

Open Access Publishing

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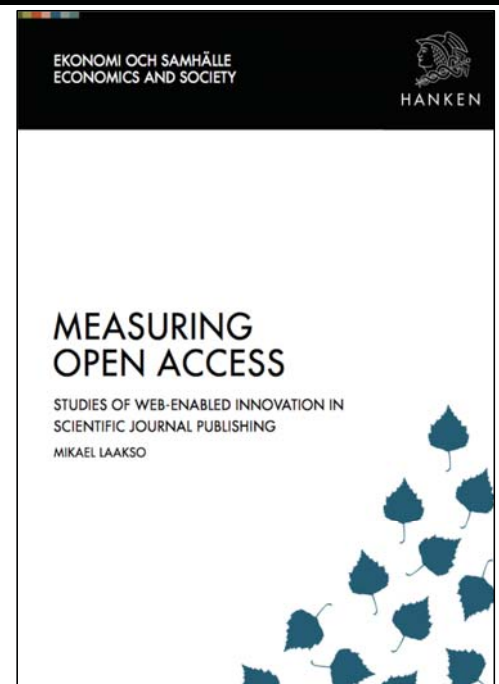


My background and perspective



HANKEN

- » Research has been focusing on how open access has been introduced and changed scholarly journal publishing.
- » Member of the H2020 Commission Expert Group "Future of Scholarly Publishing and Scholarly Communication (FSP)"
- » Member of the strategy group for journal publisher negotiations on behalf of the Finnish university library consortium (FinElib).



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- » Your research funder/university requires it?

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What OA looks like on Google Scholar



Google Scholar search results for "fish consumption". The search bar shows "fish consumption" and the results page indicates "About 126,000 results (0.12 sec)".

Articles

- Fish consumption, fish oils, and cardiovascular events: still waiting for definitive evidence**
PM Ridker - The American Journal of Clinical Nutrition, 2016 - Am Soc Nutrition
1 Allaire J, Couture P, Leclerc M, Charest A, Marin J, Lépine MC, Talbot D, Tchernof A, Lamarque B. A randomized, crossover, head-to-head comparison of eicosapentaenoic acid and docosahexaenoic acid supplementation to reduce inflammatory markers in men and
Related articles All 2 versions Cite Save
- Trends in blood mercury concentrations and fish consumption among US women of reproductive age, NHANES, 1999–2010
RJ Birch, J Bigler, JW Rogers, Y Zhuang... - Environmental ... , 2014 - Elsevier
Background Consumption of finfish and shellfish is the primary exposure pathway of methylmercury (MeHg) in the US. MeHg exposure in utero is associated with neurodevelopmental and motor function deficits. Regulations and fish advisories may
Cited by 26 Related articles All 9 versions Cite Save
- No association between fish consumption and risk of stroke in the Spanish cohort of the European Prospective Investigation into Cancer and Nutrition (EPIC-Spain): a ...
P Amiano, S Chamosa, N Etxezarreta... - Public health ... , 2016 - Cambridge Univ Press
Objective To prospectively assess the associations between lean fish, fatty fish and total fish intakes and risk of stroke in the Spanish cohort of the European Prospective Investigation into Cancer and Nutrition (EPIC-Spain). Design Fish intake was estimated from a validated
Related articles All 6 versions Cite Save
- Regular fish consumption and age-related brain gray matter loss
CA Raji, KI Erickson, OL Lopez, LH Kuller... - American journal of ... , 2014 - Elsevier
Background Brain health may be affected by modifiable lifestyle factors; consuming fish and antioxidative omega-3 fatty acids may reduce brain structural abnormality risk. Purpose To determine whether dietary fish consumption is related to brain structural integrity among
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Open Access



"Open access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions."

(Peter Suber, 2012:4)

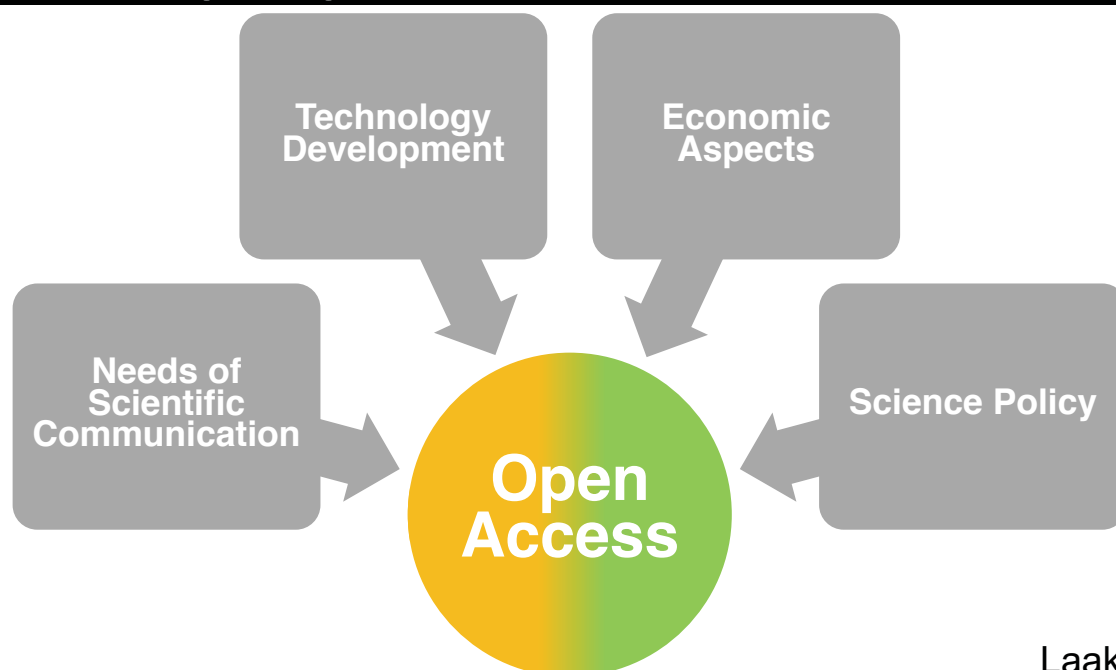
Gold OA

Open Access made available by journals themselves (either in full or part). Free for everyone or enabled by author-side payment.

Green OA

Open Access elsewhere on the web. Often manuscript-versions of published journal articles. Free to authors.

Open Access has been evolving since the early days of the internet



Laakso (2014)

Illegal access is not the solution



- » Provides access to more than **58,000,000** articles and growing.
- » The cat-and-mouse game can only last so long.



“Over the 6 months leading up to March, Sci-Hub served up 28 million documents, with Iran, China, India, Russia, and the United States the leading requestors.”

Bohannon (2016)

OA benefits are colorblind



- » What matters is that the research publication is discoverable and retrievable without reader-side payment.
- » The mechanism through which this happens is not a main concern for gaining benefits.
- » However, the earlier OA is provided the better.



Visibility and impact increase



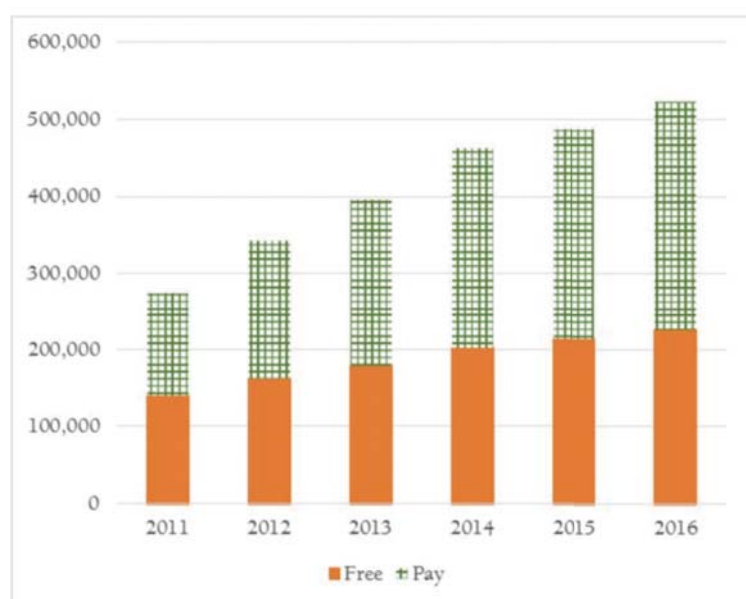
- » **Citation advantage** compared to articles only available through subscription-access. (McKiernan et al (2016))
- » “[...] the odds that an open access journal is referenced on the English **Wikipedia** are 47% higher compared to paywall journals.” (Teplitskiy, Lu & Duede 2016)
- » In a study covering over 1700 articles published in Nature Communications, **OA articles received 2.5-4.4 times the interactions on Twitter and Facebook** compared to closed-access articles. (Wang, Liu, Mao & Fang 2015).

Before submitting your article manuscript to a journal...



- » **Is there a suitable OA journal available?** If so, great! Is there an article processing charge that needs to be paid upon acceptance, and do you have funds available for covering the charge?
- » **If you submit to a traditional subscription-access journal**, is there a delay with which you can make your manuscript OA through a repository?

Articles published in Open Access journals 2011-2016



Crawford (2017)

- » During 2016 0.5 million articles were published in 8992 DOAJ-indexed journals.
- » Majority of articles were published in journals requiring payment of an article processing charge (APC).

<https://waltcrawford.name/goaj2.pdf>

Open access has enabled new types of journals to exist



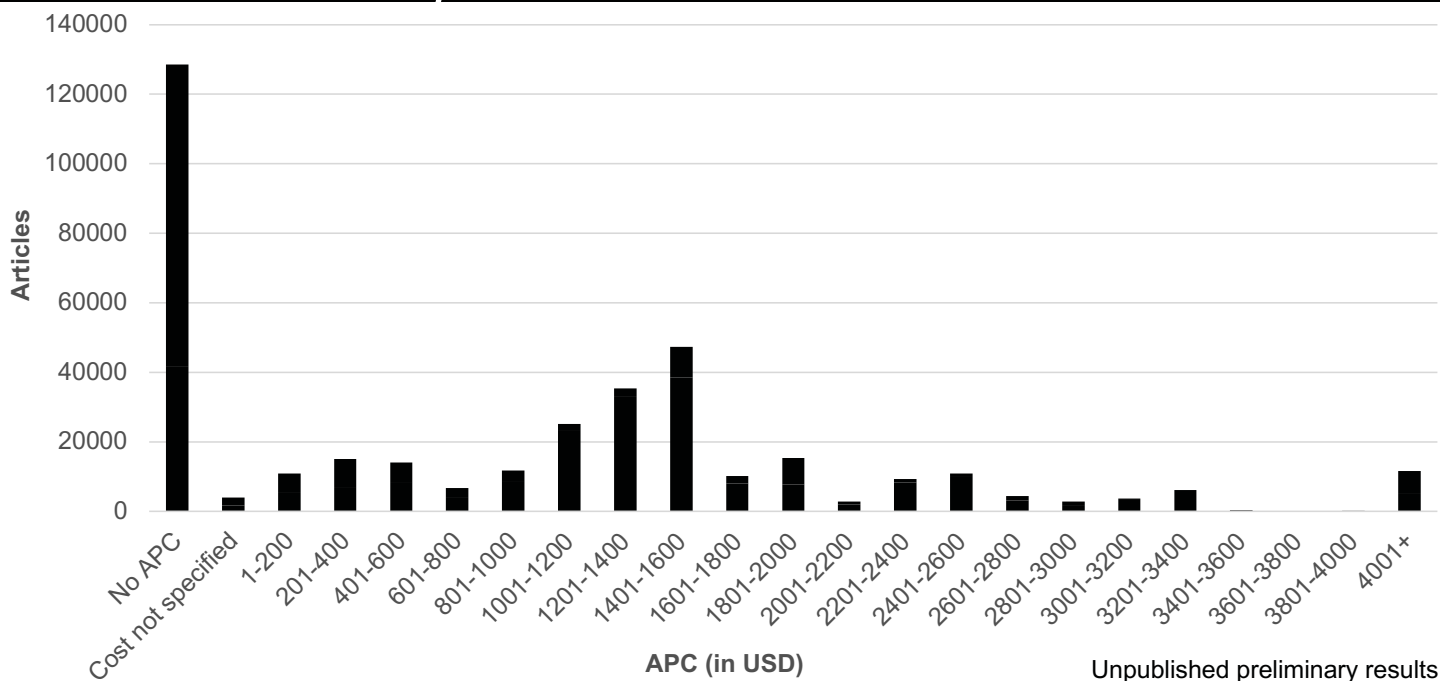
Open access journal articles as % of all articles in Scopus



	2010	2011	2012	2013	2014	2015	2016
Life Sciences	14	14	16	19	20	23	21
Agricultural and Biological Sciences	19	21	23	25	25	27	25
Biochemistry, Genetics and Molecular Biology	13	13	15	19	21	24	22
Immunology and Microbiology	14	14	15	18	20	24	22
Neuroscience	8	9	12	14	16	18	17
Pharmacology, Toxicology and Pharmaceutics	12	12	13	15	16	19	18
Social Sciences	6	7	8	9	10	11	12
Arts and Humanities	5	6	7	9	10	12	12
Business, Management and Accounting	3	3	4	4	4	5	7
Decision Sciences	4	5	6	6	6	7	7
Economics, Econometrics and Finance	5	6	7	7	7	8	10
Psychology	6	7	9	11	12	11	12
Social Sciences	8	8	10	11	11	13	13
Physical Sciences	7	7	9	9	10	10	11
Chemical Engineering	4	4	5	5	5	6	6
Chemistry	8	9	9	9	8	9	10
Computer Science	8	8	10	13	11	13	13
Earth and Planetary Sciences	8	9	10	10	11	12	12
Energy	2	3	5	5	5	7	7
Engineering	3	4	7	7	8	9	10
Environmental Science	7	8	9	10	11	10	11
Materials Science	6	6	7	7	7	7	8
Mathematics	8	9	13	15	16	14	12
Physics and Astronomy	10	10	11	10	14	16	17
Health Sciences	13	14	16	18	19	21	21
Medicine	13	13	15	17	18	21	21
Nursing	6	8	8	9	8	9	8
Veterinary	21	22	24	27	28	27	27
Dentistry	17	18	21	20	20	23	21
Health Professions	7	8	10	11	14	16	16
General	23	14	16	28	34	49	62

Unpublished preliminary results

Pricing levels of OA journal articles published 2016



Author and reader beware: Predatory journals



- » The adoption of the author-payment model has attracted questionable entrepreneurs to the field of scientific journal publishing space.



Mechanisms for quality control of journals are improving



- » The flooded market can make it hard for legitimate journals to attract quality submissions.
- » Initiatives have been started in order to create some form of transparent quality standard.
- » With age journals build up credibility and a transparent track record.

DOAJ DIRECTORY OF OPEN ACCESS JOURNALS

CASPA

Open Access Scholarly Publishers Association



Choose the right journal for your research

<http://thinkchecksubmit>

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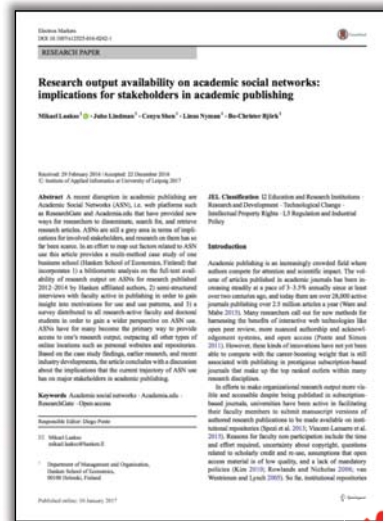
What can usually be made available as green OA?



HANKEN



Accepted manuscript
(i.e. final draft)



Publisher version
(i.e. copyedited file)



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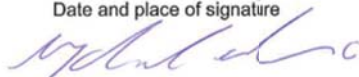
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The screenshot shows the SHERPA/RoMEO website. At the top, there is a logo for SHERPA/RoMEO and the tagline "... opening access to research". Below the logo, there are navigation links: Home, Search, Journals, Publishers, FAQ, Suggest, and About. There are also language options: English, Español, Magyar, Nederlands, and Português. The main heading is "Publisher copyright policies & self-archiving". Under "Search", there are radio buttons for "Journal titles or ISSNs" and "Publisher names", and a search input field. Below that, there are radio buttons for "Exact title", "starts with", "contains", and "ISSN", along with "Advanced Search", "Search", and "Reset" buttons. A note says: "Use this site to find a summary of permissions that are normally given as part of each publisher's copyright transfer agreement." To the right, under "Special RoMEO Pages", there are links for "Publishers Allowing use of their PDFs in Repositories", "RoMEO Statistics", and "Application Programmers' Interface (API)". Under "Additions and Updates", there are links for "Premier Publishers - Premier Publishers - 24-Mar-2017", "Termedia Publishing - Termedia Publishing - 24-Mar-2017", and "Northumbria University Library - Northumbria University Library - 23-Mar-2017". Under "Other SHERPA Services", there are links for "SHERPA/FACT - Funders & Authors Compliance Tool" and "SHERPA/JULIET - Research funders' open access policies". At the bottom right, there is a Jisc logo. At the bottom left, it says "© 2006-2017, University of Nottingham" and at the bottom right, "Contact us".

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Hybrid OA



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- » Most research funders do not preference this option since green OA can usually be provided for free and the fee for publishing in full OA journals is lower than hybrid OA fees.

Kay takeaways



- » **Open access is increasingly required** by different stakeholders and can be perceived as an additional burden, however, it is for the good of everyone.
- » **The share of open access content has been growing all the time**, currently around half of all recently published research can be found on the web (Piwowar et al 2018).
- » In a subscription-based world, **OA carries benefits to researchers and their institutions.**
- » **Not using research to its full potential is a waste** – why spend 2 years on work for an article and then not use 20 more minutes to ensure that it is read as widely as possible and permanently open?

Three recommended reads



The impact of free access to the scientific literature: a review of recent research
 Philip M. Davis, PhD; William H. Walters, PhD, FCLIP
 DOI: 10.1093/oxfordjournals.aje.a111111

Objectives: The paper reviews recent studies that evaluate the impact of free access (open access) on the behavior of scientists as authors, readers, and citers in developed and developing nations. It also examines the extent to which the biomedical literature is used by the general public.

Method: The paper is a critical review of the literature, with systematic description of key studies.

Results: Researchers report that their access to the scientific literature is generally good and improving. For authors, the access status of a journal is not an important consideration when deciding where to publish. There is clear evidence that free access increases the number of article downloads, although its impact on article citations is not clear. Recent studies indicate that large citation advantages are simply artifacts of the failure to adequately control confounding variables. The effect of free access on general public's use of the primary medical literature has not been thoroughly evaluated.

Conclusions: Recent studies provide little evidence to support the idea that there is a crisis in access to scholarly literature. Further research is needed to investigate whether free access is making a difference in non-research contexts and to better understand dissemination of scientific literature through peer networks and other informal mechanisms.

Highlights

- Researchers in the sciences do not see access to the scientific literature as an especially important goal.
- Authors consider factors such as journal reputation and the absence of publication fees when deciding where to submit their work. In contrast, free access is not a significant factor in their submission decisions.

Implications

- While open access has the potential to expand the audience and readership of the scientific literature, that potential has not yet been realized.
- Librarians who encourage scientists to publish open access journals should be aware of the authors' opinions and perceptions. Authors in the natural sciences, since most of their research on free access has dealt with fields such as the biomedical, physical, and computer sciences. Although "open access" is the usual term for scholarly work that is freely accessible online, the term "free access" is used here, since open access is often understood to include issues of copyright, archiving, funding, and social justice that are not addressed in this discussion.
- The paper first reviews the impact of free access on the research practices of scholars in developed and developing nations, then examines the use of freely available biomedical literature by health professionals and the lay public. It concludes with a discussion of reasons for further research.

METHODS

The analysis is based on a review of current open access literature (January 2011 through December 2015) aimed at measuring the impact of open access on the use of the scientific literature by academic clinicians, and the lay public. Relevant works are identified from several sources: bibliographic databases, and the lay public. Relevant works are identified from several sources: bibliographic databases, and the lay public.

Davis & Walters (2011)

POINT OF VIEW

How open science helps researchers succeed

Abstract: Open access, open data, open source and other open scholarship practices are growing in popularity and research. However, widespread adoption of these practices has not yet been achieved. One reason is that researchers are uncertain about how doing their work will affect their careers. We review literature demonstrating that open research is associated with increases in citations, media attention, potential collaborations, job opportunities and funding opportunities. These findings are evidence that open research practices bring significant benefits to research relative to more traditional closed practices.

ERIC C. MCKIERNAN¹, PHILIP E. BOURNE², C. TITUS BROWN³, STUART BUCK⁴, ANNE KENALL⁵, JENNIFER LIN⁶, DAMON MCDUGALL⁷, BRIAN A. NOSEK⁸, KARTHIK RAO⁹, COURTNEY K. SCORZELLI¹⁰, JEFFREY E. SPIEL¹¹, KATHYUN TING¹², ANDREW UDOGVOICE¹³, KARA H. WOOD AND TAL YARKONI¹⁴

Introduction

Recognition and adoption of open research practices is growing, including new policies that increase public access to the academic literature (open access; Rosen et al., 2016; Bounie et al., 2016) and encourage sharing of data (open data; Hameed et al., 2014; McKiernan, 2015; Stodler et al., 2015), and code (open source; Stodler et al., 2015; Stodler et al., 2015). Such policies are often motivated by ethical, moral or utilitarian arguments (Stodler, 2012; Willinsky, 2006), such as the right of taxpayers to access literature arising from publicly-funded research (Dolan, 2002), or the importance of public software and data deposition for reproducibility (Pillay et al., 2012; Stodler, 2011; Inou et al., 2012). Meritocratic as such arguments may be, however, they do not address the practical barriers involved in changing researchers' behavior, such as the common perception that open practices could present a risk to career advancement. In the present article, we address such concerns and suggest that the benefits of open practices outweigh the potential risks.

We take a researcher-centric approach in outlining the benefits of open research practices. Researchers can use open practices to their advantage to gain more citations, media attention, potential collaborations, job opportunities and funding opportunities, such as about the right of peer review at open journals, rates to funding and career progression, and forfeiture of author rights. We review the current literature on research ethics on how to practice open within the existing framework of academic norms and incentives. We discuss the with regard to four areas: publishing, resource management and sharing, advancement – and conclude with a #OpenPractices.

Publishing

Open publications get more citations. There is evidence that publishing open articles with higher citation rates (Inou et al., 2012). For example, OpenPractices that articles published in the Proceedings of the National Academy of Sciences (PNAS) that open access (OA) section were likely to be cited within 4-12 months of their release as likely to be cited 10-14% after publication than non-OA articles (Inou et al., 2012).

McKiernan et al (2016)

REVIEW

The academic, economic and societal impacts of Open Access: an evidence-based review [version 3; referees: 3 approved, 2 approved with reservations]

Jonathan P. Tennant¹, François Waldner², Damien C. Jacques³, Paola Masuzzo^{3,4}, Lauren B. Collier⁵, Chris. H. J. Hartgerink⁶

Abstract: Ongoing debates surrounding Open Access to the scholarly literature are multifaceted and complicated by disparate and often polarized viewpoints from engaged stakeholders. At the current stage, Open Access has become such a global issue that it is critical for all involved in scholarly publishing, including policymakers, publishers, research funders, governments, learned societies, librarians, and academic communities, to be well-informed on the history, benefits, and pitfalls of Open Access. In spite of this, there is a general lack of consensus regarding the potential pros and cons of Open Access at multiple levels. This review aims to be a resource for current knowledge on the impacts of Open Access by synthesizing important research in three major areas: academic, economic and societal. While there is clearly much scope for additional research, several key trends are identified, including a broad citation advantage for researchers who publish openly, as well as additional benefits to the non-academic dissemination of their work. The economic impact of Open Access is less well-understood, although it is clear that access to the research literature is key for innovative enterprises, and a range of governmental and non-governmental services. Furthermore, Open Access has the potential to save both publishers and research funders considerable amounts of financial resources, and can provide some economic benefits to traditionally subscription-based journals. The societal impact of Open Access is strong, in particular for advancing citizen science initiatives, and leveling the playing field for researchers in developing countries. Open Access supersedes all potential alternative modes of access to the scholarly literature through enabling unrestricted use, and long-term stability independent of financial constraints of traditional publishers that impede knowledge sharing. However, Open Access has the potential to become unsustainable for research communities if high-cost options are allowed to continue to prevail in a widely unregulated scholarly publishing market. Open Access remains only one of the multiple challenges that the scholarly publishing system is currently facing. Ver. 3

First published: 11 Apr 2016, 8:02 (doi: 10.1371/journal.pone.0146111.1)
Second version: 09 Jun 2016, 8:02 (doi: 10.1371/journal.pone.0146111.2)
Latest published: 21 Sep 2016, 8:02 (doi: 10.1371/journal.pone.0146111.3)

Open Peer Review

Referee Status:

Invited Referees:

Tennant et al (2016)

Q & A



References



- Bohannon, B. (2016). Who's downloading pirated papers? Everyone. *Science*, 352(6285), 508–512. <http://doi.org/10.1126/science.352.6285.508>
- Costas, R., Zahedi, Z., & Wouters, P. (2014). Do “altmetrics” correlate with citations? Extensive comparison of altmetric indicators with citations from a multidisciplinary perspective. *Journal of the Association for Information Science and Technology*, 66(10), 2003–2019. <http://doi.org/10.1002/asi.23309>
- Crawford, W. (2017). Gold Open Access Journals 2011-2016. <https://waltcrawford.name/goaj2.pdf>
- Davis, P. M., & Walters, W. H. (2011). The impact of free access to the scientific literature: a review of recent research. *Journal of the Medical Library Association: JMLA*, 99(3), 208–217. <http://doi.org/10.3163/1536-5050.99.3.008>
- Laakso, M. (2014) *Measuring Open Access: Studies of Web-Enabled Innovation in Scientific Journal Publishing*; Edita Prima: Helsinki, Finland, 2014. <http://hdl.handle.net/10138/45238>
- McKiernan, E. C., Bourne, P. E., Brown, C. T., Buck, S., & Kenall, A. (2016). How open science helps researchers succeed. *Elife*. <http://doi.org/10.7554/eLife.16800.001>
- Piowar, H., Priem, J., Lariviere, V., Alperin, J. P., Matthias, L., Norlander, B., et al. (2018). The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles. *PeerJ*, 6(4), e4375–23. <http://doi.org/10.7717/peerj.4375>
- Suber, P. (2012). *Open Access*. MIT Press. <https://mitpress.mit.edu/books/open-access>
- Teplitskiy, M., Lu, G., & Duede, E. (2016). Amplifying the impact of open access: Wikipedia and the diffusion of science. *Journal of the Association for Information Science and Technology*. <http://doi.org/10.1002/asi.23687>
- Tennant, J. P., Waldner, F., Jacques, D. C., Masuzzo, P., Collister, L. B., & Hartgerink, C. H. J. (2016). The academic, economic and societal impacts of Open Access: an evidence-based review. *F1000Research*, 5, 632–54. <http://doi.org/10.12688/f1000research.8460.1>
- Wang, X., Liu, C., Mao, W., & Fang, Z. (2015). The open access advantage considering citation, article usage and social media attention. *Scientometrics*, 103(2), 555–564. <http://doi.org/10.1007/s11192-015-1547-0>