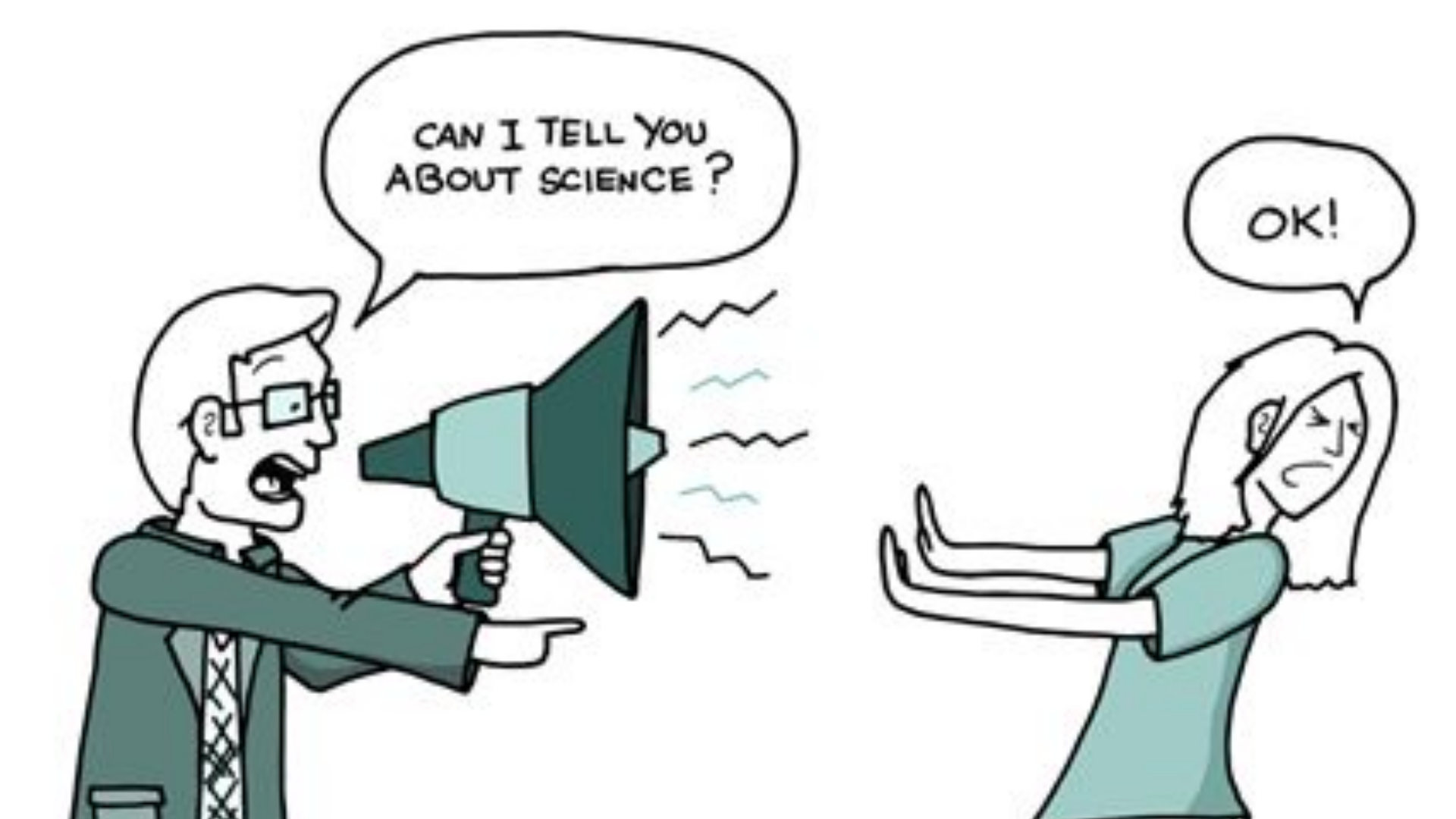




La irrupción del **Acceso Abierto** en los
procesos de **comunicación científica**



CAN I TELL YOU
ABOUT SCIENCE?

OK!

Todo tiempo
pasado fue
mejor...

The role of a scientist

**“The goal of scientific research is
publication”**

Day, R. Gastel, B. 2012 How to write and publish a scientific paper [7th ed]. Cambridge University Press



Take peer pressure out of peer review

Until we study the social dynamics of review panels, assessments will be suboptimal, explains Gemma Derrick.

Forbes

Nov 23, 2015, 07:19am EST

The Crisis Of Peer Review



Geoffrey Kabat Former Contributor @
Science & Technology



ent FP Picks

modities |

🕒 This article is more than 4 years old.

FP Comment

“If peer review were a drug, it would never get on the market.”

The peer review crisis

Junk Science Week: Peer reviewers now expected to vet articles for alignment with whatever political views currently hold sway with community-at-large

Todo tiempo pasado fue mejor...

- Peer review

WORLD VIEW

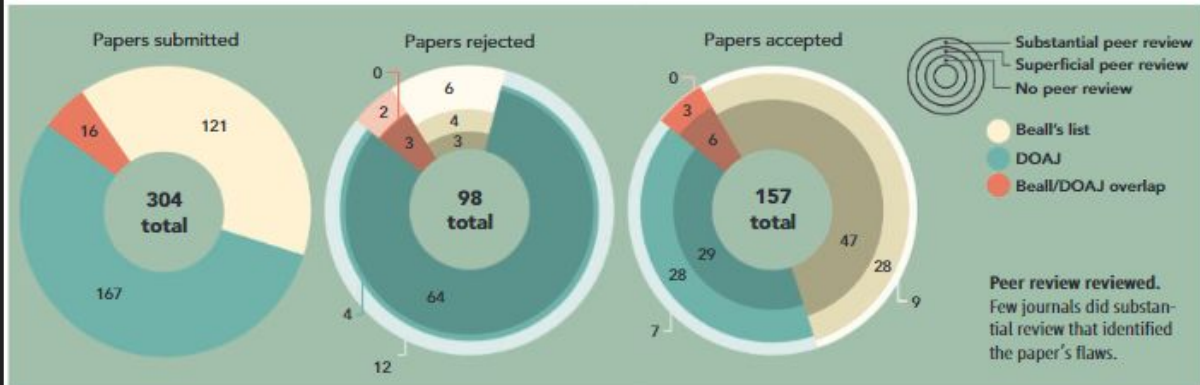
A personal take on events

J. SANCHEZ



Predatory publishers are corrupting open access

Journals that exploit the author-pays model damage scholarly publishing and promote unethical behaviour by scientists, argues Jeffrey Beall.



Peer review reviewed. Few journals did substantial review that identified the paper's flaws.

Predatory journals: no definition, no defence

promise was doubtful and its validity unlikely to have been vetted.

Predatory journals are a global threat. They accept articles for publication – along with authors' fees – without performing promised quality checks for issues such as plagiarism or ethical approval. Naive readers are not the only

ILLUSTRATION BY TIA WED PMR

Todo tiempo pasado fue mejor...

- Peer review
- Predatory publishing

Essay

Why Most Published Research Findings Are False

John P. A. Ioannidis

Summary

There is increasing concern that most current published research findings are false. The probability that a research claim is true may depend on study power and bias, the number of other studies on the same question, and, importantly, the ratio of true to no relationships among the relationships probed in each scientific field. In this framework, a research finding is less likely to be true when the studies conducted in a field are smaller; when effect sizes are smaller; when there is a greater number and lesser preselection of tested relationships; where there is

facto
some

Mod Posi

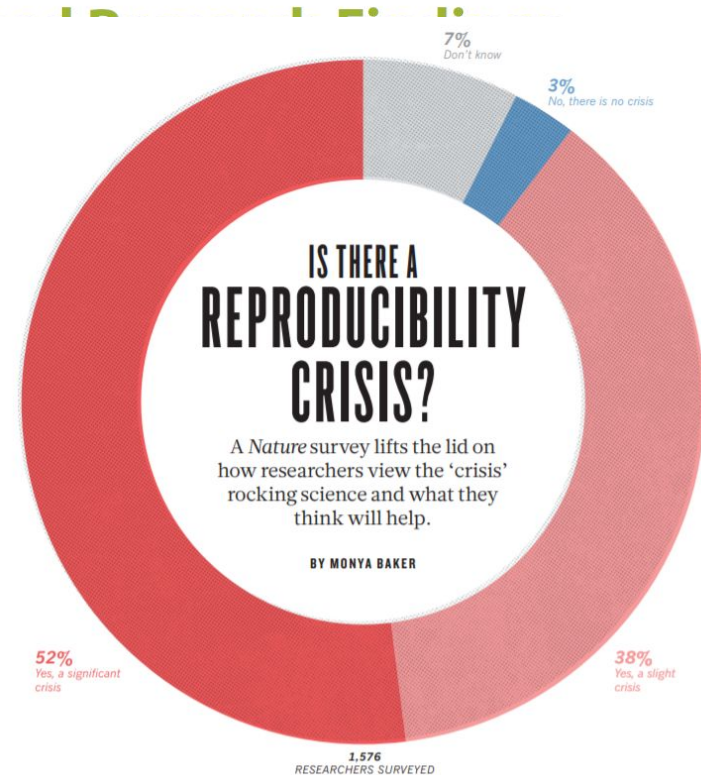
Seven
point
rate o
confi
is a c
yet il
conc
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form
for a
is no

RESEARCH ARTICLE SUMMARY

PSYCHOLOGY

Estimating the reproducibility of psychological science

Open Science Collaboration*



ON OUR WEB SITE

Read the full article at <http://dx.doi.org/10.1126/science.aac4716>

nal effect sizes were in the 95% confidence interval of the replication effect size; 39% of effects were subjectively rated to have replicated the original result; and if no bias in original results is assumed, combining original and replication

Todo tiempo pasado fue mejor...

- Peer review
- Predatory publishing
- **Reproducibilidad**

Todo tiempo pasado fue mejor...

- Peer review
- Predatory publishing
- Reproducibilidad
- Fake news

Press

Chinese Virologist Claiming Covid Was Lab-Made Teases Another Reveal on Twitter

Pressfrom, 02 Nov 2020

A Chinese academic spreading the conspiracy that China was responsible for releasing SARS- CoV -2 has suggested information...

msn

Chinese Virologist Claiming Covid Was Lab-Made Teases Another Reveal on Twitter

MSN, 02 Nov 2020

A Chinese academic spreading the conspiracy that China was responsible for releasing SARS- CoV -2 has suggested information...

Newsweek

Chinese virologist claiming COVID-19 was lab-made teases another reveal on Twitter

Newsweek, 02 Nov 2020

A Chinese academic spreading the conspiracy that China was responsible for releasing SARS-CoV-2 has suggested information will...

Forbes

What Is One Health?

Forbes, 31 Oct 2020

The connection between human health and wild animals has been demonstrated on an unprecedented and global scale with the...

The New York Times

Instagram Tries Clamping Down on Misinformation

New York Times, 30 Oct 2020

Every day, Times reporters will chronicle and debunk false and misleading information that is going viral online.

NSC Total

Dilma não disse que vacina chinesa vai funcionar porque pandemia começou na China

NSC Total, 30 Oct 2020

Conteúdo checado pela NSC, em parceria com Jornal do Comercio, Correio e GaúchaZH para o Projeto Comprova, iniciativa que reúne...

nature medicine

Explore our content ▾

Journal information ▾

nature > nature medicine > correspondence > article

Correspondence | Published: 17 March 2020

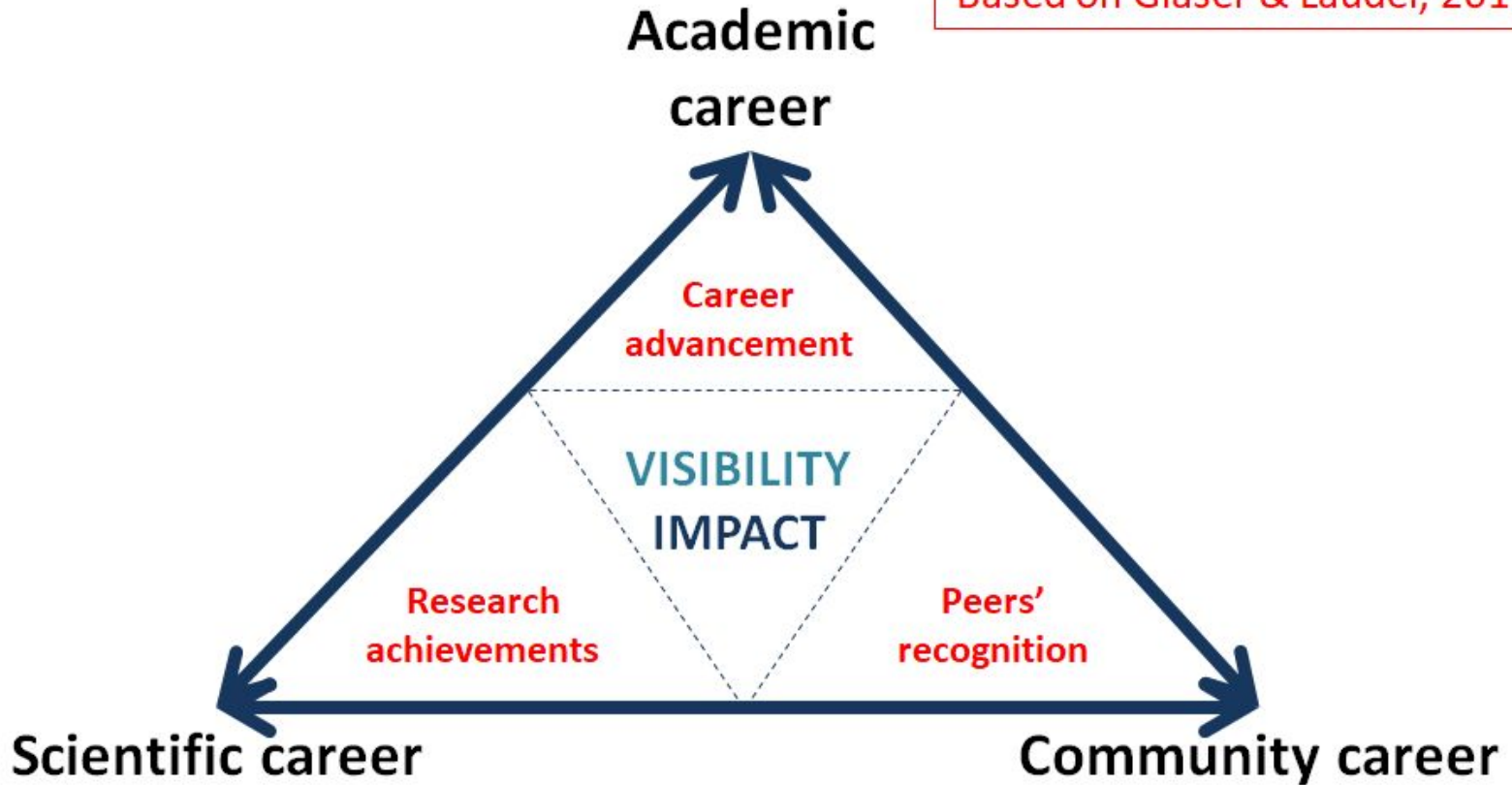
The proximal origin of SARS-CoV-2

¿Se está dejando de
confiar en la
ciencia?

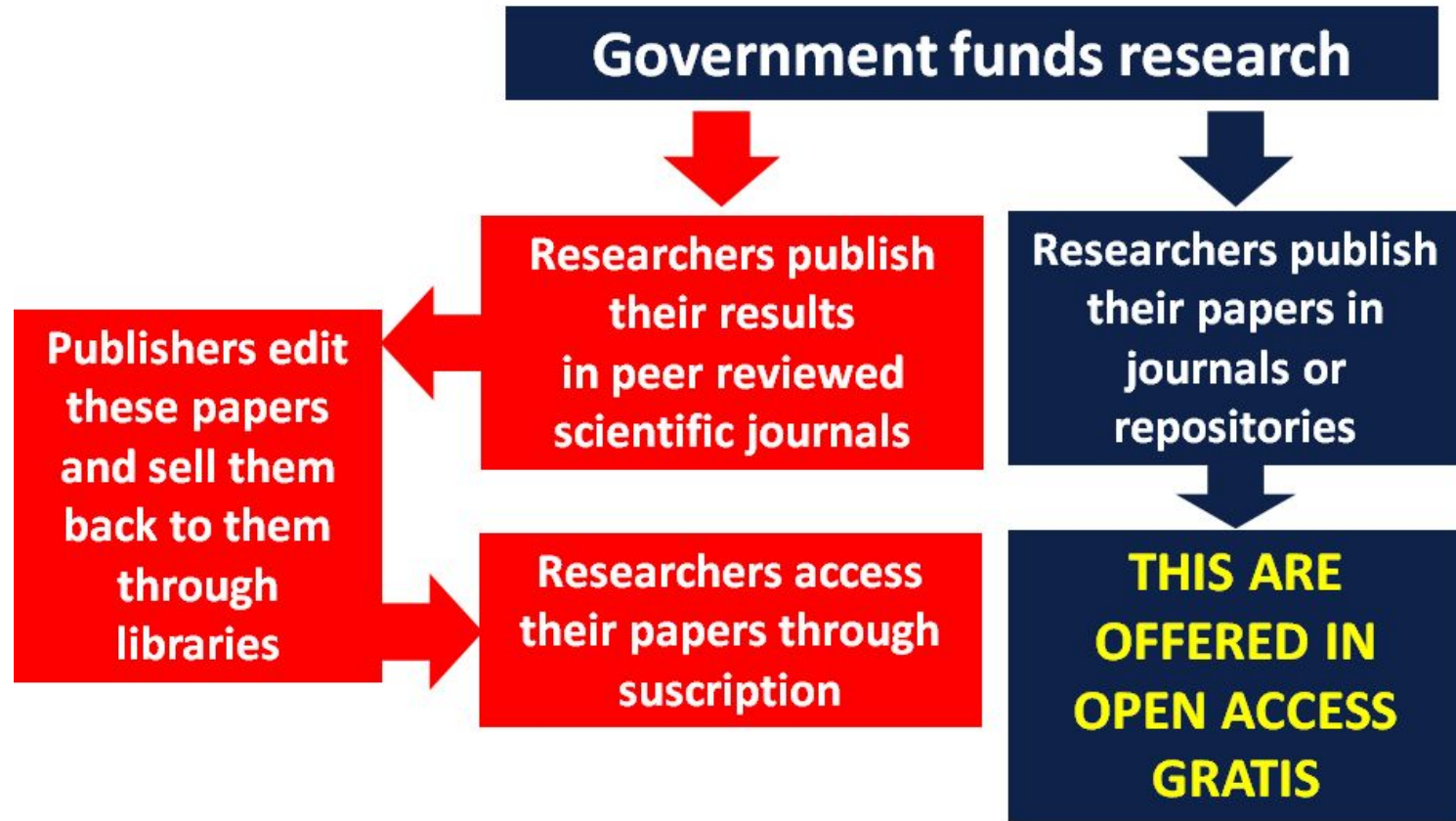
¿De qué vamos a hablar?

1. Acceso Abierto - **LA TEORÍA**
2. Brecha social - **LA REALIDAD**
3. El contexto evaluativo - **EL DILEMA**
4. Cambios en el sistema - **EL DESENGAÑO**

Based on Gläser & Laudel, 2011



Acceso Abierto como **deber social**



Acceso Abierto como demanda social



Swartz
† 1986-2013

Alexandra Elbakyan

SCI-HUB

...to remove all barriers in the way of science

enter URL, PMID / DOI or search string

Acceso Abierto como **estrategia de difusión**

Self-archiving



Journals



Acceso Abierto como un camino incierto

⚙	Name	Rank	Web of Science Documents	Times Cited	% Docs Cited	Quartile	Journal Impact Factor
▶	PLOS ONE	1	133,873	1,046,639	89.17%	Q1	2.806
▶	SCIENTIFIC REPORTS	2	38,402	254,391	82.97%	Q1	4.259
▶	NATURE COMMUNICATIONS	3	11,799	300,063	97.52%	Q1	12.124
▶	BIOMED RESEARCH INTERNATIONAL	4	8,382	20,571	63.5%	Q2	2.476
▶	MATHEMATICAL PROBLEMS IN ENGINEERING	5	7,717	30,388	71.1%	Q3	0.802
▶	NUCLEIC ACIDS RESEARCH	6	6,823	178,809	96.12%	Q1	10.162
▶	SENSORS	7	6,502	31,632	78.53%	Q1	2.677
▶	JOURNAL OF HIGH ENERGY PHYSICS	8	6,126	56,181	89%	Q1	6.063
▶	BMC PUBLIC HEALTH	9	5,823	20,571	83.53%	Q2	2.265
▶	BMJ OPEN	10	5,823	20,571	78.24%	Q1	2.369
▶	INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	11	5,823	20,571	84.54%	Q2	3.226
▶	FRONTIERS IN PSYCHOLOGY	12	5,823	20,571	73.85%	Q2	2.321

PLOS One
Nature Springer
Hindawi Publishing



El elemento digital



Type of profile

Speaker
Researcher
Innovative
Miscellaneous



Channel

Web
Blogs
Networks
...there are hundreds of tools...



Style

Formal vs Informal
Scientific vs
Personal
Misc.

¿Pero es suficiente?

Los retos de la comunicación científica

Expectativas

Realidad

Modelos

Complejidad

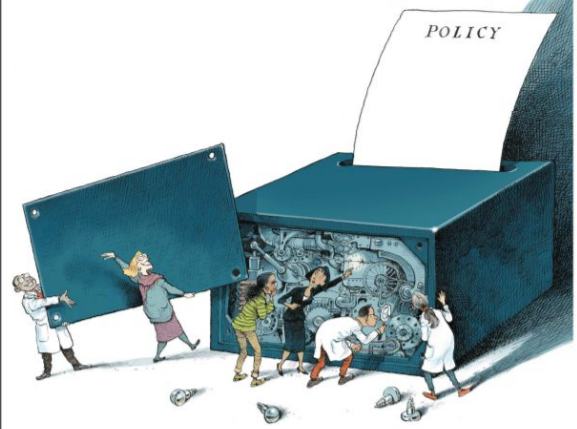
Respuestas

Incertidumbre

Los retos de la comunicación científica

Setting the agenda in research

Comment



Five ways to ensure that models serve society: a manifesto

Andrea Saltelli, Gabriele Bammer, Isabelle Bruno, Erica Charters, Monica Di Florio, Emmanuel Didier, Wendy Nelson Espeland, John Kay, Samuele Lo Piano, Deborah Mayo, Roger Plehke Jr, Tommaso Porteturi, Theodore M. Porter, Armand Puy, Ismael Rafols, Jerome R. Ravetz, Erik Reinert, Daniel Sarawitz, Philip B. Stark, Andrew Stirling, Jeroen van der Sloot & Paolo Vineis

Pandemic politics highlight how predictions need to be transparent and humble to invite insight, not blame.

The COVID-19 pandemic illustrates precisely how the operation of science changes when questions of urgency, stakes, values and uncertainty collide — in the post-normal regime. Well before the coronavirus pandemic, scientists were debating how to prevent malpractice such as p-hacking, particularly

when it could influence policy. Now, computer modelling is in the limelight, with politicians presenting their policies as dictated by science¹. Yet there is no substantial aspect of this pandemic for which any researcher can currently provide precise, reliable numbers. Known unknowns include the prevalence and fatality and reproduction rates of the virus in

Mian and Khan *BMC Medicine* (2020) 18:89
<https://doi.org/10.1186/s12916-020-01556-3>

BMC Medicine

COMMENTARY

Open Access

Coronavirus: the spread of misinformation

Areeb Mian and Shujhat Khan*

Keywords: COVID-19, Coronavirus, Misinformation, Internet, Antisense, Pandemic, Public health

There has been a global rise recently in the spread of misinformation that has plagued the scientific community and public. Disconnect between scientific consensus and members of the public on topics such as vaccine safety, the shape of the earth, or climate change has existed for a number of years. However, this has progressively worsened as society has become further divided in the political climate of today. In turn, it has created an optimal environment for antisense groups to gain footing and propagate their false theories and information. The public health crisis emerging due to the coronavirus (COVID-19) is also now beginning to feel the effects of misinformation.

We stand with our colleagues Calisher et al. who recently published a statement of solidarity to fight against COVID-19 and to promote scientific evidence and unity over misinformation and conjecture [1]. Just as the coronavirus itself, misinformation has spread far and wide, drowning out credible sources of information. Over the last couple of months, posts from the World Health Organization (WHO) and the US Center for Disease Control (CDC) have cumulatively only achieved several hundred thousand engagements, considerably eclipsed by hoax and conspiracy theory sites, which have amassed over 52 million. This serves to emphasise the popularity of unverified sources of information.

Similarly, misinformation was widespread during the early years of the HIV epidemic. It too was plagued by conspiracy theories, rumours, and misinformation for many years, with the effects still visible in regions to this day. Many people continue to argue that HIV does not exist, or cause AIDS, and that its therapies are toxic to human health. All the arguments proposed by these

deniers have been rebuked through a multitude of scientific publications and debate. Yet, they continue to persist. The influence of these false arguments can be so infectious that it can influence governmental policy, which has the potential to be fatal. This was particularly highlighted by the Mbeki South African government's denialism of HIV in the early 2000s and their infamous rejection of the evidence surrounding the efficacy of HIV medication. In turn, thousands of mothers were denied access to antiretroviral therapies. Instead, the government promoted the unsubstantiated use of herbal remedies including garlic, lemongrass, and lemon juice for AIDS treatment [2], leading to unnecessary HIV transmission, especially to children from pregnant mothers. This costs more than 300,000 lives [3]. It is important that we learn from past mistakes, and the media has a large role to play in this. It seems in a bid to increase viewership, major media organisations are creating dramatic headlines but are instead inciting panic among the public. Whilst healthcare professionals are still learning about the virus, the media has already begun to speculate about the potential health impact that the virus can have, and by publishing the potential worst effects of the virus, it only serves to fuel panic amongst the general public.

As COVID-19 turns into full-fledged public health crisis, multiple theories regarding the virus' origin have taken hold on the internet, all with a common theme: the virus was artificially created in a lab by a rogue government with an agenda. This misinformation originated from social media accounts and websites with no credible evidence to support their claims. These posts have amassed over 20 million engagements, rising each day, and the theories continue to gain traction and following on the internet, despite scientists from multiple nations

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Imperial College London, London SW7 2AZ, UK



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nature
climate change

PERSPECTIVE

<https://doi.org/10.1038/s41558-018-0366-6>

Evidence-based strategies to combat scientific misinformation

Justin Farrell^{1*}, Kathryn McConnell² and Robert Brulle³

Nowhere has the impact of scientific misinformation been more profound than on the issue of climate change in the United States. Effective responses to this multifaceted problem have been slow to develop, in large part because many experts have not only underestimated its impact, but have also overlooked the underlying institutional structure, organizational power and financial roots of misinformation. Fortunately, a growing body of sophisticated research has emerged that can help us to better understand these dynamics and provide the basis for developing a coordinated set of strategies across four related areas (public inoculation, legal strategies, political mechanisms and financial transparency) to thwart large-scale misinformation campaigns before they begin, or after they have taken root.

Scientific misinformation undermines public understanding of science, erodes basic trust in research findings and stalls evidence-based policymaking¹. For example, in April 2018, Scott Pruitt (former administrator of the US Environmental Protection Agency) signed a proposed rule that would sharply reduce the number of scientific studies the EPA can take into account, effectively limiting the agency's ability to regulate toxic chemicals, air pollution, carbon emissions and industries that science has already shown to have lethal impacts on human and environmental health². This rule would, in effect, limit the amount of evidence-based information for environmental decision-making. The rule itself does not directly propagate misinformation, but the limiting of information, however, the political ground work for such a rule was laid by a long-term and well-coordinated misinformation effort. Pruitt was joined at the announcement by Steve Milloy, a member of President Trump's EPA transition team, and perhaps the nation's most influential climate science contrarian. Milloy has a history of working on behalf of industry-led scientific misinformation campaigns — first for tobacco companies to discredit research on the public health risks of smoking and, more recently, for fossil-fuel companies aiming to refute, confuse and obstruct acceptance of the reality of climate change³.

Milloy declared that this new EPA rule to stamp out 'secret science' by 'taxpayer-funded university researchers' is, in his words, 'one of my proudest achievements. The reason this is anywhere is because of Steve Milloy'⁴. In another interview, Milloy explained his reasoning to *The New Yorker*: 'I do have a bias. I'm all for the coal industry, the fossil fuel industry. Wealth is what makes people happy, not pristine air, which you'll never get'⁵. The new EPA rule was a long time in the making, proposed as legislation twice by Representative Lamar Smith (TX)⁶. Smith himself has been an outspoken climate science contrarian, has received major funding (US\$772,347) from the oil and gas industry (as just one other sector)⁷, and is chair of the House Science Committee.

Similarly, when President Trump announced the withdrawal of the United States from the Paris Agreement, he was accompanied by Myron Ebell, the leader of the administration's EPA transition team, and an influential climate change contrarian. According to his Internet Revenue Service filings, Ebell and connected think-tanks and front groups have taken in tens of millions of dollars from fossil

fuel companies and wealthy family foundations such as Koch, Scifee and Mercer⁸. Echoing Steve Milloy (above) about the EPA rule, Ebell similarly reflected about the decades of political work that it took to get to this point: 'This was a very long haul. And we have turned the corner'⁹. Many, especially climate scientists who have seen the evidence of warming first hand, wondered how we had reached this point. How did these once fringe actors, who tended to be overlooked and at times even laughed off as irrelevant bloggers, managed to embed their ideas so deeply into mainstream US politics? And how, over the course of the 1990s and 2000s, did half of the American public — and the large majority of the Republican Party and its supporters — increasingly lose trust in, and become so antagonistic towards, robust scientific facts with such specific consequences?

Recent research has shown us that the spread of scientific misinformation — at a scale and level of complexity never before witnessed — was the main culprit behind this trend, altering the nature of public debate, sowing seeds of cultural and political polarization, and making meaningful legislative action nearly impossible^{10,11}.

But scientific misinformation is not a modern invention. We know from the seminal work of science historians that it has been produced and deployed to confuse people throughout the ages, creating false controversy about, for example, the scientific evidence of the dangers of smoking tobacco, the causes of acid rain, the role of chlorofluorocarbons on ozone depletion and, most recently, the reality of anthropogenic climate change¹².

Fortunately, recent years have seen considerable progress in both the scale and complexity of research into the origins and impacts of scientific misinformation campaigns. In particular, this research has focused on identifying the elaborate institutional structures behind these campaigns and the coordination among institutional actors. In addition, it has shown there to be a patterned organizational topology in the production of misinformation that is intended to confuse the public and/or block science-based policy change. These organizations include think tanks, philanthropic foundations, corporations, trade associations, advocacy groups, front groups, shell corporations, lobby groups and public relations firms¹³. Aiming to drive the cultural and political conversation, research has shown that this coordinated network employs a multifaceted strategy to develop and promulgate ideological viewpoints and

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Métricas, incentivos y evaluación

La **evaluación científica** a día de hoy

- Los investigadores son unos ególatras
- La bibliometría es la culpable
- Las agencias de evaluación me odian

¿Qué hago que me sirva para progresar en mi carrera investigadora?

La evaluación científica a día de hoy

- Los investigadores son unos ególatras
- La bibliometría es la culpable
- Las agencias de evaluación me odian



Número de autores

Revistas aptas

Número de citas

Número de artículos

¿Qué hago que me sirva para progresar en mi carrera investigadora?

La evaluación científica a día de hoy

- Los investigadores son unos ególatras
- La bibliometría es la culpable
- Las agencias de evaluación me odian



Factor de Impacto

Índice H

Impacto
normalizado

¿Qué hago que me sirva para progresar en mi carrera investigadora?

La evaluación científica a día de hoy

- Los investigadores son unos ególatras
- La bibliometría es la culpable
- Las agencias de evaluación me odian

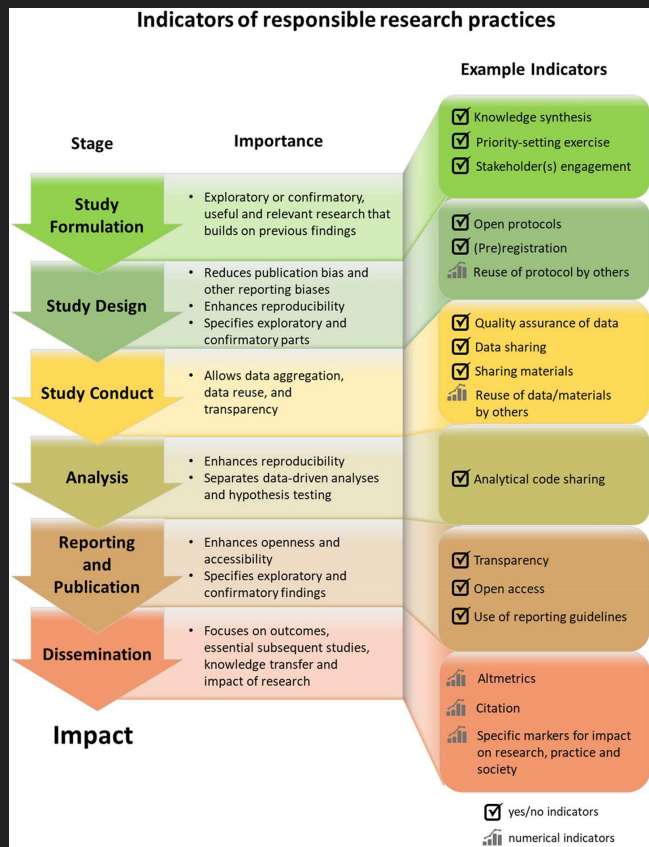
Cambios constantes

Fuera de contexto

Falso peer review

¿Qué hago que me sirva para progresar en mi carrera investigadora?

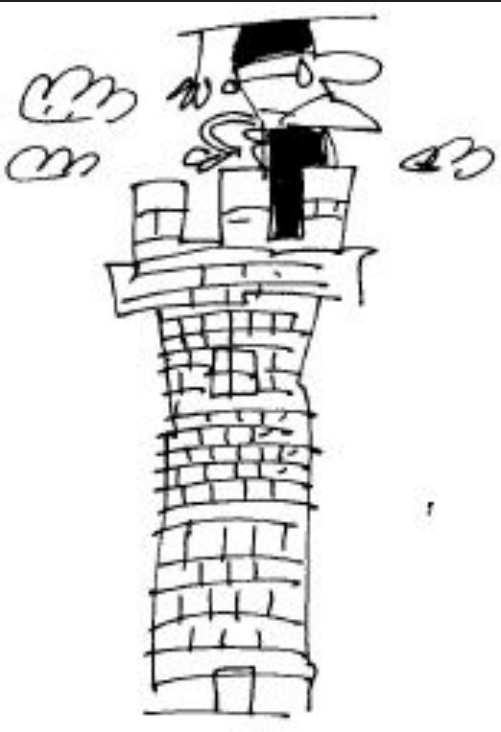
Promoviendo un uso responsable de las métricas...



Principios de Hong Kong

1. Evalúa prácticas responsables
2. Valora los resultados negativos
3. Premia prácticas de Ciencia Abierta
4. Reconoce la diversidad de actividades
5. Reconoce prácticas esenciales como la revisión o la supervisión

... para que nos centremos en **lo importante.**



- Progresar en el conocimiento científico
- Enfrentarnos a grandes (y pequeños) retos de la sociedad
- Establecer un diálogo constante con la sociedad
- Abandonar actitudes beligerantes o altaneras

Mirando hacia adelante

ACADEMIA

- Apertura de métodos
- Apertura de datos
- Transparencia

CREDIBILIDAD

SOCIEDAD

- Énfasis en la divulgación
- Colaborar
- Experimentar con nuevos medios

CONFIANZA

Y sin embargo,
parece que algo
está fallando...

El Acceso Abierto como solución a....

- Un sistema de comunicación **lento e ineficiente**
- Problemas de **accesibilidad** a la literatura científica
- Problemas de **reproducibilidad**
- La **duplicidad** de esfuerzos
- **Opacidad** en los procesos de publicación

Pero no resuelve otros problemas...

- **Exceso de publicaciones** irrelevantes o duplicadas
- **Agotamiento** del sistema de revisión por pares
- **Credibilidad** social de la ciencia
- **Prácticas** de investigación **cuestionables**
- **Desinformación** y *fake news*

Es más, algunos se acentúan y se crean otros...

- Irrupción de **revistas depredadoras**
- **Falta de financiación** para publicar
- **Mayor presión para los revisores** (plazos, apertura de informes)
- **Presión** por publicar y **sesgos** de publicación
- Ausencia de o **fallas en los filtros** de publicación

4 retos del Acceso Abierto

Situaciones y retos que se plantea el sistema de comunicación científica con respecto al OA y una interpretación alternativa

La calidad de las publicaciones

1

Scientometrics (2021) 126:1897–1921
<https://doi.org/10.1007/s11192-020-03852-4>



Predatory publishing in Scopus: evidence on cross-country differences

Vít Macháček^{1,2} · Martin Srholec¹

Received: 29 June 2019 / Accepted: 24 December 2020 / Published online: 7 February 2021
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Abstract

Predatory publishing represents a major challenge to scholarly communication. This paper maps the infiltration of journals suspected of predatory practices into the citation database Scopus and examines cross-country differences in the propensity of scholars to publish in such journals. Using the names of “potential, possible, or probable” predatory journals and publishers on Beall’s lists, we derived the ISSNs of 3,297 journals from Ulrichsweb and searched Scopus with them. 324 of journals that appear both in Beall’s lists and Scopus with 164 thousand articles published over 2015–2017 were identified. Analysis of data for 172 countries in 4 fields of research indicates that there is a remarkable heterogeneity. In the most affected countries, including Kazakhstan and Indonesia, around 17% of articles fall into the predatory category, while some other countries have no predatory articles whatsoever. Countries with large research sectors at the medium level of economic development, especially in Asia and North America, tend to be most susceptible to predatory publishing. Arab, oil-rich and/or emerging countries also appear to be particularly vulnerable. Policymakers and stakeholders in these and other developing countries need to pay more attention to the quality of research evaluation.

Keywords Predatory journals · Beall’s list · Open access · Academic misconduct · Research system · Research policy

Vít Macháček and Martin Srholec contributed equally to this work.

Supplementary information The online version contains supplementary material available at (<https://doi.org/10.1007/s11192-020-03852-4>).

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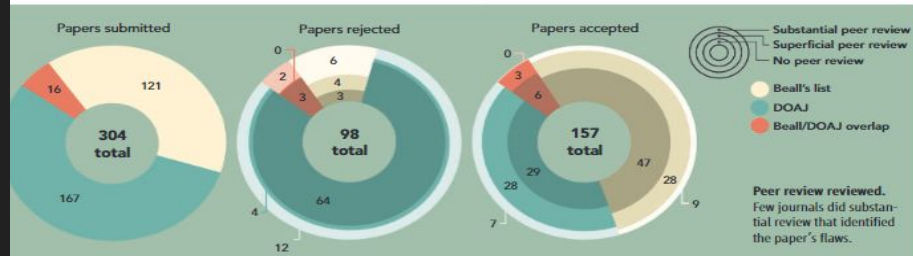
² Faculty of Social Sciences, Czech Republic and Institute of Economic Studies, Charles University, Prague, Czech Republic

WORLD VIEW A personal take on events



Predatory publishers are corrupting open access

Journals that exploit the author-pays model damage scholarly publishing and promote unethical behaviour by scientists, argues Jeffrey Beall.



Peer review reviewed.
 Few journals did substantial review that identified the paper's flaws.

Predatory journals: no definition, no defence

promise was doubtful and its validity unlikely to have been vetted.

Predatory journals are a global threat. They accept articles for publication – along with authors' fees – without performing promised quality checks for issues such as plagiarism or ethical approval. Naive readers are not the only

Why Most Published Research Findings Are False

John P. A. Ioannidis

Summary

There is increasing concern that most current published research findings are false. The probability that a research claim is true may depend on study power and bias, the number of other studies on the same question, and, importantly, the ratio of true to no relationships among the relationships probed in each scientific field. In this framework, a research finding is less likely to be true when the studies conducted in a field are smaller; when effect sizes are smaller; when there is a

factors that influence this problem and some corollaries thereof.

Modeling the Framework for False Positive Findings

Several methodologists have pointed out [9–11] that the high rate of nonreplication (lack of confirmation) of research discoveries is a consequence of the convenient, yet **ill-founded strategy of claiming conclusive research findings solely on the basis of a single study**, assessed by formal statistical significance, typically

is characteristic of the field and can vary a lot depending on whether the field targets highly likely relationships or searches for only one or a few true relationships among thousands and millions of hypotheses that may be postulated. Let us also consider, for computational simplicity, circumscribed fields where either there is only one true relationship (among many that can be hypothesized) or the power is similar to find any of the several existing true relationships. The pre-study probability of a relationship

~~miracle cures and wild claims.~~

In my view, we must look at the massive expansion of online publications (most of which are OA journals) as **a disruptive technology, resulting in overworked and fatigued reviewers. Quality will suffer — across the board — unless something is done.** ■

Ioannidis, J. P. A. (2005). Why Most Published Research Findings Are False. PLOS Medicine, 2(8), e124. <https://doi.org/10.1371/journal.pmed.1004085>

Arns, M. (2014). Open access is tiring out peer reviewers. Nature, 515(7528), Article 7528. <https://doi.org/10.1038/515467a>

Discussion and conclusions

This paper has explored various issues relating to the methodology used in bibliometric analyses published in the journal Sustainability in 2019 and 2020, showing that many of the papers published lack the methodological rigour that would normally be required. In

Considering these shortcomings, 181 of the 204 studies analysed (88.7%) have one or more methodological limitations which hinder or prevent their reproducibility. This shows that there is considerable room for improvement in the methodological quality of the bibliometric

Posibles explicaciones

Preserving credibility of open access journals

In their Editorial “Public access is not equal access” (9 September, p. 1361), S. Parikh *et al.* explain how the open access model can compound inequities (1, 2) by charging article processing fees that early-career scientists and scientists in underfunded disciplines, teams, or regions (1) are unable to afford. They also acknowledge the **perverse incentives of a business model based on volume of articles published**, which has led to the proliferation of open access journals, many of which are predatory, and risks diluting the scientific literature (1, 3). However, they do not address another unintended consequence of open access policies:

notified that another team in a different hospital had submitted and published the same report. In two separate instances, a journal made the mistake of duplicate publication of an article. In general, it seems **the main reason underlying these retractions and withdrawals is the rush to quickly publish the COVID-19-related articles**, whether by the authors or the journal editors and review teams. The publishing parties must keep in mind that swiftly published but erroneous data is not helpful for the medical community in their ongoing battle with COVID-19. What we actually need (possibly more than any

continued growth in non-OA publications.

That gold OA is predicted to grow at a much faster rate than green OA further suggests adaptations are being made by scholarly publishers to protect viable scholarly publishing models without ‘losing out’ to the demands and needs of scientists and attentive publics during the COVID-19 pandemic. However, caution is warranted based on findings that most preprints are eventually published as journal articles (Fraser

Zhong, B., & Liu, X. (2022). Preserving credibility of open access journals. *Science*, 378(6617), 257–257. <https://doi.org/10.1126/science.ade8966>

Soltani, P., & Patini, R. (2020). Retracted COVID-19 articles: A side-effect of the hot race to publication. *Scientometrics*, 125(1), 819–822. <https://doi.org/10.1007/s11192-020-03661-9>

Nane, G. F., Robinson-Garcia, N., van Schalkwyk, F., & Torres-Salinas, D. (2022). COVID-19 and the scientific publishing system: Growth, open access and scientific fields. *Scientometrics*. <https://doi.org/10.1007/s11192-022-04536-x>

Posibles explicaciones

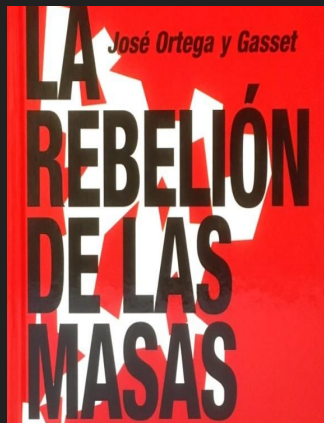
points strongly to the major influence being the changing context in which the sector is operating. Increased system-wide and institutional performance evaluation based on aggregate output measures appears to be altering researchers' publication habits. The indications are that there is an increasing emphasis on refereed

Butler, L. (2003). Explaining Australia's increased share of ISI publications—The effects of a funding formula based on publication counts. *Research Policy*, 32(1), 143–155.
[https://doi.org/10.1016/S0048-7333\(02\)0007-0](https://doi.org/10.1016/S0048-7333(02)0007-0)

Las evidencias empíricas que demuestran una relación de causa-efecto entre los incentivos de nuestro sistema de evaluación y los cambios en los comportamientos de publicación en España son de dos tipos. En primer lugar,

López-Cózar, E. D., & Martín-Martín, A. [Detectando patrones anómalos de publicación científica en España: Más sobre el impacto del sistema de evaluación científica.](#)

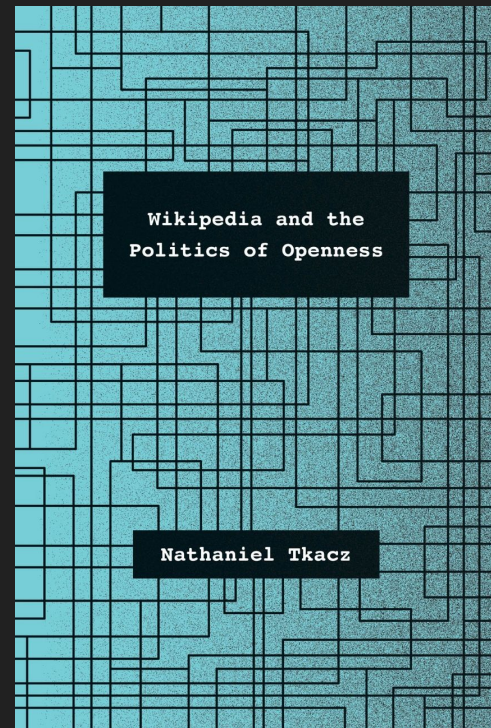
Una explicación **alternativa** o **complementaria**



Apertura

Democratización

Masificación



Una explicación **alternativa** o **complementaria**



In our time... books have emerged in lavish numbers. A book that once would've belonged only to the rich - nay, to a king - can now be seen under a modest roof... There is nothing nowadays that our children... fail to know


Sebastian Brant, 1500

Citado en [Bergstrom & West, 2020](#), p. 19




La cantidad de publicaciones

2



 **Alvaro Cabezas**
@acabezas

Cookie-cutter bibliometrics (aka La "churrera" bibliométrica) scholar.google.es/scholar?hl=es&...

16:48   

Académico

[HTML] Forty years of the European *Journal of Operational Research*: A bibliometric overview
S.Laepke, JM Merigó, JM Miranda, B.Sivakoti - *European Journal of ...* - 2017 - Elsevier
...The *European Journal of Operational Research* (EJOR) published its first *Journal* over its lifetime by using bibliometric indicators. We discuss its performance compared to other *Journals* ...
☆ Citado por 260 Artículos relacionados 80

[HTML] Thirty years of the *Journal of Business & Industrial Marketing*: A bibliometric analysis
LM Valenzuela, JM Merigó, WJ Johnston - *Journal of Business & ...* - 2017 - emerald.com
...The aim of this study is to reveal the contribution that *Journal of Business & Industrial Marketing* has to scientific research and its most influential thematic work in B-to-B since its ...
☆ Citado por 191 Artículos relacionados 80

Thirty Years of the *International Journal of Intelligent Systems*: A Bibliometric Review
JM Merigó, E Blanco-Mesa - *International Journal ...* - 2017 - Wiley Online Library
...of the *Journal* between 1980 and 2015. By doing so, we can see who is leading the *Journal* and ... including the publication and citation structure of the *Journal*, most-cited papers, the most ...
☆ Citado por 146 Artículos relacionados 80

[HTML] A bibliometric overview of the *Journal of Business Research* between 1973 and 2014
JM Merigó, A Macías, N Boz Tuncel - *Journal of Business ...* - 2015 - Elsevier
...*Journal* in business research dating back to 1973. This study analyzes all the publications in the *Journal* ... of the main factors that affect the *Journal*. This analysis includes key issues such ...
☆ Citado por 346 Artículos relacionados 80

Fifty years of the *European Journal of Marketing*: a bibliometric analysis
EL Martínez-López, JM Merigó - *European Journal of ...* - 2018 - emerald.com
...This article is useful for any reader of this *Journal* to understand questions such as papers' *European Journal of Marketing*-related scientific productivity in terms of, for instance ...
☆ Citado por 381 Artículos relacionados 80

[HTML] Twenty years of the *Journal of Knowledge Management*: A bibliometric analysis
M.Gómez-Maldonado, JM Merigó, S Papat - *Journal of Knowledge ...* - 2018 - emerald.com
...trends in the *Journal* in terms of papers, authors, institutions, countries, *Journals* and keywords. This study is useful for obtaining a quick snapshot of what is happening in the *Journal* ...
☆ Citado por 214 Artículos relacionados 80

Twenty five years of the *Journal of Travel & Tourism Marketing*: a bibliometric ranking
O Martorell-Cunill, JM Merigó - *Journal of Travel & ...* - 2018 - Taylor & Francis
Journal has celebrated its twenty-five anniversary. For that reason, this study analyzes all the publications in the *Journal* ... the main factors that affect the *Journal*. This analysis includes key ...
☆ Citado por 121 Artículos relacionados 80

Modelo de negocio

1) Suscripción

Incentivo -> Calidad

2) Publicación

Incentivo -> Cantidad

GOODHART'S LAW

WHEN A MEASURE BECOMES A TARGET,
IT CEASES TO BE A GOOD MEASURE

IF YOU
MEASURE
PEOPLE ON...

NUMBER OF
NAILS MADE

WEIGHT OF
NAILS MADE

THEN YOU
MIGHT GET

1000'S OF
TINY NAILS

A FEW GIANT,
HEAVY NAILS



sketchplanations

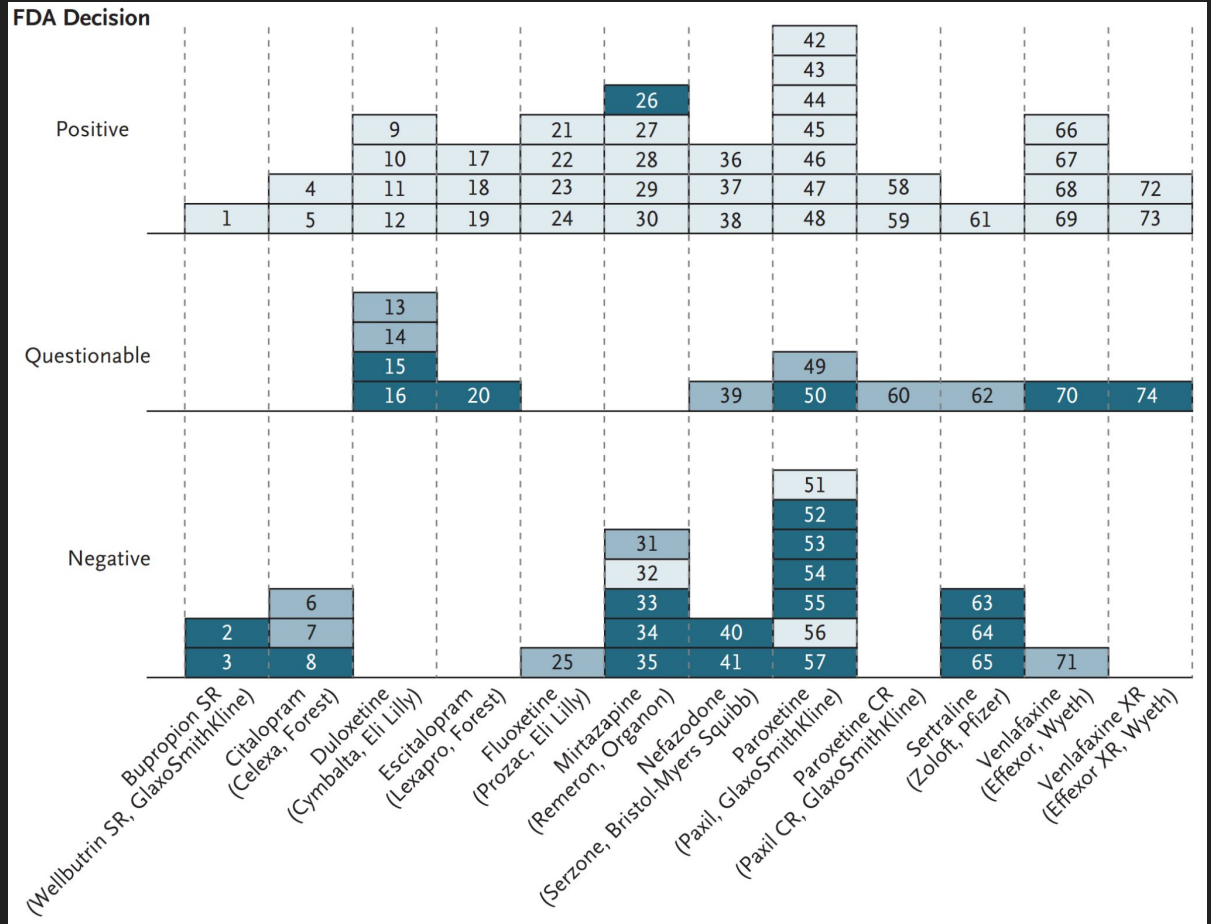
Todo esto mientras se produce un **sesgo positivo** en la publicación. La solución que se propone es **producir más información**

data sharing

open code

resultados negativos

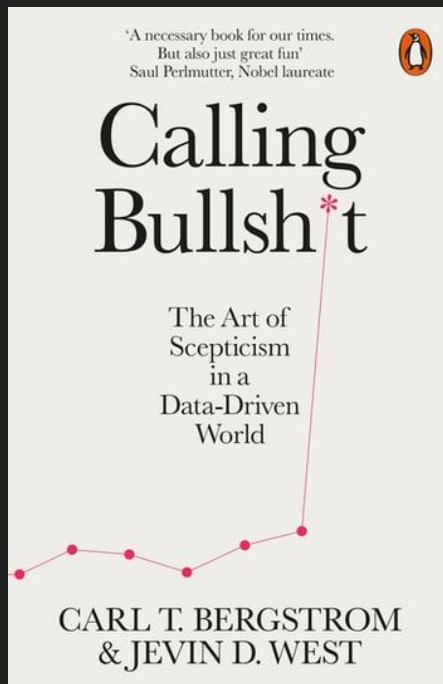
informes de revisión



Turner, E. H., Matthews, A. M., Linardatos, E., Tell, R. A., & Rosenthal, R. (2008). Selective Publication of Antidepressant Trials and Its Influence on Apparent Efficacy. *New England Journal of Medicine*, 358(3), 252–260. <https://doi.org/10.1056/NEJMsa065779>

Un equilibrio difícil de mantener

- **Menos producción**
- **Mayor calidad**
- **Más transparencia**
- **Más documentación**
- **Menos filtros**



Remember the mantra
“think more, share less”



La credibilidad de la ciencia

3



The rise and fall of gold OA

At the same time, the gold OA model began to proliferate and, along with this, the focus changed. For many journals, authors became publishers' customers, leaving readers as secondary players in the new OA equation. The fatal flaw of the gold OA model is the built-in conflict of interest: the

Beall, J. (2013). Predatory publishing is just one of the consequences of gold open access. *Learned Publishing*, 26(2), 79–84. <https://doi.org/10.1087/20130203>

West, J. D., & Bergstrom, C. T. (2021). Misinformation in and about science. *Proceedings of the National Academy of Sciences*, 118(15). <https://doi.org/10.1073/pnas.1912444117>

authors about its legitimacy. The publisher instead may be offering authors an opportunity to fool any bureaucracy or committee that assesses productivity by merely counting publications.

Yet more worrisome are the ways in which these publications mislead the public. Con artists publish fabricated or otherwise deceptive trials of snake oil therapies and use the publications in their sales pitches. The unapproved cancer treatment,



Carl T. Bergstrom
@CT_Bergstrom

We in the infectious disease epidemiology world spent decades preparing for a crisis like this, but were never imagining that we'd be fighting on two fronts, the virus on one and this sort of hyper-partisan disinformation on the other.

2:49 PM · Mar 26, 2020

SCIENTIFIC PUBLISHING

Silence greets requests to flag retracted studies

Authors and editors ignored warnings about citing noted fraudster, exposing a problem in scholarly publishing

El fin de los filtros

Medidas como la expansión en cobertura de las bases de datos científicas (WoS y Scopus), traen consigo una **relajación en sus criterios de selección.**

Medidas como la promoción de preprints y apertura de procesos de investigación, son muy positivas para la comunidad científica, pero traen consigo **mayor confusión para lectores no familiarizados con el sistema científico.**

bioRxiv posts many COVID19-related papers. A reminder: they have not been formally peer-reviewed and should not guide health-related behavior or be reported in the press as conclusive.



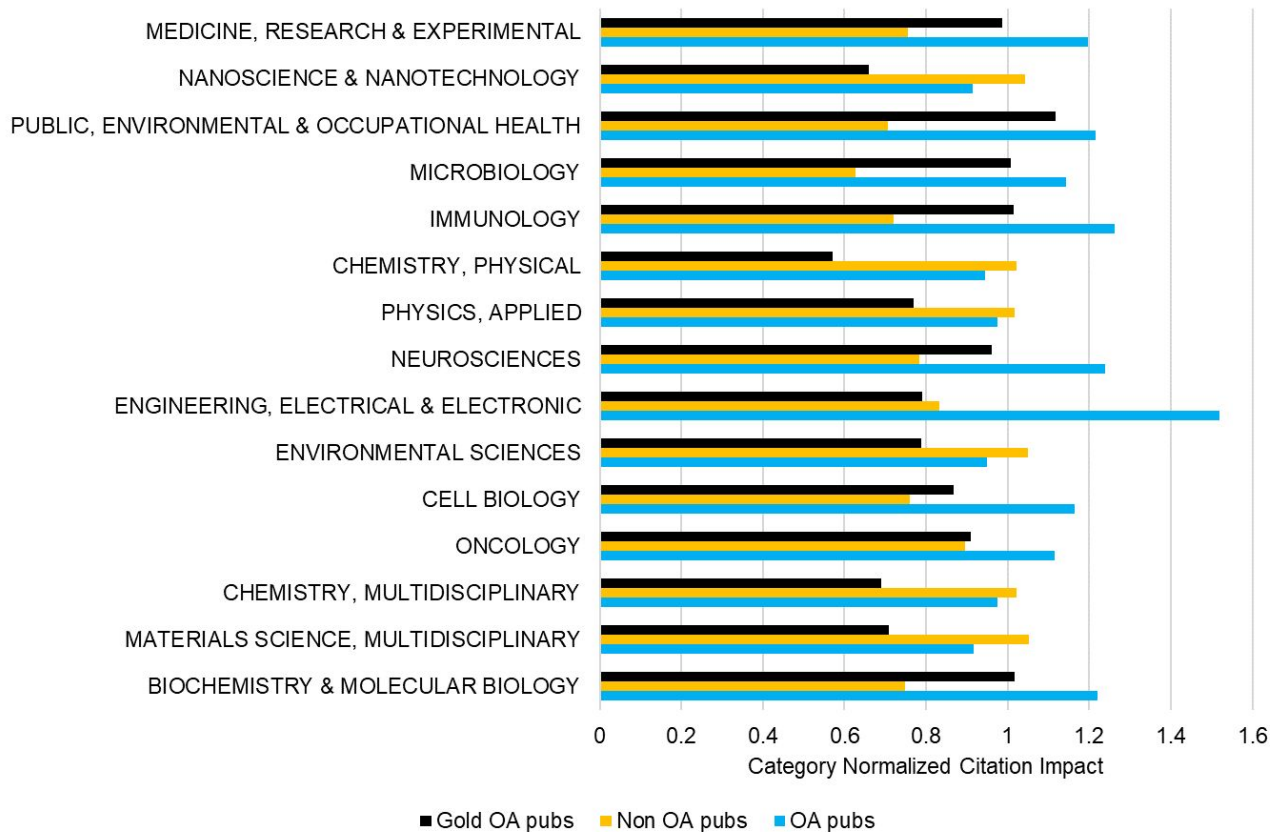
Impacto social y científico

4



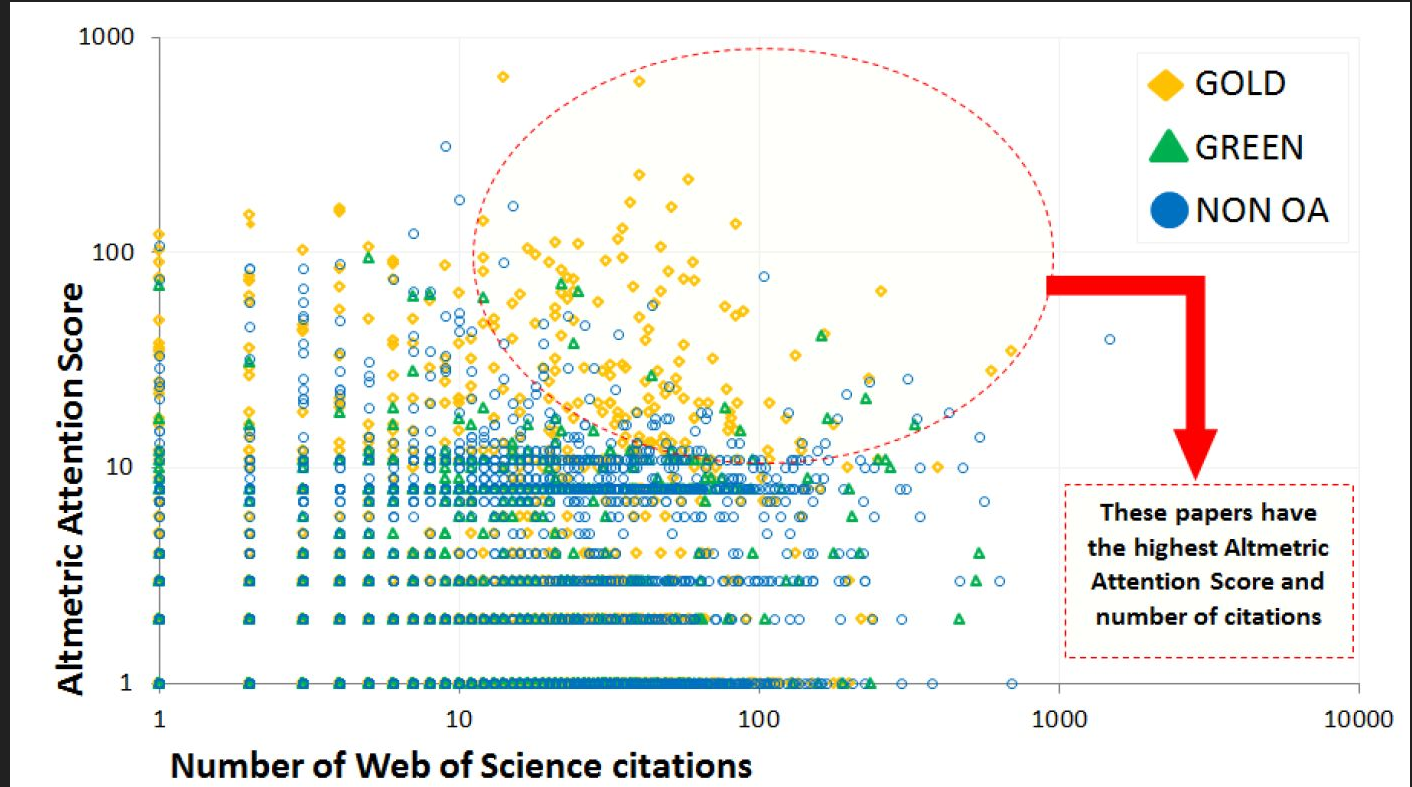
“
**Open science
 could
 become just
 the extension
 of privilege.”**

España - 2017-2021. Fuente: InCites





Open science
could
become just
the extension
of privilege.”



Robinson-Garcia, N., Arroyo-Machado, W., Moed, H.F., Torres-Salinas, D. Do altmetrics promote Open Access? An exploratory analysis on altmetric differences between types of access in the field of Physics. STI 2018 Conference Proceedings, Sept 12-14, 2018. Leiden, The Netherlands, p. 898-903. <https://hdl.handle.net/1887/65221>

Las revistas de Acceso Abierto suelen mostrar **menor diversidad geográfica** que las revistas tradicionales en sus **comités editoriales**.

Smith, A. C., Merz, L., Borden, J. B., Gulick, C. K., Kshirsagar, A. R., & Bruna, E. M. (2021). Assessing the effect of article processing charges on the geographic diversity of authors using Elsevier's "Mirror Journal" system. *Quantitative Science Studies*, 2(4), 1123–1143. https://doi.org/10.1162/qss_a_00157

El triunfo de un modelo de negocio en el que hay que **pagar para publicar** en las revistas de mayor impacto, convierte la publicación en un **privilegio de quien cuenta con financiación**.

Olejniczak, A. J., & Wilson, M. J. (2020). Who's writing open access (OA) articles? Characteristics of OA authors at Ph.D.-granting institutions in the United States. *Quantitative Science Studies*, 1(4), 1429–1450. https://doi.org/10.1162/qss_a_00091



**Open science
could
become just
the extension
of privilege.”**

Contradicciones y problemas

- El **Acceso Abierto** acelera y exagera los **problemas del sistema de comunicación científica**
 - ◆ Revisión por pares
 - ◆ Reproducibilidad
 - ◆ Indexación de revistas
- La **apertura de procesos internos y social** pueden exagerar la **crisis de credibilidad social** que sufre la ciencia
 - ◆ Desinformación
 - ◆ Ciencia zombie



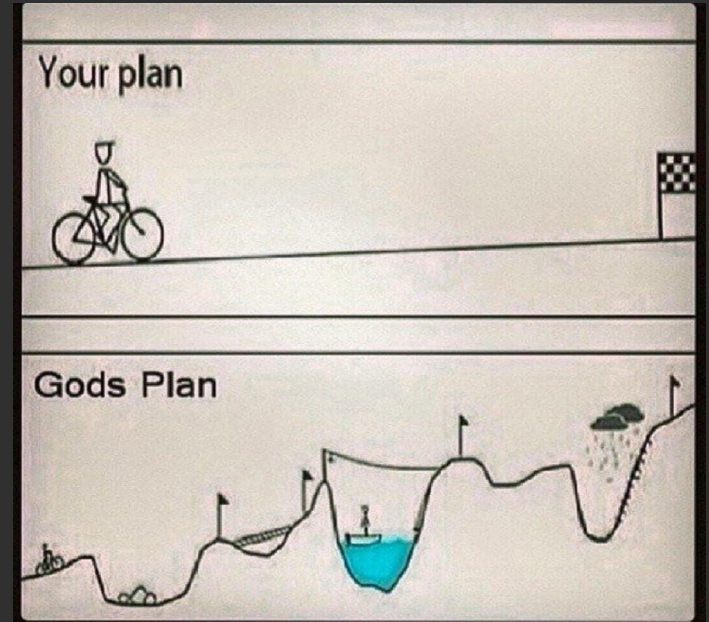
¡Gracias por la invitación!

18 de enero de 2023

San José, Costa Rica



UCR
UNIVERSIDAD DE COSTA RICA



Nicolás Robinson-Garcia

<https://nrobinsongarcia.com>