

## 27 Global Consequences of Open Research

Ravi Sahu and Manisha Hariram

Research benefits everyone globally, and in an ideal world, findings would be readily available to everyone anywhere in the world. But the truth is that only a limited number of research works are accessible to all, especially the works that are publicly funded. Approximately 700 open access policies and mandates have been recorded globally from a range of research institutes and funding bodies ([roarmap.eprints.org](http://roarmap.eprints.org)). Although its benefits are becoming more popular, nowadays progress is rather slow. Advancement in any research field is necessary for it to fulfill its purpose. More precisely, one should not knowingly waste time in repeating the same research that has been attempted elsewhere just because the information on it was not accessible. Therefore, open study provides a forum for others to access the previous research in the field and let others work further ahead. Further, to others, it may provide essential information relevant to the topic of their interests. As a whole, open research benefits people globally.

Open access research refers to no access charges, unhindered online access to research outputs, such as journal articles, books, etc. It removes obstacles to accessing, sharing and re-using the results of scholarly investigations, and fosters a tradition of more substantial scientific literacy. The underlying principle is that research progress is facilitated by certifying swift and extensive access to findings, such that the public at the global level has the prospect to build upon them. It has broader benefits to research through improved visibility, facilitating access to the latest research status of a particular field, and decreasing financial pressures on academic libraries. It helps to promote clear, high-quality prose that powerfully communicates vital scientific concepts without any obstructions. It deals with greater public engagement due to its open access nature to everyone.

In the case of students, it may present a platform to update their knowledge in any field. Through the latest research, a complete education in their field of study, students may hit the ground running after graduation. As far as researchers are concerned, their effort is useless if it's not shared with others, making it ineffectual if others aren't able to go through it and build on it. In other words, if access barriers keep articles locked away, science cannot achieve its full potential.

Studies have shown a significant augmentation in citations when articles are made openly accessible. Increased citation and usage and faster impact can be

achieved provided that the research is made open. Furthermore, there is a higher chance of citation and feasibility for work, as it can enhance the interdisciplinary applicability and broaden collaborations. The Human Genome Project can be cited as an example of the ability of open access to transform publications and data to a more fabulous resource for innovation. This international, collaborative research project was facilitated by the use of open data, with all the gene sequence data made openly available for everyone to reuse.

The only issue that remains with open access is that publishing may not be affordable for any single individual or research group. A significant reason behind this issue is that even for those in a privileged position, institutes do not always provide authors with the funds to cover open access journals' processing charges. There is a need to understand that subscriptions to access articles is not even required if the articles are openly available online. Further, many less reputed journals in search of increasing their business do make articles open access but are not peer-reviewed. This can lead to a negative image of open access journals with academics. Consequently, the potential impact of even the best research is never fully realized, impeding scientific advancement by a lack of application, while simultaneously negatively affecting the credit of individual researchers.

Therefore, from academic, economic, and societal perspectives, open research or open access seeks to return scholarly publishing to its original intent. Numerous articles have revealed that open access research articles are viewed more frequently compared to materials that are only accessible to particular subscribers. Indeed, they are cited more often as well in comparison. Being responsible researchers, authors should genuinely understand its crucial role in making their research works more accessible, not only to a group of researchers in their field of interest, but a broader readership. The extensive analysis allows students, researchers, publishers, entrepreneurs, stakeholders, doctors, patients and the wider public to explore published work in more detail. It does justice to the efforts that authors put in to add knowledge to the existing information in any particular field.

In short, open research helps to spread awareness and allow that knowledge to be built upon. Public availability of scholarly research may cause a significant positive impact on everything from improvement in the practice of medicine to the knack of entrepreneurs to innovate. Open access can ensure students acquire the best learning and are not falsely restricted by the choice of scholarly journals their institutes can afford. On the other hand, limited access to research makes scholars settle for the information that is presented rather than that which is most relevant. Overall, open investigation encourages people globally to gain existing knowledge

in already explored fields and let others develop it more rapidly without putting up barriers to access.



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