

The **drain** on scientific publishing

or the unsustainability of publishing, and how to fix it

M. A. Hanson, P. Gómez Barreiro, **P. Crosetto**, D. Brockington

ESP – University of Milan – 27 november 2025

The team



Immunologist



Experimental
economist

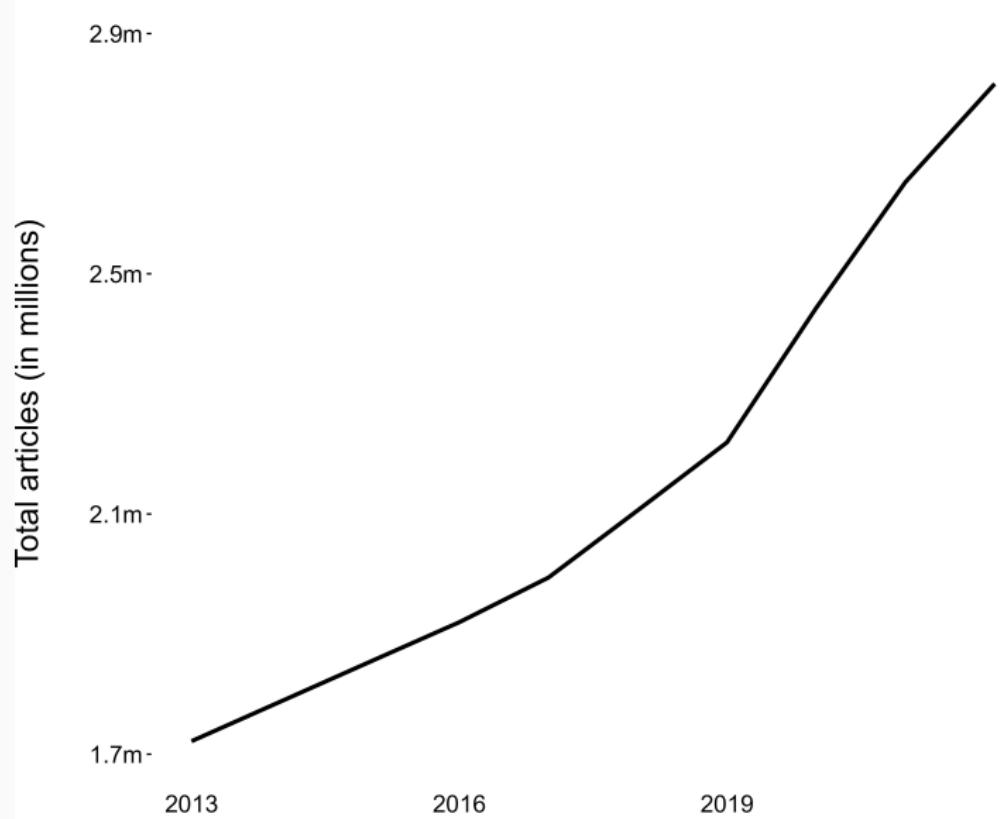


Seed technician



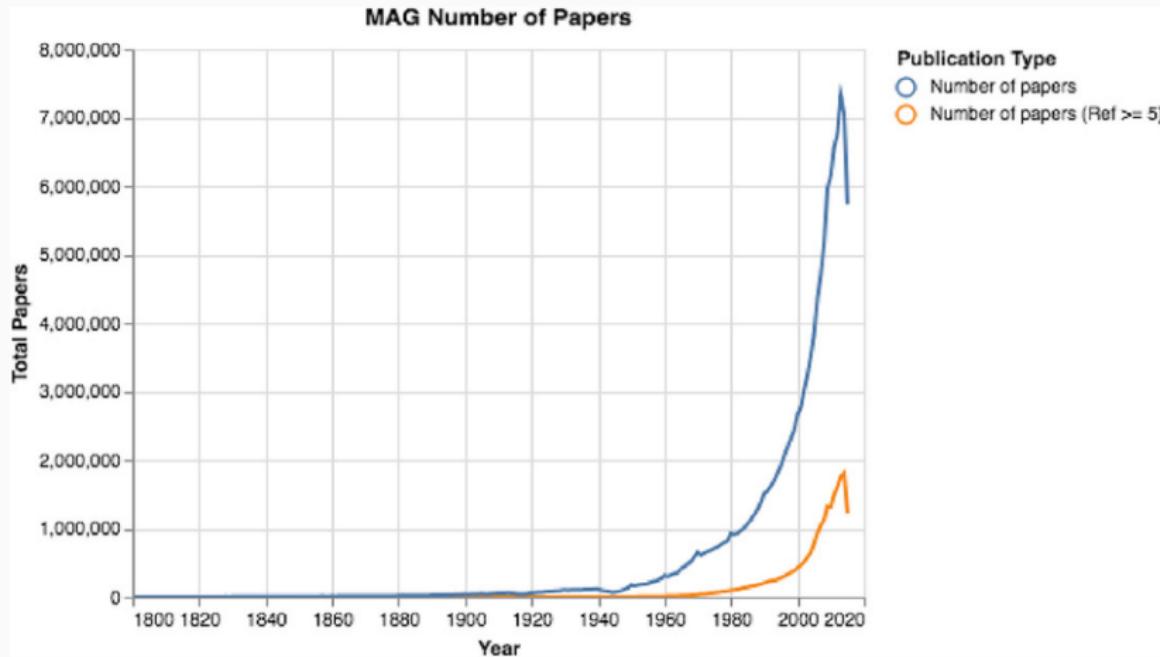
Anthropologist

Academic publishing is undergoing an exponential growth



Source: N papers -- Scimago website data; N PhDs - OECD

This is not news



Source: Fire & Guestrin 2019

...and people have been complaining about it for a **long** time

In 1958, when James D. Watson worked his way up to the rank of associate professor at Harvard, the young biochemist had on his curriculum vitae 18 papers. One of them, published 5 years earlier, described the structure of deoxyribonucleic acid.

Today, the bibliography of a candidate facing a similar climb often lists 50 or even 100 papers.

As the comparison suggests, paper inflation has become a fact of academic life during the past two decades. This is

Science, March 1981

ance and impudence.

Aristotle, when he enumerated the purposes (by which an author must be guided) and had come to the last one, therefore said: 'Everything else is either superfluousness or greed', by which he meant ignorance and insolence.

34 The great number of scholarly works available is an obstacle on the path to attaining scholarship

It should be known that among the things that are harmful to the human quest for knowledge and to the attainment of a thorough scholarship are the great number of works available, the large variety in technical terminology (needed for purposes) of instruction, and the numerous methods (used in those works). The student is required to have a ready knowledge of all that. Only then is he considered an accomplished scholar.

Thus, the student must know all the works, or most of them, and observe the methods used in them. His whole lifetime would not

OLD MAN YELLS AT CLOUD

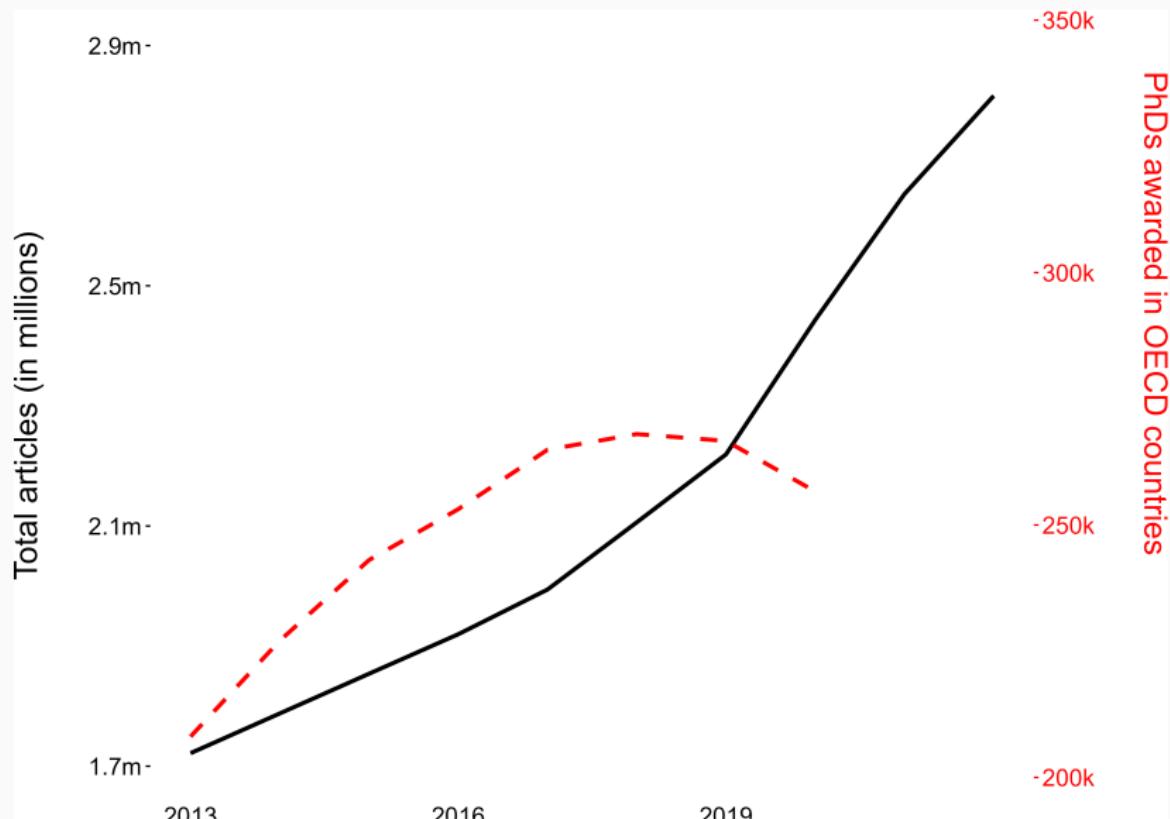


Older: Abraham Lincoln
Younger: William McKinley

The growth of scientific articles is mostly a good thing

- More scientists around
- More funds for research
- Open Access: more results available to anyone
- Web tools: faster dissemination of ideas
- Lower file drawer effects
- More replications, robustness, reviews, meta-analyses

But the number of researchers has **hit a limit**

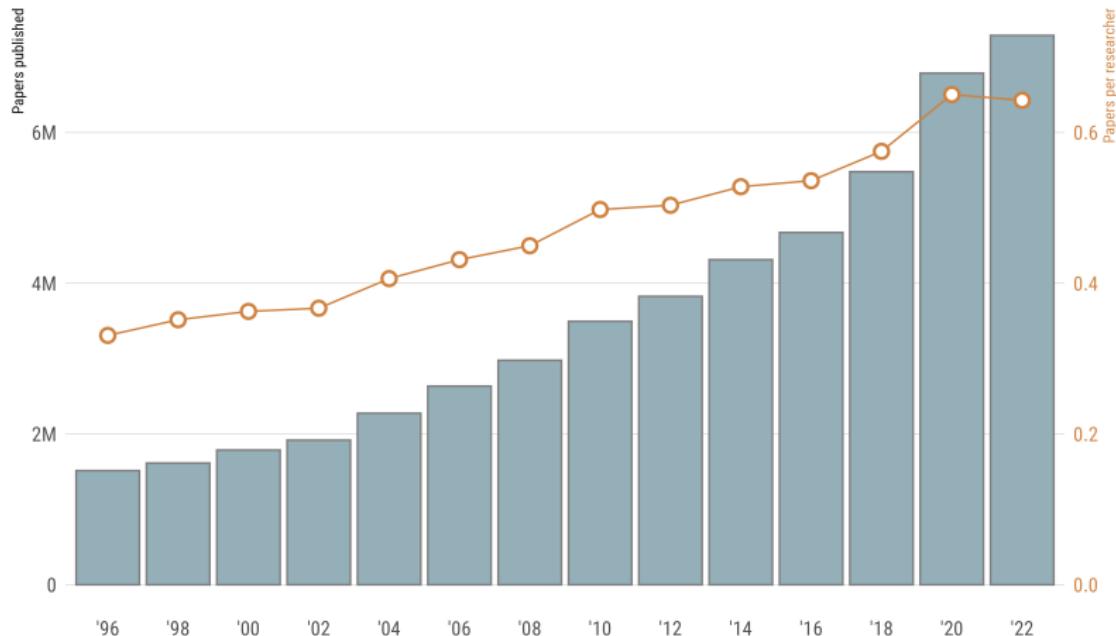


Source: N papers -- Scimago website data; N PhDs - OECD

...and the papers didn't: more papers per researcher

Published papers and average papers per researcher

By year, data from Dimensions (N papers), UNESCO (N researchers).



...and we've got issues

Editors resigning over high fees



Chris Chambers  @chrisdc77 · 16h

Following Elsevier's decision to raise the APC for NeuroImage to \$3,450, all editors (inc. EiCs [@fmrib_steven](#) [@tobergmann](#) [@BirteUta](#)) from NeuroImage and NeuroImage:Reports have resigned, effective immediately. I am joining this action and have also resigned [imaging-neuroscience.org/Announcement.p...](#)

Elsevier: NeuroImage transition - all editors have resigned over the high publication fee, and are starting a new non-profit journal, Imaging Neuroscience

Summary: NeuroImage has long been the leading journal focusing on imaging neuroscience, with both the highest impact factor and the largest number of papers published annually. NeuroImage's editorial team has tried to convince Elsevier to reduce the publication fee from \$3,450, as we believe large profit is unethical and unsustainable. Elsevier is unwilling to reduce the fee; therefore, with great regret, all editors (more than 40 ~~and~~ **all** editors) of NeuroImage and NeuroImage:Reports have resigned. We are starting a new non-profit Open Access journal, *Imaging Neuroscience*, intended to replace NeuroImage as our field's leading journal.

19 671 1,617 360,6 k

...and we've got issues

Paper mills
mass producing
fake articles

NEWS FEATURE | 23 March 2021

The fight against fake-paper factories that churn out sham science

Some publishers say they are battling industrialized cheating. A *Nature* analysis examines the 'paper mill' problem – and how editors are trying to cope.

...and we've got issues



Nick Wise
@nickwizzo

...

The guest editor of an open special issue in [@Symmetry_MDPI](#) on e-learning openly **selling authorship of papers on e-learning**
mdpi.com/journal/symmet...

Traduire le Tweet

The can join the team of authors, if you wish.

The paper will be indexed in both Scopus (Q4) and Web of Science.
1st position costs €390, 2nd position €290, positions 3 to 6 €200.
Payment is after acceptance.
Would you like to be a part of the team? Register at

* ICT

Papers will be published in a book series indexed in Scopus (Q4) and Web of Science.
1st position costs €390, 2nd position €290, positions 3 to 6 €200.
Payment is after acceptance.
If you wish to join, please register at
<https://rtsarev.ru/coauthor/>

**Call for Scopus
coauthors
E-learning and
Economics
200 euro**

If you wish to be in the list of co-authors, you are welcome to join.
1st position costs €390, 2nd position €290, positions 3 to 6 €200.
Payment is after acceptance.
Are you with us? Please, register at
<https://rtsarev.ru/coauthor/>

#scopus #webofscience #wos
#science #coauthor #coauthorship

8:29 PM · 4 mars 2023 · 35,6 k vues

Authorship sales
rings

...and we've got issues

Stunningly **prolific**
authors

EL PAÍS

ce & Tech

SILICON VALLEY - YOUTUBE - I

SCIENTIFIC ETHICS >

One of the world's most cited scientists, Rafael Luque, suspended without pay for 13 years

The prolific chemist, who has published a study every 37 hours this year, has been sanctioned by the University of Córdoba over his research work for other institutions in Russia and Saudi Arabia

...and we've got issues

Pay to get faster
through peer-review

Publish in 3 – 5 weeks from submission*

- Submission to acceptance: 2-3 weeks
 - 1-2 weeks for peer review†
 - 1 week for author revision
- Acceptance to online publication: 1-2 weeks, with proofs within 5 working days and 48 hours for author review

Cost per article: \$7000 / €6200 / £5500

Publish in 7 – 9 weeks from submission*

- Submission to acceptance: 5-6 weeks
 - 3-4 weeks for peer review
 - 2 weeks for author revision
- Acceptance to online publication: 2-3 weeks, with proofs within 10 working days

Cost per article: \$3900 / €3400 / £3000

...and we've got issues



The screenshot shows the homepage of the Public Health Reviews (PHR) journal. The header includes the PHR logo, the journal name, a CiteScore of 9.6, a 'How to publish' link, and a 'Submit' button. Below the header are download and share icons. The main content area features an editorial article titled «I Do Not Have Time»—Is This the End of Peer Review in Public Health Sciences? by Nino Künzl et al. The article has 12 authors and 8 institutions. A 'Check for updates' button is visible on the right side of the article summary.

PHR Public Health Reviews

CiteScore 9.6 How to publish Submit

EDITORIAL

Public Health Rev. 17 November 2022
<https://doi.org/10.3389/phrs.2022.1605407>

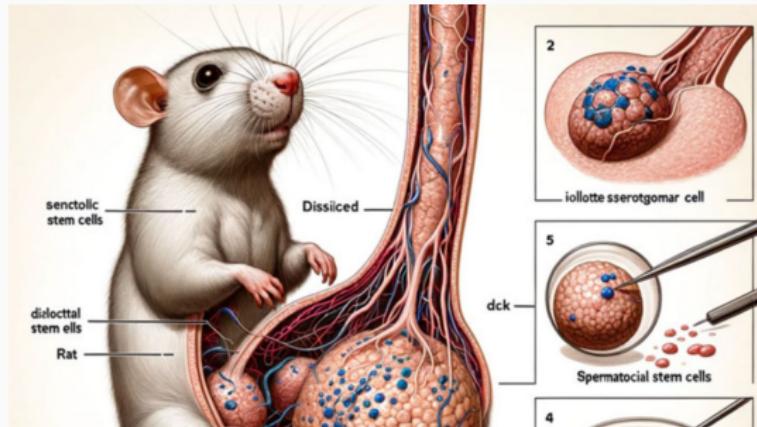
Check for updates

«I Do Not Have Time»—Is This the End of Peer Review in Public Health Sciences?

Nino Künzl^{1,2,3*}, Anke Berger^{1,3}, Katarzyna Czabanowska⁴, Raquel Lucas⁵, Andrea Madarasova Geckova⁶, Sarah Mantwill⁷ and Olaf von dem Knesebeck⁸

Editors **unable**
to find referees

...and we've got issues



and don't get me
started on [AI](#)

...and yet the system **thrives...**

RELX PLC
As of 7 aprile 2025 · 22:00 CEST

45,53 USD +22.86 (100,84%) ↑

1D 5D 1M YTD 1Y 5Y All



2021 2022 2023 2024 2025

51.2
40.7
30.2
19.7

Springer Nature's shares leap on Frankfurt debut

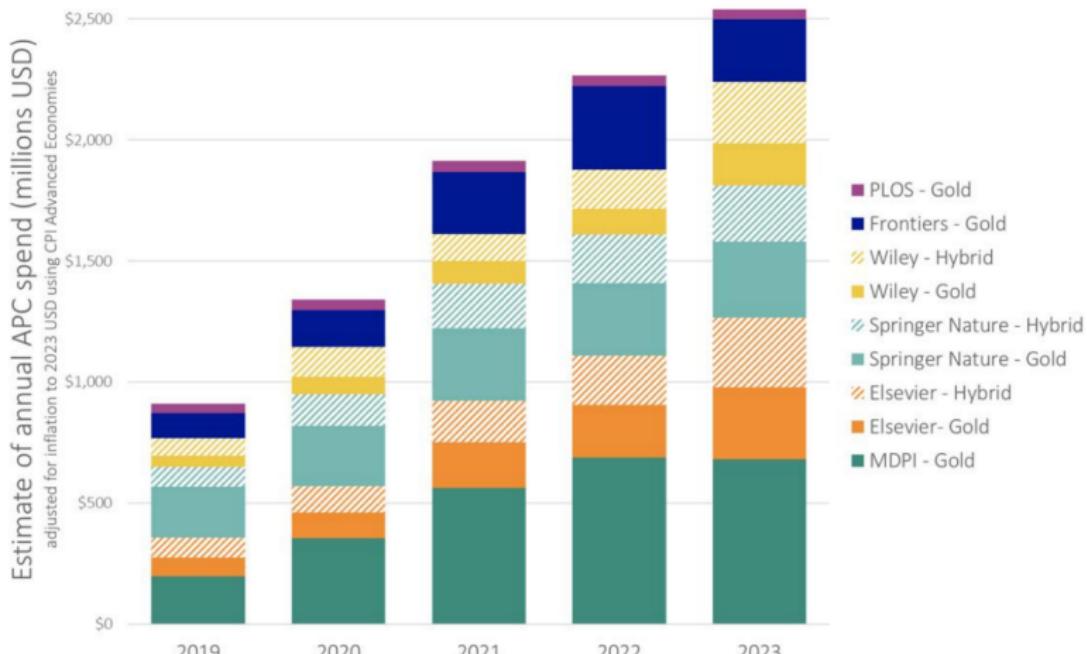
By Lucy Raitano and Hakan Ersen
October 4, 2024 11:00 AM GMT+2 · Updated 6 months ago



Consortium Academic L
Konsortium Hochschulb
Consortium universitaire
Consorzio d'universitarie

MDPI

...and it's not cheap

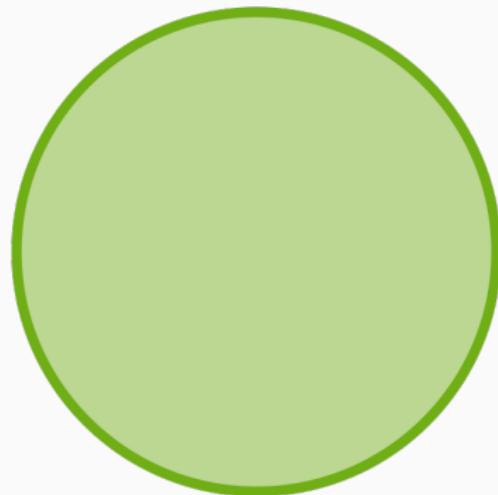


...from the **strain** to the **drain**

How does publishing **work?**

Behold the scientific publishing system

Publishers



Researchers

Funders

What does the system **do**?

What **functions** does the system fulfill?

for Scientists

- dissemination
- reputation
- sorting

for Publishers

- profits
- dissemination
- sustainability

for Funders

- selection
- prioritization
- public access

What do the different actors **want**?

What do different actors **want** from the system?

Scientists

- high reputation
- low effort
- stability

Publishers

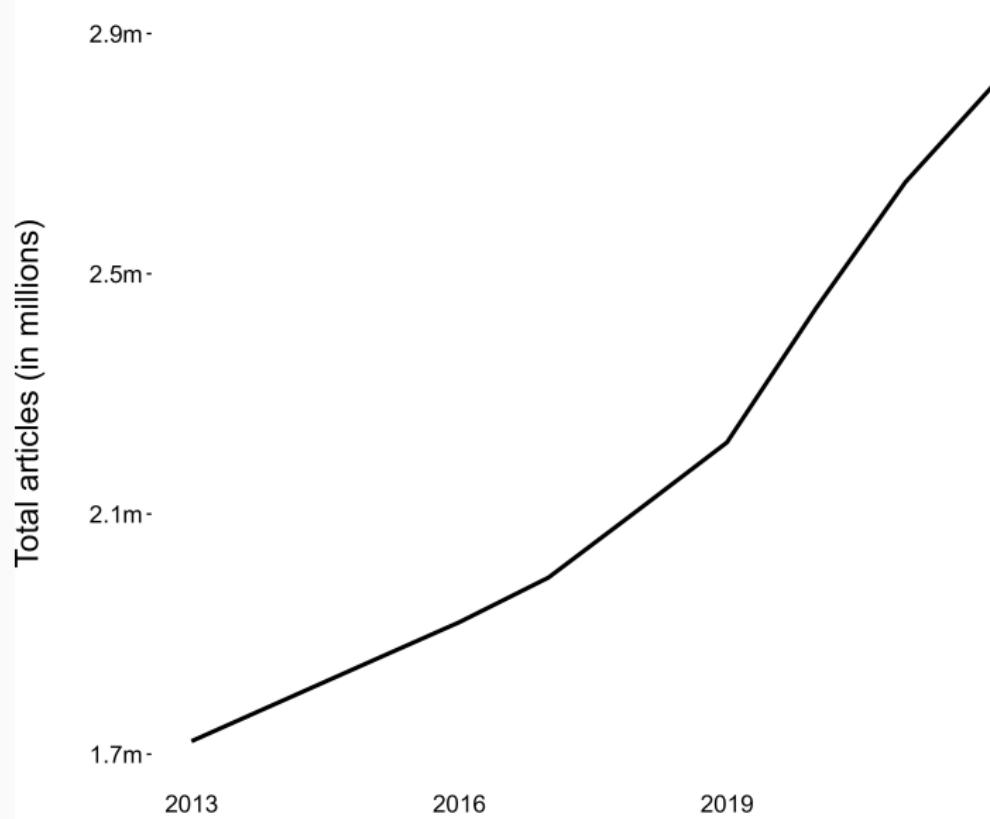
- high reputation
- high quantity
- high revenue

Funders

- stability
- true signal
- low spending

How did we get to this?

What trends are at play **behind** this growth?



Source: N papers -- Scimago website data; N PhDs - OECD

More is different

Growth is not **more of the same**:
growth means **change**.

- new practices
- new business strategies
- new incentives
- new constraints
- new meanings

4 August 1972, Volume 177, Number 4047

SCIENCE

More Is Different

Broken symmetry and the nature of the hierarchical structure of science.

P. W. Anderson

less relevance they seem to have to very real problems of the rest of science, much less to those of science.

The constructionist hypothesis is down when confronted with the difficulties of scale and complexity behavior of large and complex systems of elementary particles. It can not be tested by a simple extrapolation of the entities of a few particles. Instead each level of complexity entirely new properties appear, and the understanding of the new behaviors requires

We single out **five** indicators of strain on the system:

- Number and **size** of journals
- Number and role of **Special Issues**
- **Turnaround** times
- **Rejection** rates
- Impact Factor **inflation**

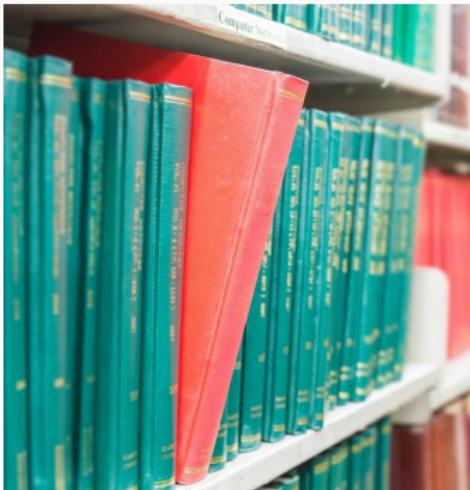
None of them is critical *per se*

together they indicate **strain imposed by publishers**

Under the hood: a **semantic** shift

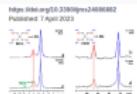
"Journal"

used to mean

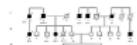


A physical object with limited available space

now it **also** means



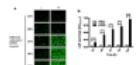
Cell Death
Gene Variants in MLH3 and ATM Genes in a Young Patient with MSI-III in a Precancerous Colonic Lesion
by Antonio Nolasco et al.
Published: 17 April 2023
https://doi.org/10.3390/genes14040873
Published: 22 March 2023



[This article belongs to the Special Issue *Macroscale and Nanoscale* in *Nanomedicine and Nanomedicine*]

► Show Figures

Anticancer
Molecular Analysis of KRAS G12C2 Somatic Mutations Induces Cell Permeability and Vimentin Secretion
by Yaxin Guo and Venkateswara K. Kannanagopal
Published: 18 March 2023
https://doi.org/10.3390/antican24030564
Published: 18 March 2023



[This article belongs to the Special Issue *Macroscale and Microscopic Thermodynamics: From Fundamentals to Practical Applications* 2 (8)]

► Show Figures

Computers **Open**

Crosstalk between Metabolite Production and Signaling Activity in Breast Cancer

by Cagla Cetinkaya, Carlos Lasaosa, María Pello-Ciampi and Joaquin De la

Published: 20 March 2023
https://doi.org/10.3390/computers1203044
Published: 20 March 2023

Abstract Chronic kidney disease is the gradual progression of kidney dysfunction and involves numerous co-morbidities, one of the leading causes of mortality. One of the primary complications of kidney dysfunction is the accumulation of toxins in the bloodstream, particularly protein-bound uremic toxins, which are associated with the progression of the disease. [This article belongs to the Special Issue *Macroscale and Microscopic Thermodynamics: From Fundamentals to Practical Applications* 2 (8)]

► Show Figures

OpenAccess **Open**

A limitless electronic repository with a name

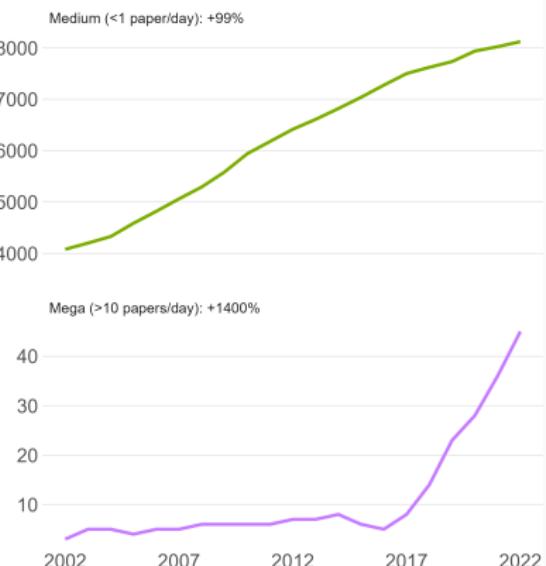
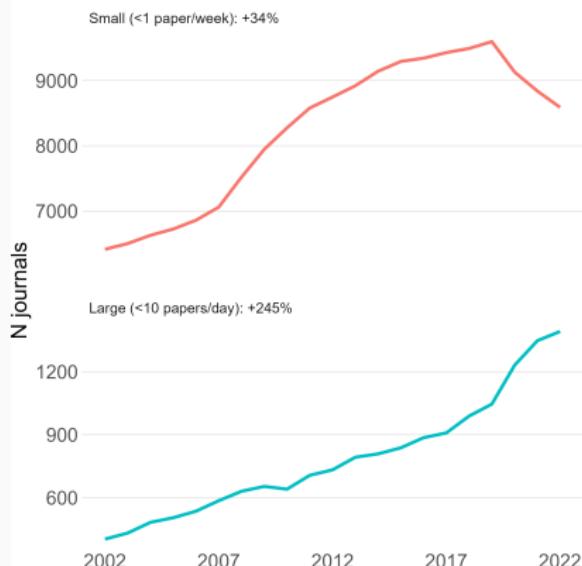
by Cagla Cetinkaya, Carlos Lasaosa, María Pello-Ciampi and Joaquin De la

Published: 20 March 2023
https://doi.org/10.3390/computers1203044
Published: 20 March 2023

...which led to this

The rise of mega-journals

Number of journals by class of size, 2002-22



Source: Scimago website data

Under the hood: a **semantic** shift...

"Publication"

used to mean

- a handful of journals
- long delays
- low acceptance rates
- free for authors
- do it and thrive

⇒ *good science rejected?*

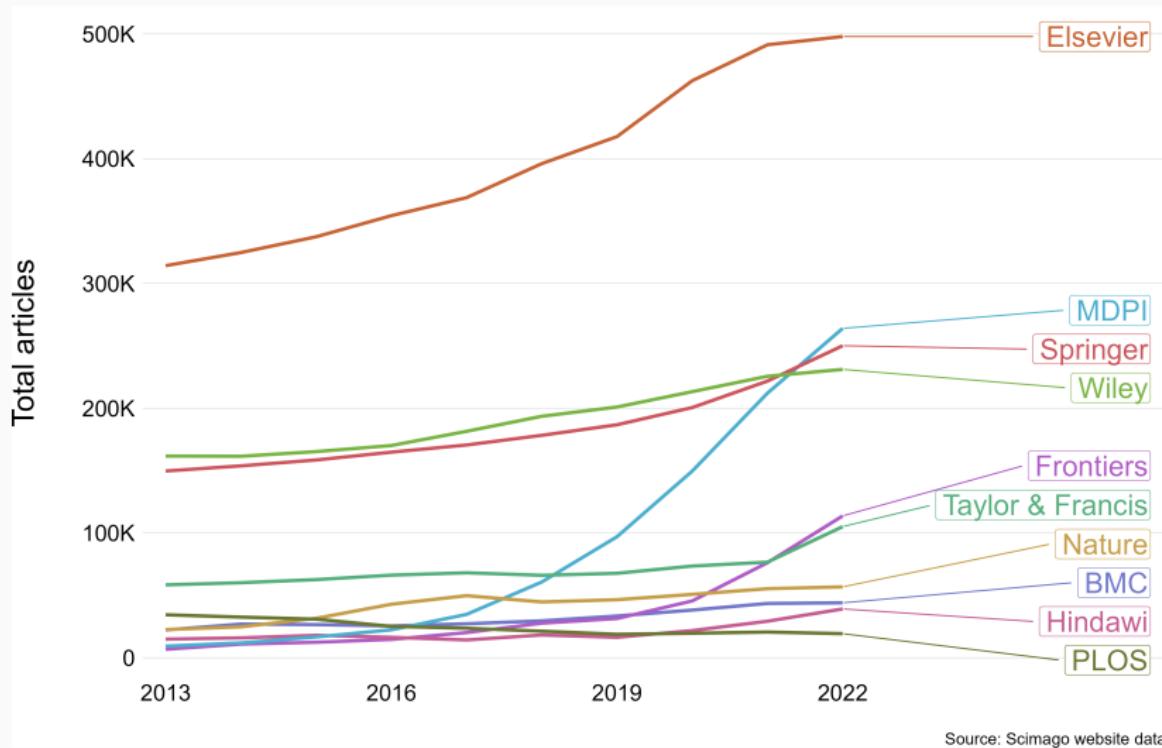
now it **also** means

- thousands of journals
- short delays
- high acceptance rates
- authors pay
- don't do it and die

⇒ *bad science accepted?*

...that led to this

The rise of the for-profit OA model



Source: Scimago website data

Under the hood: a **semantic** shift...

"Publisher business model"

used to mean

- Many small journals
- Readers pay
- \$ through subscription
- "*Polish your gems*"

Incentive to ↑ **quality**,
quantity? ...

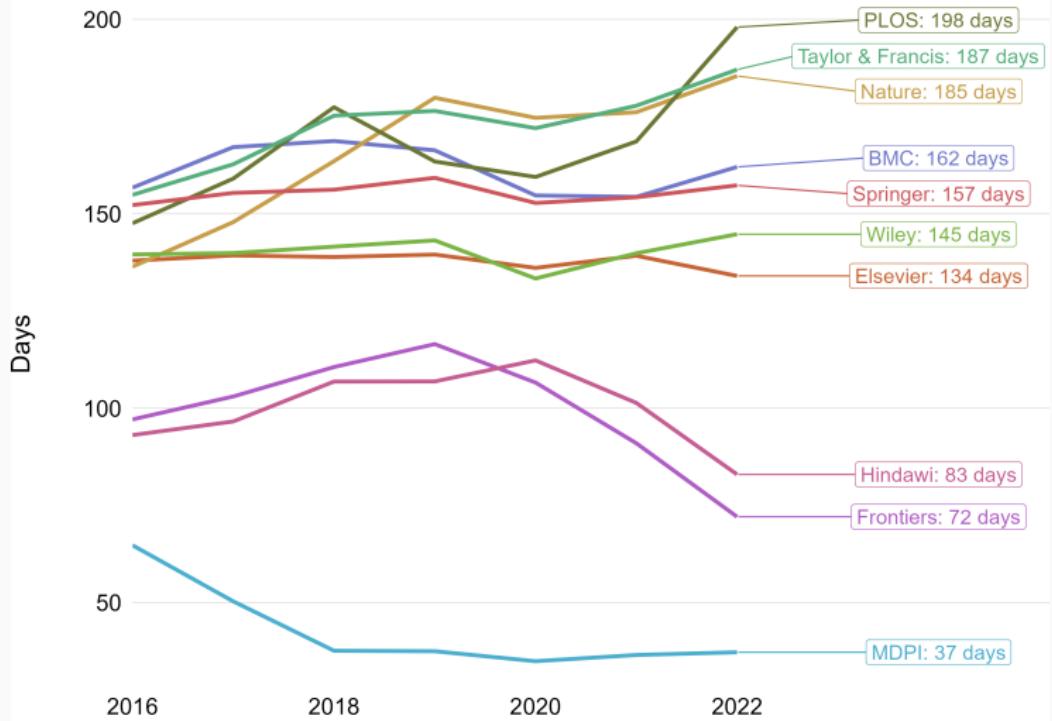
now it **also** means

- Few mega-journals
- Authors pay
- \$ through publication
- "*Get authors on board*"

Incentive to ↑ **quantity**,
quality? ...

...that led to this...

Much lower turnaround times...

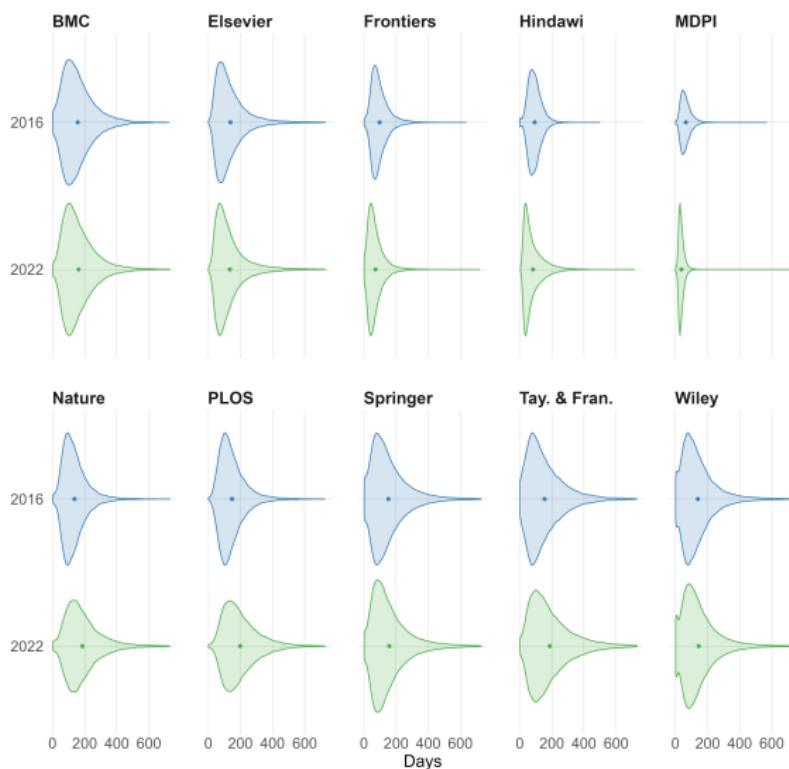


Source: data scraped on the publishers' website

...and this...

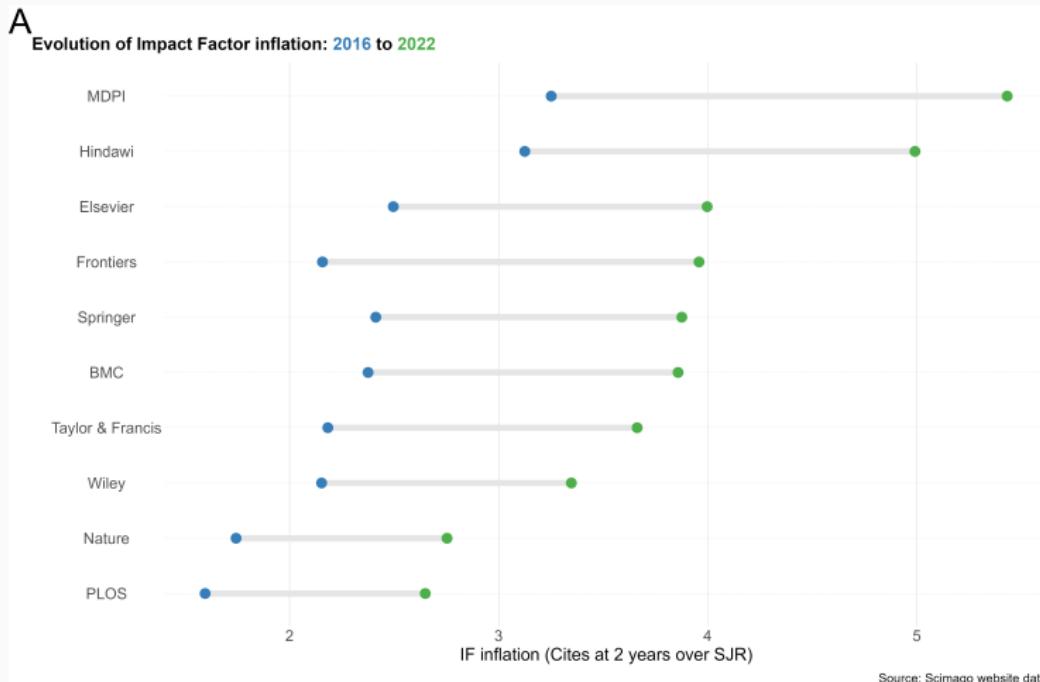
...increasingly homogeneous turnaround times

Article heterogeneity in turnaround times by publisher, 2016-22



...and this

...general **inflation** of the Impact Factor



Indicators of impact: Impact factor, Scimago Journal Rank

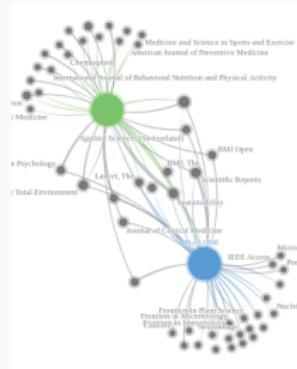
We measure **Impact Factor Inflation** as the ratio of IF to SJR

Impact Factor:

- cites/document at N years
- easily gamed

SJR: citation network counts

- Limits prestige from single source
- More prestige if cited by relevant journals
- Normalizes for field size
- Less easily gamed



Under the hood: a **semantic** shift...

"Special issue"

used to mean

- A once-in-a-while issue
- About a special topic
- Strict editor control
- regular > special

now it **also** means

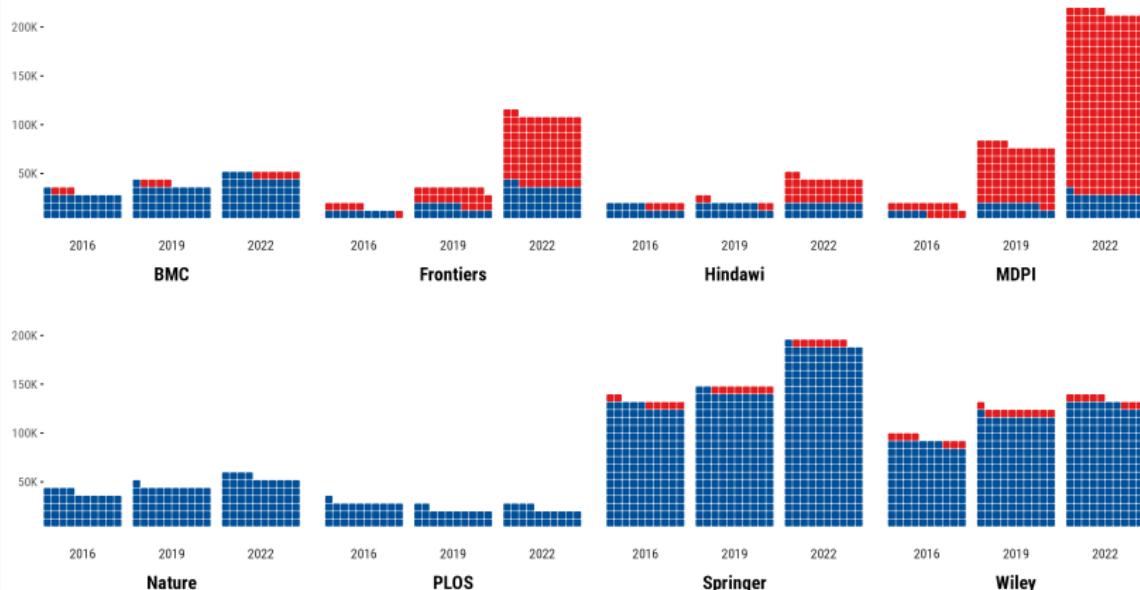
- A many-a-day issue
- About any topic
- Relaxed editor control
- special > regular

...that led to this

Not so **special** after all

Number of papers published in regular vs special issues, 2016-22

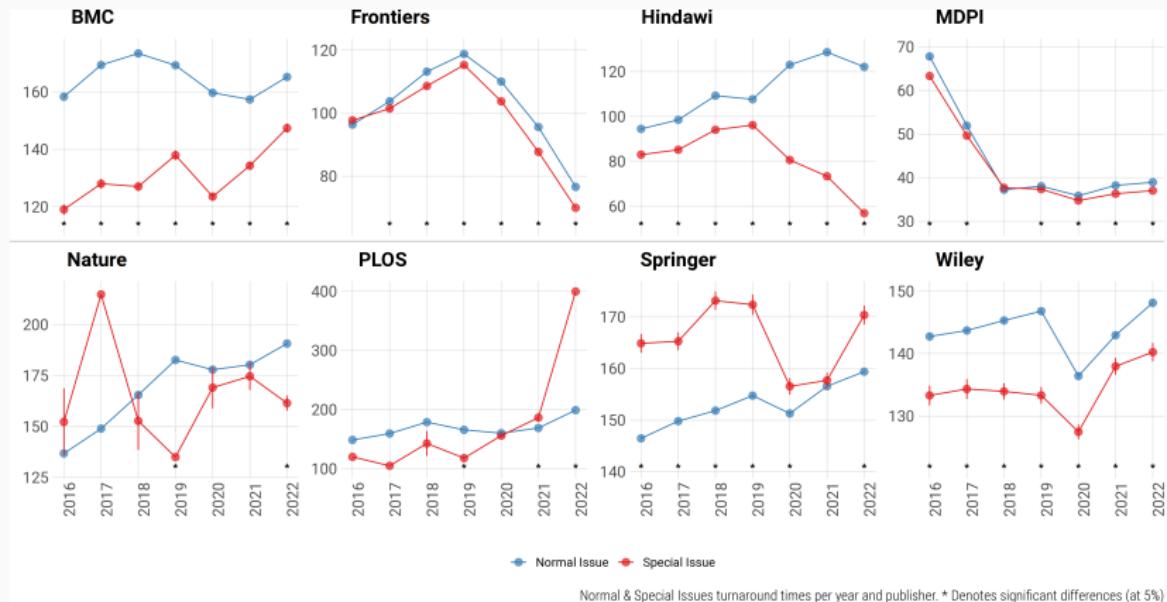
One square = 800 articles



Source: data scraped from the publisher's website

Note: Special Issues are called Collections at PLOS and Topics at Frontiers. For MDPI Collections, Sections and Topics not shown.

Lower TATs for Special Issues



summing up...

Change 2016-22

	TOTAL ARTICLES	SHARE SPECIAL ISSUE	TURNAROUND TIME (DAYS)	REJECTION RATE	IMPACT INFLATION
Overall	+47%	+27pp	-23	-1pp	+1.1
Elsevier	+41%	--	-4	+5pp*	+1.5
MDPI	+1080%	+14pp	-28	-8pp	+2.2
Springer	+52%	-1pp	+5	--	+1.5
Wiley	+36%	-2pp	+5	--	+1.2
Frontiers	+675%	+20pp	-25	+14pp	+1.8
Taylor & Francis	+59%	--	--	--	+1.5
Nature	+32%	+6pp	+49	--	+1
BMC	+73%	+1pp	+5	--	+1.5

Think individual journals differ? Head off to the strain explorer

Find all indicators journal by journal [here](#)

Click on this link



Summary: a **strained** system losing its compass

Trends

- Growth driven by **concentration**, especially in OA
- **Crazy** growth of special issues
- (Very) **fast** acceptance & peer review industrialization
- IF inflation for **everyone** – an IF arms race

Summary: a **strained** system losing its compass

Trends

- Growth driven by **concentration**, especially in OA
- **Crazy** growth of special issues
- (Very) **fast** acceptance & peer review industrialization
- IF inflation for **everyone** – an IF arms race

Risks

- How much can we **grow** before the bubble **bursts**?
- **Goodhart's law:** *When a measure becomes a target, it stops being a good measure*
- Risk of **instability** of quality signals

An addictive relationship

An **addictive** relationship

Demand

incentives to
publish OA

incentives to
publish more
& faster

tougher
competition

emerging
countries

An **addictive** relationship

Demand

incentives to publish OA

incentives to publish more & faster

tougher competition

emerging countries

Supply

reader-pays

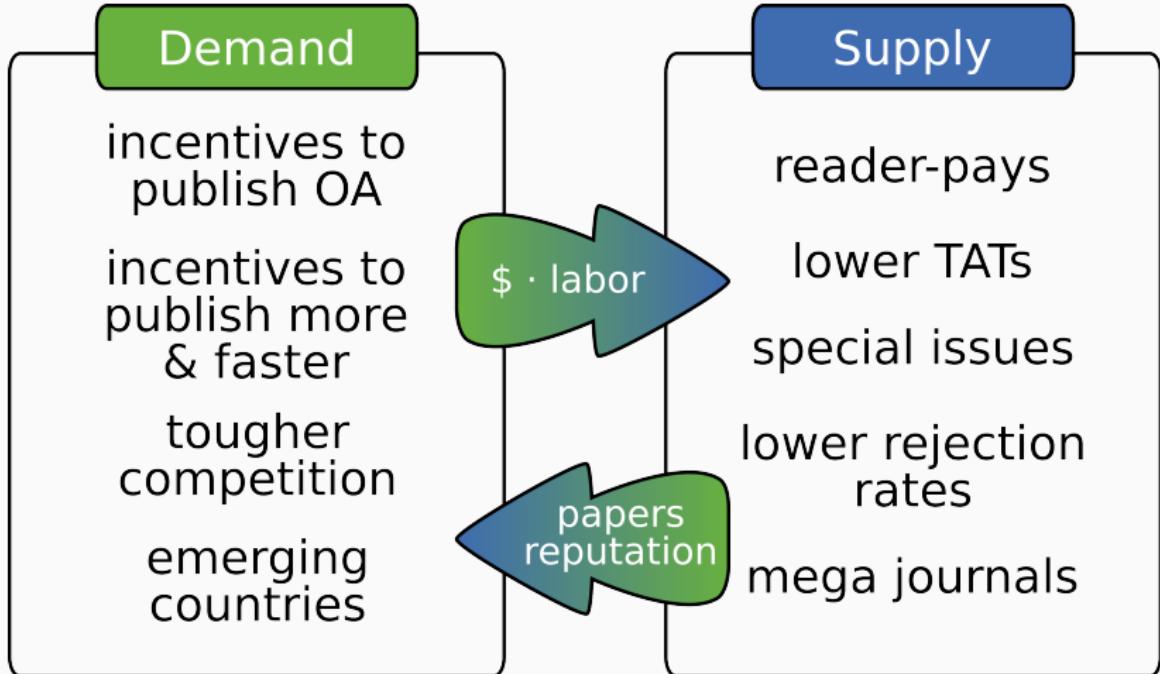
lower TATs

special issues

lower rejection rates

mega journals

An **addictive** relationship



An **addictive** relationship

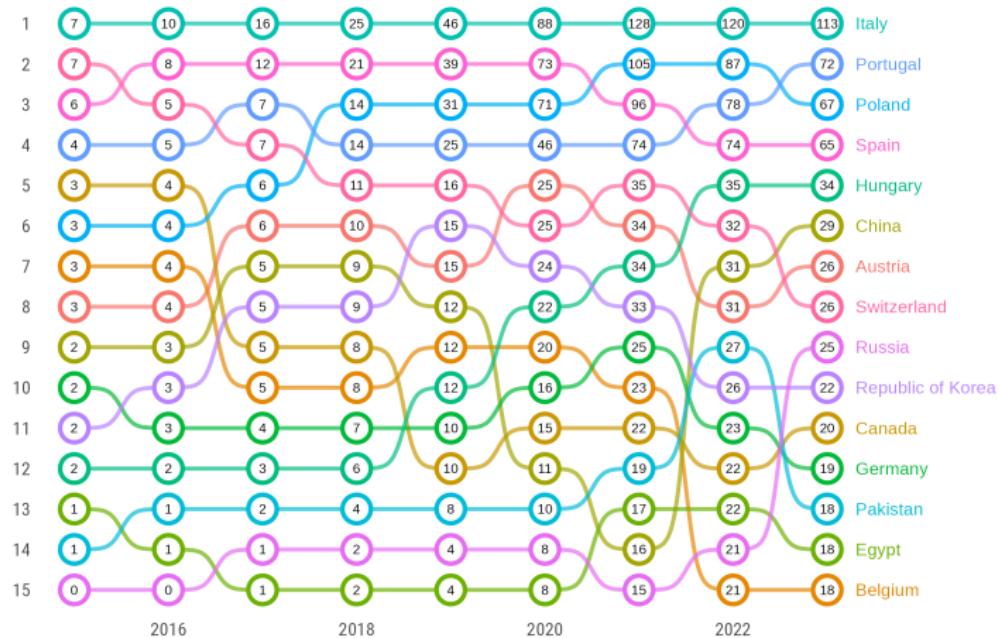
The **combination** of researchers' **need** to publish their work, and the **commercial** opportunities this presents publishers produces a **toxic relationship** reminiscent of **alcoholics** and the manufacturers of strong cheap **cider**. Each gets *what they want* from their interaction, but the result is **not pretty**.

**Examples of an addictive relationship:
where do these articles come from?**

Surprise – it's us

Papers published per 1000 researcher in MDPI journals, by country.

Absolute numbers and evolution of ranking, top 15 countries with at least 50000 researchers

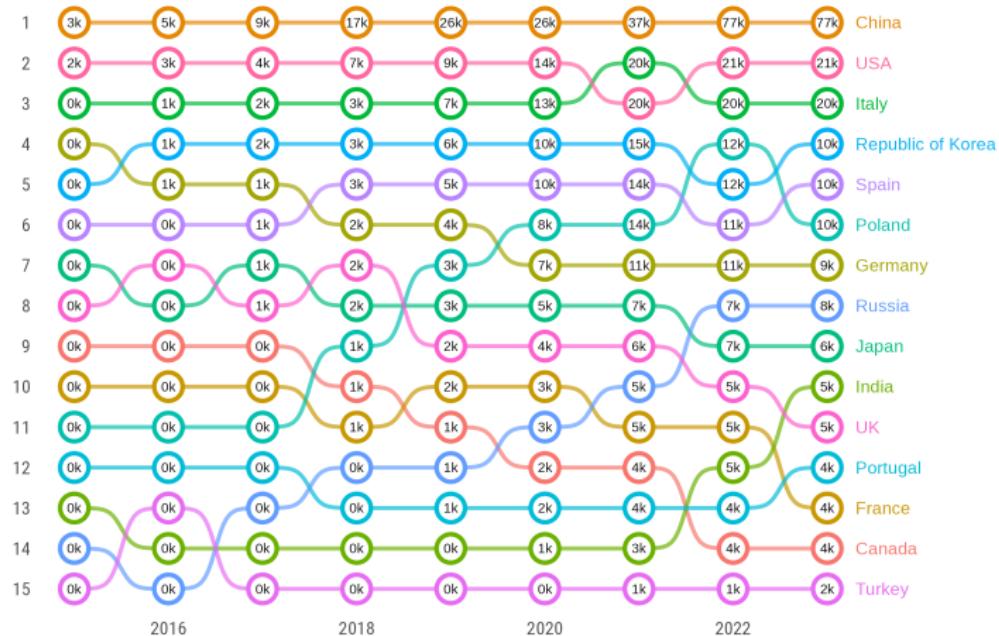


data: MDPI, UN, UNESCO -- analysis: the strain team

hey Paolo – do absolutes! ... it's still us

Papers published in MDPI journals.

Absolute numbers and evolution of ranking, top 15 countries



data: MDPI, UN, UNESCO -- analysis: the strain team

Examples of an addictive relationship:
Publish In Support of Self

A few people PISS a lot ...

Diet Therapy and Nutritional Management of Phenylketonuria

- Print Special Issue Flyer
- Special Issue Editors
- Special Issue Information
- Keywords
- Benefits of Publishing in a Special Issue
- Published Papers

A special issue of *Nutrients* (ISSN 2072-6643). This special issue belongs to the section "Clinical Nutrition".

Deadline for manuscript submissions: **closed (1 December 2021)** | Viewed by 111233

Printed Edition Available!
A printed edition of this Special Issue is available [here](#).



Towards Autonomous Operation of Biologics and Botanicals

- Print Special Issue Flyer
- Special Issue Editors
- Special Issue Information
- Keywords
- Benefits of Publishing in a Special Issue
- Published Papers

A special issue of *Processes* (ISSN 2227-9717). This special issue belongs to the section "Pharmaceutical Processes".

Deadline for manuscript submissions: **closed (30 April 2023)** | Viewed by 112496

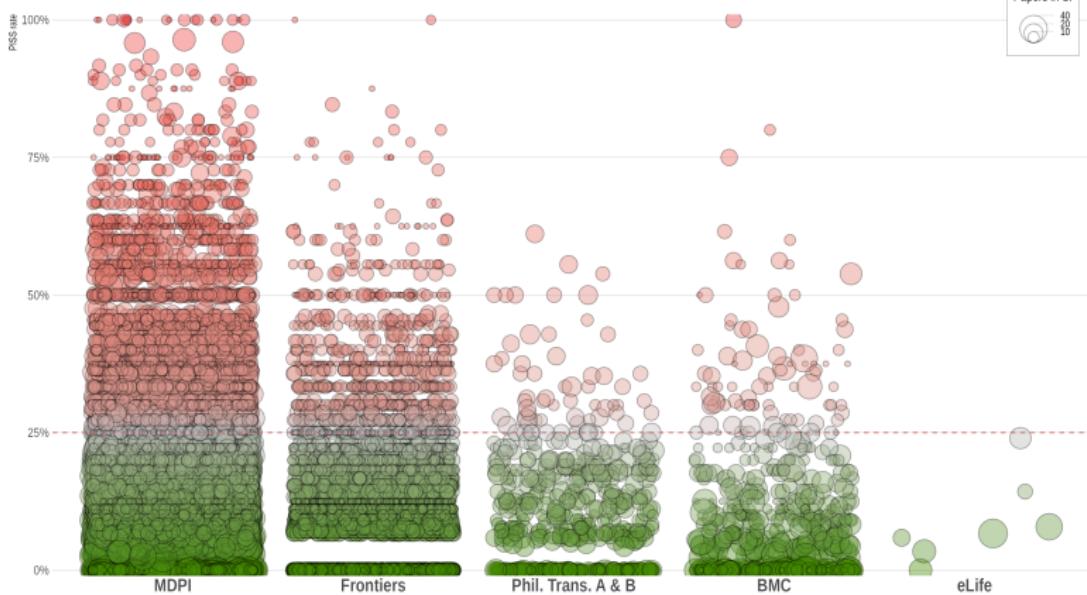
- MDPI Nutrients, 2021
- 1 editor
- 23/24 authored articles

- MDPI Processes, 2023
- 2 editors
- 27/28 authored articles

...or a lot of small-scale PISS?

Special Issues by rate of Publishing in Support of Self

All SIs with more than 8 papers, 2015-24



Data and analysis by the stain team

PISS as a common pool resource

Widespread small-scale PISS adds up to a lot

Overall				
	# SI	# ARTICLES	# ENDOGENOUS	% ENDOGENY
Total	102,246	912,087	116,243	14 ± 0.1
MDPI	79,108	709,524	97,360	15.3 ± 0.1
Frontiers	20,893	179,815	16,373	9.2 ± 0.2
BMC	1,052	9,916	1,315	17.1 ± 1.5
Discover	666	5,158	276	7.5 ± 1.4
Phil Trans	520	7,478	903	11.5 ± 1
eLife	7	196	16	8.9 ± 7.4

Examples of an addictive relationship:
Demand always finds its own supply

Clarivate delisted the largest MDPI journal in 2023

Clarivate certifies
journals' IF
on Web of Science

SCIENCEINSIDER | SCIENTIFIC COMMUNITY

Fast-growing open-access journals stripped of coveted impact factors

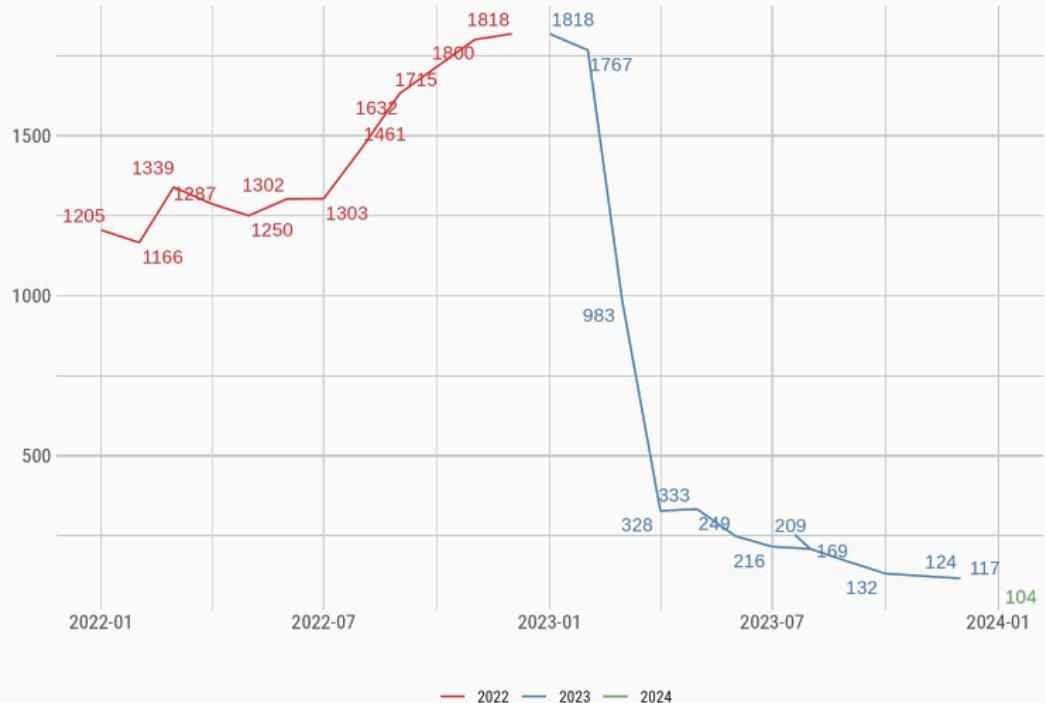
Web of Science delists some 50 journals, including one of the world's largest

28 MAR 2023 • 5:55 PM • BY JEFFREY BRAINARD



Delistings have dramatic effects – IJERPH

MDPI IJERPH: monthly accepted papers



And they extend to the whole publisher – MDPI

Monthly % change in submitted papers – 15 largest MDPI journals

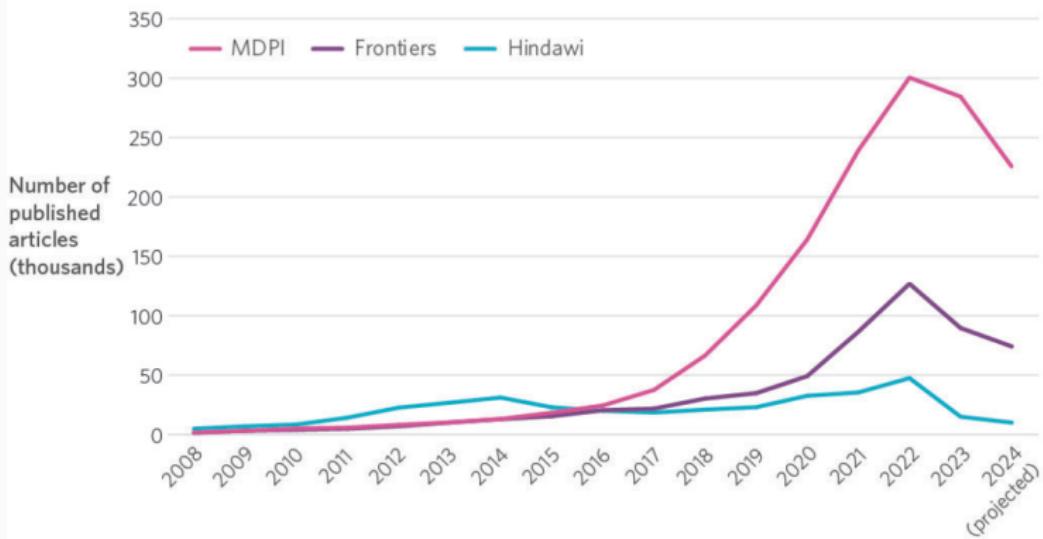
Over all 98 journals with an Impact Factor as of February 2023 and by journal

JOURNAL	N	2022					2023					
		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
Overall	287573	-1.50	6.79	8.33	11.84	4.35	2.33	-0.15	3.91	4.21	-22.34	-4.78
ijerph	17278	-2.11	4.97	12.22	10.58	7.53	1.06	1.23	5.72	-17.76	-73.12	-3.09
sustainability	17242	-1.25	17.01	1.99	15.28	5.20	-1.61	-3.04	11.13	23.61	-19.57	-2.33
ijms	16140	-6.21	6.01	17.66	12.10	6.27	2.30	-1.92	6.59	-0.54	-18.61	-1.38
applsci	12890	-1.35	-7.50	4.67	13.74	8.55	-2.43	10.51	4.20	11.82	-11.55	-2.22
sensors	10084	-2.11	3.19	13.06	7.72	6.47	13.83	-8.53	2.69	5.57	-12.83	-14.23
energies	9588	-3.18	4.05	1.54	30.41	4.04	-0.76	-5.75	5.53	-9.77	-5.94	-11.94
molecules	9066	-0.19	3.72	18.12	10.67	5.84	8.11	2.89	-6.99	2.63	-14.34	-15.79
materials	9046	-0.11	10.16	9.70	9.63	2.08	5.09	-2.38	-3.89	0.24	-7.36	-9.06
jcm	7299	-7.09	5.52	2.53	0.68	2.36	10.56	23.81	11.27	18.53	-26.60	-11.39
remotesensing	6416	0.18	14.87	1.16	2.53	5.16	-5.61	-2.18	1.08	9.67	-15.49	1.64
cancers	6252	6.90	12.50	9.05	7.81	1.07	11.92	-6.81	3.83	-5.01	-22.87	-2.57
polymers	5573	5.62	11.81	3.42	19.71	2.64	-5.62	-1.86	-1.77	13.38	-23.50	-2.52
nutrients	5276	0.91	8.37	3.92	12.11	5.61	0.19	1.83	1.23	5.70	-19.19	6.78
mathematics	4884	1.62	9.87	10.43	14.35	-13.54	5.58	0.92	-3.74	14.67	-13.32	1.56
nanomaterials	4434	0.35	-2.26	9.09	8.17	3.32	-3.07	-13.27	-4.70	-5.66	-8.51	-5.50
												-17.00

Source: data scraped on the publisher's website by @paolocrosetto

And to other **commercial OA** publishers

Published article volumes for MDPI, Frontiers, and Hindawi, 2008-2024



2024 projections extrapolated from first half year data. Results filtered to eliminate non-journal article content, such as conference abstracts, retraction notices, and front/back matter.

Source: Dimensions (www.dimensions.ai).

But someone will cater to that demand



Springer-Nature Discovers MDPI

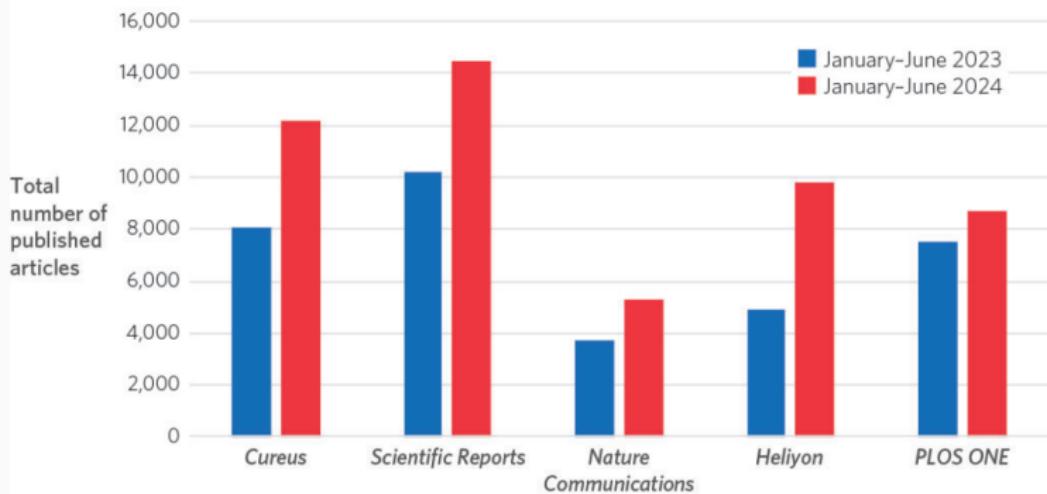
Article Processing Charges (2025) -- Nature Discover and similarly-named MDPI journals

DISCOVER	MDPI	NAME SIMILARITY	APCs (€)	
			DISCOVER	MDPI
Environmental Sciences				
Energy	Energies	●	1190	2789
Agriculture	Agriculture	●	1040	2782
Water	Water	●	1190	2782
Atmosphere	Atmosphere	●	1090	2568
Sustainability	Sustainability	●	1090	2568
Cities	Smart Cities	●	1040	2145
Environment	Environments	●	1090	1926
Geoscience	Geosciences	●	1040	1926
Soil	Soil Systems	●	1190	1926
Oceans	Oceans	●	1040	1712
Hazards	GeoHazards	●	1690	1072
Conservation	Conservation	●	1040	1070
Ecology	Ecologies	●	1040	1070

data: MDPI and Discover websites. Analysis: the Strain team

And Springer is not alone!

Total published article volumes for selected megajournals, 2023 versus 2024

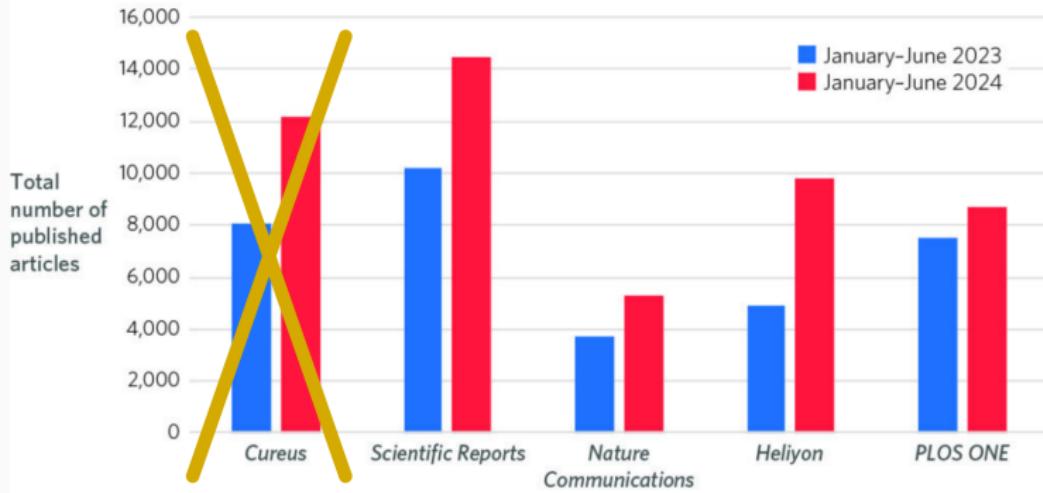


Results filtered to eliminate non-journal article content, such as conference abstracts, retraction notices, and front/back matter.

Source: Dimensions (www.dimensions.ai).

...oops busted

Total published article volumes for selected megajournals, 2023 versus 2024

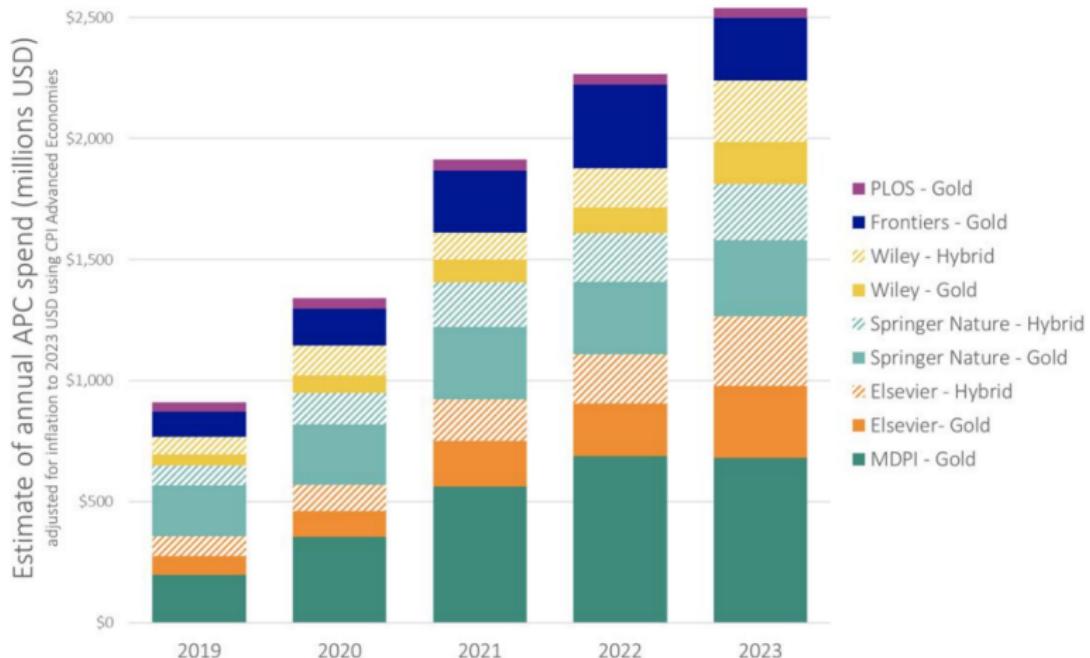


Results filtered to eliminate non-journal article content, such as conference abstracts, retraction notices, and front/back matter.

Source: Dimensions (www.dimensions.ai).

The **drain** of scientific publishing

...money drain



and the profits are exceptional

Academic publishers compared to 30 largest companies based on 2024 revenue

Revenue and profit in million USD, from consolidated revenue. Companies sorted by profit margin.

HEADQUARTERS	EMPLOYEES	REVENUE	PROFITS	MARGIN
Academic publishing · NAICS 511 · Mean industry net profit margin: 12%				
RELX	United Kingdom	36,400	12,057	4,088
Elsevier	United Kingdom	9,700	3,899	1,497
Informa	United Kingdom	11,400	4,542	1,271
Taylor & Francis	United Kingdom	11,000	892	327
Springer Nature Group	Germany	9,092	1,998	554
Springer Nature Research Segment	Germany	6,125	1,529	488
Wiley	United States	6,400	1,042	331
MDPI	Switzerland	6,650	--	--
Frontiers	Switzerland	1,440	--	--

Mean: 34%

33%

38%

27%

36%

27%

31%

31%

Industry net profit margins and industry classification obtained from Dow Jones Factiva Industry Snapshot. List of largest companies obtained from Wikipedia, revenues and profits (in million USD) and number of employees extracted from annual financial reports and converted to USD if necessary.

Source: https://en.wikipedia.org/wiki/List_of_largest_companies_by_revenue

Mean 2024 average exchange rates for USD used: GBP: 1.2781; EUR 1.0822; RMB: 0.1393; JPY: 0.0066; NTD: 0.0312

comparable to IT

Academic publishers compared to 30 largest companies based on 2024 revenue

Revenue and profit in million USD, from consolidated revenue. Companies sorted by profit margin.

HEADQUARTERS	EMPLOYEES	REVENUE	PROFITS	MARGIN
Information technology · NAICS 334 · Mean industry net profit margin: 27%				
Microsoft	United States	228,000	245,122	88,136 35%
Alphabet	United States	183,323	350,018	100,118 28%
Apple	United States	164,000	391,035	93,736 23%

Industry net profit margins and industry classification obtained from Dow Jones Factiva Industry Snapshot. List of largest companies obtained from Wikipedia, revenues and profits (in million USD) and number of employees extracted from annual financial reports and converted to USD if necessary.

Source: https://en.wikipedia.org/wiki/List_of_largest_companies_by_revenue

Mean 2024 average exchange rates for USD used: GBP: 1.2781; EUR 1.0822; RMB: 0.1393; JPY: 0.0066; NTD: 0.0312

More than oil & gas

Academic publishers compared to 30 largest companies based on 2024 revenue

Revenue and profit in million USD, from consolidated revenue. Companies sorted by profit margin.

HEADQUARTERS	EMPLOYEES	REVENUE	PROFITS	MARGIN
Oil and gas · NAICS 21111 · Mean industry net profit margin: 21%				
Saudi Aramco	Saudi Arabia	75,118	480,446	106,246 Mean: 8%
ExxonMobil	United States	60,900	349,585	35,063 22%
Chevron	United States	39,742	193,414	17,611 10%
TotalEnergies	France	102,887	241,550	18,264 9%
China National Petroleum Corporation	China	1,000,800	436,875	28,677 7%
Shell	United Kingdom	96,000	289,029	16,521 6%
China Petrochemical Corporation	China	355,952	428,286	20,805 5%
BP	United Kingdom	100,500	194,629	6,782 4%
				3%

Industry net profit margins and industry classification obtained from Dow Jones Factiva Industry Snapshot. List of largest companies obtained from Wikipedia, revenues and profits (in million USD) and number of employees extracted from annual financial reports and converted to USD if necessary.

Source: https://en.wikipedia.org/wiki/List_of_largest_companies_by_revenue

Mean 2024 average exchange rates for USD used: GBP: 1.2781; EUR 1.0822; RMB: 0.1393; JPY: 0.0066; NTD: 0.0312

...time drain

- Estimated proofreading time: 63 million hours **in 2016**
- More time spent looking for funding, evaluating projects...
- ...only to end up producing even **more papers!**

- What future for quality signals?
- Can the general public still trust us?
- How can we tell if a result is credible?

How can we **change** the system?

Two recipes for change

Bottom-up

- Peer-Community in
- preprints
- blacklisting publishers

but **incentives** are
hard to beat

Two recipes for change

Bottom-up

- Peer-Community in
- preprints
- blacklisting publishers

but **incentives** are
hard to beat

Top-down

- the power of the purse
- quality over quantity
- manage collective action

but **institutions** are
slow & constrained!

Signals of ongoing **change**: we won't pay



The Foundation Will Not Pay Article Processing Charges (APC). Any publication fees are the responsibility of the grantees and their co-authors.



Finland Publication Forum will downgrade hundreds of Frontiers and MDPI journals

A committee of scholars in Finland has decided to downgrade 271 journals from Frontiers and MDPI in their quality rating system, in a move that may discourage researchers from submitting manuscripts to the outlets.



Publication
Forum

Signals of ongoing **change**: no \$ for Special Issues



The SNSF will no longer fund articles in special issues

From 1 February 2024, the SNSF will no longer fund Open Access articles in special issues.

Although special issues are excluded from research funding according to SNSF rules, the number of publications has increased in recent years. There will therefore be no further funding for special issues. You may continue to publish in special issues, but the APC costs will increase. This is a step towards more sustainable funding of publications and promoting the quality of articles published by a researcher. You can find more information in the following subtitle.

[< Actualités](#)

The Library Open Access team can help you choose your titles and advise you on funding options from SNSF or the institution. Please do not hesitate to contact us.

If the game is rigged – you might consider to **stop** playing

GREETINGS PROFESSOR FALKEN

HELLO

A STRANGE GAME.
THE ONLY WINNING MOVE IS
NOT TO PLAY.

Is this the time to be radical?

- Get rid of the owners of "publication" badges
- or just buy them off ($\sim 50B$)
- Re-communalize journals

Is this the time to be radical?

- Get rid of the owners of "publication" badges
- or just buy them off ($\sim 50B$)
- Re-communalize journals
- But also: do we *need* journals?
- Embrace post-preprint peer review
- ...



GRAZIE