Review Article

ENHANCING THE VISIBILITY OF RESEARCH USING OA MODELS TO SCHOLARLY CONTENT: ROLE OF GOVERNMENT AND FUNDING AGENCIES

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Abstract
"Our premise to knowledge is when it is freely open to use and judge by others, in return it cumulates, improves and helps refining the ideas". The human beings are perhaps at the highest pedestal of universe only because of their immense intellectual potential and high cognitive powers which give them an edge over other creatures in nature. The best of their abilities is to transfer systematically their ideas into next generation through research, innovation, scientific experimentation and observation, however the free flow of communication faces some barriers which hinder the effective use of the information being produced in the society. The most significant being the financial barriers in the form of subscription models of scholarly journals and periodicals which makes it difficult to transfer the requisite information. One of the well-crafted out framework emerged in the form of free access to scholarly content, known as open access(OA) which can be possible only by an effective policy at the national level followed by an operative mechanism of funding agencies in the country. India with its huge prospects in the field invests a lot of resources in generating newer research, but at the same time, spends hugely again to get access

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of the same content produced by its own resources. The median pathway may be the viable option in the form of open access platforms that can make it happen to freely pass-on the useful scholarly information to researchers and scientists for furthering the growth and innovation in the country. The present short study will give an insight about the scenario of open access in the country and the policies of some of well-developed nations regarding open access and will suggest the role of government and the funding agencies in this direction to adopt a standard model of publishing the scholarly content through open access routes and platforms.

Keywords
Open Access, National Policy on open access, Funding agencies, Budapest Open Access Initiative, Article Processing Charges (APCs), developed countries.

1. Introduction

The connotation between scientific and technological developments with the social and economic welfare of a nation has long been recognized in India. Pt. Jawaharlal Nehru, India's first prime minister, said, *"It is science alone that can solve the problems of hunger and poverty, of insanitation and illiteracy……Who indeed can ignore science today? We need it at every turn"* (Desai, 2016). For developing country like India, the infrastructure for Science and Technology is imperative and many studies provide sufficient evidence of fair development of the society with that of the research and innovation being conducted and implemented. In the era of Information Communication Technology (ICT), the technological advances have reached far ahead and the scientific research and its publication has been one of the greatest curiosities of all times and all communities from its generation through multiple research processes to its ultimate dissemination (UNESCO, 1982; Inter Academy Council, 2004). One of the well striking and impactful mode of accessibility of the scholarly communication which gives impulsive and ubiquitous access to research reports irrespective of barriers of cost and availability is commonly known as open access and the information as open access content. Open Access provides an interface for researchers to share their studies widely to diverse population, allows pervasive access to valuable information

irrespective of any financial barrier. It helps in transparency of research, and fosters active collaboration among researchers (American Chemical Society, 2024). It is in align with any country's scientific and technological advances that embracing open access as a feasible platform for publishing scholarly literature, can help promoting an inclusive research and academic environment which encourages innovation, knowledge sharing, quality research and creativity among the researchers and authors. However, the issue is with the misunderstanding of the basic scheme of Open access, where majority of the research which is being sponsored by the government grants and hence the general public must have the right to access such research, which is not the case in many publication modes used by researchers (Sankalp India Foundation, 2024). It seems very unfair to restrict access to such type of research and that is the reason that many nations across the globe have made it mandatory to publish the findings of publicly funded research in open access platforms.

Currently, there are many countries including India that advocate the open access model of publishing the scientific research and its free availability and accessibility all over the world. The concept of open access has emerged since Budapest Open Access Initiative which took place on 14th February, 2002. With the emerging publishing technologies, the concept got boosted and efforts are being made by various scholarly societies, academic communities and governments to make scholarly content Open and freely available to all. However, due to various reasons, the full potential of Open Access is not realised by the producers (scholars), publishers and readers (scholars and society at large) and the world is still disconnected in terms of sharing the scholarly research openly and freely. The most difficult task in the Open Access models is the availability and allocation of funds in any country and the link between funding and open access needs a proper policy and guideline at every stage. Today, granting agencies are moving towards requiring OA to the research outputs they fund, some tend to favor 'gold' or 'green' methods. Gold OA makes the content immediately accessible, but unsubsidized journals often charge author's article processing charges (APCs) paid out of grant funds. Green OA typically involves publication in

subscription journals and deposits a version in an OA repository that is often subject to a publisher embargo that delays access to the open version. It is being presumed that between 2014 and 2034, there will be a progression in funder policies that leads to a standard requirement of immediate OA to the research outputs they fund to ensure the greatest impact for their investments. This development will leave library publishers well-positioned to provide immediate OA outlets, including repository-based platforms, that can be both academically rigorous (peer-reviewed) and economically attractive at little or no cost to the author (Chadwell & Sutton, 2014). With growing commercial scholarly publications and increasing diversity in terms of availability of & accessibility to the information, we need to create a necessary framework for making Open Access Parent Agency in our country. For the free flow of information in India, it becomes necessary to remove the financial barrier. A case may be cited that of the funds disbursed by the DBT and DST, Govt. of India which are purely public funds. It is important that the information and knowledge generated from the use of these funds should be made publicly available as soon as possible, subject to Indian law and IP policies of respective funding agencies and institutions where the research work has been performed. The DBT and DST expect that the recipients of funds will publish their research in high quality, peer-reviewed journals.

2. Research Funders and their Policies for Open Access

Research funders have set up centralized funds for paying APCs and a new type of consortia based electronic subscription licenses including the payments of Article Processing Charges (APCs) has started to emerge. However, particularly important in the context of the policies of research funders encouraging or mandating open access, which are now becoming increasingly common. The SHERPA/Juliet service listed a total of 32 funders globally requiring OA publication, and 92 requiring OA archiving of publications. In the UK, policies have been introduced by government-funded agencies, such as Research Councils UK (RCUK) (RCUK, 2013) and the Higher Education Funding Councils for England (HEFCE, 2014), and charity funders, such as the

Wellcome Trust (Walport & Kiley, 2006) preferences and emphases, and, therefore, different implications for institutions in terms of administrative costs. RCUK, Wellcome, and the Charities Open Access Fund policies place an emphasis; Wellcome Trust, 2012, 2014). These policies allow for both Gold and Green OA but with different is on Gold OA and include the provision of block grants for institutions to pay for APCs (Johnson, R., Pinfield, S., & Fosci, M., 2016). As higher education institutions (HEIs) put in place some of the systems and processes to enable more of their publications to be openly available in such a way as to ensure compliance with these policies, understanding the cost implications of making research OA becomes paramount for HEIs. For governments and research funders, a better understanding of costs is important in order to inform future development of policy initiatives. The centralized funding scheme makes a break with the earlier practice of making APCs allowable costs in externally funded research grants. The new scheme was pioneered by Wellcome Trust and received considerable UK governmental support following the Finch report (Finch, 2012).In the budgets of research funding organizations like the UK research councils and the Austrian Science Fund (FWF), the money is separately budgeted for just APCs on a central level, and payment is more or less automatic. An additional advantage is that the transaction costs of handling APC payments are usually much lower, than in the allowable cost option (Bo-Christer Björk, 2017). In the last decade, and particularly since 2012, scholarly research publishing in the UK has been directed by a series of policies, mandates and statements intended to promote, influence, or restrain the overall move towards OA. Policies have been created by government bodies, funding agencies of all types, commercial publishers, scholarly societies and universities (Chris Awre, et. al., 2016). So, it seems that there needs a viable methodology to streamline the research pathway by designing a suitable policy at the national level with clear stake holders and their role established by the government and research institutes. This may be followed by an effective set of guidelines by the funders to make the movement more successful in the country.

3. OA Policies of Some Developed Nations

The fewer countries which have drafted the policies are briefly described as follows:

3.1 AUSTRALIA

There is an *Australian Research Council (ARC)* in Australia which is a Commonwealth entity within the Australian Government. The council proposed open access policy which took into effect from 1st January, 2013. It applies Open Access Policy to all Research Outputs which arising from ARC Funded Research and their Metadata. They further recommend that any Research Outputs arising from an ARC supported research Project must be made available on public domain (openly accessible) within a twelve (12) month period from the date of publication.

3.2 CANADA

The Tri-Agency of Canada provides funds through Canadian Institute of Health Research(CIHR), medical sciences and other health related standards and practices. The Tri-Agency open access policy on publication ensures that all research papers generated from CIHR funded projects are freely accessible through the Publisher's website or an online repository within 12 months of publication and deposit bioinformatics, atomic, and molecular coordinate data into the appropriate public database (e.g. gene sequences deposited in GenBank) immediately upon publication of research results. The objective of this policy is to improve access to the results of Agency-funded research, and to increase the dissemination and exchange of research results. All researchers, regardless of funding support, are encouraged to adhere to this policy.

3.3 NETHERLANDS

The Netherlands Organization for Scientific Research (NWO) is an independent directive body with a legally established mission and tasks. It highlights open access policies and states that research results paid by public funds should be freely accessible worldwide. This applies to both scientific publications and other forms of scientific output. In principle, it must be possible to share the

research data with others as well. In this way, valuable knowledge can be utilized by researchers, businesses and civil society organizations. NWO asks researchers to publish their research outputs in a completely Open Access journal (Golden Road) or to deposit the article in a centrally managed, findable database of the university or professional discipline (Green Road).

The State Secretary for Education, Culture and Science has set the policy with the objective that by 2018 60%, and by 2020 100% of scientific publications funded with public money must be Gold Open Access. Therefore, with the effect from 1 December 2015, NWO has tightened its granting conditions in the area of Open Access. They also recommended that publications emerging from research funded by NWO should be freely accessible to everybody as soon as they are published.

3.4 AUSTRIA

Austrian Science Fund (FWF) is Austria's central funding organization for basic research. The purpose of FWF is to support the ongoing development of Austrian science and basic research at a high international level. It ensures Open Access to publications through direct publication in an Open Access platform. The publisher should apply the highest level of the principles of HowOpenIsIt (a guide for evaluating open access). In any case, however, the publication has to be made available using the *Creative Commons Attribution CC-BY* license or an equivalent open license. Journals have to be listed in the Directory of Open Access Journals (DOAJ). This Gold Open Access publishing may involve an article processing charge (APC) to the publisher. For the following publishers, publication costs are transferred directly by the FWF with no charge payable by the authors.

- American Chemical Society (ACS)
- BioMed Central (inkl. Chemistry Central, Springer Open)
- RSC Voucher
- Wiley-Blackwell (only Wiley Open Access journals)

Since 2014, the FWF together with the Austrian Academic Library Consortium (KEMÖ) negotiates Open Access deals with the following publishers:

- Institute of Physics (IoP)

- Taylor & Francis
- Springer Compact
- Frontiers
- Wiley (only Wiley Hybrid Open Access)

3.5 DENMARK

The Danish Council for Independent Research, the Danish National Research Foundation, the Danish Council for Strategic Research, the Danish National Advanced Technology Foundation and the Danish Council for Technology and Innovation adopted their joint Open Access policy. Research furthers knowledge and drives the intellectual, social and economic development. All the research council and foundation give their views and framed a policy for open access. Research councils and foundations want to establish Open Access as the standard in scientific publishing. The aim is to ensure that all scientific articles, the quality of which has been assured by peer review and which have been published in a scientific magazine, can be read and distributed without any financial, technical or legal restrictions. This policy means that published scientific articles which are the result of full or part financing by research council and foundations must be made freely available to everybody via Open Access. With this policy, research councils and foundations also want to make sure that the researchers will get a better foothold regarding copyright for their own articles. Also, research councils and foundations have adopted the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, which is a milestone in the direction of Open Access.

4. Conclusion

The essence of academic and scientific research is its communication among other researchers and open access as an alternative mode of publication, can help transform, communicate and share research results to desired audience in best possible manner. It can help enhancing the visibility of research, enabling collaboration, and ensuring equitable access to knowledge. This alternative mode of publication provides various benefits, let alone many challenges also. As per Latha Jishnu (2023),an expert

committee of scientists on OA had suggested that the government of India should encourage the archiving of preprints, use of OA Journals, urged designing of OA policies and repositories for funding agencies, however at the same time, a special team of government is involved in negotiations with the global STM publishers on its One Nation One Subscription scheme (which has finally been now passed by the Union Cabinet as a Central Sector Scheme on 25th November 2024). The idea was to bring down the costs, said to be around Rs. 1,500 crores annually, through a common subscription model and one can expect the total amount spent for accessing majority of the publications. So,the way forward seems facilitating the OA movement strongly in the country and the answers to the questions of augmenting OA will be revealed in due course of time as to what comes out to be more significant for the government and to that of funding agencies in the country. As far as the study is concerned, it highly recommends suitable measures for government and funding agencies in the country to frame effective policies with provisions of APCs, designing of Institutional Repositories, and motivating the researchers to publish their research more in OA journals. It also presumes the implementation of such policies in universities, colleges and research institutes to improve the open access practices in India. We need to create more awareness on open access, infrastructure and capacity building, funding and policy mechanisms, encouragement for the open access, adoption of OA policies by different research institutes, celebrations of open access week in a more meaningful way.

References

- American Chemical Society (2024). *Open Access: Transforming the Visibility of Research in India*. Retrieved from https://axial.acs.org/publishing/open-access-transforming-the-visibility-of-research-in-india
- Bo-Christer Björk (2017). Growth of hybrid open access, 2009–2016. *PeerJ* 5:e3878. Retrieved from https://doi.org/10.7717/peerj.3878
- Budapest Open Access Initiative. (2002). Retrieved from http://www.budapestopenaccessinitiative.org/
- Chadwell, Faye and Sutton, Shan C., (2014). The future of open access and library publishing. *New Library World* Vol.

115 (5/6), pp. 225-236. Retrieved from https://www.emeraldinsight.com/doi/pdfplus/10.1108/NLW-05-2014-0049

- Chris Awre, Andrew Beeken, Bev Jones, Paul Stainthorp, Graham Stone (2016). *Communicating the open access policy landscape.* DOI: http://doi.org/10.1629/uksg.308
- Desai, A. V. (2016). *Footloose scientists-The next frontier of liberalization.* Retrieved from https://www.telegraphindia.com/1161220/jsp/opinion/story_125602.jsp
- Finch, D. J. (2012). *Accessibility, sustainability, excellence: how to expand access to research publications*. Retrieved from https://www.acu.ac.uk/research-information-network/finchreport-final
- HEFCE (2014). *Research grants.* Retrieved from https://webarchive.nationalarchives.gov.uk/*/http:/www.hefce.ac.uk/
- Inter Academy Council. (2004). *Inventing a better future*. Retrieved from http://www.interacademies.org/Publications/33347/34735/34902.aspx
- Johnson, R., Pinfield, S., &Fosci, M (2016). Business Process Costs of Implementing "Gold" and "Green" Open Access in Institutional and National Contexts. *Journal of the Association for Information Science and Technology*, 67(9), 2283–2295. Retrieved from https://onlinelibrary.wiley.com/doi/epdf/10.1002/asi.23545
- Latha Jishnu (2023). *India has lost its way on open access. Down to earth.* Retrieved from: https://www.downtoearth.org.in/science-technology/india-has-lost-its-way-on-open-access-90028
- Sankalp India Foundation (2024). *Open Access - the way forward for scientific research.* Retrieved from https://www.sankalpindia.net/news/open-access-way-forward-scientific-research
- UNESCO. (2012). *Global Open Access Portal.* Retrieved from http://www.unesco.org/new/en/communication-and-information/portals-andplatforms/goap/
- Walport, M & Kiley, R (2006). Open access, UK PubMed Central and the Wellcome Trust. *Journal of the Royal Society of Medicine,* Volume 99 (September). Retrieved from https://journals.sagepub.com/doi/pdf/10.1177/014107680609900912