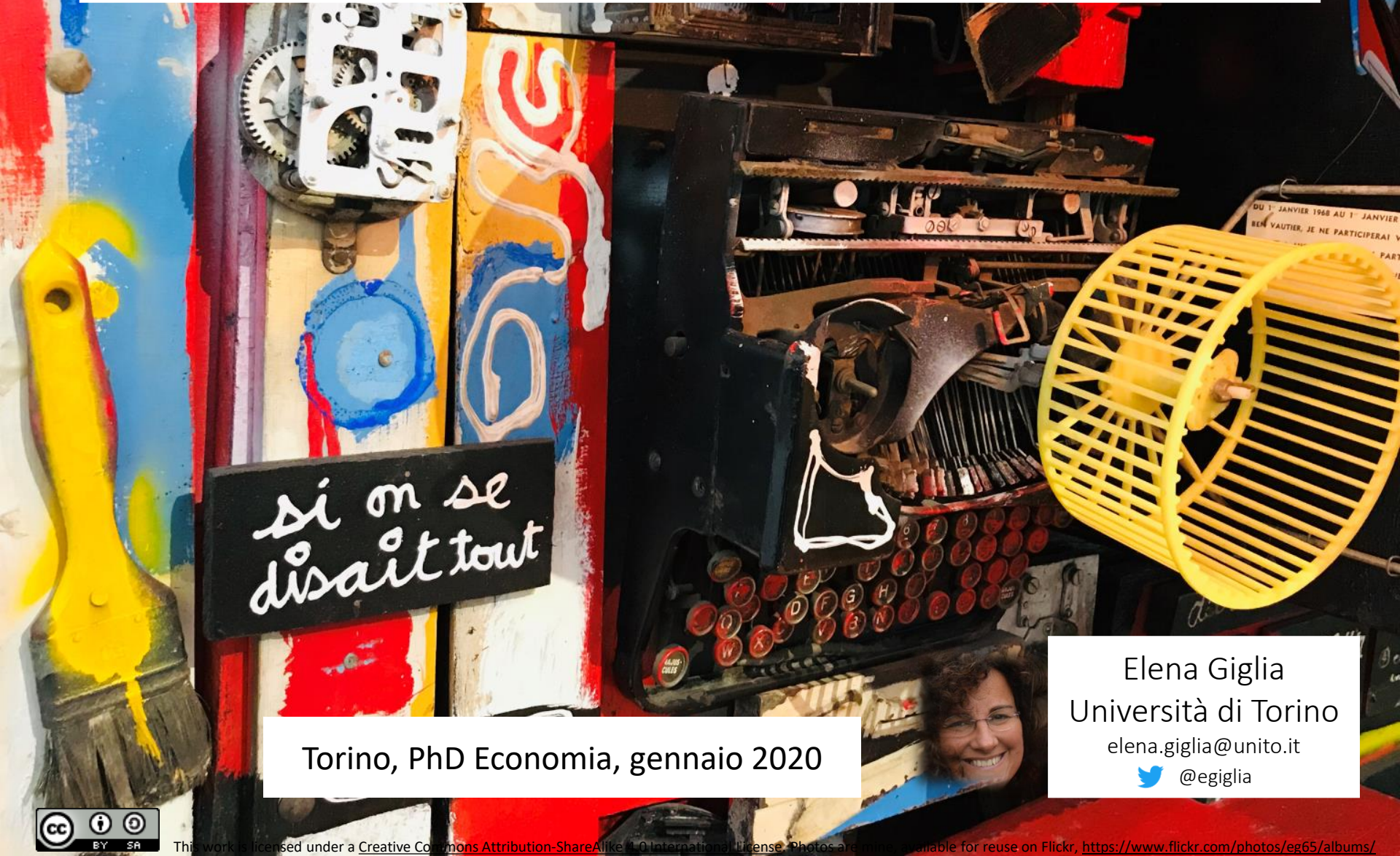


# OPEN SCIENCE E OPEN ACCESS

## 1-COMUNICAZIONE SCIENTIFICA OGGI

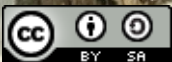


Torino, PhD Economia, gennaio 2020

Elena Giglia  
Università di Torino

[elena.giglia@unito.it](mailto:elena.giglia@unito.it)

[@egiglia](https://twitter.com/egiglia)



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License. Photos are mine, available for reuse on Flickr, <https://www.flickr.com/photos/eg65/albums/>



# La strada davanti a noi

A person in a costume is carrying a large, colorful, striped bag with a 'MOCCIA' logo. The bag is blue and yellow with white stripes. The person is wearing a white shirt with a red 'MOCCIA' logo. The background is a stone wall.

1

Comunicazione scientifica oggi: funziona?

L'alternativa Open

2

Open Access in pratica

Cosa succede in Europa: EOSC e FAIR

3

La gestione dei dati; FAIR e Open

4

Rendere i dati FAIR; Data Management Plan

# Qualcosa da portare via

Open Science: opportunità, non minaccia né noia burocratica

...il COVID l'ha dimostrato nei fatti...



Jon Tennant  
@Protohedgehog

Following

My first talk of the year! Message is going to be that the opposite of 'open science' isn't 'closed science' - it's bad science.

...il contrario di Open Science è «Bad Science», non «Closed»

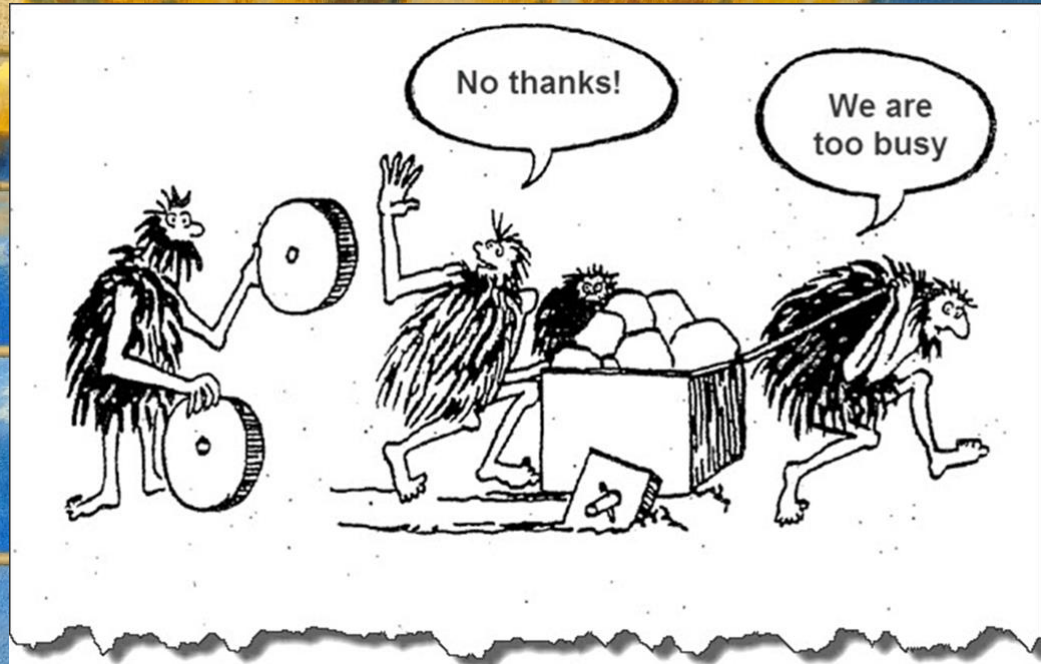
...Open Science [diverso da Open Access] è un modo diverso di fare scienza, non una serie di regolette

...si può fare Open Science a piccoli passi, non «tutto e subito»... però occorre iniziare!

Open Science, Open Innovation, EOSC, FAIR: esserci!

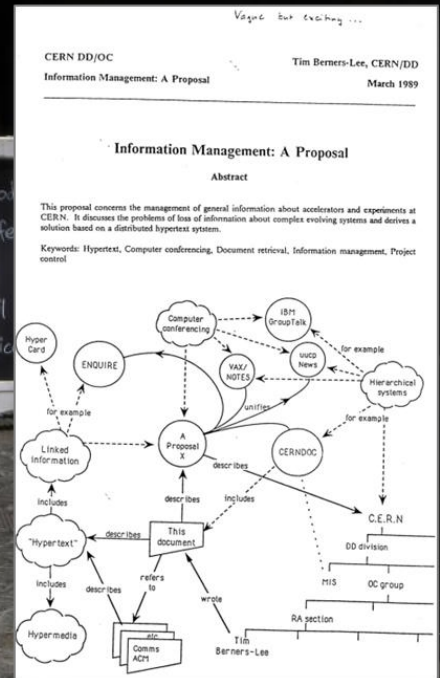


# Open Science?



SE NON SI RAGIONA SUL  
REALE VALORE E IL POTENZIALE TRASFORMATIVO  
DELLA OPEN SCIENCE, LA VEDRETE SOLO COME  
L'ENNESIMO FARDELLO AMMINISTRATIVO





...il migliore esempio di Open Science?





Impareremo in questo modulo

1. cosa non va nel sistema attuale di comunicazione scientifica
2. quanti soldi e interessi girano intorno a un articolo

## MESSAGGI CHIAVE

- oggi, pubblicare e leggere non è gratis
- non credete ciecamente nella peer review, Impact Factor, citazioni...  
Siate critici e informati!





# 1 DOMANDA

**PERCHÉ FATE  
RICERCA?**

**SCRIVETE ORA UNA DOMANDA  
CHE VI ASPETTATE TROVI  
RISPOSTA OGGI.  
ALLA FINE VERIFICHIAMO**



# Occhi nuovi (e critici)

Three golden retriever puppies are sitting on a red brick floor. The puppy on the left is looking directly at the camera. The puppy in the center is looking slightly to the right. The puppy on the right is looking towards the camera with a slightly tilted head.

...proviamo per oggi a vedere la ricerca e la comunicazione scientifica in modo diverso...

...che non vuol dire non credere alla scienza,  
ma non scadere nello scientismo...



# Comunicazione scientifica è ...

Accesso

CONSERVAZIONE

GESTIONE DEI  
DIRITTI  
(autori, lettori,  
editori)

Produzione

Economia  
(e profitti)

Costi  
(reali e di mercato – «anelastico»)

Tecnologia

Nuovi modelli  
(e loro sostenibilità)

Canali  
(monografie, riviste...)

VALUTAZIONE  
DELLA RICERCA



# Comunicazione scientifica, le funzioni

**REGISTRAZIONE**

[Impact Factor]

**CERTIFICAZIONE**

**RICOMPENSA**

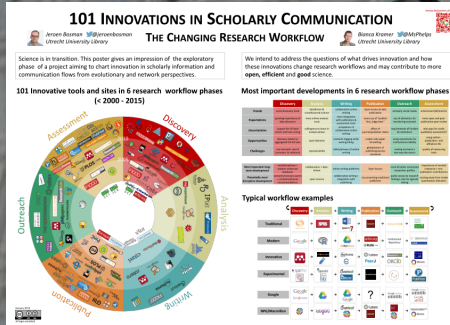


**PUBBLICITÀ  
[AWARENESS]**

**ARCHIVIAZIONE**



# Comunicazione scientifica, il processo



101 innovations

Submission

AUTORI E REVISORI  
NON SONO PAGATI.  
RITORNO ATTESO:  
PRESTIGIO/CITAZIONI

Peer review

SPESSO LA RICERCA  
È VALIDA, MA NON  
MAINSTREAM. RE-  
SUBMISSION...E IL  
TEMPO PASSA

Acceptance/  
rejection

Publication

IN ABBONAMENTO O  
IN OPEN ACCESS

- PUBBLICAZIONE NECESSARIA
- RICERCA = PROCESSO INCREMENTALE
- PER NON REINVENTARE LA RUOTA
- PER NON ESSERE FINANZIATI DUE VOLTE

STESSI COSTI DI  
PRODUZIONE,  
DIVERSA  
DISSEMINAZIONE



# ...bye bye gratis peer review...



Rasgon, Jason Laurence

Fri 1/15/2021 2:43 PM

To: Val [REDACTED]@elsevier.com>

Hi [REDACTED]

As Elsevier is a for-profit company, and one which has recently forced the takedown of several of my papers from public depositories (including ones where I paid for Open Access), I no longer donate my time to the company in the form of submissions, reviews, or editorial activities.

I will, however, be happy to consult on this work at my normal rates, which at present are \$450 per hour, with an 8 hour minimum. If this interests you, I will be happy to give you an estimate and draw up a contract.

Sincerely,

Jason Rasgon, PhD

Jan 15, 2021



# «COMU

Opinion | 21 May 2020

May 21, 2020

## Open access: how COVID-19 will change the way research findings are shared



**Robert Kiley**  
Head of Open Research  
Wellcome

### Publication practices must be improved after COVID-19

Subscription publishers have stepped up to respond to this global emergency by removing paywalls and allowing content to be reused. But this has also shone a spotlight on the shortcomings of the traditional scholarly publishing system, which is not fit for purpose in the 21st century.

A business model in which 75% of the research literature is only accessible to paying subscribers is unacceptable, especially as much of that research has been funded by the public purse.

is a tacit admission that business-as-usual in research slows down science.

"[They say] we're opening everything because it's important that we advance things fast. Well, the flip side of this argument is that your normal behaviour is to put barriers to science."

"This virus is dangerous and deadly, but there's lots of other diseases that are dangerous and deadly, and for which opening could save lives. So if you really want to go in that direction, just open everything."



University of Montreal researcher Vincent Larivière said the climate of open science suggests that science-as-usual creates barriers. (Amélie Philibert)

Health · Second Opinion

## 'We're opening everything': Scientists share coronavirus data in unprecedented way to contain, treat disease

Feb.1, 2020

...GLI SCIENZIATI **ADESSO**  
STANNO APRENDO DATI E  
ARTICOLI SU COVID-19...  
**SIGNIFICA CHE IL  
COMPORTAMENTO  
«NORMALE» INVECE È  
QUELLO DI METTERE  
BARRIERE ALLA  
CONOSCENZA**

nature

Feb 4, 2020

Subscribe

EDITORIAL · 04 FEBRUARY 2020

## Calling all coronavirus researchers: keep sharing, **stay open**

As the new coronavirus continues its deadly spread, researchers must ensure that their work on this outbreak is shared rapidly and openly.



# Accesso è v

WIRED

BUSINESS CULTURE GEAR IDEAS SCIENCE SECURITY TRANSPORTATION

March 13, 2020

KLINT FINLEY BUSINESS 03.13.2020 05:22 PM

## Global Officials Call for Free Access to Covid-19 Research

Government science advisers in a dozen countries are asking scientific journals to make data on the disease more widely available.



SPARC  
@SPARC\_NA

Jan. 25, 2020

"Open" should be the default for science - not just in case of emergencies. When we \*know\* that their openness speeds discovery, why do we lock up articles and data? #OAintheUSA

Traduci il Tweet



Scientists are unraveling the Chinese coronavirus with unprecedented speed and...  
Scientists are racing to stop the new coronavirus by sharing their results in real time around the world. The effort shows how the speed of collaboration has ...  
@washingtonpost.com



Heather Joseph

10 h · 👤

It's time to make Open Access the default for ALL scientific research once and for goddamn all. Please.

SOLO CORONAVIRUS?  
ALZHEIMER, CANCRO,  
CAMBAIMENTO  
CLIMATICO, VIOLENZA  
SULLE DONNE SONO  
MENO IMPORTANTI?...



...acc

TECNICAMENTE,  
FACILE. DECISIONE DI  
«CHIUDERE» RICERCA  
VITALE È ECONOMICA

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7161805/>

The article covers the biochemistry, cell biology and functional role of palmitoylation of viral proteins, especially of spike proteins. The transmembrane and cytoplasmic domains of influenza virus hemagglutinin are shown, which contains three fatty acids covalently linked to conserved cysteines. The cysteine at the beginning of the transmembrane region is acylated with stearic acid (yellow zigzag line), whereas the two cytoplasmic cysteines contain palmitic acid (red zigzag line). The model was created by Oliver Ernst (Biochemiezentrum, Heidelberg) using BallView 1.3.



**Jon Tennant** @Protohedgehog · 7 apr

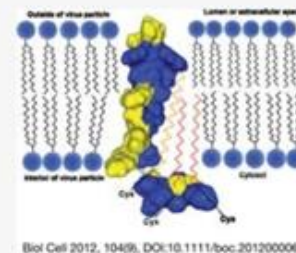
When a scientific publisher provides free access to life-saving research during a pandemic, they show us that this decision is technically simple. Flip a switch.

The decision to prevent access to similar life-saving research for literally EVERYTHING ELSE is purely financial.

1

23

73



«FINO A FINE  
EMERGENZA»

Message from Annie Callanan, CEO, Taylor & Francis Group

23rd March 2020

As the spread of COVID-19 around the world continues, ensuring all relevant research is available to those who need it is our imperative. Our imperative is to enable experts to share their findings and ensure that the research is accessible to those who need it.

In addition, we are committed to supporting our researchers and ensuring that the research is accessible to those who need it.

[This is how we are helping:](#)

[Providing free access to vital research](#)

[We are supporting researchers, journals and funders to ensure that all research findings and data relevant to COVID-19 are shared rapidly and openly to inform the public health response and ultimately help save lives.](#)

AMMETTONO CHE LA  
NORMA È IMPEDIRE  
L'ACCESSO

This article is being made freely available through PubMed Central as part of the COVID-19 public health emergency response. It can be used for unrestricted research re-use and analysis in any form or by any means with acknowledgement of the original source for the duration of the public health emergency.

IRREALE.



**Heather Joseph** @hjoseph · 24 mar

Unreal. Acknowledging that making these papers [#openaccess](#) will help speed speed progress and save lives but at the same time only doing it for limited time - and for a single disease.

This [Novel Coronavirus Information Center](#) is hosted on Elsevier Connect, the company's public news and information website.

March 24 2020

**Jon Tennant** @Protohedgehog · 24 mar

Every time a publisher like [@tandfonline](#) tries to pull a PR stunt like this they are stating that their default setting is BLOCKING free access to vital research. It is always too little, too late.

[All of them should be tried for crimes against humanity.](#)

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource center — including this research content — immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for the duration of the public health emergency and are not to be used for commercial purposes. These permissions are granted for as long as the COVID-19 resource center remains active.



# Comunicazione scientifica oggi...

WONKHE ABOUT US- EVENTS LATAM JOBS SUBSCRIPTION- SUS- TW Q  
Apr. 22, 2020

**The purpose of publications  
in a pandemic and beyond**

for publications in journals that were more about distinction than dissemination. And when it comes to a global emergency, we're still having to [beg publishers for access to our own research](#) so that we might save large swathes of the human race from an unnecessary death.

**E DURANTE LA PANDEMIA DOBBIAMO PREGARLI PER  
AVER ACCESSO ALLE NOSTRE RICERCHE...**

**... PAGHIAMO GLI EDITORI COMMERCIALI PERCHÉ  
METTANO SOTTO CHIAVE IL NOSTRO CONTENUTO...**



# Comunicazione scientifica. Qualche cifra

Indovinate cosa rappresentano

4

2 milioni €

7.6 miliardi \$

38%

521%



# Comunicazione scientifica. Qualche cifra

4

VOLTE PER CUI OGNI  
ENTE PAGA LA RICERCA

For researchers, it's like going to a restaurant, bringing all of your own ingredients, cooking the meal yourself, and then being charged \$40 for a waiter to bring it out on a plate for you.

You are the provider, the product, and the consumer.  
J. Tennant, 2018

STIPENDIO

FONDI RICERCA

SI PUBBLICANO I RISULTATI

ABBONAMENTI

2 milioni €

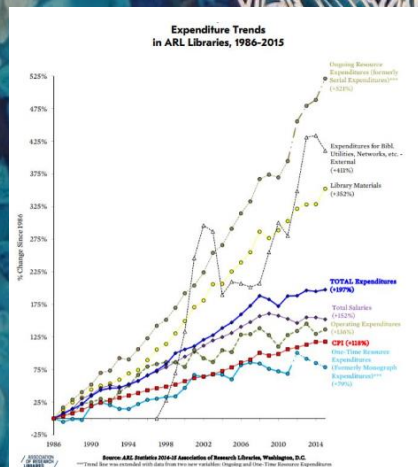
DIRITTI DI RIUSO

521%

AUMENTO DEI PREZZI  
DELLE RIVISTE 1986-2015

INDOVINATE: I  
BUDGET  
BIBLIOTECA SONO  
CRESCIUTI 521%?

TAGLI, TAGLI, TAGLI





# Comunicazione qualche cifra



OGGI LEGGERE  
NON È GRATIS

7.6 miliardi \$

[SOTTOSTIMATO] CIFRA SPESA GLOBALMENTE  
PER ABBONAMENTI 2016

IN REGIME DI  
ABBONAMENTO  
PAGHIAMO  
3800/5000 €  
PER ARTICOLO

38%

GUADAGNO NETTO ELSEVIER

SOLO CHE  
PAGHIAMO PER  
CHIUDERE

Science

A new mandate highlights costs, benefits of making  
all scientific articles free to read

By Jeffrey Brainard | Jan. 1, 2021, 12:01 AM

Jan 1, 2021

Eloy Rodrigues  
20 h ·

This is the publishers perspective (from the concluding paragraphs):

"The journal publishing industry's annual revenues of about \$10 billion represent less than 1% of total global spending on R&D—and, in this view, it's reasonable to divert more of the total to scholarly communications that are essential to making the entire enterprise run."

So it doesn't matter if there is growing evidence that we could have a much better scholarly communication system (more efficient, more innovative, more inclusive, more transparent and self-correcting) for a fraction of this \$10 billion. Let's focus on maintaining the current system, and especially the current big commercial companies that benefit from it, even if we (research institutions, governments and their taxpayers) need to use more resources to feed it. Right?

Wrong!

The Guardian view on academic publishing: disastrous capitalism 2019  
*Editorial*

The giants of the scientific publishing industry have made huge profits for decades. Now they are under threat

LICENZA DI STAMPARE  
DENARO  
[MERCATO  
ANELASTICO]

Profit	Company	Industry
10%	BMW	automobiles
23%	Rio Tinto	mining
25%	Google	search
29%	Apple	premium computing
35%	Springer	scholarly pu
37%	Elsevier	scholarly pu

...E NE  
VORREBBERO  
ALTRI...



# Il meraviglioso mondo di Elsevier



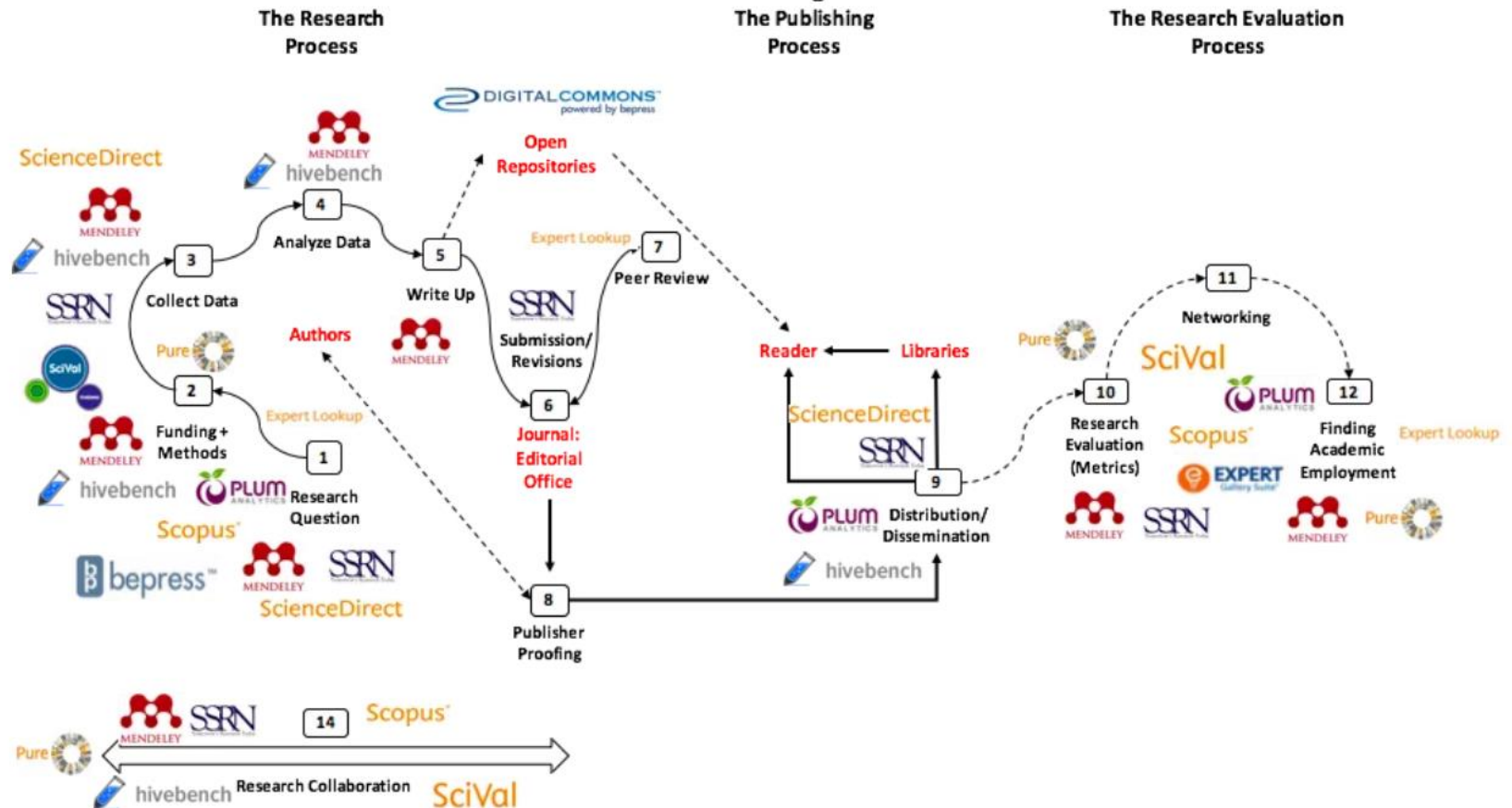
Publishers are increasingly in control of scholarly infrastructure and why we should care

A Case Study of Elsevier

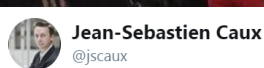
Written by: Alejandro Posada and George Chen, University of Toronto Scarborough

2017

## The Academic Knowledge Production Process







Jean-Sebastien Caux

@jscaux

Following

The prospectus for the IPO of Springer Nature  
[proxy.dbagproject.de/mediacenter/re ...](https://proxy.dbagproject.de/mediacenter/re...)  
should be compulsory reading for any funder/university/agency representative negotiating with publishers. You can then question whether you should support #SciPost and similar initiatives, or can afford not to.

Traduci il Tweet

13:38 - 5 May 2018

22 Retweet 28 Mi piace



Prospectus dated April 25, 2018

**SPRINGER NATURE**

Prospectus

for the public offering

*Focus on Research, with a High-Quality Brand Portfolio, Global Scale Benefit from Strong Growth in the Open Access Publishing Market.*

increasingly important, as market participants increasingly differentiate in the open access market with regard to APCs according to a journal's impact factor. Our open access portfolio includes a large number of leading brands, such as such as Nature Communications, Scientific Reports and Springer Open, and high impact factor publications, positioning us well to command premium APCs from authors.

Springer Prospectus Apr. 25



PROFESSIONAL JOBS SUMMITS RANKINGS

[vostra sc  
gioco è spo

Linking impact factor to 'open access' charges creates more inequality in academic publishing

document aimed at potential investors, not a marketing tool for authors or librarians). In fact, for more than 10 years, long before DORA, Nature editorials have expressed concerns about the overuse

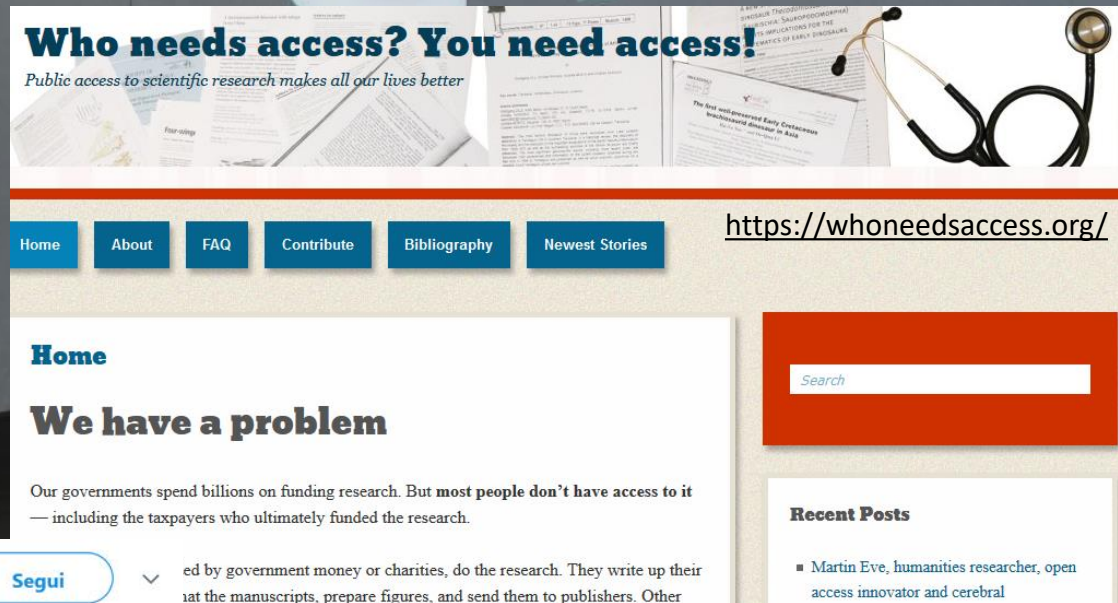
needed to fulfil our obligations. This has seen us stop using journal impact factors in isolation in our marketing (note: a prospectus is a legal

## 10.2.5 Increasing Share in Revenues from Open Access

Springer Nature was one of the first academic publishers to actively embrace the opportunities offered by open access, which provides us additional opportunities to generate revenues, as open access publications are funded by authors and/or their funders or the relevant research institutions, not libraries. Accordingly, revenues stemming from APCs are in the short- to medium-term supplementary to the subscription business, not cannibalistic. Some of our journals are among the open access journals with the highest impact factor, providing us with the ability to charge higher APCs for these journals than for journals with average impact factors.



# Accesso?



**Joanne Kamens** ✓

@JKamens

Segui

In risposta a @jasonpriem e @unpaywall

and btw the "everyone who needs it has access" is completely wrong. I have worked in small biotechs for the last 10 years and hit frustrating paywalls EVERY DAY trying to do good science.

Traduci dalla lingua originale: inglese

15:14 - 4 gen 2018

PMI, START-UP, PROFESSIONISTI,  
STUDENTI NEOLAUREATI...  
NESSUNO PUÒ LEGGERE I RISULTATI DELLE  
RICERCHE  
(FINANZIATE CON FONDI PUBBLICI)



Apr.14, 2020

## What's "Open" During COVID-19? In Global Pandemic, OER and Open Access Matter More than Ever

Posted April 14, 2020

By Lindsey Gumb

mar 1 ott, 23:21



ARTINA

openaccess ▾

onasera,

no una laureanda di Ca' Foscari Venezia. La mia correlatrice mi ha assegnato un capitolo di un libro da leggere dandomi il link alla pagina di [iris.univ.it](#) dove posso trovarlo.

non riesco però in alcun modo a vedere il file, anche solo per la consu  
me posso fare?

ringrazio per l'attenzione.

[\[redacted\]@gmail.com](#)>

mo,

sono uno studenti UNIMI e sto preparando la tesi, spesso nelle mie  
ricerche per il materiale, mi imbatto nel vostro sito IRIS ma non  
posso accedere all'articolo e mi sono interessato. Come posso

ACCOUNT IRIS PER CONSULTARE ARTICOLO ➤

Eugenia

a me, openaccess ▾

Buongiorno,

sono una studentessa di Medicina veterinaria.

Sono interessata al seguente articolo:

[Lievitazioni ed alterazioni di yogurt alla frutta](#)  
L Vallone, C Cantoni, LS Coccolin, G Comi - 2001 - [iris.univ.it](#).

però non possiedo un account IRIS. Può indicarmi come posso consultare l'articolo?

Grazie

Cordiali saluti

CON LE BIBLIOTECHE  
CHIUSE IN  
LOCKDOWN I  
NOSTRI STUDENTI  
HANNO AVUTO  
ENORMI DIFFICOLTÀ  
CON IL MATERIALE  
DIDATTICO...  
POSSIBILE CHE UNA  
UNIVERSITÀ  
PUBBLICA NON  
POSSA GARANTIRE  
DISPENSE O TESTI  
PUBBLICI???

Pietro Antonio

a openaccess ▾

Buongiorno,

Sono uno studente della specialistica in scienze Internazionali e mi servirebbe accedere a degli articoli su Iris per la mia ricerca di tesi. Potreste cortesemente spiegarmi come posso effettuare l'accesso?

Vi ringrazio anticipatamente.

Cordiali saluti.



... se no, Sci-Hub non es



Science Home News

# Who's downloading pirated papers? EVERYONE

In rich and poor countries, researchers turn to the Sci-Hub website.

2016



**Bernard Rentier**  
@bernardrentier

Following

The single fact that providing free information on universal Science is illegal tells us a lot about how absurd it has become, in the Internet era, to rely on the old research publication model. #FreeOpenAccessNow

**Jon Tennant** @Protohedgehog

...like anyone can now create their own @sci\_hub mirror ...sidio/sci-hub You can use this to help accelerate research and society by ...access to millions of research articles. But it's probably illegal, so don't

2018

2018

## Elsevier and Wiley Declare War on Research Community in India

Without access to the journals available on websites like Sci-Hub and Libgen, against which the copyright holders have filed a case in the Delhi High Court, it is almost impossible to do quality research.

Dec. 20, 2020

Prabir Purkayastha 26 Dec 2020



### RELATED STORIES



India's Right to Education is a Failing in Reality



The Impact of COVID-19 on Education



Paraguayan Students and Peasants Demand Greater Budget for...



Teachers' Unions Mount...



# [come ottenere un pdf]

## HOW TO GET THE PDF?

Alternatives to the publisher version of full-text journal articles

updated: February 20, 2018

### 1 UNPAYWALL

Get full-text of research papers as you browse, using Unpaywall's index of 10 million legal, open access articles. For CHROME | Firefox  
<http://unpaywall.org/>



### 2 GOOGLE SCHOLAR BUTTON

Easy access to Google Scholar from any web page. Find full-text on the web or in your university library. Select the title of the paper on the page you're reading, and click the Scholar button to find it. for CHROME | Firefox  
<https://chrome.google.com/webstore/detail/google-scholar-button/>



### 3 KOPERNIO

Get instant notifications of available versions from your library or otherwise. Promising features like a personal Locker, saved articles and more.  
<https://kopernio.com/>



### 4 OPEN ACCESS BUTTON

Free, legal research articles and data delivered instantly or automatically requested from authors. You can do this from the website, or install a browser extension/API.  
<https://openaccessbutton.org/>



### 5 HASHTAG #ICANHAZPDF

Use the hashtag #icanhazpdf together with a link to the requested publication; if somebody has access, they can send you the PDF.  
<https://twitter.com/search?q=%23icanhazpdf>



## HOW TO GET THE PDF?

Alternatives to the publisher version of full-text journal articles

### 8 NARCIS

NARCIS provides access to scientific information, including open access publications from the repositories of all the Dutch universities, KNAW, NWO and a number of research institutes, datasets from some data archives as well as descriptions of research projects, researchers and research institutes.  
<http://www.narcis.nl/>

### 9 OSF PREPRINTS

OSF offers access to over 2 million open access preprints.  
<https://osf.io/preprints/>

### 10 DIRECTORY OF OPEN ACCESS JOURNALS

DOAJ offers access to over 10,000 open access journals.  
<https://doaj.org/>

### 11 SCIENCE OPEN

Science Open contains over 37 million articles, a large part in open access.  
<http://www.scienceopen.com/>

### 12 SCI-HUB

If all else fails, you may be tempted to use Sci-Hub. Do realize, however, that in many countries, including The Netherlands, the use of Sci-Hub is considered as an illegal act, as it involves content protected by copyright laws and licensing contracts.

open access.nl

News and events

What is open access? In the Netherlands You

## Alternative ways to access journal articles

Feb. 27, 2018

unpaywall

## Unpaywall ... but it works only IF authors self-archive

### An open database of 17.025.907 free scholarly articles.

We harvest Open Access content from over 50,000 publishers and repositories, and make it easy to find, track, and use.

LEARN MORE

GET THE EXTENSION



# Comunicazione scientifica: funziona?

Altri numeri... indovinate cosa rappresentano...

9-18 MESI

179%

70%

43%



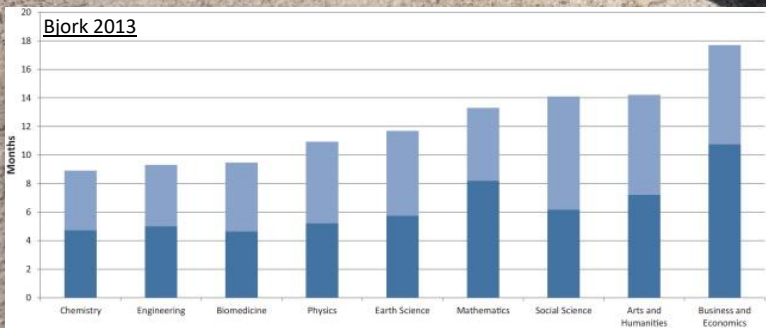
# Comunicazione scientifica: funziona?

TEMPI MEDI DI  
PUBBLICAZIONE

9-18 MESI



Biork 2013



Paola Masuzzo  
@pcmasuzzo

Today I witnessed the celebration of a research article published in a (famous & glam) journal after 2 and a half years of revisions. I do feel happy for the authors, of course, but I cannot help wondering what's there to celebrate in such a slow scientific dissemination process.

[Traduci il Tweet](#)

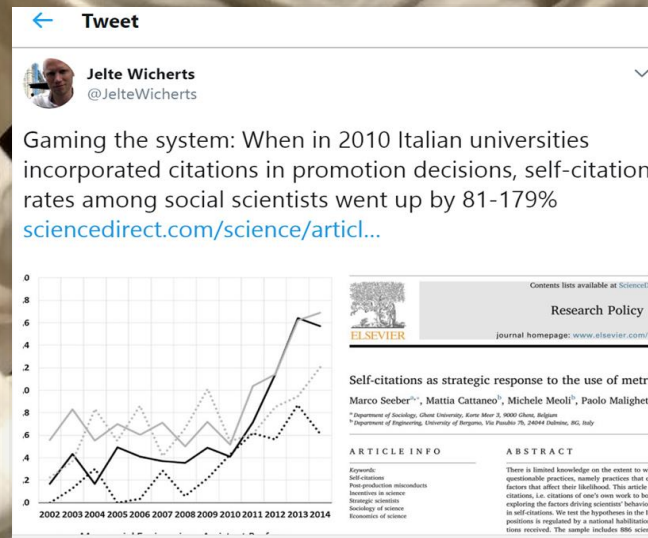
6:58 PM · 9 mag 2019 · [Twitter for Android](#)

P.Masuzzo, Sept. 2019



# Comunicazione scientifica: funziona?

March 2018



AUMENTO DELLE  
AUTOCITAZIONI IN ITALIA

179%





# Comunicazione scientifica: funziona?

70%

RICERCHE NON  
RIPRODUCIBILI

The  
Alan Turing  
Institute

Home + Research + Research projects

## 'The Turing Way' - A handbook for reproducible data science

Developing a handbook for best practice in academic  
data science

### The Turing Way

1. Introduction
2. Reproducibility
3. Open Research
4. Version Control
5. Collaborating on GitHub/GitLab
6. Credit for reproducible research
7. Research Data Management
8. Reproducible Environments
9. Testing
10. Reviewing
11. Continuous Integration
12. Reproducible Research with Make
13. Risk Assessment

### Welcome to the Turing Way

The Turing way, 2019

The Turing Way is a lightly opinionated guide to reproducible data science.

Our goal is to provide all the information that researchers need at the start of their projects to ensure that they are easy to reproduce at the end.

This also means making sure PhD students, postdocs, PIs, and funding teams know which parts of the "responsibility of reproducibility" they can affect, and what they should do to nudge data science to being more efficient, effective, and understandable.

#### A bit more background

Reproducible research is necessary to ensure that scientific work can be trusted. Funders and publishers are beginning to require that publications include access to the underlying data and the analysis code. The goal is to ensure that all results can be independently verified and built upon in future work. This is sometimes easier said than done. Sharing these research outputs means understanding data management, library sciences, software development, and continuous integration techniques: skills that are not widely taught or expected of academic researchers and data scientists.

The Turing Way is a handbook to support students, their supervisors, funders, and journal editors in ensuring that reproducible data science is "too easy not to do". It will include training material on version control, analysis testing, open and transparent communication with future users, and build on Turing Institute case studies and workshops. This project is openly developed and any and all questions, comments and recommendations are welcome at our GitHub repository:  
<https://github.com/alan-turing-institute/the-turing-way>.

nature

International weekly journal of science

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive | Audio & Video

Archive | Volume 533 | Issue 7604 | News Feature | Article

NATURE | NEWS FEATURE

Nature 2016

### 1,500 scientists lift the lid on reproducibility

Survey sheds light on the 'crisis' rocking research.



# Comunicazione scientifica: funziona?

## No academic post for fraudster Diederik Stapel, after all

Recently, we reported that social psychologist and renowned data faker Diederik Stapel had found himself a [new gig supporting research at a vocational university in the Netherlands](#) — but it appears that was short-lived.

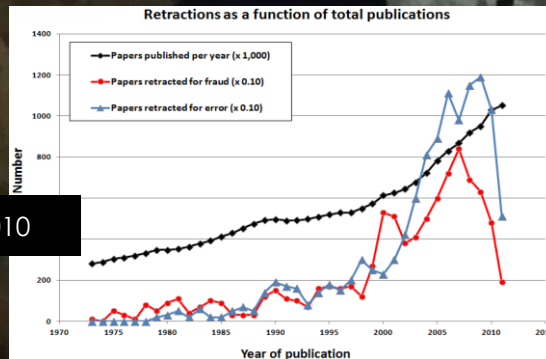
According to multiple news reports, NHTV Breda will not be employing Stapel, after all.

Here's our Google translate of a portion from [De Telegraaf](#): [Continue reading](#) →



Diederik Stapel

## Does scientific misconduct cause patient harm? The case of Joachim Boldt 2013



RITRATTAZIONI PER FRODE

43%

<https://retractionwatch.com/>

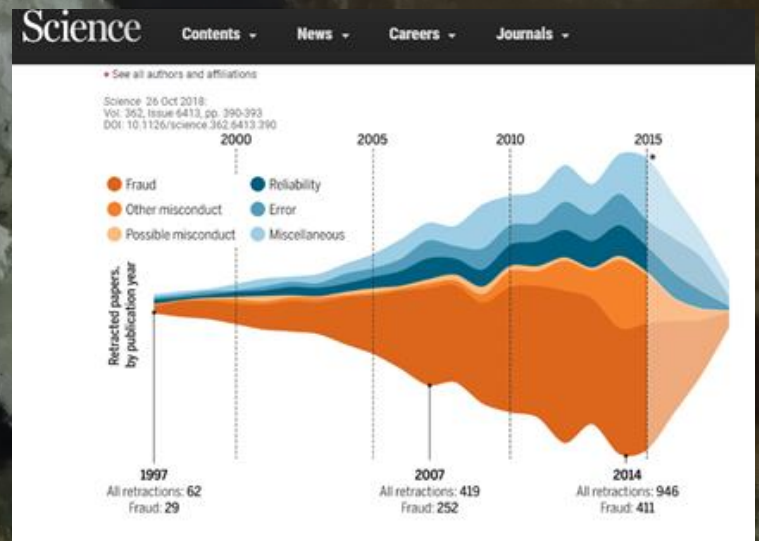
## Retraction Watch

Tracking retractions as a window into the scientific process

## The Retraction Watch Leaderboard

Who has the most retractions? Here's our unofficial list (see notes on methodology), which we'll update as more information comes to light:

1. Yoshitaka Fujii (total retractions: 183) See also: [Final report of investigating committee, our reporting, additional coverage](#)
2. Joachim Boldt (96) See also: [Editors-in-chief statement, our coverage](#)
3. Diederik Stapel (58) See also: [our coverage](#)
4. Adrian Maxim (48) See also: [our coverage](#)
5. Chen-Yuan (Peter) Chen (43) See also: [SAGE, our coverage](#)
6. Hua Zhong (41) See also: [journal notice](#)
7. Shigeaki Kato (39) See also: [our coverage](#)
8. Yuhji Saitoh (37) See also: [our coverage](#)





Retracted coronavirus  
(COVID-19) papers  
Retraction watch





60 RITRATTAZIONI  
19 PREPRINT  
41 ARTICOLI SU RIVISTE  
PEER REVIEWED

THE LANCET

ew: funziona??

Retraction—Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

Mandeep R Mehra  • Frank Ruschitzka • Amit N Patel

Published: June 05, 2020 • DOI: [https://doi.org/10.1016/S0140-6736\(20\)31324-6](https://doi.org/10.1016/S0140-6736(20)31324-6) •  Check for updates

After publication of our *Lancet* Article,<sup>1</sup> several concerns were raised with respect to the veracity of the data and analyses conducted by Surgisphere Corporation and its founder and our co-author, Sapan Desai. We launched an independent third-party audit of Surgisphere with the consent of Sapan Desai to



The NEW ENGLAND  
JOURNAL of MEDICINE

Retraction: Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19. *N Engl J Med*. DOI: 10.1056/NEJMoa2007621.

June 25, 2020

RITRATTATI DOPO CHE I LETTORI HANNO ESPRESSO DUBBI.  
GLI ARTICOLI AVEVANO PASSATO LA PEER REVIEW  
TRADIZIONALE (SENZA AVER VISTO I DATI GREZZI)

Because all the authors were not granted access to the raw data and the raw data could not be made available to a third-party auditor, we are unable to validate the primary data sources underlying our article, "Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19."<sup>1</sup> We therefore request that the article be retracted. We apologize to the editors and to readers of the *Journal* for the difficulties that this has caused.

Related Articles

ORIGINAL ARTICLE JUN 18, 2020

Cardiovascular Disease, Drug Therapy, and



Dec. 2020

# Elsevier looking into “very serious concerns” after student calls out journal for fleet of Star Trek articles, other issues

An undergraduate student in the United Kingdom has taken to task the editors of a purportedly scholarly journal for having

Grech is a pediatric cardiologist, and, evidently a huge Star Trek fan. He’s also a prolific author, and seems to have turned *EHD* into something of a personal fanzine. As Gaddy notes in his letter, Grech has written at least 113 papers in *EHD*, an Elsevier title, 57 as sole author:

19 of these 113 ar

Star Trek. 1

that are rel

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l practices,

Many of t

category of

## Early Human Development

An international journal concerned with the continuity of fetal and postnatal life

Editor-in-Chief: [E. F. Maalouf](#)

[View Editorial Board](#)

[CiteScore: 3.1](#) [Impact Factor: 1.969](#)

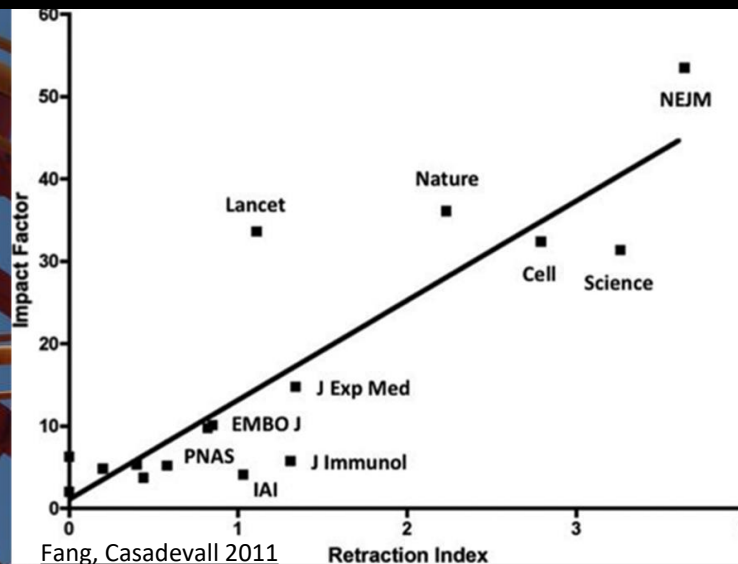
Established as an authoritative, highly cited voice on early human development, *Early Human Development* provides a unique opportunity for researchers and clinicians to bridge the communication gap between disciplines. Creating a forum for the productive exchange of ideas concerning early human growth...

EARLY HUMAN  
DEVELOPMENT  
PUBBLICATO DA  
ELSEVIER  
«AUTOREVOLE,  
MOLTO CITATO»



# [Houston, abbiamo un problema]

## CORRELAZIONE DIRETTA #RITRAZZIONI/IMPACT FACTOR



ROYAL SOCIETY  
OPEN SCIENCE

rsos.royalsocietypublishing.org

The natural selection  
of bad science

P. Smaldino, 2016

### REVIEW ARTICLE

Front. Hum. Neurosci., 20 February 2018 | <https://doi.org/10.3389/fnhum.2018.00037>

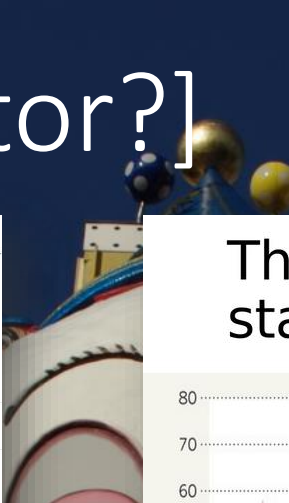
## Prestigious Science Journals Struggle to Reach Even Average Reliability

Björn Brembs\*

Institute of Zoology—Neurogenetics, Universität Regensburg, Regensburg, Germany

Feb. 20 2018





# tor?]

## The sta

80

70

60



**Segui** 

10 Retweet 16 Mi piace

1 10 16



In risposta a @jaca99



A cartoon illustration of Bart Simpson standing in front of a chalkboard. He is holding a piece of chalk and has just written the word 'ate.' on the board. The word 'ate.' is written five times in a vertical column. Bart is wearing his signature red shirt, blue shorts, and blue sneakers with white socks. He has a mischievous expression on his face.


Sum: 1032

J.Tennant 2017



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

Journal Citation Reports®



Journal: CURRENT BIOLOGY

2003 ICR Science Edition

Cited Journal   Citing Journal   Source Data   **Journal Self Cites**

Journal Impact Factor 4.11

Number of items published in: 2002 = 334

 $2001 = 300$ 

Sum: 634

Number of recent items 634

ni nell'anno X  
usciti anni X-1 X-2

articoli «citabili»  
 dati in X-1 X-2



# ... perché valutazione = ossessione



THE  
ROYAL  
SOCIETY

The future of  
scholarly scientific  
communication  
2015  
Conference 2015

## LA VALUTAZIONE È DIVENTATA UN'OSSESSIONE

- «not only are we failing to provide the right incentives, we are providing perverse ones»
- Goodhart's law: «when a measure becomes a target, it ceases to be a good measure»
- «people game the system at every level»

## INDICATORI NON MISURANO LA QUALITÀ

I was told impact metrics could make or break careers. Instead, they broke my faith in scientific research

2018



Performance-driven culture is ruining scientific research

The  
Cobra Effect

COBRA EFFECT: QUANDO DURANTE UNA  
INVASIONE DI COBRA GLI INGLESI  
PAGAVANO PER UN COBRA MORTO, GLI  
INDIANI INIZIARONO AD ALLEVARLI



FEBRUARY 17, 2020

Scientists call for reform on rankings and indices of science journals

by University of Oslo

PHYS ORS



because of the way indices are used today," adds Professor Nils Chr. Stenseth at the University of Oslo.

Indices don't measure quality

PRS, 2020

## GAMING THE METRICS

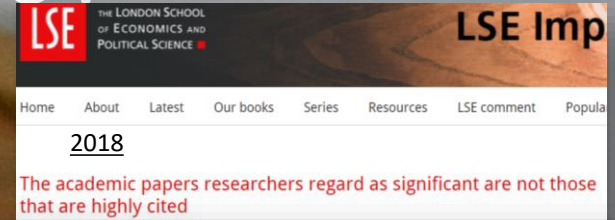
Misconduct and Manipulation  
in Academic Research

Biagioli, 2019

EDITED BY Mario Biagioli AND Alexandra Lippman



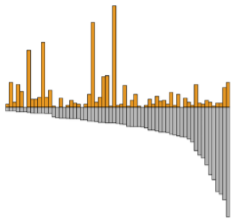
# ...citazioni? Cosa misurano?



So what now? We think this work clearly highlights a major issue with metrics – they aren't measuring what everyone commonly assumes we are measuring, or at least, are not accurately representing the more abstract perceptions of impact and importance that we measured in our survey.

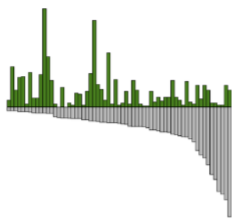
As hinted earlier, we think our research shows that impact goes beyond citation count, and beyond scholarly impact. Recent articles, such as that in *PLoS Biology* and *Nature*, also call out current metrics. But what can we do to change current practice?

Times Chosen in Survey  
Shared Widely



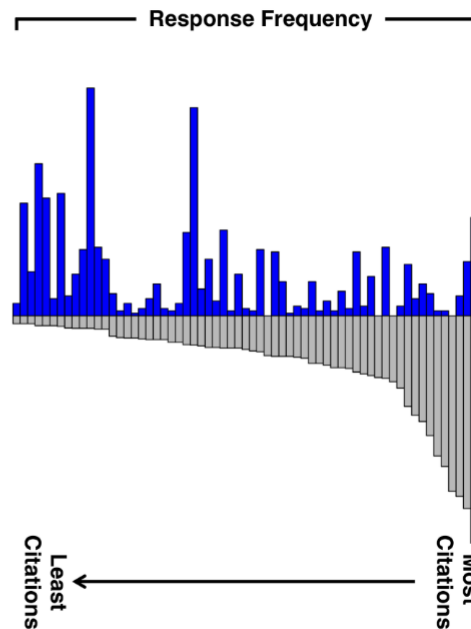
Citations (2013)

Times Chosen in Survey  
Most Significant



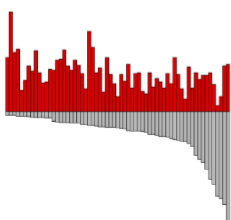
Citations (2013)

Times Chosen in Survey  
Most Cited



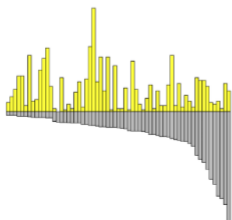
Citations (2013)

Times Chosen in Survey  
h-index



Citations (2013)

Times Chosen in Survey  
Shared: Chemists



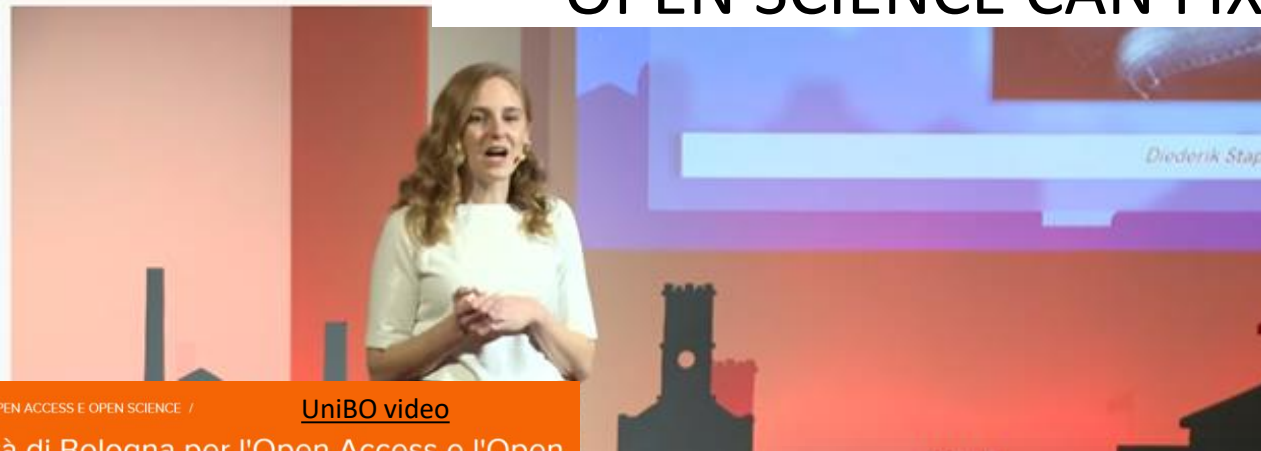
Citations (2013)

# Il sistema è rotto

RESEARCH CULTURE IS BROKEN,  
OPEN SCIENCE CAN FIX IT



June 2019



HOME / ALMADL / OPEN ACCESS E OPEN SCIENCE /

UniBO video

## L'Università di Bologna per l'Open Access e l'Open Science

Rassegna di video su principi, policy, infrastrutture e servizi di supporto per l'Open Access e l'Open

Video 2: [I colori dell'Open Access](#) (durata min. 4:15)

Open Access è accesso libero e senza barriere al sapere scientifico. Ci sono molti modi per pubblicare in Open Access: green, gold, red, bronze... il video ti aiuta a scegliere le strategie migliori per pubblicare in Open Access e aumentare l'impatto della tua ricerca.

Video 3: [Obblighi e opportunità per la ricerca finanziata](#) (durata min. 5:00)

Numerosi enti di finanziamento della ricerca promuovono l'Open Science e richiedono una disseminazione in Open Access delle pubblicazioni e dei dati di progetto; la legge italiana, seguendo le raccomandazioni della Commissione Europea, riconosce l'Open Access come modalità di pubblicazione dei risultati delle ricerche finanziate in modo prevalente dai fondi pubblici. L'Open Access non è solo un obbligo ma un'opportunità per la ricerca aumentandone l'impatto e la visibilità. Occorre seguire attentamente le clausole previste dai bandi di finanziamento per usufruire delle agevolazioni e dei vantaggi dell'Open Access e non incorrere in sanzioni.

Video 4: [Diritti d'autore e licenze aperte](#) (durata min. 5:09)

Non è necessario cedere in via esclusiva tutti i diritti d'autore per pubblicare i propri lavori di ricerca. I diritti d'autore di natura patrimoniale possono essere trasferiti singolarmente, in modo non esclusivo e per un tempo determinato. E' fondamentale scegliere editori che consentano ai ricercatori di mantenere la titolarità sui propri lavori di ricerca e ne consentano la distribuzione con licenze aperte che ne permettano il riuso etico come le Creative Commons.

Video 5: [Dati della ricerca: la European Open Science Cloud e i principi FAIR](#) (durata min. 4:08)

I dati della ricerca sono tutte le evidenze alla base dei risultati della ricerca stessa. La conservazione e la condivisione in forma aperta dei dati della ricerca sono fra i pilastri della strategia europea a favore dell'Open Science.



Open Science TV

223 iscritti

Open Science TV

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VIDEO

PLAYLIST

CANALI

DISCUSSIONE

INFORMAZIONI



9 circles of hell of a scientific paper publishing, or the world is ...

201 visualizzazioni • 1 settimana fa

What is a difference between a news paper article and a scientific article? "Elephants on the street" versus "There are no elephants but they should be there". During the third part of our interview with Björn Brembs we talked about the traditional scientific publishing in commercial journals. In highly digitalized era, this process is certainly old-fashioned, as it is not scrutinised as it needs to be which can lead to a lot of mistakes

ULTERIORI INFORMAZIONI

Video caricati ▶ RIPRODUCI TUTTI



Cost of scientific prestige and why it is so expensive f...  
64 visualizzazioni • 19 ore fa  
Sottotitoli



9 circles of hell of a scientific paper publishing, or the wor...  
201 visualizzazioni • 1 settimana fa  
Sottotitoli



L'editoria scientifica è una macchina per fare un sacco...  
600 visualizzazioni • 1 mese fa  
Sottotitoli



Open Science: New Infrastructure  
339 visualizzazioni • 2 mesi fa  
Sottotitoli



What is Open Science? even a 12-year old child can...  
1056 visualizzazioni • 3 mesi fa  
Sottotitoli



# Il sistema è rotto

Mail di Francesco, PhD candidate, 27 maggio 2020

Davanti a tutte queste situazioni (realtà purtroppo) del mondo della ricerca universitaria italiana, noi giovani siamo delusi e demoralizzati perchè vediamo che quell'ideale "cambiare/migliorare il mondo" non è più alla base della ricerca.

Cosa è diventata la ricerca scientifica? Pubblicare, pubblicare e pubblicare.

Non importa l'IF, non importa se la statistica usata nel lavoro sia giusta, non importa se si ha davvero indagato a fondo per tale lavoro...l'importante è pubblicare. Da aggiungere, inoltre, che la paura di essere "scoopati" e la fretta che essa comporta contribuisce inevitabilmente alla mediocrità dei lavori (mai così evidente come in questo periodo).

Per questo ormai l' 80-90% delle pubblicazioni scientifiche (stima personale ma verosimile) sono tutte bad science ed è questa la motivazione per cui molti PhD student, una volta raggiunto il traguardo del titolo, non continuano sul sentiero della ricerca.

I would need to add

- That questionable **academic** practices like power abuse, sexism, racism, and gaslighting are subtle, pervasive, and impactful
- That mental health issues among doctoral candidates are real, prevalent, and preventable
- That good people, especially women and non-white men, are leaving academia because of it's systemic issues

And *that*, that is definitely not sustainable.

This is not **just** the way things are.

It's how things have been built and we reproduce it with our everyday choices.

It is how things are, but not how they have to remain.

## Reflections on my PhD and building sustainable science



Chris Hartgerink  
Apr 20 · 5 min read

Following

April 20, 2020



# Comunicazione o competizione?

INCENTIVI PERVERSI+  
IPERCOMPETIZIONE =  
FRODI/DATI FALSI

FIDUCIA DEL PUBBLICO A RISCHIO



ENVIRONMENTAL ENGINEERING SCIENCE

Mary Ann Liebert, Inc. publishers

Journals

Search

Alerts

[Environ Eng Sci](#) 2017 Jan 1; 34(1): 51–61.

Published online 2017 Jan 1. doi: [10.1089/ees.2016.0223](#)

PMCID: PMC5206685

## Academic Research in the 21st Century: Maintaining Scientific Integrity in a Climate of Perverse Incentives and Hypercompetition

Marc A. Edwards<sup>\*,†</sup> and Siddhartha Roy<sup>†</sup>

### Abstract

Go to: ☒

Over the last 50 years, we argue that incentives for academic scientists have become increasingly perverse in terms of competition for research funding, development of quantitative metrics to measure performance, and a changing business model for higher education itself. Furthermore, decreased discretionary funding at the federal and state level is creating a hypercompetitive environment between government agencies (e.g., EPA, NIH, CDC), for scientists in these agencies, and for academics seeking funding from all sources—the combination of perverse incentives and decreased funding increases pressures that can lead to unethical behavior. If a critical mass of scientists become untrustworthy, a tipping point is possible in which the scientific enterprise itself becomes inherently corrupt and public trust is lost, risking a new dark age with devastating consequences to humanity. Academia and federal agencies should better support science as a public good, and incentivize altruistic and ethical outcomes, while de-emphasizing output.



# ...un abbraccio mortale



But let's not ignore the facts: the science system is in landslide transition from data-sparse to data-saturated. Meanwhile, scholarly communication, data management methodologies, reward systems and training curricula do not adapt quickly enough if at all to this revolution. Researchers, funders and publishers (I always thought that meant making things public) keep each other hostage in a deadly embrace by continuing to conduct, publish, fund and judge science in the same way as in the past century.

So far, no-one seems to be able to break this deadlock. Open Access articles are solve only a fraction of the problem. Neither 'open research data' alone will do. W





# Ssssst...sta ca ualcosa?

Opinion | 21 May 2020

May 21, 2020

## Open access: how COVID-19 will change the way research findings are shared



**Robert Kiley**  
Head of Open Research  
Wellcome

During the COVID-19 pandemic, researchers and publishers have pulled together to publish their outputs at an unprecedented rate. So, how have they responded? And how will this change research culture and the way findings are disseminated in future?

Building a better research culture and improving publication practices are within our grasp. Seizing this opportunity and ensuring that all research is published open access must become one of the positive outcomes from the COVID-19 pandemic.

A lot of power lies in the hands of a few core publishing houses, but it is the choice of universities and researchers to chase the prestige that those publishers hand out, and the rankings success that follows it that maintains that power. It is the choices of governments to pay greater attention to simplistic rankings and of assessment that reinforces those choices. To build a knowledge production capable of responding to today's challenges we need alternatives to and entrenched success measures of the 20th century.

## Publisher collaboration to keep COVID research moving

Apr. 27, 2020

Researchers



A cross publisher collaboration aims to ensure research related to COVID-19 is reviewed and published as quickly as possible. An Open Letter of Intent encourages academics to sign up to a reviewer database, authors to use preprint servers and calls on other publishers to action with a focus on open data and encouraging preprints.

## Business Ethics

A EUROPEAN REVIEW

May 19, 2020

EDITORIAL | [Free Access](#)

Open Access, Open Science, and Coronavirus: Mega trends with historical proportions

Dima Jamali, Ralf Barkemeyer, Jennifer Leigh, Georges Samara

First published: 19 May 2020 | <https://doi.org/10.1111/beer.12289>

## WHY OPEN ACCESS AND OPEN SCIENCE NOW?

There have been an impressive number of immediate natural science initiatives in response to COVID-19. For example, COVID-19-related Open Access data repositories have been created (Xu et al., 2020), modeling those established for research into the human genome (Yozwiak, Schaffner, & Sabeti, 2015); real-time data visualization tools are provided by various actors (e.g., John Hopkins University, 2020; Roser, Ritchie, & Ortiz-Ospina, 2020; WHO, 2020); and *Nature* has established an "Open Peer Review platform" (Johansson & Saderi, 2020). Closer to (our disciplinary) home, noteworthy initiatives include the "COVID-19 Insights" series operated by a number of business sustainability networks (e.g., GRONEN, 2020) or the *Academy of Management Learning & Education* COVID-19 "Call for Questions" proposal (AMLE, 2020).

All of these initiatives have in common that they aim to make research more inclusive and more immediately available, and thus blend into more general developments that have been labeled as Open Access and Open Science. While Open Access refers to the free availability of research outputs, typically in digital format, Open Science goes beyond that in

## THE AUSTRALIAN

Thursday, May 7, 2020 Today's Paper Most Games

All sections

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HOME / HIGHER EDUCATION



## The COVID-19 experience shows the value of sharing information

CAMERON NEYLON

Apr. 23, 2020



# Lo scopo della comunicazione scientifica

The virus is reminding us that the purpose of scholarly communication is not to allocate credit for career advancement, and neither is it to keep publishers afloat. Scholarly communication is about, well, scholars communicating with each other, to share insights for the benefit of humanity. And whilst we've heard all this before, in a time of crisis we realise afresh that this isn't just rhetoric, this is reality.

the coffin will be closed?!" If we've created a generation of scholars who are just in it for the glory of papers in glamorous journals, and not to do good research that changes the world a little bit, then we really are in trouble.

So please UKRI, when you come to make your difficult policy decisions about open access, please put front and centre at every stage a very simple question: "Will this help scholars communicate more effectively and do better research?". Everything else is a distraction. Progress has been impeded by two butts for twenty years. It's time to focus.

No butts.

**WONKHE** ABOUT US• EVENTS LATEST• JOBS• SUBSCRIPTIONS• SUS• **Apr. 22, 2020**

**The purpose of publications  
in a pandemic and beyond**

COMUNICAZIONE  
SCIENTIFICA=CONDIVIDERE LE SCOPERTE  
PER IL BENE DELL'UMANITÀ

SE ABBIAMO CREATO UNA GENERAZIONE DI  
RICERCATORI CHE PENSANO SOLO ALLA  
GLORIA DI UN ARTICOLO IN RIVISTE  
PRESTIGIOSE E NON A FARE BUONA RICERCA  
CHE CAMBI IL MONDO, SIAMO NEI GUAI

UNICA DOMANDA: «QUESTI FONDI  
AIUTERANNO A COMUNICARE MEGLIO E  
FARE UNA RICERCA MIGLIORE»? IL  
RESTO SONO DISTRAZIONI





...ci siamo meritati una pausa?