33   Open Research is a Blessing

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Open research is a fast emerging concept in the last few decades that facilitates a vast scope of communication within the scientific community all over the world. Open access publishing, open data, open platforms, services and tools are terms increasing in popularity, and closely related to open research and collectively expressive about its ideology and practice. Open research also includes distance learning facilities like digital images, sound recordings, electronic libraries and published manuscripts.

By definition, open research is providing—within the scientific community—"transparency . . . through open access, open data, open communication and open source software" [1]. Hodgkinson-Williams and King define open research as a process in which research could be shared and freely accessed in the form of proposals, reviews, methodologies, analytical frameworks, findings and/or data . . . etc. "on an international scope under ethical practice and legal provenance" [2].

Open research is prevailing in the current era. Its vast spread is justified by the great impact it exerts on the advancement of research and excellence of researchers. Richness of available, transparent and reliable data from a broad variety of fields and disciplines is able to trigger innovative thinking and deeper understanding among researchers, which is prominently reflected in their scientific output [3].

Open access publishing, as one aspect highly linked with open research, is simply described as providing research with high visibility, accessibility and spread [4]. Open access publishing has provided good deal of publicity and encouraged academic usage with growing records in universal citation rates. In particular, the Gold Route open access—where open access journals publish scientific manuscripts freely online—offers authors a valuable chance of expressing their knowledge and transferring their experience. Moreover, open access publishing facilitates the precise process of peer-review and makes it easier to trace cited articles introduced as references within a manuscript under review. Besides this, it enhances the research process as a whole and among all categories of researchers, by facilitating access to literature in different fields of science, reducing time spent searching for data, increasing confidence of researchers in their work as they find it successfully published and repeatedly cited. In addition, it helps avoiding duplication of research work.

Open science is another evolutionary step in the field of scientific research. Open science makes science international. It offers the opportunity of collaborative projects, co-authorship and cross-border research opportunities. In fact, collaborative authorship has grown profoundly over the last thirty years. By definition, open science cares for enabling digital output of funded research to the scientific and public community. A key player in open science are tools for information and communication technologies (ICTs). Different online platforms can manage large data sets, publications and other kinds of project contents, and perfectly introduce them to those seeking them. Fortunately, ICTs have the potential capacity to turn science into being data-driven [5].

Open research has even made education available for everyone. Distance learning is mainly technology-mediated, where the teaching/learning process is implemented between individuals totally separated in time and space [6]. Globalization characteristics was one major trigger and participated—in addition to the rapid development of information technology—in providing a wide acceptance among users to learn electronically online. The predomination of the World Wide Web, and the affordable cost of processing and transmitting information has helped in the encouragement of such kinds of knowledge transfer [7]. Many that had lost hope in having appropriate opportunities for traditional ways of learning, found distance learning came to the rescue. Such groups include: women, working adults and those working with highly specialized materials and rare subjects. Developing countries lacking experts and pioneers in recent and up to date research methodologies and technicalities also appreciate being connected to the advanced research community through direct online contact. Distance learning has proved to be a persistent and permanent phenomenon, with increasing interest from a global population. It has been growing for fifteen years and is still in a continuous state of progress.

In their dreams, researchers never ask for more than what open research can provide them with. It is now a mere personal challenge for any true scientist to make his work visible, respected and figured out within the huge amounts of available of data and knowledge. Every researcher has the opportunity to prove himself and upgrade his abilities. It has become an equation gathering the two diverse concepts of individualism and collaboration for success and prominence. Open research, with its precious contribution to the scientific community, is a blessing that augments the chance for every person searching for his identity and eager for self-promotion to succeed and excel.

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