

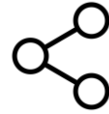
You are free to

- share, adapt or re-mix
- photograph, video or broadcast
- blog, live-blog or post-video

this presentation

Provided that



you attribute the work to its author and respect the rights and licenses associated with its components





Open Science: the time is now

Scientific Information Services for All
30th November 2021

 pcmasuzzo
 paola.masuzzo@gmail.com

[...] there is a need for a **vigorous** and **informed democratic debate** on the **production** and **use** of **scientific knowledge**.



[...] there is a need for a **vigorous** and **informed democratic debate** on the **production** and **use** of **scientific knowledge**.

Greater **interdisciplinary** efforts [...] are a prerequisite for dealing with **ethical, social, cultural, environmental, gender, economic** and **health** issues.

[...] there is a need for a **vigorous** and **informed democratic debate** on the **production** and **use** of **scientific knowledge**.

Greater **interdisciplinary** efforts [...] are a prerequisite for dealing with **ethical, social, cultural, environmental, gender, economic** and **health** issues.

Enhancing the role of science for a more [...] **sustainable** world requires the long-term **commitment** of all stakeholders [...] through [...] the appropriate review of investment priorities, and the **sharing of scientific knowledge**.



JULY 1, 1999

UNESCO AND ICSU PUBLISH THE DECLARATION OF SCIENCE



JULY 1, 1999

UNESCO AND ICSU PUBLISH THE DECLARATION OF SCIENCE



AUGUST 1998

**FOUNDING OF FIRST
COMMERCIAL OPEN ACCESS
PUBLISHER: BIOMED
CENTRAL**



JULY 1, 1999

UNESCO AND ICSU PUBLISH THE DECLARATION OF SCIENCE



AUGUST 1998

**FOUNDING OF FIRST
COMMERCIAL OPEN ACCESS
PUBLISHER: BIOMED
CENTRAL**



MARCH 23, 2000

**OPEN LETTER CIRCULATED BY
PLOS FOUNDERS**



BY



JULY 1, 1999

UNESCO AND ICSU PUBLISH THE DECLARATION OF SCIENCE



AUGUST 1998

**FOUNDING OF FIRST
COMMERCIAL OPEN ACCESS
PUBLISHER: BIOMED
CENTRAL**



MARCH 23, 2000

**OPEN LETTER CIRCULATED BY
PLOS FOUNDERS**



FEBRUARY 14, 2002

**THE BUDAPEST OPEN ACCESS
INITIATIVE**



BY



JULY 1, 1999

UNESCO AND ICSU PUBLISH THE DECLARATION OF SCIENCE



AUGUST 1998

**FOUNDING OF FIRST
COMMERCIAL OPEN ACCESS
PUBLISHER: BIOMED
CENTRAL**



MARCH 23, 2000

**OPEN LETTER CIRCULATED BY
PLOS FOUNDERS**



FEBRUARY 14, 2002

**THE BUDAPEST OPEN ACCESS
INITIATIVE**



MAY 15, 2002

**CREATIVE COMMONS
FOUNDED**



a common understanding of open science

a transition to a more open and participatory way of **conducting**, **publishing** and **evaluating** scholarly research

central to this is the goal of increasing **cooperation** and **transparency** in all research stages

open science leads to more **robust** scientific results, to more **efficient** research and (faster) access to scientific results for **everyone**

this generates bigger societal and economic **impact**





COVID-19

The Coronavirus (COVID-19) outbreak highlights serious deficiencies in scholarly communication

Will the pandemic permanently alter scientific publishing?

'A completely new culture of doing research.' Coronavirus outbreak changes how scientists communicate

Coronavirus Research Is Moving at Top Speed—With a Catch

Scientists are posting their papers on the China outbreak as fast as they can write them, skipping traditional journals.

The hunt for a coronavirus cure is showing how science can change for the better

How the COVID-19 crisis has prompted a revolution in scientific publishing


Sharing research data and findings relevant to the novel coronavirus (COVID-19) outbreak

we need unconditional support to open science



Lutz Möller
@moellerl

...

A Milestone! While formal adoption will take place next week, [#unescoGC](#)  has had its final discussion and endorsement on the landmark [@UNESCO #OpenScience](#) Recommendation. Unanimously! More than 50 governments voiced unconditional strong support. Great Day!



Marc Schiltz and 5 others



BY

we need unconditional support to open science



Lutz Möller
@moellerl

A Milestone! While formal adoption will take place next week, #unescoGC 🏛️ has had its final discussion and endorsement on the landmark @UNESCO #OpenScience Recommendation. Unanimously! More than 50 governments voiced unconditional strong support. Great Day!



Marc Schiltz and 5 others

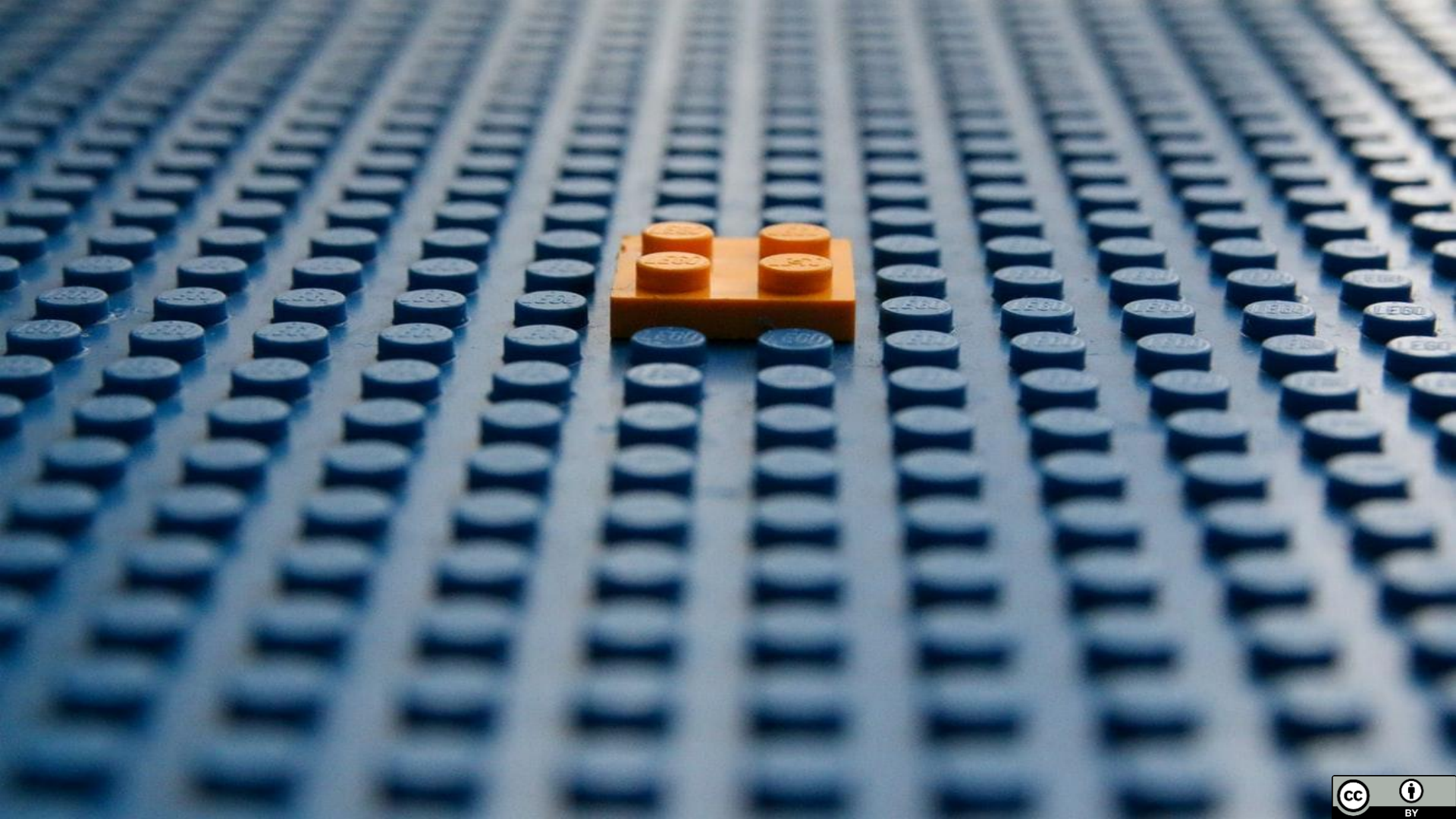
"Open Science should embrace a **diversity** of knowledge, practices, workflows, languages, research outputs and research topics that support the needs and epistemic **pluralism** of the scientific community as a whole, diverse research communities and scholars, as well as the **wider public** and knowledge holders **beyond the traditional scientific community**, including Indigenous Peoples and local communities, and social actors from different countries and regions, as appropriate."

<https://en.unesco.org/science-sustainable-future/open-science/recommendation>





OPEN





multilingualism

sustainable open access

incentives & rewards

a new, kind science

open science for whom?



all languages matter



the lingua franca of science is English;
this comes with consequences:

- over-representation of positive and/or statistically significant results
- information on local species, ecosystems and phenomena can be overlooked
- knowledge transfer problem, especially for local practitioners, policymakers and the public at large who wants (and has all the rights) to access this knowledge

all languages matter

the lingua franca of science is English;
this comes with consequences:

- over-representation of positive and/or statistically significant results
- information on local species, ecosystems and phenomena can be overlooked
- knowledge transfer problem, especially for local practitioners, policymakers and the public at large who wants (and has all the rights) to access this knowledge



dissemination of research results for the **full benefit** of the society

protect national infrastructures for **locally relevant research**

promote **language diversity** in research assessment, evaluation, and funding systems



#InAllLanguages

READ

SIGN

SIGNATORIES

INFO

ENGLISH

Helsinki Initiative on Multilingualism in Scholarly Communication

multilingualism in OA models



Janne Pölonen
@PolonenJanne



Remarks on structural equity [#OAWeek2021](#), [#APC](#) & [#Multilingualism](#). [#DiamondOA](#) is the only practicable [#GoldOA](#) option for the vast majority of journals in languages other than English across the world doi.org/10.5281/zenodo... with [@ekulczycki](#) [@ElinaLate](#) [@Roeggen](#) [@GunnarSivertsen](#)



zenodo.org

Response to BOAI steering committee concerning multilingualism i...

On the occasion of the 20th anniversary of the Budapest Open Access Initiative (BOAI), the BOAI2020 steering committee asked ...

7:16 AM · Oct 29, 2021 · Twitter Web App

5 Retweets 2 Quote Tweets 18 Likes



38% of **diamond OA journals** are multilingual, while only 14% of **APC journals** are



OA needs sustainable funding mechanisms

the APC funding model
jeopardizes not only diversity,
equity and inclusion but also
quality of academic work

OA needs sustainable funding mechanisms

the APC funding model jeopardizes not only diversity, equity and inclusion but also quality of academic work

non-profit publishers in the various local and national languages across the world rely mainly on voluntary work of committed researchers and lack sufficient resources they require to maintain high standards of scholarly publishing and for sustainable OA transition

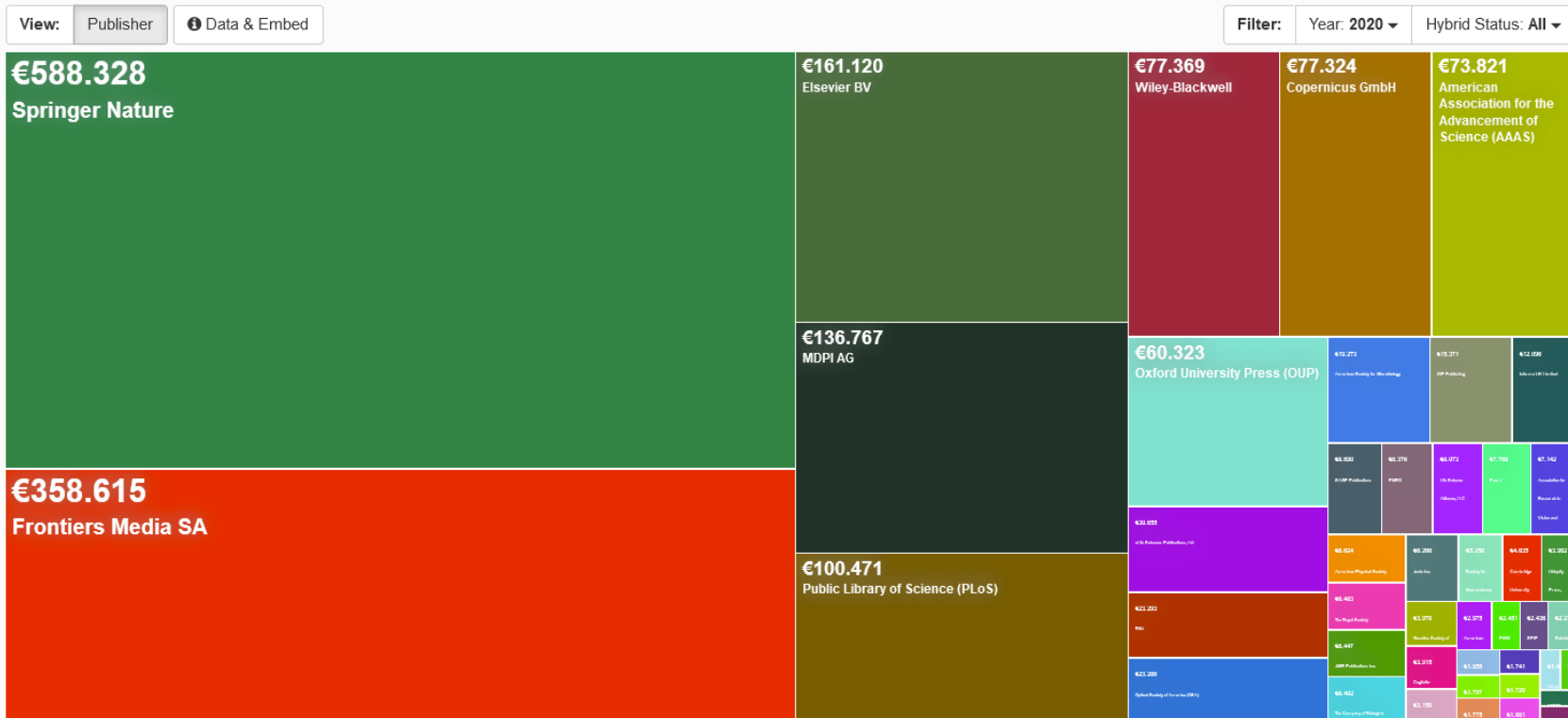
OA needs sustainable funding mechanisms

the APC funding model jeopardizes not only **diversity**, equity and inclusion but also **quality of academic work**

non-profit publishers in the various local and national languages across the world rely mainly on **voluntary work** of committed researchers and lack sufficient resources they require to maintain high standards of scholarly publishing and for **sustainable OA transition**



SWISS NATIONAL SCIENCE FOUNDATION (SNSF)



we need to reform incentives



we need to reform incentives

Scientific Utopia: II. Restructuring Incentives and Practices to Promote Truth Over Publishability

Brian A. Nosek, Jeffrey R. Spies, Matt Motyl

there is a **conflict of interest** between the personal interests of researchers and the ultimate purpose of research, which is to **produce knowledge**

incentives for professional success are at odds with scientific practices that produce more **robust** and more **credible** (perhaps even truer?) science



we need to tell it like it is

Science Fictions

Stuart Ritchie



Exposing Fraud,
Bias, Negligence
and Hype in Science

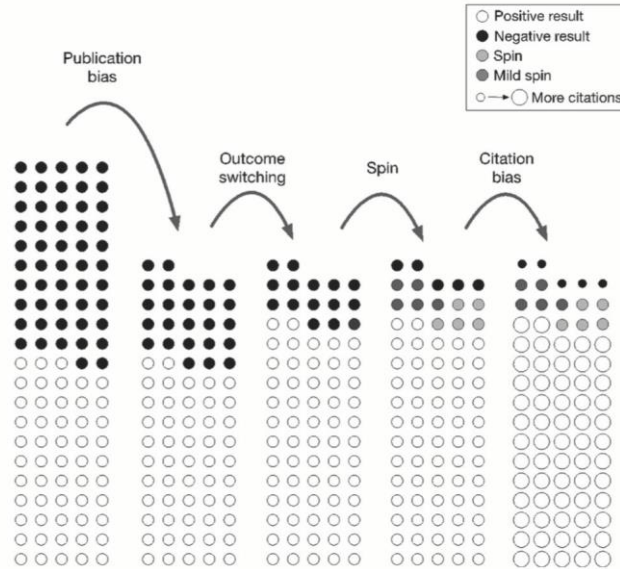


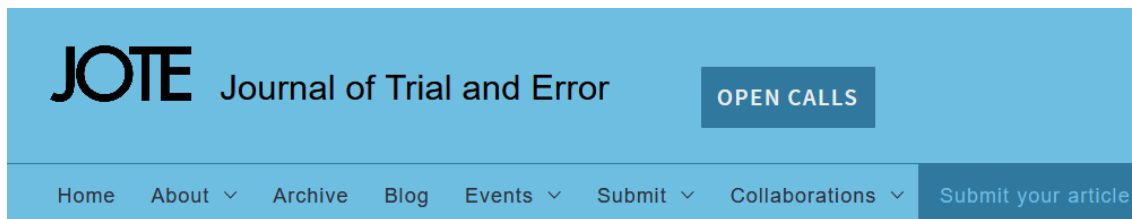
Figure 1. The cycle of bias and spin that hides negative results. Each dot represents a trial of antidepressants; black dots are negative studies. We can watch the negative trials disappear as we move from left to right. Negative studies are: published substantially less than the positive ones; transformed into positive studies by outcome switching; spun into positive-sounding ones, either mildly or substantially; and cited far less than the positive studies, which have their dots inflated in the final column. At the end, almost all you can see are the positive results. Adapted from de Vries et al. (2018).

every research article tells a story, but the pressure to provide **clean narratives** is harmful for the scientific endeavor

we need transparency in reporting *limitations* and *inconclusive results*

we need to talk more about **#failtales**

the struggles in research are real: why hide them?



Science Fails. Let's Publish

Sean Devine¹, Max Bautista Perpinya², Valentine Delrue^{3,4}, Stefan Gaillard^{2,5},
Thomas F. K. Jorna², Martijn van der Meer^{5,6}, Lottricia Millett⁷, Chelsea
Pozzebon⁸, Jobke Visser⁹

“You must learn from the mistakes of others.
You can’t possibly live long enough to make
them all yourself.”

Samuel Levenson



<https://www.jtrialerror.com/> + <https://psyarxiv.com/rsn5y/>



science (and scientists) needs more kindness

“A kinder research culture will build stronger, deeper support for research.”

nature

we have to renew the
(perhaps dead) dialogue
with society

competence alone is not
enough: people will not
trust unkind science

<https://www.nature.com/articles/d41586-020-00269-0>



BY

science (and scientists) needs more kindness

“A kinder research culture will build stronger, deeper support for research.”

nature

we have to renew the
(perhaps dead) **dialogue**
with society

competence alone is not
enough: **people will not**
trust unkind science



Dr. Jaclyn A. Siegel
@jacasiiegel

The next frontier in science reform is promoting kindness.

3:18 PM · Nov 15, 2021 · Twitter for iPhone

60 Retweets 9 Quote Tweets 440 Likes



Vittorio Iacovella
@V_iacovella

Replying to @pcmasuzzo

From "A new kind of science" to "a new, kind science".

9:43 AM · Nov 16, 2021 · Twitter for Android

1 Retweet 2 Likes

...



there is no open without inclusion

we have talked about diversity in an implicit way, but it's time we get explicit about it: diversity, equity, inclusion are non-negotiable and must be at the very foundation of the open science journey

whose responsibility? everyone's

we can and must do more and better



recognizing the problem is the first step

the **academic culture** of working harder and longer is a diversity, equity, and inclusion issue in itself



Dr Zoë Ayres
@ZJAyres



Voices of Academia

Improving mental health and wellness in academia by giving you a voice. ...

Launching **#100voices**. 100 researchers, 100 **#mentalhealth** journeys over 100 days. Let's get the conversation started around mental health, exploring what peers, friends and ourselves so often experience.

You are not alone. 🧡

<https://www.zjayres.com/100voices> + <https://www.nature.com/articles/d41586-020-01294-9>



recognizing the problem is the first step

the **academic culture** of working harder and longer is a diversity, equity, and inclusion issue in itself



Dr Zoë Ayres
@ZJAyres



Voices of Academia

Improving mental health and wellness in academia by giving you a voice. ...

Launching **#100voices**. 100 researchers, 100 **#mentalhealth** journeys over 100 days. Let's get the conversation started around mental health, exploring what peers, friends and ourselves so often experience.

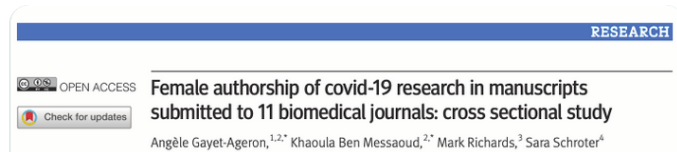
You are not alone. 🧡

<https://www.zjayres.com/100voices> + <https://www.nature.com/articles/d41586-020-01294-9> + <https://500wsbern.wixsite.com/500wsbern/sign> + <https://www.bmj.com/content/375/bmj.n2288>



Gary Collins
@GSCollins

"Women have been underrepresented as co-authors and in prominent authorship positions in covid-19 research, and this gender disparity needs to be corrected by those involved in academic promotion and awarding of research grants." => [bmj.com/content/375/bmj...](https://www.bmj.com/content/375/bmj...)



Are women publishing less during the pandemic? Here's what the data say



Addressing gender inequality
in Academia in Switzerland

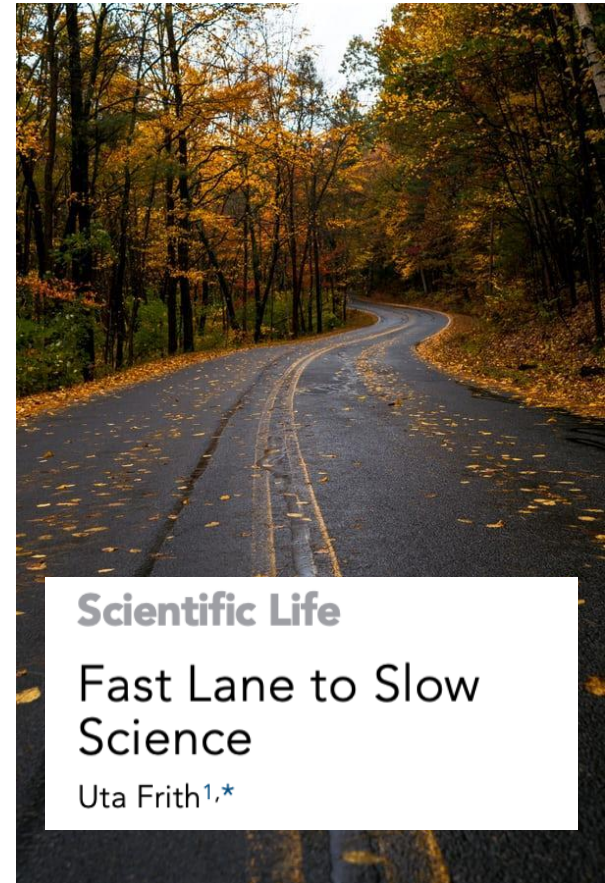


slowing down a bit could be the second one

we must find a way to remove the inequalities promoted by modern science while making sure its huge potential benefits work for **everyone**, instead of letting it become a tool for oppression and divisions

Academia in the Time of COVID-19: Towards an Ethics of Care

E. Corbera, Isabelle Anguelovski, +1 author, I. Ruiz-Mallén • Published 14 March 2020 • Political Science • Planning Theory & Practice



<https://www.nature.com/articles/d41586-020-01294-9> + <https://sci-hub.mkxa.top/10.1016/j.tics.2019.10.007>



we need open science to
meet the challenges of
our time and to restore
the ethos of research



we need open science to
meet the challenges of
our time and to restore
the ethos of research

build alliances
get involved
educate yourself
speak up, if you can
take care of yourself







Thank you

University of Fribourg

30th November 2021

 [pcmasuzzo](#)
 paola.masuzzo@gmail.com

