8 A Case for Unfettered Access

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Access to information is a human right, but it is treated as a privilege. This has to change—and it will take all of us to make it happen.

Erin McKiernan

Scientific knowledge is promoted by building on already existing research in any given field. Where this knowledge is not accessible, it adds to the already overwhelming challenges of creating, synthesizing and communicating scientific knowledge.

The movement to advance open access research has emerged in the last two decades as a result of two major events. The first being wide access to the internet, with the accompanied choice to have electronic academic journals rather than printed journals. This is followed by a surprisingly astronomical increase in the prices journals charge, for accessing the scientific knowledge that was neither developed by the journal owners nor edited by them [1]. This trend led to the famous "paywall" most researchers encounter while trying to access already existing research work online. The campaign for open access thus arose to enhance accessibility of research publications to scholars. A number of organizations have championed the open access movement, a list of which include but not limited to SPARC, Force11 and OpenCon.

The benefits of open access have been acknowledge by advocates since its beginning. One important benefit is the fact that, when there is open access for scholarly work, it becomes more visible to other researchers and has stronger impact on the public. Hence, authors and possible funders of open research get returns for their investment [2]. Another benefit is that open access allows institutions who cannot afford to subscribe for the expensive paywalled research, to get access to high quality research that may be hidden behind paywalls. Particular reference is made of developing countries, whose government may not be able to sponsor journal subscriptions for their universities [3].

Extrapolating from the above benefits and based on the observation of current trends, I present two major global advantages. The first is the potential of open access to advance cross-disciplinary studies. The problem of double or even multiple paywalls, also known as the serials crisis [4]—a situation where libraries cannot afford to subscribe to every scientific journal in every field—pose a severe threat

to cross-disciplinary studies. Rapid and disruptive innovation in technology and digitalization has provoked conversations across many fields. For example there is a call for more conversations between business/entrepreneurship, scholars and technology/computer science scholars as more theories and assumptions in the latter field are being upended with the emergence of digital technologies [5]. The notion of who becomes an entrepreneur and where entrepreneurship can take place has changed; an entrepreneur can start his venture in his sitting room, with his or her notebook computer. More surprises are expected, given the rate at which innovation takes place. With this accelerated evolution and its consequences across disciplines, research, when open to scholars, will aid scientific responses that will benefit both theory and practice.

Secondly, the secondary effect of "closed" scientific research can be extremely disastrous. When constantly faced with a paywall, scientists may as well ignore what useful research may emerge from high-quality research that has been paywalled. A knowledge vacuum is therefore created that may result in the training of half-baked scientists and publication of incorrect research findings—the former occurring as a direct result of failure to acquire knowledge which follows inaccessible academic research, whilst the latter ensues if researchers only cite the abstract of the paywalled research in their papers as though they have read them in full. These additional challenges, with its attendant grave consequences for scientific discoveries can be averted when research is made publicly accessible.

Nevertheless, it is important to note the challenge that comes with the open access model. It could come with the danger of falling victim to predatory journals, which stand in the guise of using an open access model but seek to extort money from authors, even when the published articles have not been adequately reviewed for authors to get feedback. This occurrence could create additional ethical problems for the scientific community.

In conclusion, while the debate of which is the best model for open access research lingers, open access has come to stay, as it has great benefits for all stakeholders. It is hoped that further collaborations and conversations will resolve the differing viewpoints on the open access movement and also mitigate the negative consequences that may arise from promoting open access research.

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