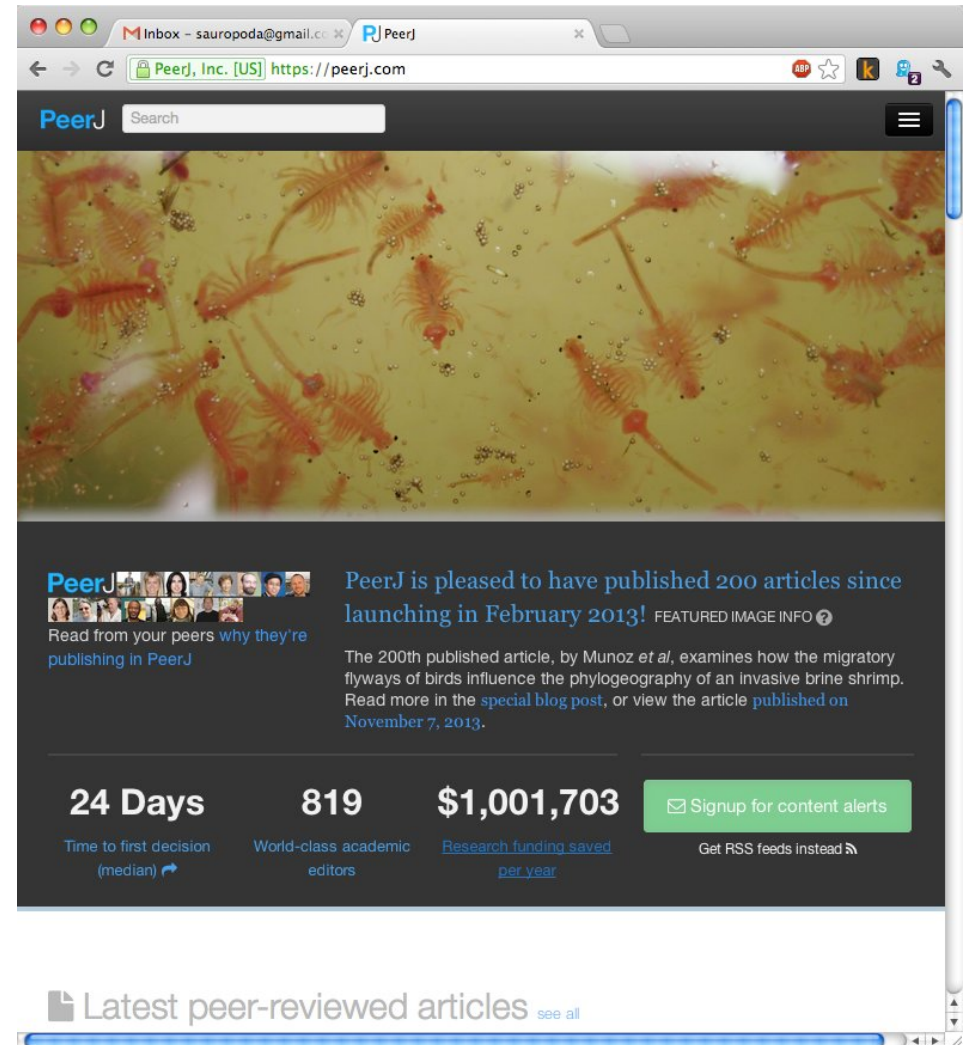


What we can do 1: publish our work open access

Gold: publish in open-access journals (see <http://doaj.org>)
PLOS, PeerJ, BMC, Hindawi, many individual journals



The screenshot shows the PLOS ONE website homepage. The browser address bar displays "www.plosone.org". The page features a navigation bar with "PLOS ONE", "Subject Areas", "For Authors", and "About Us". A search bar is located on the right. Below the navigation bar, there are tabs for "In the News", "Recent", and "Most Viewed". The main content area displays several article thumbnails. One article is titled "Forever Love: The Hitherto Earliest Record of Copulating Insects from the Middle Jurassic of China" by Shu Li, Chungkun Shih, et al., and Dong Ren. Another article is titled "Connectivity of Tiger (*Panthera tigris*) Populations in the Human-Influenced Forest Mosaic of..." by Aditya Joshi, Srinivas Vaidyanathan, et al., and Uma Ramakrishnan. A third article is titled "Exploratory Hydrocarbon Drilling Impacts to Arctic Lake Ecosystems". A fourth article is titled "Dietary Behaviour and Socioeconomic Position: The Role of Physical Activity Patterns". A "Tweets" section on the right shows tweets from @FukushimaMnpo_bot and @patricox.



The screenshot shows the PeerJ website homepage. The browser address bar displays "https://peerj.com". The page features a navigation bar with "PeerJ" and a search bar. Below the navigation bar, there is a large featured image of a microscopic organism. A text box on the right states: "PeerJ is pleased to have published 200 articles since launching in February 2013! FEATURED IMAGE INFO". Below this, it mentions: "The 200th published article, by Munoz et al, examines how the migratory flyways of birds influence the phylogeography of an invasive brine shrimp. Read more in the special blog post, or view the article published on November 7, 2013." At the bottom, there are statistics: "24 Days" (Time to first decision (median)), "819" (World-class academic editors), and "\$1,001,703" (Research funding saved per year). A green button says "Signup for content alerts". A link says "Get RSS feeds instead". At the bottom, there is a link to "Latest peer-reviewed articles see all".

Sidebar: how to avoid paying an APC

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Publish in a journal that does not charge an APC.

— or —

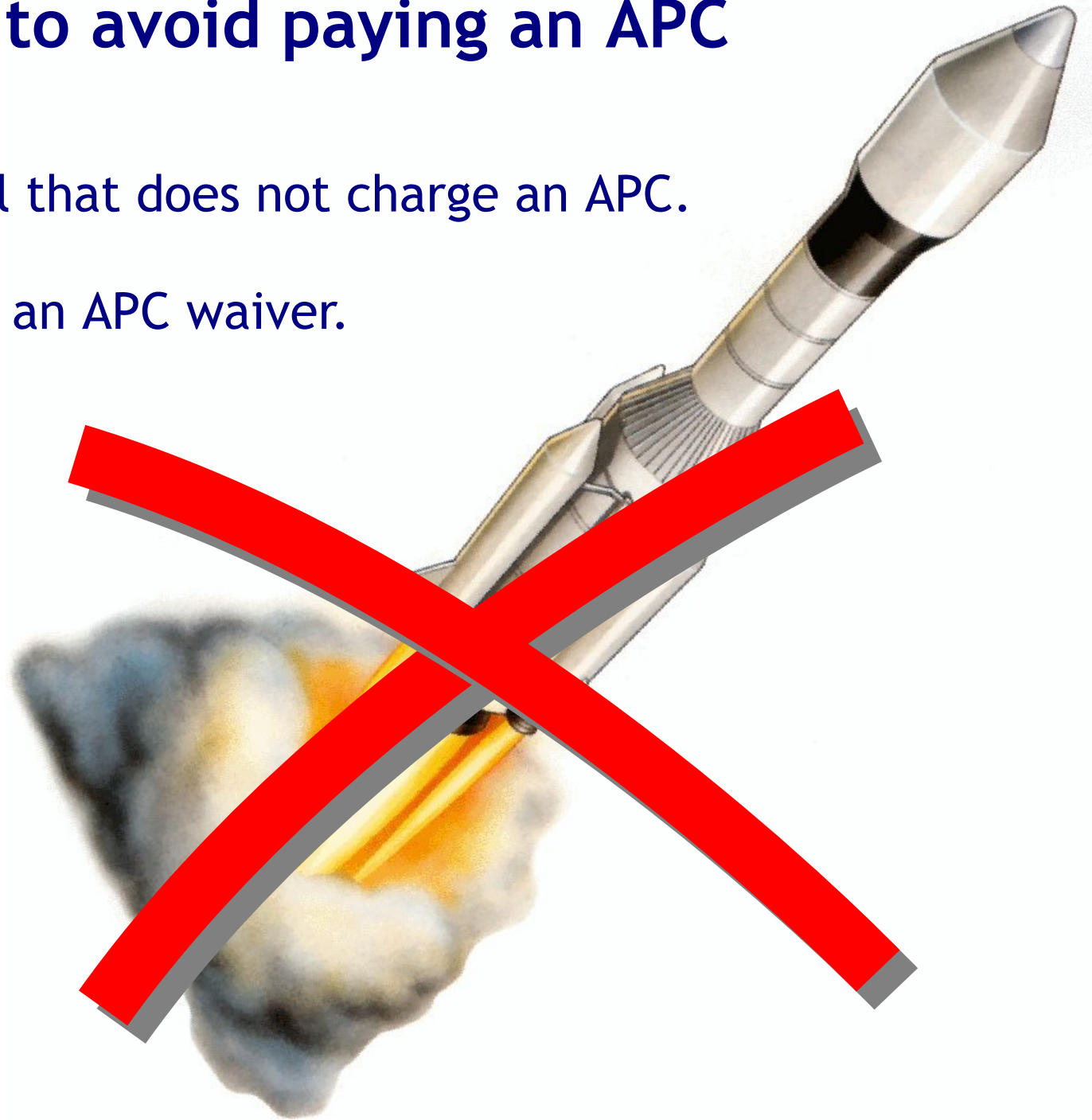
Ask the journal for an APC waiver.

Sidebar: how to avoid paying an APC

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Sidebar: how to avoid “predatory OA publishers”

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Do not give your work to a predatory OA publisher.

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Do not give your work to a predatory OA publisher.

Do you read the journal?

If not, publish in one that you do read.

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What we can do 1: publish our work open access

Green: deposit peer-reviewed postprint in a repository
Institutional repo, arXiv, PeerJ Preprints, biorXiv

The screenshot shows the DASH search interface. The search scope is set to 'All of DASH'. The full text search results for 'dinosaur' show 52 results. The first three results are displayed:

- Dinosaurs: Assembling an Icon of Science**
Rieppel, Lukas Benjamin (2013-03-08)
- Dinosaur Peptides Suggest Mechanisms of Protein Survival**
San Antonio, James D.; Schweitzer, Mary H.; Jensen, Shane T.; Buckley, Michael; Orgel, Joseph P. R. O.; van Veen, Hendrik W.; Kalluri, Raghu (PLoS ONE, 2011) Link to Published Version
- Early Animal Evolution: Emerging Views from Comparative Biology and Geology**
Carroll, Sean B.; Knoll, Andrew (Science, 1999) Link to Published Version

Other results include 'A haiku introduction to open access' and 'Sequencing Three Crocodilian Genomes to Illuminate the Evolution of Archosaurs and Amniotes'.

The screenshot shows the arXiv.org search interface. The search scope is set to 'Physics'. The search results for 'Physics' show 890,216 e-prints. The first three results are displayed:

- Astrophysics (astro-ph new, recent, find)**
includes: Cosmology and Extragalactic Astrophysics; Earth and Planetary Astrophysics; Galaxy Astrophysics; High Energy Astrophysical Phenomena; Instrumentation and Methods for Astrophysics; Solar and Stellar Astrophysics
- Condensed Matter (cond-mat new, recent, find)**
includes: Disordered Systems and Neural Networks; Materials Science; Mesoscale and Nanoscale Physics; Other Condensed Matter; Quantum Gases; Soft Condensed Matter; Statistical Mechanics; Strongly Correlated Electrons; Superconductivity
- General Relativity and Quantum Cosmology (gr-qc new, recent, find)**

Other results include 'High Energy Physics - Experiment (hep-ex new, recent, find)', 'High Energy Physics - Lattice (hep-lat new, recent, find)', 'High Energy Physics - Phenomenology (hep-ph new, recent, find)', 'High Energy Physics - Theory (hep-th new, recent, find)', 'Mathematical Physics (math-ph new, recent, find)', 'Nonlinear Sciences (nlin new, recent, find)', 'Nuclear Experiment (nucl-ex new, recent, find)', 'Nuclear Theory (nucl-th new, recent, find)', 'Physics (physics new, recent, find)', and 'Quantum Physics (quant-ph new, recent, find)'.

Sidebar: how long an embargo is acceptable?

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No embargo is acceptable.

Come on. It's obvious. The goal is to get the work *out there*.

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Is this unfair to
publishers?

They are supposed
to be serving *us*!



The Publishers Association “decision tree”

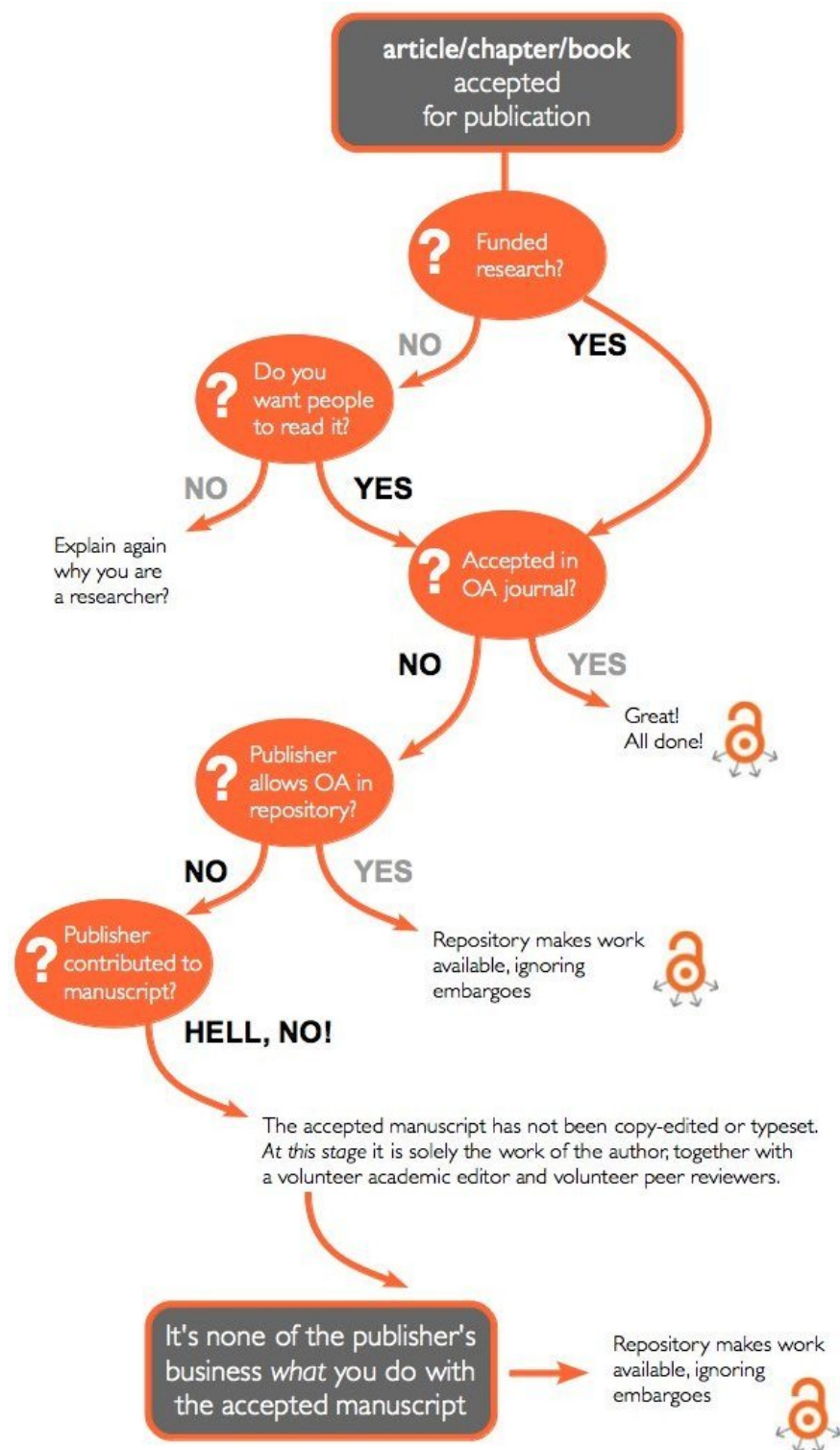


A much better decision tree

The accepted manuscript has not been copy-edited or typeset. as this stage it is solely the work of the author together with a volunteer editor and volunteer peer-reviewers.

Publishers have no moral or legal claim over it. It's yours.

Just deposit it in a repository.



What we can do 2: review for OA journals

Reviewing is professional-grade work.

If paid professionally, it would cost more than £100 per hour.

Let's invest it where it can do some good.

**We do not owe paywalled journals
our free labour.**



What we can do 3: edit for OA journals

Academic editing is professional-grade work.

If paid professionally, it would cost more than £100 per hour.

Let's invest it where it can do some good.

**We do not owe paywalled journals
our free labour.**



What we can do 4: advocate OA policies



In your department

What we can do 4: advocate OA policies



In your department



In your university

What we can do 4: advocate OA policies



In your department



In your scholarly society



In your university

What we can do 4: advocate OA policies



In your department



In your scholarly society



In your university



Among your co-authors

What we can do 5: deprecate journal rank

Journal rank is either:

- Based on impact factor (“statistically illiterate”, Stephen Curry)
- Subjective based on history

Both are biased against
new journals

⇒ biased in favour of
traditional journals

**We must judge papers
on their own merits,
not their venue.**

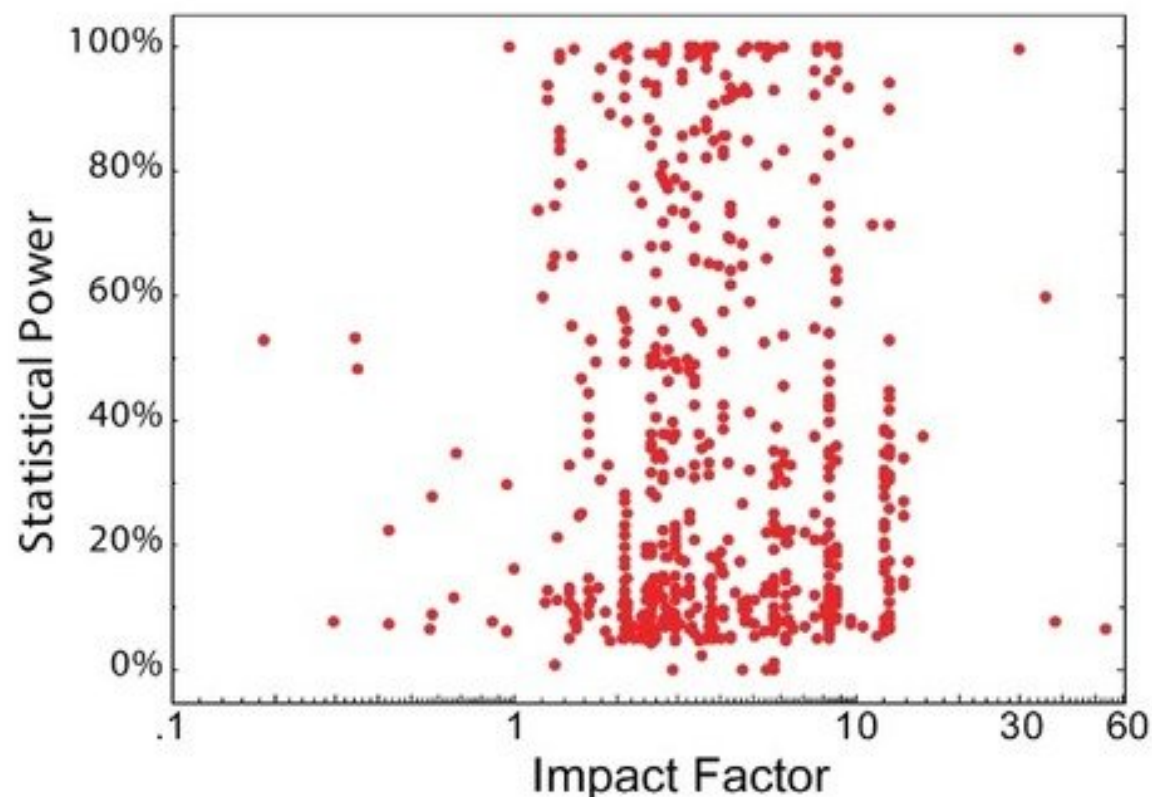
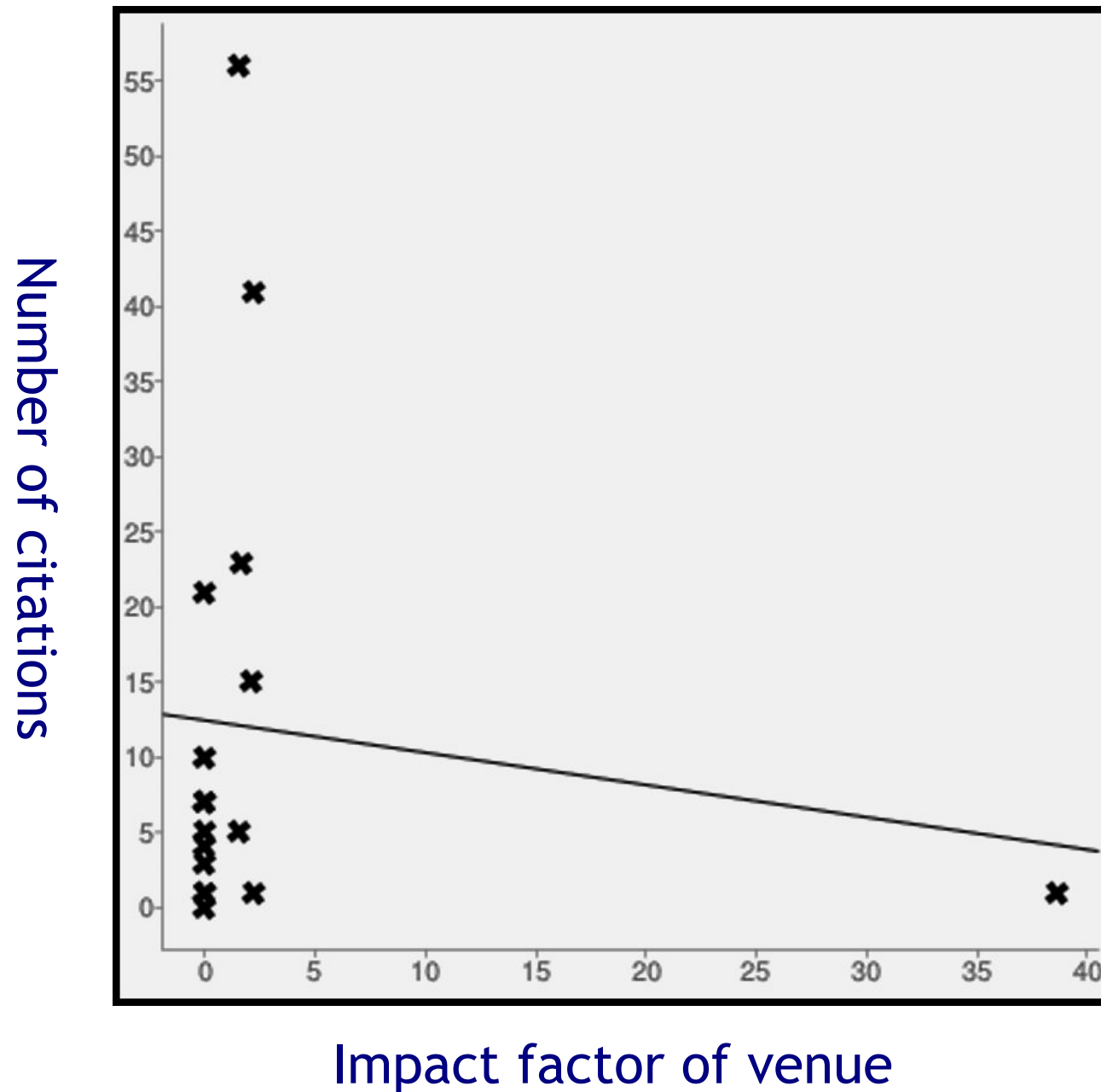
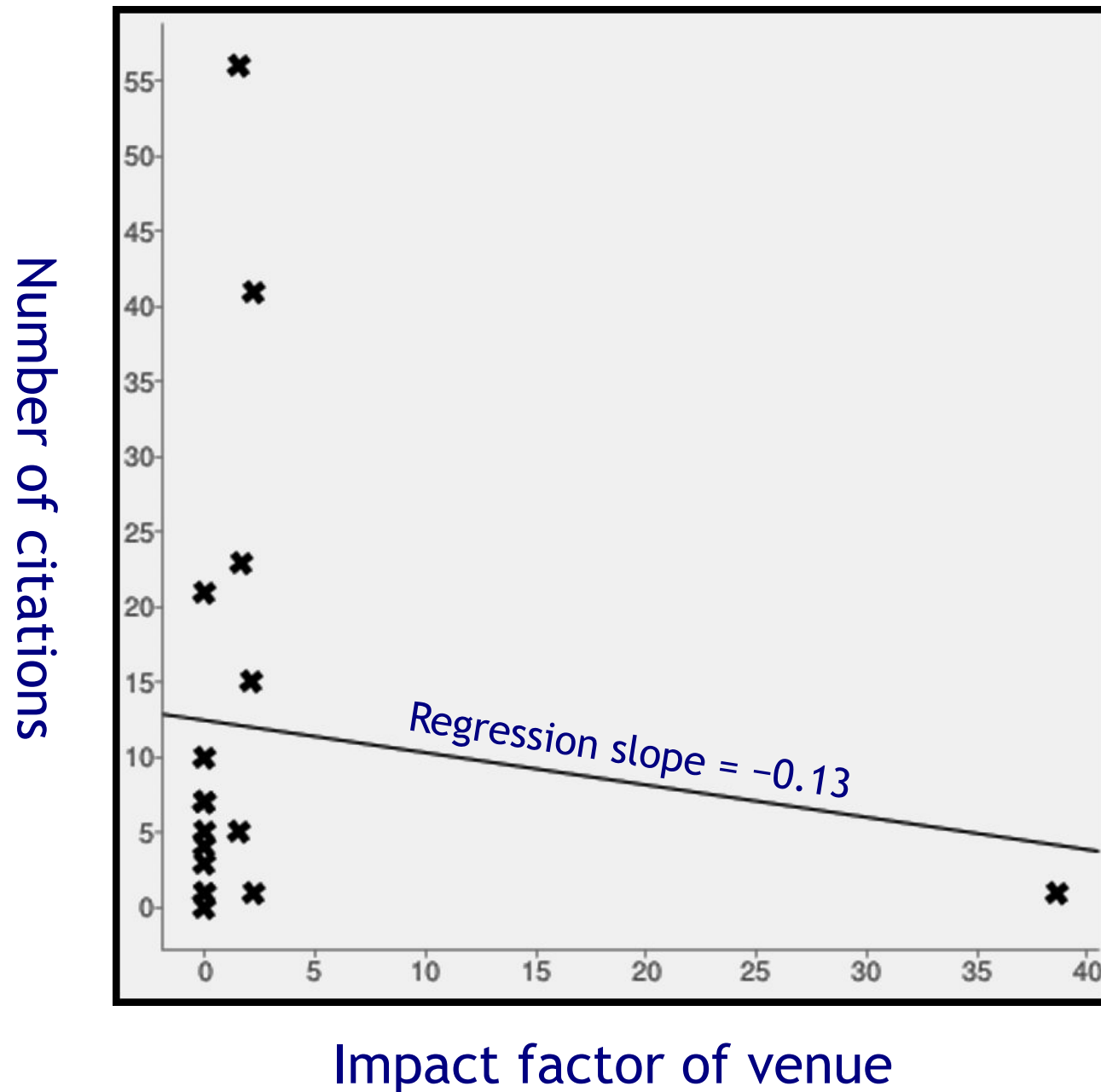


Fig. 2: No association between statistical power and journal IF.

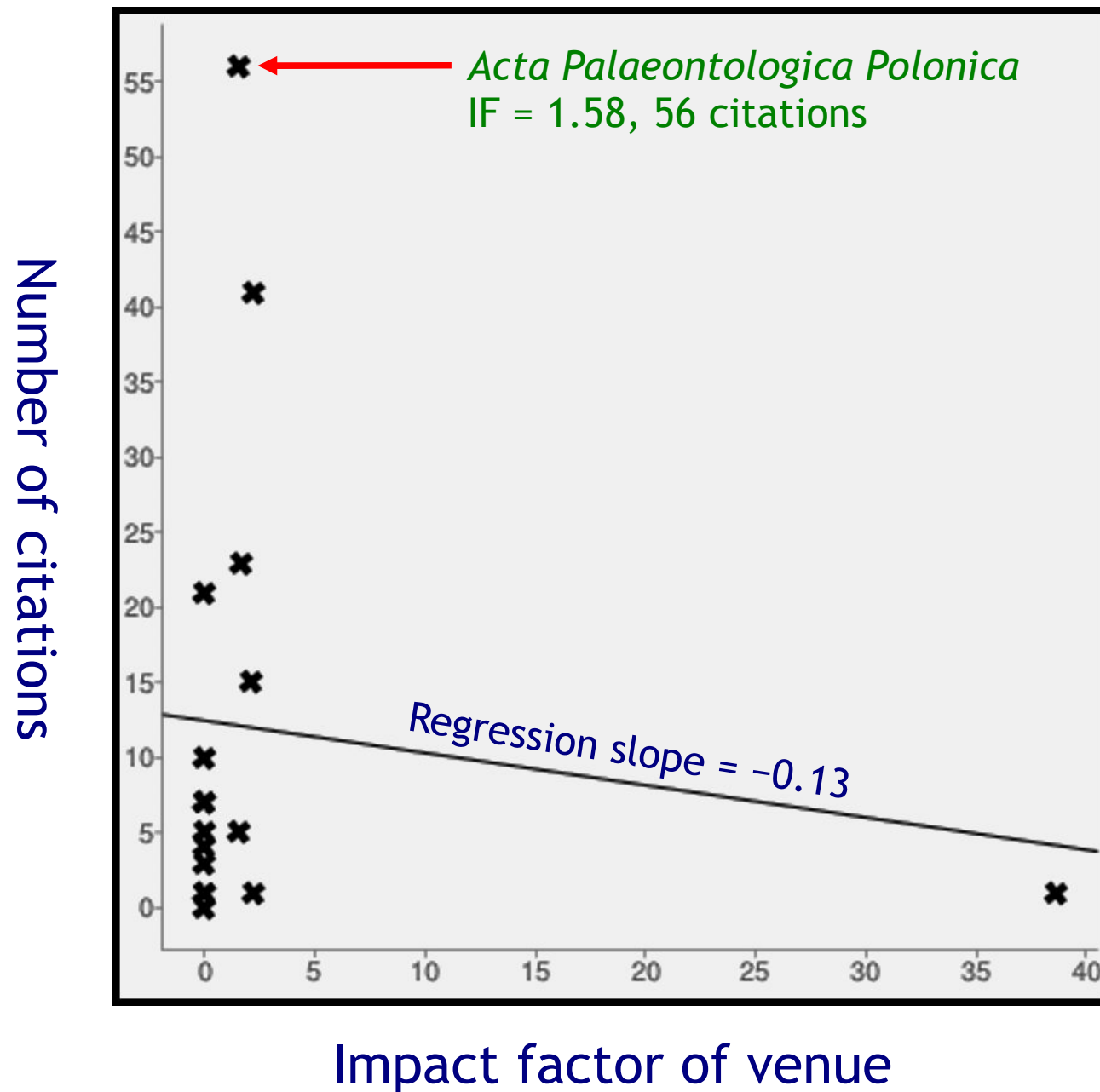
Case-study: citations of 17 of my papers



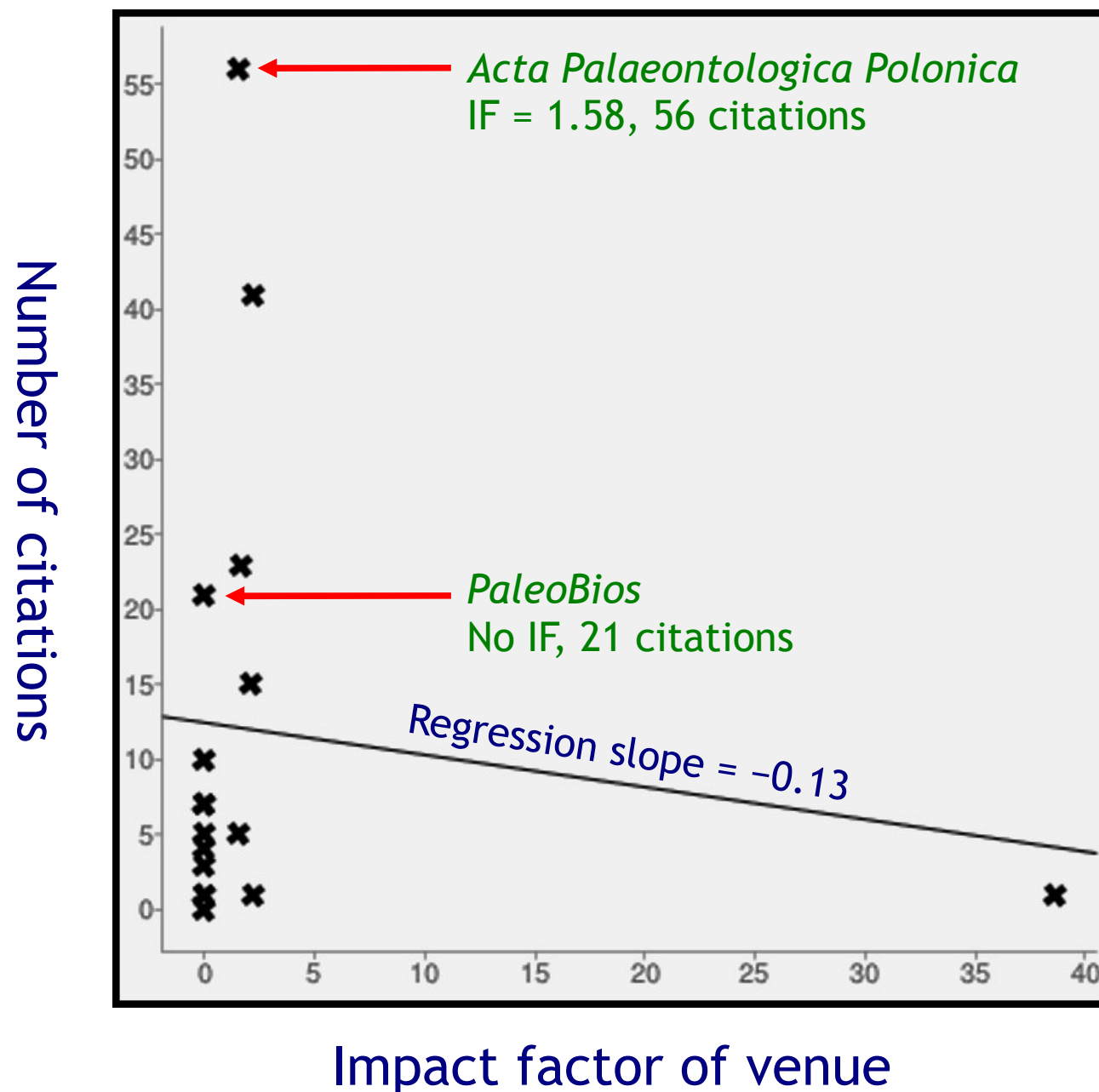
Case-study: citations of 17 of my papers



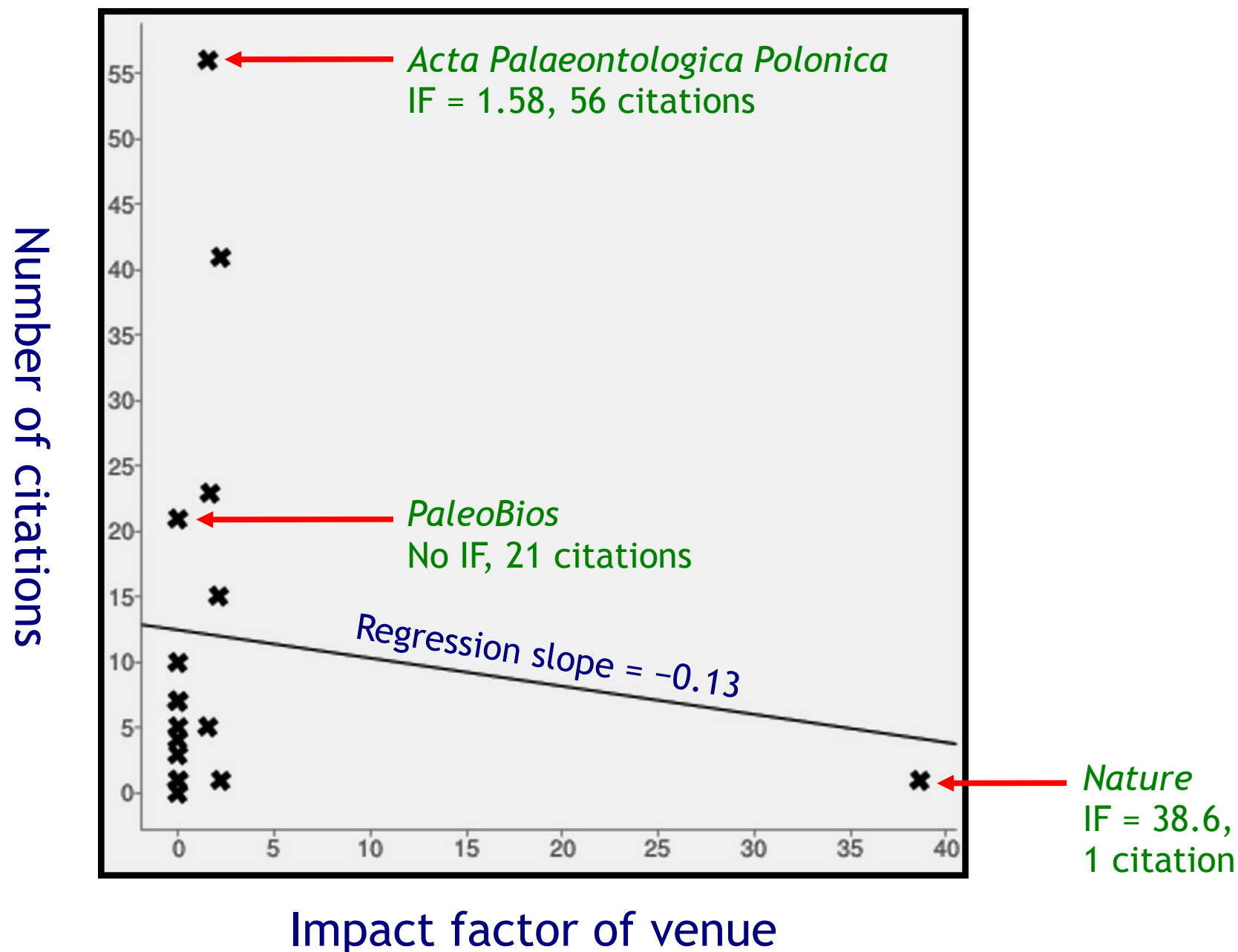
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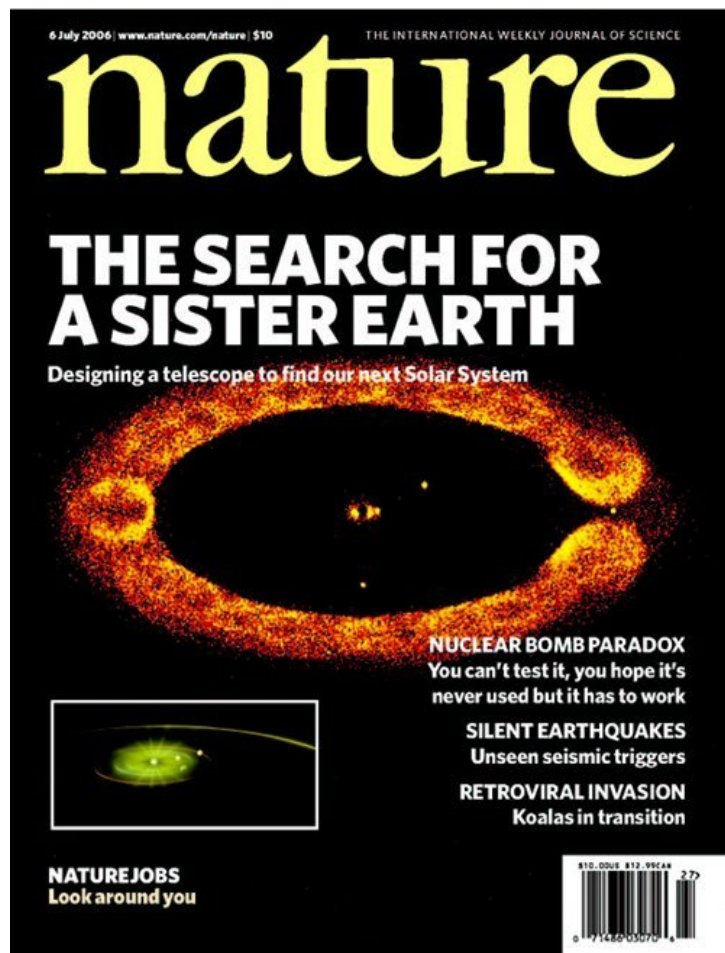
Case-study: citations of 17 of my papers



What we can do 5: deprecate journal rank

Recruiting/grants based on author's papers' journal rank
Are statistically illiterate

Like judging people on the label of their clothes.



What we can do 6: talk about Open Access

“Talk about” can mean ...

- blogging
- tweeting
- in a pub
- in the department kitchen

Must he *constantly* go on
about open access?



Summary:

Six things we can do about OA

1. Publish our work open access
2. Review for OA journals
3. Edit for OA journals
4. Advocate OA policies
5. Deprecate journal rank
6. Talk about Open Access

Part 2: who should take responsibility for OA



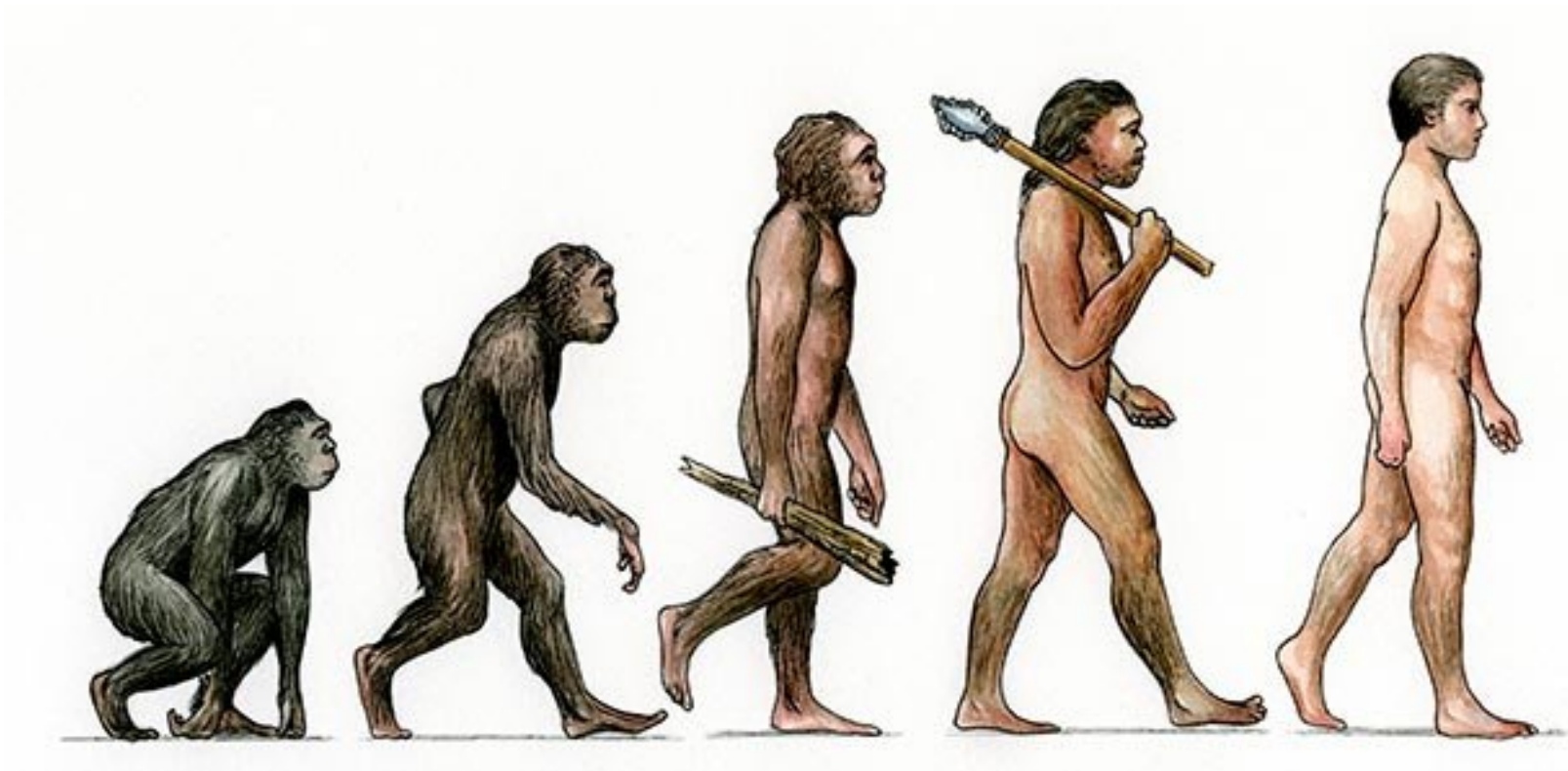
Every career-stage has excuses

Students: just getting started

Postdocs: have to establish a reputation


Tenure-track: can't do anything to damage my tenure case

Senior: won't change a system that has been good to them




Someone has to break the cycle





Early-career neuroscientist Erin McKiernan:



Erin McKiernan
@emckiernan13










 **Following**

If publishing in [#openaccess](#) journals costs me my career, then this is not the career I want. Period.

 Reply  Retweet  Favorite  More

44
RETWEETS

18
FAVORITES

대린

11:25 PM - 21 Jan 13

Someone has to break the cycle

Digital-humanities Ph.D student Scott Weingart:



Scott Weingart ▶ Robstacle

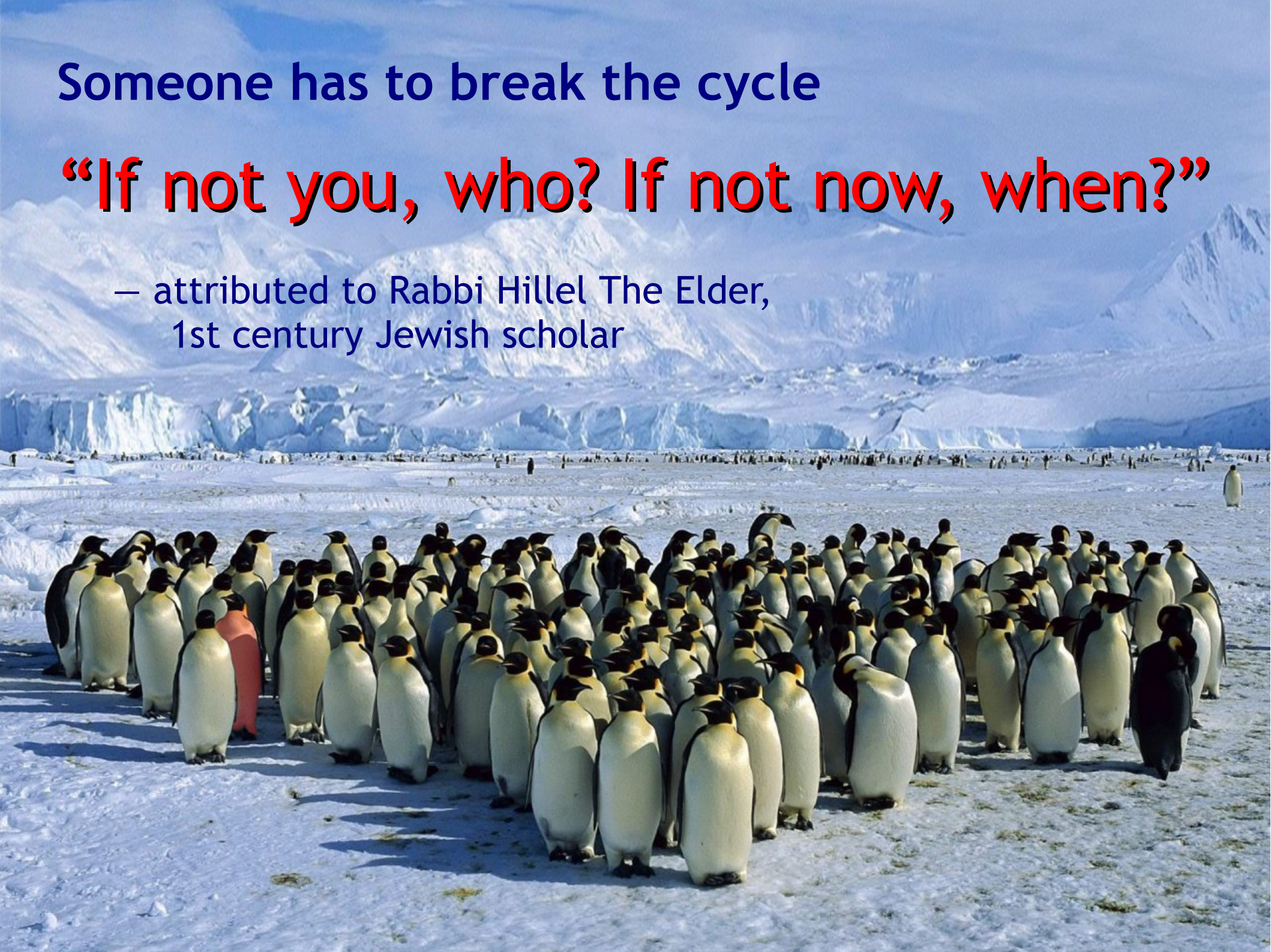
18 January 2013 2:03pm

@Robstacle - Enough idealistic students like us, and maybe something will actually change, rather than just having us all live in a self-perpetuating system which we all know is flawed but are too worried about our careers to do anything about.

Someone has to break the cycle

“If not you, who? If not now, when?”

— attributed to Rabbi Hillel The Elder,
1st century Jewish scholar



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