J Data Sci. Info. Citation Studies., 2025; 4(2):174-181.
https://www.jcitation.org

Research Article

Open Access and Article Processing Charges with Special Reference to Indian Institutions: Analyzing Fee Waivers, Discounts, and Transformative Agreements

Md Nurul Alam[1,*], Anup Kumar Das[2]

[1]Library and Information Services, Physical Research Laboratory, Ahmedabad, Gujarat, INDIA.
[2]Centre for Studies in Science Policy School of Social Sciences, Jawaharlal Nehru University, New Delhi, INDIA.

ABSTRACT

The shift from traditional subscription-based publishing to Open Access (OA) has transformed scholarly communication by providing unrestricted access to research outputs, fostering global knowledge exchange. However, the rise of Article Processing Charges (APCs) levied by publishers to cover operational costs in the OA model poses significant challenges, particularly for researchers from lower-middle-income countries like India. This study investigates the interplay between OA and APCs, focusing on the Indian academic and research landscape. It evaluates the effectiveness of mechanisms such as fee waivers, discounts, and transformative agreements in alleviating the financial burden of APCs and enabling equitable access to OA publishing. This research aims to examine current trends in OA adoption in India, identify barriers to participation in APC-based publishing, and propose solutions for Indian researchers to increase access to OA. This study incorporates an approach which is a combination of exhaustive literature review, global and national OA policies analysis, and case studies from Indian institutions that have successfully negotiated agreements with publishers. Key findings highlight the disparities in APC costs across disciplines and publishers, with fees ranging from $8 to USD 5,000. While fee waivers and discounts are available, their effectiveness is limited by cumbersome application processes and a lack of awareness among eligible researchers. Transformative agreements, wherein institutions negotiate lump-sum payments to cover subscription and OA publishing costs, emerge as a promising solution but remain in their infancy in India. The study also underscores the role of government and institutional policies in promoting OA publishing. Initiatives like the "One Nation One Subscription" (ONOS) policy and developing a national Green OA repository represent positive steps. However, significant gaps remain in addressing funding challenges and ensuring the widespread adoption of OA practices. Case studies of Indian institutions, such as the Indian Institute of Science (IISc) and the Institute of Plasma Research (IPR), demonstrate the potential of negotiated agreements to reduce APC costs and increase OA publications. However, these agreements often have limited scope and require greater coordination between institutions, publishers, and policymakers. The study concludes that while OA presents significant opportunities for democratizing access to knowledge, the financial burden of APCs remains a critical barrier for Indian researchers. A multifaceted approach is essential to address these challenges, including developing a comprehensive national OA policy, increased institutional support for APC funding, wider adoption of transformative agreements, and enhanced awareness of alternative OA models such as Diamond and Platinum OA. By implementing these strategies, India can strengthen its position in the global OA landscape, ensuring its researchers have equitable access to publish and disseminate their work. This research contributes to the on-going discourse on OA publishing, offering actionable insights for policymakers, institutions, and researchers striving to create a more inclusive and sustainable academic publishing ecosystem.

Keywords: Article Processing Charges, APCs, Open Access, Gold Open Access, Fee Waiver, Transformative Agreement, ONOS, India.

Correspondence:
Md Nurul Alam
Library and Information Services, Physical Research Laboratory, Ahmedabad, Gujarat, INDIA.
Email: alam@prl.res.in

Received: 21-04-2025;
Revised: 09-06-2025;
Accepted: 12-08-2025.

INTRODUCTION

The paradigm shift from traditional subscription-based journal publishing to Open Access (OA) has revolutionized scholarly communication over the past few decades (Borrego, 2023). OA enables unrestricted access to research outputs, fostering global collaboration, accelerating knowledge dissemination, and democratizing access to academic information (Suber, 2012). However, this shift has also brought challenges, particularly with the rise of Article Processing Charges (APCs). These charges, which OA publishers often levy to cover publication costs, have created significant financial barriers, particularly for researchers in lower-middle-income countries such as India (Solomon and Björk, 2012).

DOI: 10.5530/jcitation.20250201

With its rapidly expanding research output and diverse academic landscape, India faces unique challenges and opportunities in adopting OA publishing. While OA holds the promise of bridging knowledge gaps and enhancing visibility for Indian research, the financial burden of APCs often limits its accessibility to well-funded institutions and researchers. This paper explores the interplay between OA and APCs, focusing on Indian institutions. Specifically, it evaluates the effectiveness of current mechanisms - such as fee waivers, discounts, and transformative agreements - in promoting equitable OA access.

By examining these issues, this study seeks to contribute to the on-going global dialogue on fostering equitable access to scholarly publishing. Addressing these challenges is critical for ensuring that researchers can fully participate in and benefit from the evolving OA landscape regardless of financial circumstances.

BACKGROUND ON OPEN ACCESS

Open Access (OA) represents a paradigm shift in scholarly communication, offering unrestricted access to research outputs and academic literature. This model emerged as a response to the traditional subscription-based publishing system, which often limited access to knowledge for those outside well-funded institutions (Suber, 2012; Laakso *et al*., 2011). The limitations of subscription models were especially evident in developing regions and among researchers with limited institutional resources. As a result, the OA movement gained significant momentum in the early 2000s, culminating in the Budapest Open Access Initiative (2002), which articulated its core principles and strategies for achieving universal access to scholarly content (Suber, 2012; Budapest Open Access Initiative, 2002). Two primary pathways to OA have been established: 'Green OA', which involves self-archiving of articles in institutional or subject-specific repositories, and 'Gold OA', where articles are published in open access journals that make research freely available immediately upon publication (Björk *et al*., 2014). Both routes ensure that research findings are accessible anywhere at no cost to the reader.

While OA has democratized access to knowledge, it has also led to a redistribution of costs within the academic publishing ecosystem. To cover the production and dissemination costs traditionally borne by readers, many OA publishers have adopted Article Processing Charges (APCs), paid by authors or their institutions (Solomon and Björk, 2012). This shift in the financial model has led to concerns about equity and inclusivity, as researchers from less-resourced institutions or developing countries may struggle to cover these fees (Tennant *et al*., 2016). Despite these challenges, OA continues to grow in prominence, driven by its potential to accelerate scientific progress, increase the visibility of research, and enhance the global impact of academic work (Piwowar *et al*., 2018).

THE RISE OF ARTICLE PROCESSING CHARGES (APCS)

Article Processing Charges (APCs) are fees publishers charge to make articles freely available to the public under an Open Access (OA) model. These charges have become integral to the OA publishing landscape, covering operational costs such as peer review, editing, and dissemination. APCs vary significantly across journals and publishers, with some prestigious journals charging high fees while others offer more affordable or even no-cost publishing options. As OA publishing has expanded, major publishers such as Elsevier, Springer Nature, and Wiley have increasingly adopted APCs to sustain their operations (Morrison *et al*., 2015).

Publishers set their APCs based on various factors, including the journal's Impact Factor, citation scores, and the potential revenue from publishing in high-profile journals. As a result, there is considerable variation in the APCs charged by different publishers, even within the same field of study. This wide range in pricing has led to significant financial obstacles for many researchers, especially those from institutions with limited research funding. A study by Solomon and Björk (2016) found that APCs ranged from USD 8 to USD 3,900, with an average cost of USD 904 per article. This variation in pricing further complicates the situation, particularly for researchers in developing countries like India, where research budgets are often more constrained. These financial challenges raise concerns about the accessibility and equity of OA publishing, as APCs may limit the participation of underfunded researchers in the global scholarly community (Solomon and Björk, 2016).

THE INDIAN ACADEMIC AND RESEARCH PUBLISHING LANDSCAPE

India has emerged as a global research hub, with its institutions making significant contributions across various fields of study. According to the National Science Foundation (2020), India ranks third globally regarding the number of science and engineering articles published. This growth reflects the country's increasing investment in research and development and the rising visibility of Indian research globally. Despite this impressive output, however, access to high-impact journals remains a persistent challenge for many Indian researchers, primarily due to financial constraints (National Science Board, 2020).

Most Indian institutions do not have dedicated budgets for Article Processing Charges (APCs), often required for publishing in Open Access (OA) journals. As a result, researchers are left with limited options: they may either pay the fees from their funds or seek external funding. This financial burden is prohibitive for many, especially those in lower-middle-income institutions or regions. India's status as a lower-middle-income country further complicates this issue, as affordability remains a critical challenge

in the OA landscape (Clauson *et al*., 2008). These barriers make it difficult for Indian researchers to fully participate in the global OA movement despite their growing research output and international collaborations.

OPEN ACCESS MODELS AND APCS: A GLOBAL PERSPECTIVE

The Open Access (OA) publishing model has evolved into several distinct types, each with a unique approach to providing access to scholarly research and addressing funding challenges. These models cater to different needs within the academic publishing ecosystem while influencing the financial mechanisms supporting the publication process. Here are the most commonly used OA models:

Gold OA: In the Gold OA model, authors pay Article Processing Charges (APCs) to make their articles publicly available immediately upon publication. This model allows researchers to bypass subscription barriers, providing unrestricted access to their work. However, the upfront costs associated with APCs can be a significant challenge for authors without adequate institutional support or external fundings (Fuchs and Sandoval, 2013).

Green OA: The Green OA model enables authors to self-archive their articles in institutional repositories or personal websites after publishing them in subscription-based journals. This model allows broader dissemination of research without the need for APCs, although the accessibility is typically delayed due to embargo periods set by the publisher (Fuchs and Sandoval, 2013).

Hybrid OA: In the Hybrid OA model, authors have the option to pay APCs to make individual articles open access in otherwise subscription-based journals. While this model provides more flexibility for authors, it still involves a cost for making articles freely available, which may create financial barriers for researchers without access to funding (Fuchs and Sandoval, 2013).

Diamond/Platinum OA: Journals operating under the Diamond/Platinum OA model publish articles that are open to access without charging authors or readers. Instead, the operational costs are typically supported by institutions, consortia, or other external funding sources. This model is often considered the most equitable but is less common due to the significant funding required to sustain these types of journals (Fuchs and Sandoval, 2013).

Bronze OA: The Bronze OA model, as defined by Scopus, indicates that articles are available in open-access mode during the indexing process. However, publishers can withdraw the open-access tag later, making it a less predictable and permanent form of open-access (Fuchs and Sandoval, 2013).

Each OA model reflects a different way of balancing the need for unrestricted access to knowledge with the financial challenges of academic publishing. The shift towards OA has the potential to democratize research access globally. Still, the economic aspects - especially APCs - continue to play a critical role in determining the accessibility and sustainability of the model.

APC Structures and Variations across Publishers

Article Processing Charges (APCs) are a key component of the Open Access (OA) publishing model. Still, their cost varies significantly depending on multiple factors, such as the prestige of the journal, the publisher's policies, and geographical considerations. APCs are fees that authors or their institutions must pay to make their research publicly accessible in an open-access format.

A study by Morrison *et al*., (2015) found that the APC prices ranged from as low as $8 to as high as USD 5,000, with the average price being USD 1,221. However, this average conceals substantial variations across different disciplines and publishers. For example, high-impact journals in fields such as life sciences or medicine tend to charge higher APCs. In contrast, journals in other fields, like humanities or social sciences, may have significantly lower fees (Morrison *et al*., 2015). This variation in APCs often reflects factors such as the journal's reputation, impact factor, and the perceived value of the publication within the scientific community.

In addition to discipline-based disparities, publishers adopt different APC pricing strategies based on their financial models. Major publishers, such as Elsevier, Springer Nature, and Wiley, have incorporated APCs to fund the production and dissemination of scholarly articles. These publishers often adjust their APC structures according to market demand, institutional agreements, or the prominence of the journal. Some publishers also offer tiered APCs based on the type of article or the article's level of complexity (Morrison *et al*., 2015).

The Directory of Open Access Journals (DOAJ) provides a comprehensive list of OA journals that charge APCs, including the APC amount for each journal. This resource is helpful for researchers who want to identify journals within their specific field of study and understand the associated costs before submitting their work. By providing this information, the DOAJ allows authors to make more informed decisions regarding where to publish, helping to navigate the complexities of the APC landscape (Directory of Open Access Journals, n.d.).

In conclusion, APCs represent a significant financial consideration in the OA publishing model. While their costs vary widely, understanding the factors influencing APC pricing - such as publisher policies, geographical location, and discipline - can help researchers better manage these costs. Resources like the DOAJ are valuable tools for navigating the wide range of APC fees associated with different journals.

Global Trends in OA Adoption and APC Costs

In recent years, there has been a steady global increase in adoption of Open Access (OA) publishing. According to the STM Report (2018), approximately 28% of all scholarly journal articles are now open-access, marking a significant shift in how research is disseminated and accessed. This growth in OA publishing can be attributed to technological advancements, increased funding for OA initiatives, and a growing recognition of the importance of making research freely accessible to the global scientific community (Johnson *et al*., 2018).

One of the most influential initiatives in accelerating OA adoption is Plan S, a European initiative launched in 2018 by cOAlition S. Plan S aims to ensure that all publicly funded research is published in compliant open-access journals or platforms by 2021. This ambitious initiative seeks to expedite the transition to full OA, aiming to make scholarly research openly accessible without delay. By pushing for strict requirements on publishing and disseminating research, Plan S is poised to play a significant role in shaping the future of global OA publishing (Else, 2018).

However, despite the positive momentum toward OA adoption, the cost of Article Processing Charges (APCs) remains a significant deterrent for many researchers, particularly in Low- and Middle-Income Countries (LMICs). For researchers in countries like India, Brazil, and several African nations, the high costs of APCs can be prohibitive, especially when institutional or governmental funding support is limited. As a result, while the OA movement continues to grow, the financial barrier posed by APCs threatens to undermine its equitable access goals (Else, 2018).

These global trends highlight the potential of OA to democratize access to knowledge, but they also underscore the need for more sustainable and inclusive funding models. Addressing the APC challenge through mechanisms such as APC waivers, institutional support, and alternative OA models is crucial for ensuring that researchers from all regions can participate in and benefit from the OA publishing landscape.

THE INDIAN CONTEXT: CHALLENGES AND OPPORTUNITIES

Current State of OA Adoption in India

India's adoption of Open Access (OA) publishing has been slower than that of more affluent regions, primarily due to financial constraints and limited infrastructure at many institutions. Although awareness of OA among Indian researchers is high, their participation in OA publishing remains restricted. A study by Husain and Nazim (2013) found that while Indian researchers are generally aware of OA and its benefits, the adoption of OA publishing practices is still limited. One of the significant barriers identified by the study is the lack of funding for Article Processing Charges (APCs), which prevent many researchers from pursuing OA publishing despite their interest in it. As APCs can be a significant expense, this financial obstacle remains one of the primary challenges Indian researchers face in adopting OA publishing (Husain and Nazim, 2013).

Funding Challenges for Indian Researchers and Institutions

Most Indian institutions, particularly state-funded universities, operate with tight budgets and lack the flexibility to allocate substantial funds for APCs. This presents a significant challenge for researchers, particularly those at institutions that do not have dedicated funding for publication fees. In a survey by Mukherjee (2014), 70% of Indian researchers cited the lack of funding as the primary reason for not publishing in OA journals. This finding underscores the significant financial barriers that prevent Indian researchers from taking advantage of OA publishing options (Mukherjee, 2014).

However, despite these challenges, many Indian authors continue to publish in Gold and Platinum OA journals, some of which are funded by national organizations such as the Council of Scientific and Industrial Research (CSIR), National Institute of Science Communication and Information Resources (NIScPR), Defence Research and Development Organisation (DRDO), Indian Council of Medical Research (ICMR), Indian National Science Academy (INSA), Indian Council of Agricultural Research (ICAR), and various other scientific societies. These institutions often publish OA journals without charging APCs, thus providing a valuable opportunity for Indian researchers to contribute to the OA movement without incurring additional costs.

Despite the availability of some OA publishing avenues, the overall lack of funding and institutional support for OA remains a significant barrier to broader adoption in India. Addressing this challenge requires a more concerted effort from government and academic institutions to create sustainable funding mechanisms and infrastructure for OA publishing (Nazim, Bhardwaj, Agrawal, and Bano, 2023).

FEE WAIVERS AND DISCOUNTS: AVAILABILITY AND ACCESSIBILITY

Overview of Fee Waiver and Discount Programs

Several prominent academic publishers, including Elsevier, Wiley, Springer Nature, and Taylor and Francis, offer fee waiver and discount programs to assist researchers from low- and middle-income countries, including India. These initiatives are designed to reduce the financial burden of Article Processing Charges (APCs), making it more feasible for researchers in economically disadvantaged regions to publish their work in Open Access (OA) journals. Publishers often provide up to 50% discounts or even full waivers for authors based in countries like India (Research4Life, n.d.). These fee reduction programs are crucial for promoting greater inclusivity in the global scholarly

publishing landscape, as they aim to support researchers who otherwise might not be able to afford the high costs of OA publishing.

Eligibility Criteria and Application Processes

The eligibility criteria for fee waiver and discount programs vary widely across publishers. In general, waivers are granted based on factors such as the author's affiliation with a lower-income institution or their country's economic status. Researchers from Low- and Middle-Income Countries (LMICs), including India, are typically eligible for these programs, but the specific criteria often differ. Some publishers require proof of the author's country of residence or income classification, while others focus on the economic status of the researcher's home institution or the research project itself. However, the application process can often be cumbersome. Researchers are required to submit documentation, which can be a time-consuming task. Moreover, discounts or waivers are not always widely advertised or readily accessible to potential applicants, leaving many researchers unaware of these opportunities (Peterson *et al*., 2013).

Effectiveness of Current Waiver Programs for Indian Researchers

Despite fee waivers and discounts, these programs often fail to address the financial challenges Indian researchers face, particularly those from institutions with limited resources. A study by Nagaraja and Clauson (2009) found that even with partial discounts, the Article Processing Charges (APCs) in some Open Access (OA) journals remain prohibitively high, making them unaffordable for researchers in India (Borrego *et al*., 2021). This issue is exacerbated because many Indian institutions operate with tight budgets, particularly those in the public sector, leaving little room for allocating funds to cover APCs.

Moreover, the uneven distribution of information regarding available fee waivers or discounts is another critical issue. Many eligible researchers are unaware of such programs or struggle to access the necessary resources to apply for them. The lack of awareness about these opportunities further limits the reach and effectiveness of waiver programs, preventing many researchers from benefiting from reduced publication costs. As a result, despite the availability of these fee reduction mechanisms, the financial burden of APCs remains a significant barrier for Indian researchers, limiting their participation in Open Access publishing.

TRANSFORMATIVE AGREEMENTS: A POTENTIAL SOLUTION

Understanding Transformative Agreements

Transformative agreements are emerging as a potential solution to the financial burden of Article Processing Charges (APCs) in Open Access (OA) publishing. These agreements aim to shift the cost of publication from authors to institutions or library consortia, addressing the financial constraints that often prevent researchers from low-resource settings, such as India, from publishing in OA journals. Under transformative agreements, libraries or consortia pay a lump sum to publishers, which allow the affiliated researchers to publish OA without the need to cover the APCs themselves (Bansode and Pujar, 2022; University of California, Office of Scholarly Communication, n.d.; Bansode and Pujar, 2022).

These agreements aim to transform the subscription-based publishing model into a sustainable and equitable open-access system. Instead of paying for subscriptions to access research, institutions pay for the publication, enabling a wider range of researchers to participate in OA publishing without financial barriers. By spreading the costs across a larger pool of institutions, transformative agreements offer a cost-effective way to support OA publishing while promoting greater research access.

Transformative agreements represent a promising model for overcoming the APC challenge, particularly in regions like India, where many institutions face budgetary constraints. However, such agreements' widespread implementation and sustainability depend on institutional collaboration and publisher willingness to embrace models prioritising broader access over traditional subscription fees.

Global Examples of Successful Transformative Agreements

Institutions in Europe and North America have successfully adopted transformative agreements. For example:

Germany has been at the forefront of implementing transformative agreements through initiatives like Projekt DEAL. In 2019, Springer Nature and Projekt DEAL finalized the world's most significant transformative open access agreement, granting German researchers the ability to publish their work OA while ensuring nationwide access to Springer Nature journals (DEAL Consortium, n.d.). The success of this model was further reinforced in 2021 with the renewal of this agreement, reflecting the potential scalability and sustainability of transformative agreements in large academic systems (DEAL Konsortium, n.d.).

JISC has played a pivotal role in fostering transformative agreements in the United Kingdom. In 2021, JISC negotiated a transformative agreement with Taylor and Francis, enabling UK researchers to publish OA and enhancing affordability for participating institutions (JISC, 2021). Building on this success, JISC partnered with Elsevier in 2022 to create an agreement that allows authors at eligible UK institutions to publish OA while ensuring streamlined institutional access to Elsevier's journal portfolio (Jisc, n.d.)

cOAlition S's Transformative Agreements Toolkit (2021) offers practical guidelines for institutions and consortia to negotiate

transformative agreements, aiming to align publishers' policies with the principles of Plan S, which advocates for immediate OA to scholarly publications (Willems, 2024; cOAlition S, n.d.)

Potential for Implementing Transformative Agreements in India

Transformative agreements in India have made significant progress in recent years, aiming to transition from traditional subscription models to Open-Access (OA) publishing. While these agreements are still evolving compared to Europe and the USA, India has pioneered specific models tailored to its unique institutional and funding constraints. Given the size and scale of India's academic and research community, transformative agreements could offer a viable solution to the APC issue. However, such agreements would require substantial coordination among institutions, publishers, and government bodies (Mohammad, 2022; ESAC Initiative, 2020; Springer Nature, 2023).

Below is an overview of some of the most notable transformative agreements currently in effect:

The IISER Consortium's transformative agreement with Springer (2023-2024) represents a significant step in advancing Open-Access (OA) publishing in India. Renewed for 2024, the agreement includes IISER Bhopal and IISER Thiruvananthapuram alongside four existing IISERs. It provides a read-and-publish model, granting access to Springer's hybrid journals and enabling OA publishing of original research, reviews, and brief communications without individual APCs, thereby increasing the visibility of Indian research (Springer, 2023). The agreement highlights the potential of collective bargaining by Indian research institutions to transition toward OA publishing (The Company of Biologists, n.d.).

The transformative agreement between the Bhabha Atomic Research Centre (BARC) and Elsevier facilitates Open-Access (OA) publishing and subscription access for BARC researchers. This read-and-publish model, tailored to BARC's significant research output in nuclear science, has increased OA publications while ensuring access to Elsevier's journals. However, on-going discussions aim to expand the agreement's journal coverage and include other institutions under the Department of Atomic Energy (Springer Nature, n.d.; Department of Atomic Energy, n.d.).

Manipal Academy of Higher Education (MAHE) has entered into a transformative agreement with Springer, known as the Manipal Read and Publish (Springer Compact) Agreement, which covers institutions like Kasturba Medical College and T.A. Pai Management Institute. This agreement, valid until 2022, allows OA publishing of research, review articles, and brief communications in over 2,000 hybrid journals. The partnership supports the trend of OA adoption among Indian higher education institutions, particularly in diverse academic fields (Springer Nature, n.d.).

The E-Shodh Sindhu Consortium, India's largest consortium for academic resources, has partnered with Cambridge University Press to implement a read-and-publish model, facilitating Open-Access (OA) publishing for its participating institutions. The agreement, valid from 2020 to 2022, covers a range of journals, allowing OA publishing of research, reviews, and rapid communications. This initiative highlights the consortium's role in advancing OA adoption in India (Consortium for Higher Education Electronics, n.d.).

The IISc-Wiley agreement provides reduced Article Processing Charges (APCs) for IISc researchers publishing in selected Wiley journals, showcasing the potential of institutional negotiations to address APC challenges. This transformative agreement aligns with global trends, such as Plan S, aimed at promoting full Open Access (OA) publishing. The benefits include increased OA participation by IISc researchers, enhancing global accessibility to their high-quality research, and institutional support that alleviates the financial burden on individual researchers, enabling a greater focus on disseminating findings without cost-related barriers (J. R. D. Tata Memorial Library, n.d.).

Current and Proposed Open Access (OA) Policies in India

Current OA Policies

Shodhganga Repository by UGC: The University Grants Commission (UGC) mandates that all theses and dissertations from Indian universities must be deposited in the Shodhganga repository. This initiative promotes Green Open Access (OA) by providing free access to research outputs from Indian higher education institutions. This policy ensures that scholarly work is widely accessible and supports the global movement toward OA in academic research (INFLIBNET Centre, n.d.).

Proposals from DBT and DST: The Department of Biotechnology (DBT) and the Department of Science and Technology (DST) have proposed a joint OA policy for research funded by their agencies. The policy emphasises the need for all publications derived from DBT/DST-funded research to be made freely accessible. Additionally, it provides recommendations for managing Article Processing Charges (APCs), ensuring financial support for researchers in OA publishing (Elsevier, n.d.; Department of Biotechnology and Department of Science and Technology [DBT and DST], 2014).

CSIR's National OA Discussions: The Council of Scientific and Industrial Research (CSIR) has initiated discussions on formulating a national OA policy. This policy ensures that publicly funded research outputs are accessible to the public. It may include provisions for APC support, making OA publishing more feasible for researchers and reducing barriers to dissemination (Council of Scientific and Industrial Research [CSIR], 2011a; Council of Scientific and Industrial Research [CSIR], 2011b).

Proposed OA Policies

One Nation One Subscription (ONOS)

The Government of India is actively working on the One Nation One Subscription (ONOS) initiative to enhance access to scientific research and promote open-access publishing. This initiative aims to address the financial challenges of publishing in open-access journals by including provisions for Article Processing Charges (APCs), enabling researchers to share their work without financial barriers. Additionally, the ONOS initiative seeks to establish a national-level Green Open Access (OA) channel, which will be managed by the INFLIBNET Centre, to ensure that research outputs from publicly funded projects are freely accessible to all. By implementing ONOS, the government demonstrates its commitment to bridging the knowledge gap, democratizing access to research, and fostering a more equitable and inclusive research environment in India (Ministry of Education, 2025; Nimodia, 2024; Office of the Principal Scientific Adviser, 2024).

Science, Technology, and Innovation Policy (STIP) 2020

The draft Science, Technology, and Innovation Policy (STIP) 2020 emphasizes making all publicly funded research outputs immediately available as OA. It proposes the creation of a national Green OA channel for sharing publicly funded research, including various scholarly outputs such as research articles, books, book chapters, and conference proceedings. This policy reflects India's aim to align with global best practices in OA and increase the visibility and impact of Indian research (Department of Science and Technology, 2020).

CONCLUSION

Open Access (OA) and Article Processing Charges (APCs) present opportunities and challenges for Indian researchers and institutions. OA has the potential to democratize access to knowledge, fostering equitable participation in the global research landscape. However, the financial burden of APCs can pose a significant barrier, particularly for researchers from resource-constrained institutions. Fee waivers, discounts, and transformative agreements offer potential solutions. Still, their impact is often limited in scope, and greater awareness, coordination, and institutional support are required to make these mechanisms more effective.

Case studies of Indian institutions negotiating agreements with publishers demonstrate the feasibility of addressing the APC challenge. However, these agreements are often restricted to select institutions or researchers, leaving many without adequate support. India needs to adopt a multifaceted approach to fully leverage the benefits of OA while mitigating the challenges posed by APCs.

First, developing a comprehensive national OA policy that addresses APC funding is crucial. Second, increased institutional support, including establishing dedicated APC funds, can provide researchers with financial backing for OA publishing. Third, negotiating transformative agreements at a national or consortium level can ensure broader benefits for various institutions. Fourth, awareness and training programs for researchers on OA publishing options and available support mechanisms should be enhanced. Finally, exploring alternative OA models, such as Diamond and Platinum OA, which do not rely on APCs, can provide sustainable solutions for equitable knowledge dissemination.

By addressing these challenges through supportive policies and innovative approaches, India can play a pivotal role in shaping the future of OA publishing. This will not only enable Indian researchers to contribute to and benefit from the global OA ecosystem but also ensure that research outputs are freely accessible to all, furthering the nation's commitment to equitable access to knowledge.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

Bansode, S. Y., and Pujar, S. (2022). Open access and transformative agreements: A study. Annals of Library and Information Studies, 69(1), 59-65. DOI: 10.56042/alis.v69i1.57094

Björk, B., Laakso, M., Welling, P., and Paetau, P. (2014). Anatomy of green open access. Journal of the Association for Information Science and Technology, 65(2), 237-250. DOI: 10.1002/asi.22963

Borrego, Á., Anglada, L., and Abadal, E. (2021). Transformative agreements: Do they pave the way to open access? Learned Publishing, 34(2), 216-232. DOI: 10.1002/leap.1347

Budapest Open Access Initiative. (2002). Read the Declaration. In Budapest Open Access Initiative. Retrieved on 4th January 2025 from https://www.budapestopenaccessinitiative.org/read/

Borrego, Á. (2023). Article processing charges for open access journal publishing: A review. Learned Publishing, 36(3), 359–378. DOI: 10.1002/leap.1558

Clauson, K. A., Veronin, M. A., Khanfar, N. M., and Lou, J. Q. (2008). Open-access publishing for pharmacy-focused journals. American Journal of Health-System Pharmacy, 65(16), 1539-1544. DOI: 10.2146/ajhp070625

COAlition S. (n.d.). Transformative agreements will result in different levels of open access depending on country or institution. Will this change at the point when the agreements end? cOAlition S. Retrieved on 19 July 2025 from https://www.coalition-s.org/faq/transformative-agreements-will-result-in-different-levels-of-open-access-depending-on-country-or-institution-will-this-change-at-the-point-when-the-agreements-end/

Consortium for Higher Education Electronics. (n.d.). E-ShodhSindhu. Retrieved on 9 January 2025 from https://ess.inflibnet.ac.in/eresources.php

Council of Scientific and Industrial Research. (2011a). CSIR Open Access Policy [PDF]. Retrieved on 19 July 2025 from https://www.csir.res.in/Notification/csir-open-access-policy (policy issued by CSIR headquarters)

Council of Scientific and Industrial Research. (2011b). CSIR Open Access Policy [PDF]. Retrieved on 19 July 2025 from https://www.csir.res.in/sites/default/files/2023-10/PolicyDoc29_115.pdf

DEAL Consortium. (n.d.). DEAL Consortium and Springer Nature renew successful open access agreement for Germany. Springer Nature Group. Retrieved on 19 July 2025 from https://group.springernature.com/gp/group/media/press-releases/deal-and-springer-nature-renew-open-access-agreement/26478044

DEAL Konsortium. (n.d.). Background and objectives. In About DEAL. Retrieved on 19 July 2025 from https://www.dealkonsortium.de/en/about-deal/rationale-and-objectives/

Department of Atomic Energy. (n.d.). Department of Atomic Energy inaugurates 'One DAE One Subscription.' Press Information Bureau. Retrieved on 19 July 2025 from https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=2038366

Department of Biotechnology and Department of Science and Technology. (2014). Policy on open access to DBT and DST funded research [PDF]. Ministry of Science and Technology, Government of India. Retrieved on 19 July 2025 from https://dst.gov.in/news/dbt-dst-open-access-policy (dst.gov.in)

Department of Biotechnology and Department of Science and Technology. (2014,). Policy on open access to DBT and DST funded research. India Environment Portal. 19 July 2025, from http://www.indiaenvironmentportal.org.in/content/404007/dbt-and-dst-open-access-policy-policy-on-open-access-to-dbt-and-dst-funded-research/

Department of Science and Technology. (2020). Science, Technology, and Innovation Policy (STIP): Draft version 1.4 [PDF]. Ministry of Science and Technology, Government of India. Retrieved on 19 July 2025 from https://dst.gov.in/sites/default/files/STIP_Doc_1.4_Dec2020.pdf

Directory of Open Access Journals. (n.d.). DOAJ: Community Curated List of Open Access Journals. Retrieved on 19 July 2025 from https://doaj.org/

Else, H. (2018). Radical open-access plan could spell end to journal subscriptions. Nature, 561(7721), 17-18. DOI: 10.1038/d41586-018-06178-7

Elsevier. (n.d.). Response on DBTDST Open Access Policy [PDF]. Retrieved on 19 July 2025 from https://assets.ctfassets.net/o78em1y1w4i4/4ZkszI6mKUiTPVNtt3zoEe/40f5f8212ed155ea9ce18c26b46a2cda/Elsevier_Response-on-DBT-DST-OPEN-ACCESS-POLICY.pdf

ESAC Initiative. (2020). How transformative agreements are enabling the open access transition. ESAC Initiative. Retrieved on 19 July 2025 from https://esacinitiative.org/transformativeagreementsenableoatransition/

Fuchs, C., and Sandoval, M. (2013). The diamond model of open access publishing: Why policy makers, scholars, universities, libraries, labour unions and the publishing world need to take non-commercial, non-profit open access serious. TripleC: Communication, Capitalism and Critique, 11(2), 428-443. DOI: 10.31269/triplec.v11i2.502

Husain, S., and Nazim, M. (2013). Analysis of open access scholarly journals in media and communication. DESIDOC Journal of Library and Information Technology, 33(5). DOI: 10.14429/djlit.33.5106

Inflibnet Centre. (n.d.). Shodhganga: A Reservoir of Indian Theses. Retrieved on 19 July 2025 from https://inflibnet.ac.in/docs/shodhganga.pdf

JISC. (n.d.). Our role in open access. Retrieved on 19 July 2025 from https://beta.jisc.ac.uk/our-role-in-open-access

Johnson, R., Watkinson, A., and Mabe, M. (2018). The STM Report. An Overview of Scientific and Scholarly Publishing. 5th edition. Retrieved from https://bluesyemre.wordpress.com/wp-content/uploads/2018/10/the-stm-report-2018.pdf

JRD Tata Memorial Library, Indian Institute of Science. (n.d.). Read and Publish Agreements. Retrieved on 19 June 2025 from https://library.iisc.ac.in/read-and-publish

Laakso, M., Welling, P., Bukvova, H., Nyman, L., Björk, B. C., and Hedlund, T. (2011). The development of open access journal publishing from 1993 to 2009. PLoS ONE, 6(6), e20961. DOI: 10.1371/journal.pone.0020961

Ministry of Education. (2025). One Nation One Subscription: Empowering India's research ecosystem [Press release]. Press Information Bureau, Government of India. Retrieved on 19 July 2025 from http://www.pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=2089179

Mohammad, A. (2022). Transformative agreements are paving the way for OA transition. Straive. Retrieved on 19 July 2025 from https://www.straive.com/blogs/transformative-agreements-are-paving-the-way-for-oa-transition/

Morrison, H., Salhab, J., Calvé-Genest, A., and Horava, T. (2015). Open Access Article Processing Charges: DOAJ Survey May 2014. Publications, 3(1), 1-16. DOI: 10.3390/publications3010001

Mukherjee, B. (2014). Green and gold open access in India. Learned Publishing, 27(1), 21-32. DOI: 10.1087/20140104

National Science Board. (2020). The State of U.S. Science and Engineering 2020 (NSB20201). National Center for Science and Engineering Statistics, National Science Foundation. January 04, 2025, from https://ncses.nsf.gov/pubs/nsb20201/

Nazim, M., Bhardwaj, R. K., Agrawal, A., and Bano, A. (2023). Open access publishing in India: Trends and policy perspectives. Global Knowledge, Memory and Communication, 72 (4/5), 437-451. DOI: 10.1108/GKMC-09-2021-0158.

Nimodia, A. (2024). Streamlining access: India's One Nation, One Subscription initiative. Indian School of Public Policy. Retrieved on 19 July 2025 from https://www.ispp.org.in/streamlining-access-indias-one-nation-one-subscription-initiative/

Office of the Principal Scientific Adviser to the Government of India. (2024). One Nation One Subscription (ONOS): Scheme overview. Retrieved on 19 July 2025 from https://www.psa.gov.in/oneNationOneSubscription (psa.gov.in)

Peterson, A. T., Emmett, A., and Greenberg, M. L. (2013). Open Access and the Author-Pays Problem: Assuring Access for Readers and Authors in the Global Academic Community. Journal of Librarianship and Scholarly Communication, 1(3). DOI: 10.7710/2162-3309.1064.

Piwowar, H., Priem, J., Larivière, V., et al. (2018). The state of OA: A large-scale analysis of the prevalence and impact of Open Access articles. PeerJ, 6, e4375. DOI: 10.7717/peerj.4375

Research4Life. (n.d.). APC waivers and discounts. June 19, 2025, from Research4Life website: https://www.research4life.org/partner-resources/apc-waivers/

Solomon, D. J., and Björk, B. (2012). A study of open access journals using article processing charges. Journal of the American Society for Information Science and Technology, 63(8), 1485-1495. DOI: 10.1002/asi.22673

Solomon, D., and Björk, B. C. (2016). Article processing charges for open access publication: The situation for research intensive universities in the USA and Canada. PeerJ, 4, e2264. DOI: 10.7717/peerj.2264

Springer Nature. (2023). Springer Nature continues to drive global OA transition with new transformative agreements in America, Asia, Europe and Africa [Press release]. Springer Nature. July 19, 2025, from https://group.springernature.com/gp/group/media/press-releases/archive-2023/springer-nature-continues-to-drive-global-oa-transition-new-tas/24054276

Springer Nature. (n.d.). Open access agreement for DAE. Open Science. January 9, 2025, from https://www.springernature.com/gp/open-science/oa-agreements/dae

Springer Nature. (n.d.). Open access agreement for Manipal. January 9, 2025, from https://www.springernature.com/gp/open-science/oa-agreements/manipal

Suber, P. (2012). Open access. MIT Press. DOI: 10.7551/mitpress/9286.001.0001

Tennant, J. P., Waldner, F., Jacques, D. C., Masuzzo, P., Collister, L. B., and Hartgerink, C. H. J. (2016). The academic, economic and societal impacts of Open Access: An evidence-based review. F1000Research, 5, 632. DOI: 10.12688/f1000research.8460.3

The Company of Biologists. (n.d.). Read and Publish agreement with IISER. Retrieved on 9 January 2025 from https://www.biologists.com/library-hub/read-publish/library-consortia/agreement-with-the-iiser-consortium-india/

University of California, Office of Scholarly Communication. (n.d.). Elsevier Transformative Open Access Agreement. January 4, 2025, from https://osc.universityofcalifornia.edu/for-authors/publishing-discounts/elsevier-oa-agreement/

Willems, L. (2024). Transformative agreements are on the rise - we spoke with institutions to find out why. Elsevier Connect. Retrieved on 19 July 2025 from https://www.elsevier.com/connect/transformative-agreements-are-on-the-rise-we-spoke-with-institutions-to-find.

Cite this article: Alam MN, Das AK. Open Access and Article Processing Charges with Special Reference to Indian Institutions: Analyzing Fee Waivers, Discounts, and Transformative Agreements. Journal of Data Science, Informetrics, and Citation Studies. 2025;4(2):174-81.