Addressing Copyright Limitations: Enabling Open Access to Publicly Funded Research in India

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Abstract

The accessibility and availability of publicly funded research outputs are critical for the scientific development, innovation, and social development of any country. But national copyright law and commercial publishing culture around the world are hindering the dissemination and reuse of such research. Even though there are some exceptions of fair dealing for research and education under the Indian Copyright Act, 1957, these do not provide for explicit measures encouraging up-to-date Open Science practices like Text and Data Mining (TDM) and institutional repository archiving. Additionally, excessive Article Processing Charges (APCs) imposed by commercial open-access publishers act as a barrier to finances faced by researchers, particularly those funded by the public sector, in order to publish and disseminate their research outcomes instantly. This paper examines India's copyright legislation shortcomings in assuring fair access to publicly financed research, particularly in the light of emerging new digital research strategies and artificial intelligence (AI). It assesses the impact of international policy tools, namely UNESCO Open Science Recommendation (2021), on Open Access policies of India. Besides, it draws comparative lessons from Latin American and European nations that have effectively embraced the Diamond Open Access model, a just model whereby authors and readers are not charged money. The paper also addresses the role of the World Intellectual Property Organization's (WIPO) Standing Committee on Copyright and Related Rights (SCCR) in contributing to the establishment of principles for limitations and exceptions in copyright law that promote Open Access and Open Science. Specifically, it takes into account the principles and objectives that should guide SCCR's work on a global instrument on exceptions and limitations (SCCR/43/8), with particular emphasis on: (1) strengthening exceptions and limitations for text and data mining research due to the rapid developments in AI; (2) addressing cross-border copyright exceptions and limitations affecting preservation, education, and research; and (3) ensuring international copyright policies align with the UNESCO Open Science Recommendation in the interest of advancing equitable access to knowledge. This report requires a general international policy framework that ensures Open Access to publicly funded research by expanding copyright exceptions, aligned institutional policies, and sustained public funding for non-commercial Open Access publishing activities. A few of the key proposals are reinforcing research and education limitations and exceptions in India, aligning the national policy with global Open Science initiatives, and urging WIPO to develop worldwide standards promoting Open Access to publicly financed research. By promoting the incorporation of Open Science ideals into the current SCCR deliberations regarding limitations and exceptions for research, education, libraries, and archives, India and other members of the Global South can reap substantial advantages by harmonizing their policies with new global norms—guaranteeing publicly funded knowledge to everyone and ensuring that international copyright systems facilitate fair access to scientific information in the public interest.

Keywords*: Open Access, Copyright Limitations and Exceptions, Open Science, Diamond Open Access, Text and Data Mining*

Introduction

The unrestricted availability and accessibility of publicly funded research are essential for scientific progress, technological innovation, and inclusive social development of any country. Open Access (OA) to research outputs increases the visibility, usability, and impact of academic work. Nonetheless, the legal and commercial regimes underpinning scholarly publishing create major obstacles to realizing these objectives. Furthermore, the growing trend towards author-pays models of Open Access publishing particularly those with high Article Processing Charges (APCs) has compounded disparities in research dissemination. Researchers from low- and middle-income countries (LMICs)[1] such as India, frequently encounter economic barriers when publishing in prestigious OA journals (Burchardt, 2014; Jain et. al, 2021).

Internationally, copyright legislation has not been able to catch up with the demands of modern digital research practices. Country laws usually do not have proper provisions to facilitate new modes of scholarly communications including institutional repositories, preprint servers, and text and data mining (TDM). In India, while the Copyright Act of 1957[2] gives very limited fair dealing exceptions in educational and research contexts, it does not meet the needs of Open Science in terms of reusability and interoperability of research data and publications. Aware of such limitations, global guidelines such as the UNESCO Recommendation on Open Science (2021)[3] promote inclusive, equitable, and community-led models of knowledge sharing. Likewise, continuous debates at the World Intellectual Property Organization's (WIPO) Standing Committee on Copyright and Related Rights (SCCR)[4] aim at formulating international standards that facilitate Open Access by way of limitations and exceptions in copyright legislation (SCCR, n.d.).

This paper seeks to investigate the constraints of India's copyright system in the context of publicly funded research and search for policy remedies based on national reforms and international collaboration. Through examination of global models such as the Diamond Open Access wherein neither author no reader pays for the publication and the study of initiatives in countries like Latin America and Europe, the paper also recommends a roadmap to align national open access policy and copyright policy with the Open Science doctrine.

Indian Copyright Law: An Overview

The Indian Copyright Act, 1957, is the main legal framework that regulates copyright in India. It has been amended a number of times, most recently in 1994, 2012, and 2021, to keep pace with developments in technology and international commitments. Although the law makes some exceptions for education and research under the principle of "fair dealing," it does not fully deal with the challenges presented by modern digital scholarship, especially the practices of Open Science.

Fair Dealing Provisions and Their Limitations

Section 52 of the Copyright Act 1957 prescribes acts not amounting to infringement. It covers fair dealing for the purpose of private or personal use, research, criticism, review, and reporting

[1] https://wellcome.org/research-funding/guidance/prepare-to-apply/low-and-middle-income-countries
[2] https://www.copyright.gov.in/Documents/Copyrightrules1957.pdf
[3] https://www.unesco.org/en/open-science/about
[4] https://www.wipo.int/en/web/sccr

recent events. Importantly, it authorizes reproduction of work by educational institutions and libraries for specific non-commercial purposes (Copyright Act, 1957, s.52(1)(h), (i), (n), (o)). These provisions, however, are narrow in nature and vague in application, particularly in the online world. For example, the Act does not precisely define the words "fair," "reasonable," or "non-commercial," leaving such determinations to the courts. This leaves researchers and librarians uncertain about how to share, store, or mine copyrighted material for scholarly purposes.

Gaps in Supporting Open Science Practices

India's copyright system does not have clear legal backing for central Open Science mechanisms, including:

- *Text and Data Mining*: In contrast to the European Union's Directive (EU) 2019/790[5], there is no statutory exception for TDM in India, an important instrument for computational research and artificial intelligence (Fiil-Flynn et al., 2022).
- *Institutional Repositories*: No explicit exceptions in the law grant authors to submit accepted manuscripts in open repositories, which has been promoted by funders and Open Access mandates all over the world (Copyright Act of India, 1957).
- *Cross-border Access and Preservation*: Libraries and archives are at legal risk when they are involved in international cooperation or digital preservation of copyrighted materials, particularly because of the absence of provision for cross-border exceptions (Copyright Act of India, 1957).

Compatibility with International Norms

Although India is a signatory to the Berne Convention[6] and the TRIPS Agreement[7], its copyright law has not as yet caught up with international laws/treaties towards wider limitations and exceptions for education and research. The Indian Copyright Act 1957 contains minimum fair dealing exceptions, but its present form does not keep pace with the imperatives of Open Science in the digital era. This mismatch disadvantages India in international knowledge-sharing efforts and compromises its role in shaping the emerging discussion at platforms like the WIPO SCCR. A reform agenda must focus on updating the law to provide express exceptions for digital scholarship so as to facilitate equal access to knowledge created with public funds.

Challenges in Open Access Publishing

Though OA publishing is generally framed as a solution to the constraints imposed by subscription-based academic publishing, its present practice creates new barriers especially for LMICs such as India. The most urgent of these challenges is the spread of APCs that shift the cost burden from readers to authors, thus marginalizing many from effective engagement in global scholarly communication.

[5] https://www.wipo.int/wipolex/en/legislation/details/18927
[6] https://www.wipo.int/treaties/en/ip/berne/
[7] https://www.wto.org/english/tratop_e/trips_e/intel2_e.htm

The Burden of Article Processing Charges

In most of the reputable OA journals, APCs can vary from USD 2551 to more than USD 5,000 per article (Björk & Solomon, 2014) which is frequently more than the entire research grant of researchers working in Indian public institutions. Considering that there is limited availability of funds for the research, only a few Indian researchers have institutional funds to pay APCs, resulting in exclusion from high-visibility journals. Therefore, this pay-to-publish system mimics the inequalities of the pay-to-read subscription system it was designed to supplant. Furthermore, APC waivers provided by publishers are variable and frequently subject to conditions that do not take into consideration institutional hierarchies or individual abilities. According to this, lots of Indian scholars are driven toward publishing in fraudulent or questionable journals that give quicker publication without good peer review and hence affect Indian science credibility.

Inequities in Global Knowledge Production

The OA commercial model has also solidified the Global North's well-funded research centers' hegemony. Research shows that OA literature is largely dominated by a limited number of countries and institutions (Audrey et. al., 2022), often setting research agendas, publication modes, and standards for evaluation. Indian scholars are habitually put under a disadvantage as they compete to get space on elite OA publications because of differences in language, APCs, and biased citation metrics. This dynamic doubles back on what scholars have described as the "epistemic injustice" of the Global South, in which local knowledge systems, regional concerns, and non-English-language scholarship are peripheral to the global conversation (Chan et al., 2011; Paul et. al., 2021; Kaur et.al., 2023; Pratt & De Vries, 2023).

Institutional Gaps in India

India doesn't have a unified national policy or funding system to facilitate equitable Open Access publishing. Although efforts such as CSIR Open Access Policy (2011)[8], the ICAR's Open Access Policy (2013)[9] and DBT/DST Open Access Policy (2014)[10] promote repository-based OA, there is no effort to overcome the systemic challenges regarding APCs or institutional incentives. In addition, most Indian universities and research organizations lack specific budgets or structures to sustain Diamond or Platinum OA models that do not require authors or readers to pay (Suber, 2012). Until these structural issues are solved, the OA will be an incomplete solution with a danger of heightening inequalities in disseminating research globally.

Open Science and International Policy Frameworks

The Open Science movement focuses on the democratization of scientific knowledge through the promotion of transparency, inclusivity, and collaboration in the research process. At the heart of this agenda is making publicly funded research outputs publicly accessible. Over the past few years, several international frameworks have been developed to institutionalize Open Science principles, most prominently the UNESCO Recommendation on Open Science (2021) and current debates at the WIPO on copyright limitations and exceptions. These frameworks

[8] http://www.csircentral.net/mandate.pdf
[9] https://icar.org.in/node/8799
[10] https://dst.gov.in/sites/default/files/APPROVED%20OPEN%20ACCESS%20POLICY-DBT&DST(12.12.2014)_1.pdf

provide a platform for nations such as India to harmonize national policy with international standards.

The UNESCO Recommendation on Open Science

Endorsed by consensus in November 2021, the UNESCO Recommendation on Open Science is the world's first global normative instrument to set out a common framework for facilitating fair access to scientific knowledge. The Recommendation provides a definition of Open Science as an inclusive concept covering open access, open data, open source, and citizen science, supported by principles of equity, diversity, and multilingualism (UNESCO, 2021).

For India, this Recommendation is important as it invites national science policies to be aligned with international Open Science standards. It encourages governments to implement legal and regulatory changes to facilitate Open Access to research outputs, promote community-driven non-commercial publishing models, and guarantee public investment in infrastructure for repositories and digital preservation. India, although a signatory, has not yet implemented a national Open Science policy. Although efforts like push for data sharing under National Data Sharing and Accessibility Policy (NDSAP) are present, these are disjointed and devoid of mandates to be enforced. Harmonizing national policies—most importantly, copyright law reforms—with the UNESCO Recommendation on Open Science is crucial to filling the current policy gap and ensuring equitable access to publicly funded knowledge.

WIPO SCCR and Global Discussions on Copyright Exceptions

In parallel to the efforts of UNESCO, the SCCR of WIPO is also considering the use of copyright limitations and exceptions (L&Es) in facilitating access to knowledge for education, research, libraries, and archives. The proposal SCCR/43/8 (2022) requests that a work program be organized with a view to dealing with L&Es concerning digital research methods such as TDM, international research collaboration, and preservation. This is especially so for developing nations, such as India, where copyright legislation has not yet been revised to take into consideration AI scholarship and digital knowledge infrastructures. Harmonized cross-border L&Es are restricted, and this constrains cooperation with global consortia and compromises world equity in science.

India's engagement in such discussions can reinforce its role as a leader of the Global South in promoting an international copyright instrument that would be in alignment with Open Science and development objectives. An active approach would also help national copyright reforms to ensure increased access to publicly funded research.

The Diamond Open Access Model: Global Experiences and Lessons for India

Diamond Open Access (Diamond OA) describes a model of publishing in which neither readers nor authors are asked to pay fees. Supported mainly by institutional, governmental, or consortia funding, Diamond OA journals are run on a non-profit principle and share the fundamental values of Open Science - equity, sustainability, and inclusiveness. In contrast to APC-funded gold OA, Diamond OA creates a more equitable knowledge environment through the removal of financial impediments to engagement in scholarly communication.

Global Landscape of Diamond OA

The "OA Diamond Journals Study" by Science Europe, cOAlition S, and OPERAS found more than 29,000 Diamond OA journals globally, most of which are small in scale, community-driven, and hosted by universities, societies, and research centers. Numerous such journals function in Latin America and Europe, where national and regional infrastructures have supported sustainable, publicly funded OA publishing (Bosman et al., 2021).

Latin America, in turn, offers a very attractive model. SciELO[11] (Brazil) and AmeliCA[12]/Redalyc[13] (Mexico) are examples of platforms operating on cooperative principles, providing technical infrastructure, editorial assistance, and indexing services. These platforms are funded by public research funds and regional collaborations, maintaining quality control without passing costs to researchers. Europe also has developed coordinated strategies. The French national platform HAL[14] and OpenEdition[15], and the Dutch Open Journals project[16], show that state-funded OA publishing that is sustainable and community-driven is possible.

Relevance and Opportunities for India

India boasts a dynamic yet under-resourced environment of institutional journals, several of which are hosted on the Open Journal Systems (OJS)[17] platform. These efforts are though dispersed, and the majority of journals lack funding, indexing, and visibility. A national Diamond OA strategy centered on coordinated infrastructure, public funding, and quality assurance could remake this scenario.

Some Indian initiatives like ICAR's epubs[18], CSIR's Online Publishing[19], IndiaRxiv[20] (Preprints Server) and IndiaJOL[21] (Diamond Open Access Journal Publication Platform for India) incorporate Diamond OA principles through permitting free submission and access. However, they are still pilot-scale and don't have consistent institutional backing. Following Latin American and European patterns, India can:

- Establish a federated national platform for OA journals with editorial and metadata services.
- Require research councils to support and recognize Diamond OA publishing channels.
- Encourage university and academic society adoption of Diamond OA policies.

This would bring India's Open Access strategy in line with the UNESCO Recommendation on Open Science objectives and cut dependence on expensive APC-based models that exclude significant segments of the research community.

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[11] https://scielo.org/en/
[12] https://amelica.org/
[13] https://www.redalyc.org/
[14] https://hal.science/?lang=en
[15] https://www.openedition.org/?lang=en
[16] https://openjournals.nl/
[17] https://pkp.sfu.ca/software/ojs/
[18] https://epubs.icar.org.in/
[19] http://op.niscair.res.in/
[20] https://ops.iihr.res.in/index.php/IndiaRxiv
[21] https://www.indiajol.org/

Recommendations for Policy Reform in India

To make equitable access to publicly financed research a reality, India needs to reform its national copyright law, institutional practices, and scholarly publishing infrastructure to conform to international Open Science principles. The reforms should handle structural, legal, and economic barriers which currently limit inclusive production and dissemination of knowledge. Aligning policy with global frameworks like the UNESCO Recommendation on Open Science and WIPO's current work on copyright limitations and exceptions—will be critical to developing a strong and inclusive research ecosystem.

Reforming Copyright Law: Strengthening Limitations and Exceptions

The Indian Copyright Act, 1957, contains some exceptions in Sections 52(1)(a) and 52(1)(h) for private study, research, and educational purposes. But these provisions are narrow in scope and do not cover modern digital research activities like text and data mining (TDM), digital preservation, or international collaboration. India should enact clear statutory exceptions to TDM so that computational research and AI development can be conducted lawfully. It must also broaden exceptions and limitations to cover digital learning spaces online instruction, e-reserves, and virtual libraries and provide legal interoperability with global initiatives such as WIPO's SCCR/43/8 and the UNESCO Open Science Recommendation. These changes would bring much-needed legal certainty and assistance to researchers, educators, and institutions engaging in Open Science.

Strengthening Open Access Infrastructure and Supporting Diamond OA

Institutional Open Access mandates, such as in ICAR, CSIR, and DST/DBT, do exist but have poor implementation and scattered technical infrastructure. Most institutional repositories are not interoperable with international systems like OpenAIRE[22] and CORE[23], making discoverability and reuse difficult. Not many of the Indian Open Access Journals are indexed in DOAJ[24]. India must implement a national Open Access policy requiring the deposit of peer-reviewed manuscripts in interoperable repositories, with or without minimal embargo. Furthermore, India should invest in Diamond Open Access through funding non-commercial, community-driven publishing platforms on university, research society, and public institution hosting. A national consortium may give editorial, technical, and indexing support similar to models such as SciELO[25] or Redalyc. Acknowledging Diamond OA outputs within academic evaluation mechanisms would also further incentivize researchers. These measures would guarantee that Indian research is made available, internationally plugged in, and free from cost barriers to publication or access.

Conclusion

Open Science norms need to be reflected in India's modernized copyright law and institutional structures as it strengthens itself as a global science and technology leader. Open Science norms are crucial for the free and equitable sharing of publicly funded research for scientific advancement, inclusive innovation, and democratic access to knowledge. This paper has illustrated the ways in which the shortcomings of the Indian Copyright Act, 1957 particularly

[22] https://www.openaire.eu/
[23] https://core.ac.uk/
[24] https://doaj.org/
[25] https://scielo.org/en/

with regard to text and data mining, online research techniques, and cross-border collaboration create enormous obstacles to Open Access.

International policy evolutions, in particular the UNESCO Recommendation on Open Science and discussions at WIPO's Standing Committee on Copyright and Related Rights, offer India a timely window to participate in international norm-making and national reform. Comparative experiences of Latin America and Europe, specifically in applying the Diamond Open Access model, provide useful avenues for India to construct an equitable, non-commercial research publishing environment.

To make these aspirations a reality, India needs to:

- Modernize copyright law to broaden limitations and exceptions for education and research in the digital age.
- Require and fund institutional repositories and preprint servers as default Open Access infrastructure.
- Fund and coordinate non-profit Diamond Open Access journals, insuring sustainable, equitable scholarly communication.

India's alignment with new international standards will enhance its citizens' access to knowledge but also make it a leader among developing countries to champion a just, inclusive, and decolonized knowledge commons. While the global community moves toward a more equitable and cooperative research environment, India's visionary legal and policy initiatives can help make public-funded research public goods available to all, unencumbered.

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