

18 Open Access and Traditional Journal Publications Assessment

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While open access (OA) research avoids any type of restriction such as paywalls and political matters, it is still problematic for numerous students and scientists to reach scientific resources in many developing countries. Global access to OA publications spreads knowledge which provides a platform that can be built upon. The positive influence of OA availability presents a significant acceleration to scientific enquiry worldwide. This article introduces the advantages for each affected group including: students, residents of developing countries, engineering and medical researchers, authors and publishers, as well as entrepreneurs. Additionally, the impact of OA research on higher visibility and citation in various fields of science is discussed.

In the past, lack of authenticity and little accessibility internet resulted in large expenses related to time-consuming publication and distribution. The popularization of electronic publishing has created many benefits related to increased internet availability and improved search ability based on Berlin and Bethesda declarations [1] throughout the world. Information restrictions in any form have predominantly affected particular groups of people such as: students, residents of developing countries, researchers, authors, publishers, and entrepreneurs. Although students experience the largest individual impact related to their need to access research sources despite institutional divestment in increasingly over-priced journals, residents of developing countries experience a broader impact over the entire population. Affected people in developing countries include everything from students, researchers, and doctors, to the general public who self-educate using the internet as a didactic tool. Intuitions in developing countries can only afford access to a small fraction of research journals due to the restricted budget they have been granted. The research process and publication both have their own life cycles, terminated by an end goal of peer review and publication. This process is mainly based on writing a proposal, followed by planning and executing a study, and subsequent analysis, data management, and publication. However, research articles also rely on idea conception, and a thorough process of generation, communication, evaluation, verification, implementation, influence, and finally a potential to inspire future investigation and innovation. Today, it is inevitable that the open access (OA) movement results in a higher rate of readership, global

presence, increased accessibility and wider collaborations. This relies in part on both citations that highlight related work and better public engagement to present new research topics. None of this is possible without quick feedback, to which continued reflection and heightened interdisciplinary conversation are vital [1–3]. Figure 1 illustrates a simplified flowchart regarding how the research process and OA publications share a joint information cycle. It should be mentioned that OA publications are generally classified into two types: gold and green. A number of additional types such as hybrid, delayed, short-time, selected, and partial have been defined. Considerable primary advantages of OA in comparison with traditional publications are demonstrated to be only due to access restriction exemptions in Figure 1. OA scholarly publishing has been distinguished by type (green, gold, etc.) related to the intended viewing platform. OA contents offer free accessibility to general and specialized audiences which enrich readership and results in a wider audience.

Increased global visibility in both developed and developing countries leads to a higher rate of citation and metrics and a greater likelihood of international research efforts. Researchers study others' research and work to become informed on two relevant skillful scientific outcomes and movements relevant to their field which can result in international collaborations in both institutional and individual disciplines.

Author and publisher satisfaction play a significant role to determining a successful progress from ideation to publication. Figure 2 presents authors' satisfaction metrics in relation to the OA work procedure. Most OA journals provide a quick revision of submitted manuscripts with a rigorous and transparent peer-review process which results in a less time and resource dependent publication. Additionally, article-level metrics of each individual paper in a summary format are available on the webpage of OA journals. This includes details such as views, citations, downloads, discussions, and recommendations.

The European development of the OA market through 2020 is an outstanding model to deliver widespread OA throughout the continent, in which a growth rate of 25% is required [3]. The path has distinguished several valuable policy interventions to reach this goal in Europe; however, the identified scenario is applicable to the global OA system as given:

- Offsetting of subscription and OA charges,
- Fortifying consortia and gathering collective action,
- Enhancement of repository underlying foundation,
- Advancement of changes in author behavior and motivations,

- Endorsing Gold frameworks without article publishing costs (APCs) and upgrading clearness of publication expenses,
- Elaborating mechanisms to monitor OA content.

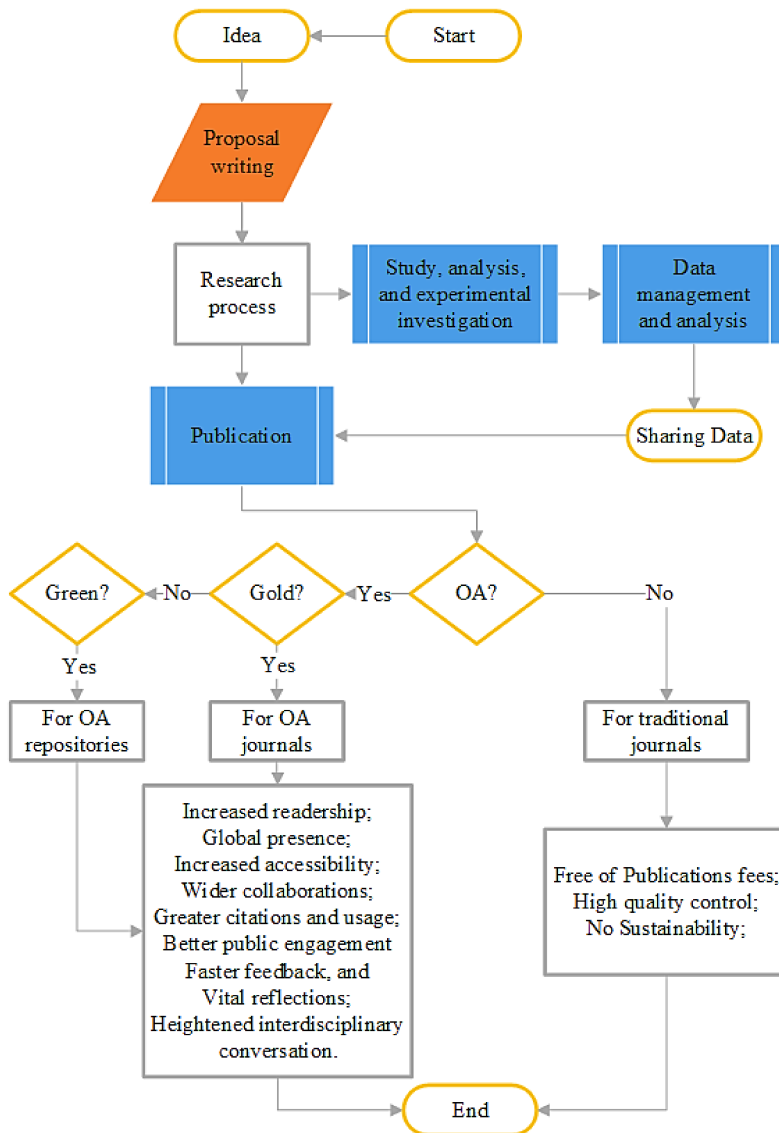


Figure 1. Simplified research and publication flowchart.



Figure 2. Authors and reader satisfaction metrics.

The future underlying barriers of OA journals market development based on the mentioned European model findings can be accomplished through the following suggested considerations such as:

- Increasing the proportion of research which relies on quick decision and publication with appropriate quality controls,
- Enhancing a competitive as well as sustainable OA market worldwide,
- Decreasing APCs (especially Gold pathway) in the favor of authors through hardcopy revenue and subscribing individuals or institutions.

References

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