

Open Access, Knowledge sharing and sustainable Scholarly Communication: “ A new core of research development ”

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These last 02 decades were marked by an emerging movement of open published scientific papers that boosted impressively the quality and hugely the quantity of online articles. Consequently, most developing countries progressively rushed out to implement such open access publication for their scientific researches by sharing knowledge for and from any part in the world joining the high impact performance of renowned but restricted western publication groups.

The concept of “Open Access Publication (OAP) ” is composed of free and online copies of peer-reviewed journals, articles, conference papers, technical reports, theses and working papers. There are no licensing restrictions; whereas the publication may provide with partial sequenced rights known as “ Creative Commons ” allowing a regulated access although the free use of publications for further research, teaching, commercial or other purposes; thus, the basic principle of the open science to make results, data and findings broadly accessible to all.

Declared official during the “ Budapest open access initiative ” in 2012, the first online-only, free-access journals (eventually called “open access journals”) begun appearing in the late 1980s, and therein the concept became progressively a global worldwide movement. Its implementation by most universities from developing countries was supported by various open access societies, and improved the access of research and scientific works to a larger number of readerships. Nowadays, the concept has reached a no return level with impressive results for instance a study on the development of Open Access journals from 1993 to 2009, and published in 2011 showed rapid growth particularly between 2000 and 2009 where 19,500 articles were published in 2000 against 191,850 articles in 2009, while in the same period, those journals counted respectively an average growth of 740 articles for the year 2000 against 4,769 in 2009.

In Africa, 8 countries had already adopted the open access policy, 45 universities encountered as the most prestigious educational institutions had embraced the process in their academic researches, and both those academic institutions started archiving their papers in open access repositories; or publishing in open access journals. Meetings, conferences, workshops and trainings

were and continue to be upheld in order to initiate, assess and improve such policies on the continent. The last conference for instance held in Uganda on May 21st, 2013 with the theme “ Open Access, Knowledge sharing and sustainable Scholarly Communication in Uganda ” illustrated the progresses made in Uganda, the needs, challenges and commitments for the upcoming planned initiative. Its objective highlighted this new approach of publication by enumerating the progresses made, and demonstrating the impact of such concept in a large interactive system from different counterparts. The purpose of the held debate proposed more open access initiatives mostly in countries where the OAP is not well, or has not yet shown strong evidences of academic and economic impacts for a global implementation.

More than half of research and academic institutions in lower income countries have no subscriptions to most prestigious research journals, hence the 1st challenging and determinant of access to research literature in developing countries. This difficulty to access to research information is also observed in developed countries despite the availability of large resources to information. Surveys made on an open access basis showed affordably that the number of publications from developing countries may not increase as developed countries do but making scientific works freely available raise the visibility and use of the few existing works; increasing then its citation impact: a measurement of the frequency of citation of an article by other researchers. Thereafter, the citation impact boosts gradually and substantially the use of the cited works whose advantages persist and rise through the constant and prolonged visibility, and their open availability online; leading to the observation that surprisingly: “ the earlier the open access to published works, the better chance of maximizing the citation impact. ”

Most research institutions are constantly under pressure to increasing the affordability of their works, and demonstrating the core value of their impact to the general public, making fully and relentlessly the competition in use of their researches results through varieties of indexes and keynotes that make potential authors, researchers and students to search the web using keywords to get instant access to full texts and articles indexed. Thus, efforts of publishers to transfer knowledge and diffuse results of those scientific new understandings engage actually the appreciation of the general public and build up the profile and reputation of the institutions.

Opening research literature to the larger world in the health sector make the discovered knowledge much

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more effective and contributive to the global health, the decision making, the planning, as well as the global economy by informing, supporting and forging health practitioners, academicians, project makers, industrials, and business partners with pertinent results. This economic gain combined with the decrease of resources involved in accessing researches enhances considerably the improvement and the benefits at institutional level.

However, open access concept does not abrogate authors' rights to an owned work; as copyright policies remain valuable assets providing default rules regarding the ownership and use of created works. In OAP, these rules are adapted in order to protect the author's rights and to access largely the publication to readers. Some particular policies are thus the basic of the open access publication such as the "Creative Commons": a set of standards that emphasize the access and use of an owned work although the visibility remains ideally and openly greater. These provisions split the concept into 2 degrees: the "Gratis OA" which is a no-cost online access, and the "Libre OA" a Gratis OA plus some additional usage rights. Consequently, any documented and signed work is kept protected based on the terms or the level of accessibility its authors wish to provide, and the amount of information shared to readers.

As a broader concept, the open access publication involves multiple covariates in research and academic institutions at different levels such as publication of peer-reviewed articles, conference proceedings, monographs, books, etc; which metadata are kept in repositories. These institutional repositories, if accessible, open up the outputs from the corresponding institutions, maximize the visibility and impact of the published results, support the management and measurement of researches and publication activities, and consequently the long term

sustainability of the institution. Nevertheless, the research management requires a fully committed strategy and culture; as well as the progressive assessment of methods move to maximize usage of publication measurements, and the culture of perfection and competition both encouraging to sharing openly the resulting works.

For the better success of such research management, quality assurance procedures and workflows must cope with the high volume of activities, alongside with engagement of researchers from all disciplines. In addition, if implemented in the health sector, the open access publication aligns the core values of different related research and academic institutions by enabling and disseminating high-quality researches, providing management information tools, measuring and improving impact of researches, the better management and workflows of intellectual assets, and improves the facilitation of collaborative and interdisciplinary researches.

Undoubtedly, the progresses made by our counterparts for instance South Africa, Kenya, Uganda, Ghana, Australia, USA, ...etc; which are actually benefiting the improvement made, may serve us as a model to enhance the process of share of knowledge through this approach prior designed for developing countries, although it is progressively implemented in developed countries.

In that perspective, the health sector will be the 1st institution in the country to implement and record the 1st boost in an interactive and applied collaboration among researchers and related academic centers. The overall impact will be the provision of an open access culture to all stakeholders, and accessory to build a strong competitive research and academic community, to encourage new start-ups and initiatives, and to bind varieties of business models in the health sector in Rwanda ■