

The Future of Scholarly Publishing: Open Access (OA) Publishing







Open Access & scholarly publishing: the future is now

The scholarly publishing sector continues to advance open access (OA) publishing practices and initiatives. It remains a rapidly evolving and highly competitive ecosystem with multiple stakeholders and drivers. Technology is an important enabler for adaptation and supporting critical success factors.

OA & the Sustainable Development Goals (SDGs)

The recent United Nations Third Open Science Conference emphasized the importance of open science in achieving the SDGs and called for measures to achieve equity and inclusion, reform academic publishing, and strengthen the science-policy-society interface.

Dr. Monica Granados moderated a panel on "Equity in open scholarship", highlighting the importance of open access to knowledge in solving the world's greatest problems outlined in the SDGs.

Advocates for OA and scholarly publishing also suggest supporting high-quality journals from the Global South and using diamond open access to achieve this. Diamond OA refers to academic texts published, distributed, or preserved with no fees to either the author or reader.

Equity and affordability in open access

Affordability remains a major issue in OA publishing, with the APC barrier effect impeding researchers with fewer resources. While waivers are a usual fix, they can be problematic and may not match affordability.

Equitable access to OA is challenged by cost, with fees that may be modest for some countries being very expensive for others, particularly less wealthy regions outside the US and Europe. One idea being discussed is basing fees on local affordability rather than pricing them identically for all customers, similar to the tiered pricing of vaccines.

Open data

Open Science is recommended as a win-win for researchers and the community, improving transparency and confidence in new knowledge. A global survey conducted by Carol Tenopir and her team over a 10-year period found insights into scientists', managers', and government workers' willingness to share data and their opinions on available resources.



One of the findings of the survey is that researchers from the USA, Canada, Australia, and New Zealand are most willing to share their data, while those in Africa, the Middle East, and Asia are the least willing. Government involvement and funding can improve attitudes towards open science practices, and researchers need more knowledge, tools, and training to properly share data and bring about positive change in scientific practices.

Plan S

Plan S is an initiative adopted by cOAlition S, a group of national research funding organizations, in 2018. The goal of the initiative is to make research publications openly accessible to all. In five years, cOAlition S has grown to a network of 28 funders, including agencies from the US, Australia, and South Africa, and has contributed to a consensus among research funding agencies worldwide that OA to research results is a priority that requires international alignment. Publishers have also recognized the importance of OA and are transforming to comply with Plan S principles.

So how successful has Plan S been so far? cOAlition S assigned 'transformative journal' status to 2,236 journals from a range of publishers where publishing fees were covered. However, it has excluded 68% of journals in the second year of the program for not meeting targets and only 1% of journals have converted to full OA.

Financial support for transformative journals will end at the end of 2024, and no new applications will be considered after June 30, 2023.

The power of collaboration

Collaboration is a key aspect of OA publishing, with technology playing an increasingly important role in enabling collaboration among researchers and institutions. One of the biggest advantages of OA publishing is the ability for researchers to easily share their work with others, regardless of their location or institutional affiliation.

Technology platforms such as open access repositories and preprint servers have made it easier for researchers to share their findings and collaborate with others. These platforms allow researchers to upload their work and make it publicly available, increasing its visibility and potential impact.

In addition, technology has enabled innovative new approaches to peer review, such as open peer review and post-publication peer review, which have the potential to improve the quality and transparency of scientific research.

The future is now

The future of OA publishing is promising, with innovative new approaches and the growing recognition of the importance of OA to research results. "OA publishing will continue growing and evolving", funding agencies and stakeholders recognize its importance and take steps to promote it.



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Executive Summary

The World Wide Web has irrevocably changed how we do business, education, finance, healthcare, entertainment, and especially publishing. Open access (OA) publishing gained prominence in the 2000s and has seen an exponential rise in adoption since then. Many factors have contributed to the emergence of OA but one being the increasing ease of the publishing process.

Traditional publishing processes are increasingly less efficient and not cost effective when serving authors and funders' OA publishing requirements.

Studies show that OA published articles have 89^[1] percent more full-text downloads, 23^[1] percent more unique visitors, and 42^[1] percent more per individual downloads. Research shows the benefits of OA publishing, including academic, social, and monetary. As a consequence, OA publishing is becoming much more widely adopted than traditional publishing.



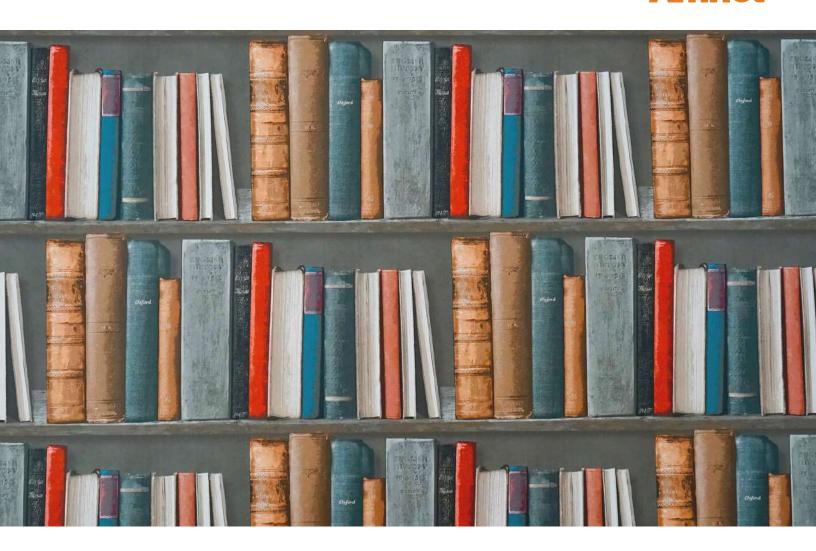
Concerns have been raised about the quality and research integrity of OA publications, but these are unfounded as demonstrated by the wide adoption of OA by the leading international STM publishers and the increasing academic impact of OA publications.

To illustrate, 200 of the 597 fully OA journals published by Springer Nature have gained an Impact Factor.

Elsewhere, OA journals are highly ranked in their field by the Impact Factor.

For example, in biology, PLOS Biology is ranked number one by the Impact Factor, BMC Biology 4th $^{[1]}$, and PLOS ONE $10th^{[1]}$. Similarly, in mathematical and computational biology, PLOS Computational Biology is ranked number one, BMC Systems Biology 3rd $^{[1]}$, and BMC Bioinformatics 4th $^{[1]}$.

There are increasing evidence-based studies that demonstrate the clear benefits, efficiencies, and effectiveness of OA publishing when compared with traditional and subscription-based approaches.



The Advent of Open Access Publishing: A Historical Analysis

Publishing has played an important role in history. Since the dawn of humankind, publishing has helped us impart knowledge far and wide. The origins of publishing can be traced back to 3500 BC ^[2]. Clay tablets were the first tools and were discovered in the city of Mesopotamia. From that, we progressed to paper publishing in the late 1800s ^[2], and now in the digital age, we have machines and servers.

The evolution of OA publishing can be classified into three distinct periods of development. What began with the pioneering years of 1993–1999^[4] then transitioned to the innovation years of 2000–2004^[4] and then the consolidation years of 2005–2009^[4], resulting in significant changes. Today, since the advent and popularization of OA publishing, we have online repositories with a great quantity of free scientific data to copy, refer to, cite, distribute, and further original thought and scientific inquiry.



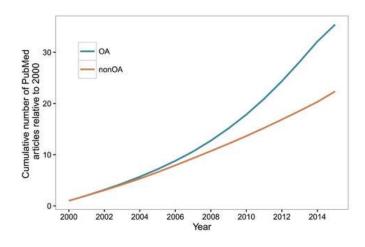
The Beginning (The 1970s -1994)

There are many reasons for the growing success and popularity of OA publishing. One is that it offers greater accessibility and more value for money in comparison to traditional methods of publishing.

In the later part of the 1970s, the academic libraries were challenged by above-inflation price increases in scholarly published materials. The "Serials Crisis," as it was known, was driven by 200–300^[4] percent increases in institutional subscriptions. Library funding became severely impacted, and so was science research. The Serials Crisis is still evident today, and it is a challenge to traditional publishing.

Paul Ginsparg is credited as one of the founders of OA publishing. In 1991^[4], he established arXiv, an OA publications repository for the physics research community, which remains hugely successful today.

The Golden Age (2000 - 2009)

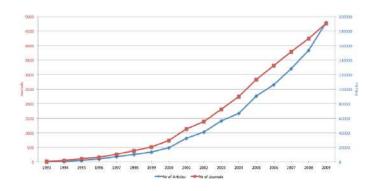


OA vs Traditional publishing % increase published by PubMed Central and relative to the year 2000.

The 20th century saw the rise of the internet and the World Wide Web—the Web. Anyone with an internet connection could get their content on the Web from any geographic location. This amplified the possibility for freely available publications to spread scholarly work using the Web as a medium.

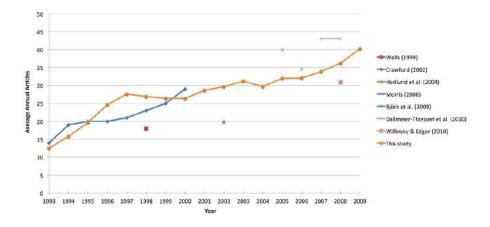
The Serials Crisis at the end of the 20th century was seen by many as unsustainable and a campaign was started to share information freely and without the need for paid content or accessibility. This was known as the Free Software Movement.

One of the first online journals was the Journal of Medical Internet Research, which offered users open and freely accessible content. Many other publications and publishers followed this lead, with the National Institutes of Health establishing Pubmed Central, and today, it is one of the largest OA repositories in the world, with more than 6^[3] million free articles.



In the years to come, many governmental organizations openly supported the OA movement, and the scholarly community came together to draft access initiatives in 2002 and 2003: the Budapest Open Access Initiative (BOAI) and the Berlin Declaration on OA. Both these initiatives formally defined the OA guidelines and started a call to action by gathering 500 ^[3] institutional signatures. In 2003, the Public Library of Sciences (PLOS) was launched; it is credited with releasing some of the competitive OA journals of today.

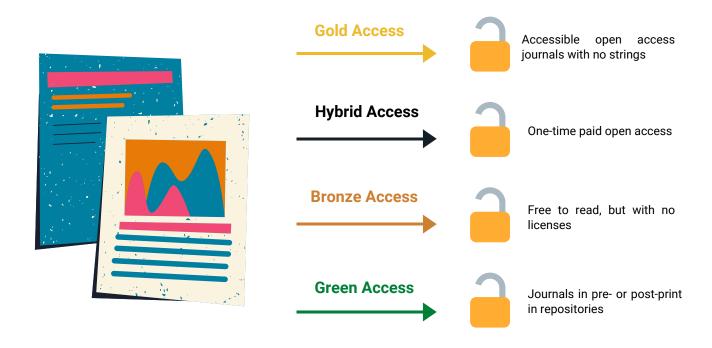




OA Publishing in the Last Decade

In the later part of the 2000s, OA has seen a gradual rise in support on many fronts: academic communities, governmental agencies, institutions, and funding agencies.

In 2000, there was an estimated 741 [4] OA journals publishing 19,500 [4] articles, and in 2009, they grew to 4,767 [4] OA journals publishing 191,850 [4] articles. These findings support the fact that OA journals have both increased in numbers and increased their average annual output over time.





Open Access versus Traditional Publishing: A Comparative Study

Subscription-based publications continue to be supported by academic research communities, alongside the growth of OA options. After an initial reluctance, all global publishers now have embraced OA. Research authors now have a choice between the subscription and OA publication route and can consider a number of critical factors.



Price

Publishing in a traditional format is often significantly more expensive in the long run, as charges per page usually range from US\$100 to \$250^[1] and cost per journal ranges from US\$150 to \$1,000 ^[1]. In contrast, it is markedly cheaper with digital OA publishing. A flat article processing charge (APC) is taken, and there is more choice for what you can opt for. The cost starts at US\$8 and can extend up to US\$5,000 ^[1] for higher-tier publishers (Cell Reports).

Speed

Speed is of paramount importance when staking claim to an original idea, especially in the scientific and scholarly communities. An idea is only important when it crosses over into public discourse and produces an impact. In a survey by the Nature Publishing Group and Palgrave Macmillan, they found that authors placed "speed of acceptance" of a paper to reach publication to be "very important" when leveraging publishing options. The same survey stated that almost 80–85 [1] percent of the journal authors said they placed the speed of acceptance of a paper to reach publication to be the first factor they considered important in choosing a publisher.

Delay in time for acceptance and then for publication is a common phenomenon in publishing for any peer-reviewed journal, but this is more complex for clinical sciences, as the minimum publication time lags by a median time of 21 months. The delays in traditional publishing are due to the following:

- · Issues have to be grouped and bundled from many articles.
- Limited space creates a backlog of different publishable articles.
- Time needs to be allotted to the printing and distribution process and also for sending physical copies.

In contrast, OA journals adopt article-based, digital workflows with anytime publication on the Web and avoid the needless delay in compiling monthly issues or annual volumes.



Visibility

Basic statistics determine that almost 90^[1] percent of the world uses the Web and that more than half use it as a medium to get informed. Being published on the Web can ensure that you are seen and that your content is openly accessible to a global audience.

OA authors from the fields of sciences, humanities, and social studies benefit from greater and wider exposure.

Studies show that OA published articles have

 $89\%^{[1]}$ more full-text downloads, $23\%^{[1]}$ more unique visitors, $42\%^{[1]}$ more per person downloads,

making it significantly more popular than a traditional journaling methodology.

Prestige

Some researchers are reticent to publish in OA publications as they may be newer titles without long-established brand names. However, confidence grows as these new OA titles achieve indexing in accredited databases, such as Clarivate Analytics Web of Science and PubMed Central. Many new OA journals will go on to be awarded Impact Factors, further reinforcing their academic

Since the publication of the first Journal Citation Reports (JCR)TM in 1976^[1], the Impact Factor has become a standard academic method of measuring the citation impact of a journal. The Impact Factor is calculated by dividing the number of citations in the JCR year by the total number of articles published in the two previous years.

For example, 200[1] of the 597[1] fully OA journals published by Springer Nature have gained an Impact Factor. Elsewhere, OA journals are highly ranked in their field by Impact Factor. For example, in biology, PLOS Biology is ranked number one by Impact Factor, BMC Biology 4th, and PLOS ONE 10th. Similarly, in mathematical and computational biology, PLOS Computational Biology is ranked number one, BMC Systems Biology 3rd, and BMC Bioinformatics 4th.

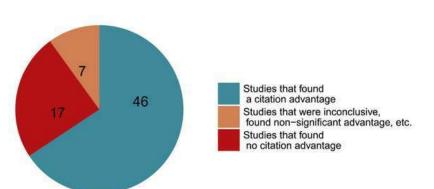


Different Impacts of OA Publishing

OA publishing has dramatically disrupted traditional publishing workflows and business models. The open and honest transfer of information has always been the key benefit of an OA publishing effort. Still, academic authors need to have a good institute or library to back up their citation and research effort because $75^{[8]}$ percent of the articles are only available with a paid subscription, and that makes it privileged and unaffordable information. But in the last few years, a slow movement has started to change the access conundrum to a progressively open one, and we need to analyze the measurable differences that this has brought to academic, economic, and societal verticals.



Academic



Citation counts are the "currency units" for measuring the academic impact of OA publishing. The citation advantage has always induced polarizing opinions on its utility and consistency in various research fields and is based on the discipline it is associated with. Research reveals that there are some overlaps between OA publishing and an increase in citation frequency for many disciplines.

The potential impact of citations was traced, giving credence to the annotated bibliography authored by Steve Hitchcock, and this study has been maintained and managed by Scholarly Publishing and Academic Resources Coalition (SPARC) Europe.

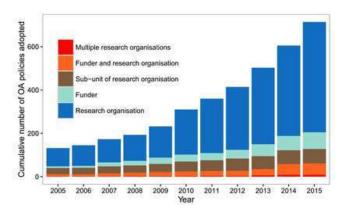
An explanation of academic impact is also in the possibility that the importance of a finding is a major factor in the author's decision to choose between a traditional and an OA publication.

Economic

A publisher has to cover three major costs before publishing.

- Article processing costs: These include payments for typesetting, and editing, and independent billing for proofreading.
- Management and investment costs: These include marginal costs to establish the journal and keep it running.
- Other costs: These include costs for distribution, subscription for paid journals referencing, or hybrids (depending on the need).

Closed access publishers make a profit by charging subscriptions for access, whereas OA publishers are paid a publishing cost for journals and clinical studies.



Increase in policies adopted in 10 years showing increasing interest, Source: ROARMAP

Increasing subscription costs have affected the traditional publishing industry. And an unsustainable business model that has become a liability over time, with prices determined to have outpaced inflation in the last 30 years by approximately 250 percent, is not exactly helping. Furthermore, OA promises a "payto-publish" model, wherein data from the DOAJ (Directory of OA Journals) states that almost $70^{[8]}$ percent of peer-reviewed journals do not have to pay an APC, thus making it more economical for authors. Huge costs for subscription and an inflexible business have made many opt for OA purely from an economic standpoint.

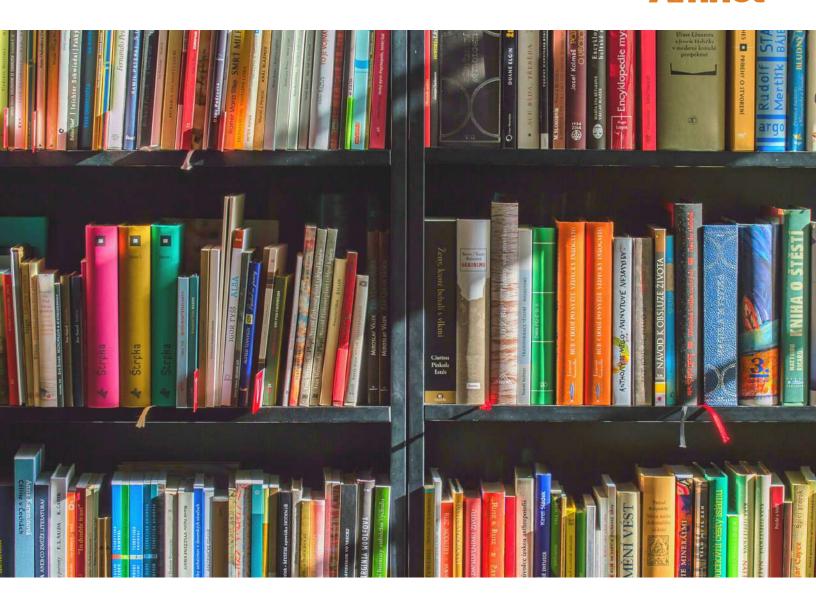
Societal





People from all strata are impacted by OA as the need and search for data is universal and ever present. The digital age has given more importance to freedom of thought and ideas, and the internet has only accelerated this movement. In developing second- and third-world nations, the payment for subscription costs is a huge setback, and many talented academics and researchers are directly impacted by it. The emergence of OA has been a blessing for them and provides secure longevity for their publishing ventures.

Society is affected by accessible information and citizen science, where nonspecialists can and are also assumed to understand and use certain journals to further human development. These ideas or assumptions have a polarizing view, with traditional publishing houses and conservative supporters wanting access to remain with the scientific community and OA publishers and their followers being on the opposite end of the spectrum. But the denial of knowledge and the idea that it can be propped up as a commodity is suspect and needs to be changed. The aspect of knowledge as a purveyor of change and also as a tool to affect public good is reason enough to enable societal impact.



The Global Appeal of OA

OA publishing has swept the world with its appeal. Its use has been recorded and analyzed to see the extent of change it has brought about in the industry. Many publishing houses and authors are moving to OA with great success and results. The <u>DOAJ</u> was established in 2003^[3]. It provides free and complete access to high-quality, peer-reviewed journals in OA format. Similarly, there is a Chinese counterpart to this service, named Chinese OA Journals.





In terms of continents, Europe published almost 50^[9] percent of OA journals in the year 2019, according to the DOAJ, and in total, they have published a total of 6,133^[9]. At the same time, Africa and Oceania fared poorly and were at the bottom of the list.

In terms of cost, on average, $71^{[9]}$ percent of OA journals that are published in the countries of North America are not charged APCs. But the remainder of OA published journals are charged heavily, amounting to US\$1,473 [9], which is the highest in comparison to the rest of the world. Asia charges the lowest, at US\$192[9], for OA journals.

| Country | Number of OA journals | % OA journals with APC | Average APC |
|--------------------|-----------------------|------------------------|-------------|
| United Kingdom | 1471 | 77% | \$1,594 |
| Indonesia | 1389 | 25% | \$79 |
| Brazil | 1303 | 6% | \$282 |
| Spain | 678 | 3% | \$389 |
| United States | 674 | 37% | \$1,579 |
| Poland | 503 | 14% | \$565 |
| Iran | 469 | 18% | \$78 |
| Italy | 340 | 13% | \$587 |
| Turkey | 338 | 6% | \$273 |
| Colombia | 322 | 1% | \$74 |
| Romania | 321 | 13% | \$121 |
| Russian Federation | 295 | 9% | \$119 |
| Switzerland | 290 | 74% | \$1,221 |
| India | 260 | 27% | \$229 |
| Germany | 256 | 29% | \$1,208 |
| Netherlands | 211 | 45% | \$1,437 |
| France | 208 | 10% | \$1,161 |
| Argentina | 207 | 4% | \$226 |
| Ukraine | 196 | 33% | \$95 |
| Serbia | 159 | 6% | \$131 |
| Canada | 153 | 18% | \$1,067 |
| Mexico | 123 | 9% | \$158 |
| Croatia | 111 | 5% | \$407 |
| Chile | 108 | 4% | \$408 |

Source: Morrison et al. (2019)

Twenty-four countries are ranked in this study, according to the DOAJ, and in total, they had at least 100 OA journals in the year 2019.

The United Kingdom is the biggest publisher of OA journals, with 1,471 ^[9] journals, based on statistics from 2019. Indonesia and Iran belong to the top 10 ^[9] publishers of OA material in yearly estimates of 2019. It points to the growing interest in OA journaling in both countries.



Researchers and Academic Communities' Positive View of OA Publishing

Understanding the author perceptions of OA publishing helps us identify the pain points and areas where it can be improved. A survey conducted by the Journal of Medical Library Association established that authors still carried certain negative connotations about OA publishing. However, in the same study, there was a stark contrast with authors from certain domains viewing it from an extremely positive viewpoint. For example, authors who did basic scientific research and clinical research were observed to be "optimistically positive" of OA, with claims that data servers like arXiv were very popular in basic science research.

For many, the positive perception was due to the increasing frequency of citations and also readership, which directly impacted the popularity and exposure of a theory. They also stated that this impacted their "advancing research agenda" and also made inroads into "research dissemination." All these reasons led to the possibility of an increased interest in a collaborative effort among institutions and led to some authors specifically stating that "OA can help them quickly identify people doing similar work."

The current positive OA viewpoint can be improved by recognizing the pain points that exist, for example, the ability to pay for APCs. It is, however, a virtuous cycle whereby the increase in the number of authors opting to use OA will encourage others to follow and increase overall adoption and acceptance of OA publishing.

The Classifications of OA Publishing

There are three main classifications of OA publications:

- OA Repositories/Archives: They do not need to be peer reviewed and can also have papers that were closed but are uploaded after finishing an embargo period with the traditional publisher.
- OA Journals: These articles are peer reviewed, and reliability is assured, similar to traditional formats, to ensure that the quality of content is secured. The author and publisher also retain some of the copyright claims and can flag the use of their material when the same is cited improperly.
- OA Books and Monographs: OA is emerging as a new model for book publishing. As with journals, immediate public access is given to the final published e-book. In most cases, print-on-demand versions of the book will also be made available to purchase.



Copyright is used as a criterion to classify OA journals. They are classified based on colors and the time they become open for access.

| Color | Access |
|---------|--|
| Gold | Accessible to journals given right after submission |
| Hybrid | Paid OA |
| Bronze | Free to read, but no existing license |
| Green | Permits authors to archive after pre- or postprint in repositories |
| Diamond | Journals that are published with any APC payment and as such freely available to authors and readers |
| Other | Closed |

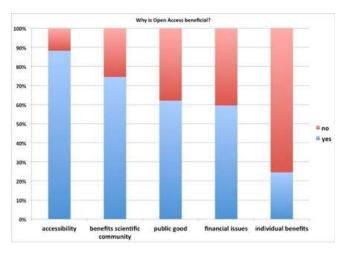




The Myths of OA Publishing

Many scholarly authors and researchers have preconceived opinions on what OA publishing is and how it operates. These negative opinions are based not on facts but on common misnomers and misinformation purported to be facts.

Myth 1: "Publishing in OA is a good thing, but I will not be personally benefited by doing it."



Source: eLife article

In a study done by eLife, an article stated that 75 ^[13] percent of academic authors felt that they were directly impacted by OA publishing. These authors understand that unrestricted online access to academic research directly benefits readership and increases the number of people who access the content on a global scale.

Measurable results were of three parts:

- The increasing frequency of citations and downloads about data provided by SPARC Europe according to their study "The OA Citation Advantage."
- An increase in visibility directly impacts public engagement and also accessibility. A study by the Wellcome Trust reveals that the direct comparison of OA and closed content resulted in 89_[13] percent of users downloading OA over the latter.
- OA aids in improving collaborative efforts. The
 Human Genome Study is often used as an example to
 offer insight into the power of OA. Since this is an OA
 study, many researchers often cite and even
 collaborate with the team during a project, and thus,
 measurable improvement is seen on the collaborative
 front in comparison to the traditional closed access
 system.

Myth 2: "Lack in funds for OA publishing will be a setback."

There are options for people who lack funds: they can always ask for a waiver on payment. There is an option for OA membership schemes, wherein publishers prepay or preapprove APC payments. There is also an option for self-archiving your OA journals after peer review.

Myth 4: "Unable to pay APCs."

Many research bodies make funding available for covering APCs. Usually, it is important to know where to inquire and make an informed decision. Worldwide, almost 100 [13] institutions make funding available to cover APCs.

Myth 3: "No peer reviewing for OA articles."

Most OA journals are peer reviewed, and there are two options for peer review: they can be openly peer reviewed or close peer reviewed. The type of peer review a journal is subject to is chosen by the journal editor.

Myth 5: "Copyright conundrum for OA articles."

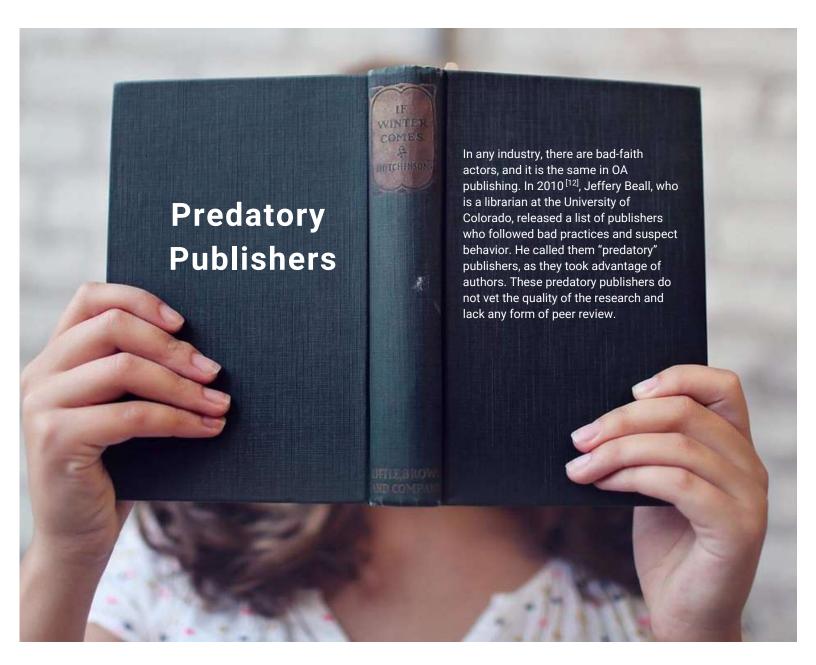
The author retains all the copyrights for OA journals, and there may be variations according to the policies listed by independent publishers. But, mostly, a license is granted to use the data and information freely under the Creative Commons Attribution License 4.0 guidelines. All users are allowed to reuse statistics and data but only as long as integrity is maintained and citations and publishers are credited.

Myth 6: "My work will always adhere to funders' OA policies."

Sometimes, your work may need to be placed in an international or specific repository according to the publisher's demands, but it is not absolute. The author can also discuss the terms before publishing.



Challenges Faced by OA Publishing





Funding

Researchers from developing and lower-income countries are particularly challenged due to the decreased availability of research grants or lower levels of financial funding. However, since 2002, Research4Life has provided researchers at more than 10,000 institutions in over 125 lower- and middle-income countries with free or low-cost online access to up to 132,000 leading journals and books in the fields of health, agriculture, environment, applied sciences, and legal information.

With the advent of OA publishing, the same funding pressures apply, but the majority of leading academic publishers agree to offer APC waivers to papers whose corresponding authors are based in countries classified by the World Bank as low-income economies.

Additionally, papers whose corresponding authors are based in countries with lower- and middle-income economies and with a 2019 gross domestic product (GDP) of less than US\$200 billion are eligible for a 50 percent discount (reference - World Bank 1st July 2020).

Identifying a Well-Established OA Journal

There are excellent resources to help authors find high-quality and impactful OA journals to match their research publication needs. The DOAJ is an authoritative database of accredited OA journals, and there are many others, including PubMed Central and Web of Science.

APCs

An APC can be a burden for OA, as it covers the entire cost of an article during publishing. The biggest challenge for an OA model is in bringing up regulations to control and limit hefty processing charges. To cite an example, the publisher eLife—who is associated with three institutes: Max Planck Society, Wellcome Trust, and the Howard Hughes Medical Institute—has raised its APCs to US\$2,500 [12] per article. All the institutes still support eLife, but the author will have to help out by paying an additional "author fee."

Many challenges remain for OA publishing, but they can be resolved by a structured business model and some regulation to bring the costs down.





About Plan S

As an institution of organized critique, science can only operate properly if research findings are made publicly available. This allows them to be put to test and scrutinized by other scientists. A fresh study is always built on the findings and foundation of prior existing research. There is a chain that is followed in science wherein certain findings depend on previously established results. To fully utilize this interlinking, we need to make information publicly available.

What Is Plan S?

Plan S is primarily built on the idea that there needs to be an open and honest sharing of scientific research. It is an initiative to make science more accessible. Its main aim is in opening free repositories and journals with standard marked fees that any researcher can afford.

Who Initiated Plan S?

cOAlition S initiated Plan S in the year 2018^[14]. It brought together a group of funders, benefactors, and major players from 12^[14] European nations to implement plan S.

Why Is There a Need for Plan S?

Many findings and research are locked behind paywalls that are steep and remain closed to the funders from poorer or second- and third-world nations. This is against the ethos of science and is highly restrictive. Plan S does not intend to force the hand of researchers or publishers to be more open. Instead, all parties involved can view, review, interlink, edit, and disseminate scientific research available and under fair value more transparently. All publications generated by research funding will be completely free and unrestricted, and Plan S will ensure that they cannot be monetized in any way.





10 Principles Behind Plan S

Principal 2:

Funders will establish stringent standards and expectations for the services that any quality OA journals, platforms, and repositories must deliver.

Principal 4:

Funders or research organizations handle OA publication costs, not independent researchers. If the situation demands, all researchers should be allowed and supported to be able to publish their work openly.

Principal 6:

Governments, research organizations, universities, libraries, academies, and learned societies are expected to unify their plans, policies, and operations, particularly to promote transparency, by funders.

Principal 8:

The "hybrid" publishing model is not supported by funders, who may, however, contribute to financially supporting such arrangements as a transitional bridge toward full OA within a specified timeline and only as part of transformative arrangements.

Principal 1:

The copyright of an author's or institution's publication is retained by them. To meet the declaration's standards announced in Berlin, all publications must be released with an open license. The proposed standard is termed the Creative Commons Attribution (CC BY) license.

Principal 3:

Wherever quality OA journals or platforms do not exist, funders will coordinate to provide monetary benefits to build and support all existing needs. Funding will also be granted in developing a robust OA infrastructure.

Principal 5:

Funders believe that OA publications and platforms should include and accommodate a variety of business models. When it comes to OA publication fees, they must be commensurate with the published services. The structure of such costs must be open and available to notify the market and funders about the possibility of standardizing and capping prices for all payments.

Principal 7:

The rules and ideas outlined above can be used for any type of scientific or scholarly publication. But studies and experience reveal that achieving OA for monographs and book chapters would be long and arduous. It will also necessitate a separate and thorough approach.

Principal 9:

Noncompliant beneficiaries/grantees will be sanctioned accordingly. Funders will also thoroughly oversee compliance.

Principal 10:

Funders agree that when evaluating research outputs for financing, they will focus on the work's intrinsic merit. There will not be any weightage for other influencing factors, such as publication channel, the Impact Factor (or other journal metrics), or established publisher.





The Future of OA Publishing

How OA Has Forever Changed Academic Publishing

The publishing industry has been undoubtedly and unalterably affected by the OA movement. Many people from all quarters have been affected positively by it, and there is a global uptick in adopters. Earlier, traditional journaling required a greater investment of time and effort and led to reduced process efficiencies. Authors had to wait for peer review, pay the hefty citation and subscription fees, make physical copies, and wait for an acceptance/rejection verdict. But OA has streamlined that process with flexible peer review and by providing freedom of access. Data sharing, downloads, and exposure have made the OA format more palatable, and the influx of users since the early 2000s has only risen. Now it is a matter of choosing a good publishing partner and giving heed to copyright for anyone who desires to publish in an OA journal.

The Future of OA

The future of OA is rife with possibilities. Free access movements and initiatives have made OA more popular with the scholarly and scientific communities. The "publish or perish" ideology is very much alive and is a reason for OA to survive opposition from traditional publishers. There needs to be a more specific approach to peer review and to ensure the quality of archived content in OA; also, the need for regulating APC costs is another area where it needs reforms so that authors do not bear the brunt of paying processing charges.

Conclusion

The impact of any scientific research can only be measured if it is shared. Until it is shared, it offers no value to society or the sciences. OA publishing offers the scholarly and scientific communities an alternative to traditional publishing. In a traditional format, more time, resources, and money are spent on gaining acceptance for a paper, and sometimes, that is not enough, as acceptance rates are also much lower than in OA. OA is more streamlined with peer review, Impact Factors, and a single APC for a publication. They also adhere to all the rules and regulations and are globally used. Choosing what type of publishing to use is purely personal, but the merits should always be considered. OA offers a knowledge-sharing mechanism to the world and exposure that could never be achieved by closed, controlled access.

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