
Uses and Importance of Open Educational Resources in Light of National Education Policy 2020

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ABSTRACT

National Education Policy, 2020 endeavors to transform the education system in India by the end of the next decade. The five founding pillars of this policy are access, equity, quality, affordability and accountability. Apart from Traditional modes of education, Online Education, Distance Modes of Education and Open Educational Resources could serve the purpose of these pillars. Open Educational Resources are teaching, learning and research resources available in the public domain and can be sourced and used by anybody without any financial or legal restriction. In a populous and diverse country like India, students, scholars and educators come from different backgrounds and geographical regions. Many of them fall under or just above the poverty line. As a result, they cannot use costly teaching-learning materials and tools. Open Educational Resources, especially those available in digital mode, assist in the free surfacing of teaching-learning materials, valuable information and knowledge. This ensures universal access to quality education endorsed by UNESCO in the Sustainable Development Goal related to education. If used ethically and democratically, Open Learning Resources can help to fulfil the vision of NEP, 2020 in the education system of India.



Introduction

Indian Education system is going through lot of changes since independence. The current system's overemphasis on rote memorization for entry and board exams has suppressed critical thinking, creativity, and holistic development and it drew harsh pedagogical criticism. This was made worse by uneven infrastructure and instruction quality, especially in public schools that struggled with teacher shortages, poor professional development, and a lack of basic amenities. Students' flexibility and choice were further restricted by the system's inter connected limitations, which included a lack of transdisciplinary approaches and a clear, early division between academic and vocational streams. These issues had created a system that found it difficult to provide a large and diverse youth population with the knowledge and skills they would need in the twenty-first century, underscoring the pressing need for the extensive reforms outlined in the NEP 2020.

On the other hand, education is acquiring and imparting information, knowledge and skills in a formal or informal setting through a methodically structured process. There are numerous methods, tools and resources for transmitting this knowledge and skills from one generation to the other. In the early history of human civilization, the transfer of knowledge used to be in oral mode. The invention of the script in various ancient civilizations made communication and transmission of knowledge easier. Seals, tablets and later the invention of paper served as useful resources for imparting knowledge. Later, books became the most useful teaching-learning resource for passing on knowledge. It served as the principal learning tool both on the premises of a formal institution and outside. With the advent of modernity, technology was integrated into the field of education especially higher education. It allowed us to use manifold digital learning resources, along with traditional teaching-learning tools, for teaching and learning. eBooks, websites, software, and various teaching-learning applications are a few modern educational resources. Many of these resources are available for free and some are available only after a monetary payment. Many individuals and educational establishments may utilize these resources. However, a large number of people cannot retrieve these materials mostly due to economic barriers. As a result, a gap in knowledge or a digital divide is created which can be somewhat mitigated by providing open educational resources.

Background Study

In India, the National Education Policy (NEP) 2020 has reignited interest in the integration of Open Educational Resources (OER) into national education systems, which has been the focus of extensive scholarly research worldwide. The "COUP" framework—Cost, Outcomes, Usage, and Perception—was



developed by Hilton (2016) in seminal studies, showing that open educational resources (OER) greatly lessen students' financial burdens without sacrificing and frequently improving learning outcomes. Wiley's (n.d.) work on the "5R" permissions (Retain, Reuse, Revise, Remix, Redistribute) offers the theoretical framework for comprehending the pedagogical value of open educational resources (OER), which goes beyond cost-saving to facilitate learner-centric content creation and pedagogical innovation (Bliss & Smith, 2017). OER's importance in fostering inclusiveness, equity, and lifelong learning has also been highlighted by UNESCO (2019).

Within India, scholarly discourse on OER has developed along with government-led digital initiatives. Research was mainly focused on specific platforms, such as the National Repository of Open Educational Resources (NROER) and SWAYAM (Study Webs of Active Learning for Young Aspiring Minds). Studies by Das (2019) and Mishra (2017) has shown how digital archives can democratize access to high-quality resources, especially in STEM fields. Research has also shown that the DIKSHA (Digital Infrastructure for Knowledge Sharing) platform can be useful in delivering training materials at the right moment (Anand, 2020). OER adoption in India is still primarily top-down and project-based. This is because of a lack of systematic integration into curriculum frameworks, a lack of digital literacy, and instructors' low awareness of open licensing. The release of NEP 2020 has prompted a wave of scholarly analysis interpreting its transformative agenda. Tilak (2020) and Kumar (2021) have analyzed the policy's focus on tech strategy, multidisciplinary collaboration, and equity. One important enabler has been identified as the policy's recommendation to establish a "National Educational Technology Forum (NETF)" and to support "open-source" teaching and learning resources. Strong support for Indian languages, basic literacy, and ongoing teacher development under the strategy is thought to be driving up demand for learning materials that are highly contextualized, adaptable, and scalable (Jha, 2022).

Defining Open Educational Resources

Open Educational Resources are any kind of teaching, learning and research resources available in the public domain and can be sourced and used by anybody without any financial or legal restriction. According to Neil Butcher, OER allows someone to access, use, reuse, and adapt the material without seeking permission from the owner. There is a common misconception that open educational resources are all in digital mode. OER can exist in both print and digital modes, with digital resources occupying the majority share of these open resources. An eBook, an article, or a PowerPoint presentation along with printed books may be regarded as open educational resources. For example, Massive Open online courses "offer online courses to students all over the world, in the millions, for free."(MOOC.org). In



underdeveloped and developing countries, the importance of open educational resources is immense. In a populous and diverse country like India, students, scholars and educators come from different backgrounds and geographical regions. Many of them fall under or just above the poverty line. As a result, they cannot use costly teaching-learning materials and tools. Open Educational Resources, especially those available in digital mode, assist in the free surfacing of teaching-learning materials, valuable information and knowledge. Again in remote and inaccessible regions, the OERs provided through radio or TV channels or via the Internet would make the teaching-learning process smooth. “In addition, OER cherish the culture of participation, collaboration and sharing in learning and creating of knowledge”. (Kurelovic, 2016)

Advantages of Open Educational Resources

Educational resources, free and open to all, have various advantages. Some of them are listed below:

- **Accessibility of Learning Resources:** Educational resources around the world can be easily accessed by learners, educators and researchers. The purpose of open educational resources is to make educational resources available to people for free. Anybody can access and use these materials for educational purposes. Free materials available in digital mode break the barrier of economic and geographical restrictions. Massive Open Online Courses, Open Yale Courses, and SWAYAM in India provide free educational courses, content pdf, eBooks etc.
- **Equity in Education:** The surfacing of free educational resources makes it possible for learners and researchers belonging to unprivileged groups to avail of quality education for themselves. This process ensures universal access to quality education endorsed by UNESCO in the Sustainable Development Goal related to education. It would help them achieve their goals in advancing their community and the nation as well.
- **Personalized Learning:** Open educational resources allow learners to learn at their own pace and time. It loosens the rules and regulations of a formal institution. An individual can learn any course or skill from anywhere in the world without even being physically present there. Massive Open Online Platforms would help fulfil this goal.
- **Customized Learning Material:** One of the advantages of open educational resources is that they allow the users to adapt or readjust the materials according to their needs. This helps them in building a more customized teaching-learning material suitable for a particular or small group of learners. The learners and educators can utilise the resources most sustainably.



- **Inclusivity:** OERs help include socially and economically disadvantaged and marginalized groups in the field of education effectively.
- **Reduction of Digital Divide:** Free and open access to educational resources will help fill the gap of the digital divide. Knowledge will be available to all.
- **Effective Use of Resources:** Effective use of these educational resources will help sustainably develop human resources.

Massive Open Online Courses is one of the most widely circulated web-based digital courses offered for free to a large segment of the population across the globe. According to data provided by globenewswire.com, 2020 can be regarded as the ‘Year of Mooc’ due to the increased percentage of enrollment (increased by 640%) at the advent of the COVID-19 pandemic. Millions of users enrolled in these free courses to upscale their skills and professional competence. According to a report published by The University of Arizona, the inclusion of free courses offered by various top universities across the globe in MOOC platforms saw an upsurge in enrollment. The enrollment rate in the USA increased by “a factor of 4.2 in the United States” whereas in India the rate was much higher, “recording a factor of 27.8”(globenewswire.com)

Use of Open Educational Resources in India

In 2008, The Ministry of Human Resource Development initiated the National Mission on Education Through ICT to provide an opportunity for educators and experts “to pool their collective wisdom for the benefit of every Indian learner and, thereby, reducing the digital divide.” Issues like access, equality, quality, connectivity, digital literacy, creation and circulation of content through various digital platforms were included in this policy. The main objective behind all these initiatives is sourcing, gathering and providing knowledge to the learners. The development of various government portals, websites, DTH channels, educational satellites, and SWAYAM MOOCs ensures the circulation of free and quality content to learners, researchers and educators belonging to various levels of our education system.

Major Open Educational Resource Platforms in India

Platform	Year of Initiation	Objectives
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NPTEL (National Programme on Technology Enhanced Learning)	2003, developed under MHRD (now Ministry of Education) in collaboration with 7 IITs and the Indian Institute of Science, Bangalore)	Provide quality education through web and video courses in various branches of Science and Technology
SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) portal	2017, developed under the Ministry of Education	Online MOOC Courses Access, equity and quality in Education Provide video lectures, study materials, tests for self-assessment and online discussion
e-PG Pathshala	2015, developed under MHRD	Provide quality study material to students of various disciplines
Shodhganga	2014, developed by INFLIBNET for research scholars in India	Serves as a reservoir of PhD theses Open access
VIDWAN	1999, developed by INFLIBNET through NMEICT	Database containing profiles of scientists, researchers, education and those involved in academia
NDL (National Digital Library of India)	2016, developed by MHRD through NMEICT	A virtual repository of learning resources
GYAN VANI (radio channel)	2000, developed by IGNOU	Broadcast educational programmes for free
SWAYAM PRABHA (DTH educational Channel)	2017, developed under MHRD	Telecast free and quality educational resources



Source: vjim.edu.in, swayam.gov.in

SWAYAM (Study Webs of Active Learning for Young Aspiring Minds):

It is the largest MOOC platform in India. It offers courses from top universities to the populace of India. After the completion of these courses' examinations are held and certificates are provided to the learners. Students, researchers, educators or anybody across different fields can enroll themselves in these courses to upgrade their knowledge and professional skill sets which in turn may bring them opportunities for better academic or professional profile and employment.

Total No of Courses Offered in SWAYAM	11770 +
Total Enrollment	4.2 crore +
Total Certificates	25.3 lakh +
Exam Registration	8.1 lakh +

NEP, 2020 and Its Vision

The framing of National Educational Policy,2020 went through several extensive research and review processes to ensure the smooth run of our education system and human resource development. This policy endeavors to transform the education system in India by the end of the next decade. The primary objective of this policy is to transform India into “an equitable and vibrant knowledge society, by providing high-quality education to all...” Apart from traditional modes of education, Online Education, Distance Modes of Education and Open Educational Resources could serve this purpose. The policy also aims to achieve a holistic and multidisciplinary system of education. Open Educational Resources in digital form can be provided through Open, Distance and Online Education systems. Policies of inclusivity, accessibility, equality, and equity will be upheld by the wide circulation and use of open educational resources provided by digital and offline platforms. This will safeguard the interests of the various stakeholders engaged in these fields.

To make the process of imparting and acquiring education even and democratic, the use of OERs plays an important role. The idea and field of Open Educational Resources are growing rapidly. Even though the open educational materials themselves are free or low in cost, the infrastructure and elaborate



processes to circulate them are high. Therefore, to make OERs available at Institutional and individual levels, several initiatives are to be implemented.

- **Infrastructure:** To this day, many institutions have no or very little infrastructure for instruction using OERs in digital mode. Computers, hardware, certain software, and educational laboratories are rather costly. Learners and educators from remote areas cannot access digital resources easily. So, there is always a chance of inequality in learning opportunities and education.

Again, learners belonging to financially weak backgrounds do not have proper equipment or resources to access OERs. These facts should be pondered over and actions should be taken to resolve the issues.

- **Maintenance Cost:** the cost of maintaining the infrastructure and keeping it updated is very high. For this purpose, the education field allocation must be done effectively.
- **Lack of Digital Literacy:** Wide Digital literacy is still a thing of the future. Numerous policies and regulations have been introduced for employing digital literacy among learners across the country. The integration of ICT in school education has been mandated in the National Policy for ICT 2012. Instructors should also be trained properly in this regard.
- **Maintain Quality:** Not all educational resources that are available for free are of supreme quality. Most materials available for free have a chance of quality loss. So it is necessary to do quality checking and evaluation of these resources once in a while.
- **Pedagogy:** It is a matter of interrogation as to the pedagogical approach in teaching and instructing learners by using open educational resources.
- **Language Issue:** The majority of teaching-learning materials are produced and circulated in English. This posits an issue for learners who do not know English very well. For resolving the issue of language barrier OERs should be produced and made available in vernacular languages as well.
- **Copyright Issue:** Most OERs are free of cost and can be accessed and used by anybody. However, the rule of open licensing is unclear to all as many resources still come under certain copyright laws. In that case, materials can be accessed and used without permission but they cannot be altered without prior permission. For Example, MOOCs can be categorized into two groups _ Connectivist MOOCs and Extended MOOCs. Connectivist MOOCs allow users to



adapt, reuse and remix the content via open licensing whereas Extended MOOCs do not allow users such liberty except having access to the content as they hold the policy of locked licensing. (globenewswire.com)

- **Ethics in Providing OERs:** Governing bodies and various educational institutions have to ensure the distribution of open educational resources among learners in an ethical way. No learner should be discriminated against in any way based on the factors of race, caste, religion, gender, language, social status, economic status etc..

Conclusion:

‘Right to Education’(Article 21-A, 2002) is one of the Fundamental Rights of the citizens of India. It ensures equality and equity in education for every single citizen. National Education Policy envisions upholding this right by providing quality education to all. The uses and importance of Open Educational Resources in this regard are immense. These resources can provide knowledge and education to people in a democratic way. If used ethically and democratically, Open Learning Resources can help fulfil the vision of NEP, 2020 in the education system of India.

References

<https://www.globenewswire.com/en/news-release/2022/08/22/2501997/28124/en/Global-Massive-Open-Online-Courses-Market-Report-2022-to-2027-Featuring-Coursera-edX-XuetangX-and-FutureLearn>

[Butcher, N. \(2011\). Basic Guide to Open Educational Resources\(OER\).](#)

<https://unesdoc.unesco.org/ark:/48223/pf0000215804>

[Kurelovic, E. K. \(2016\). International Journal of Research in Education and Science, 2\(1\), 137.](#)

<https://files.eric.ed.gov/fulltext/EJ1105180.pdf> <https://files.eric.ed.gov/fulltext/EJ1105180.pdf>

[National Education Policy 2020. \(n.d.\). Ministry of Education. Retrieved March 30, 2024, from](#)

https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

[NATIONAL MISSION ON EDUCATION THROUGH INFORMATION AND COMMUNICATION](#)

[TECHNOLOGY MISSION DOCUMENT. \(n.d.\). NMEICT. Retrieved March 30, 2024, from](#)

<https://nmeict.ac.in/wp-content/uploads/2020/04/documents/Mission%20Document/Missiondocument.pdf>

[Swayam Central. \(n.d.\). Swayam Central. Retrieved March 30, 2024, from](#)

https://swayam.gov.in/nc_details/NPTEL



Welcome to Vignana Jyothi Institute of Management:.. (n.d.). VJIM. Retrieved March 30, 2024, from <https://vjim.edu.in/lrc/oer.html>

*Bliss, T. J., & Smith, M. (2017). A brief history of open educational resources. In *Open: The Philosophy and Practices that are Revolutionizing Education and Science* (pp. 9-27). Ubiquity Press.*

*Cox, G., & Trotter, H. (2017). An OER framework, heuristic and lens: Tools for understanding lecturers' adoption of OER. *Open Praxis*, 9(2), 151-171.*

*Hilton III, J., Wiley, D., Stein, J., & Johnson, A. (2010). The four R's of openness and ALMS analysis: Frameworks for open educational resources. *Open Learning*, 25(1), 37-44.*

*Kumar, K. (2021). National Education Policy 2020: A critical analysis. *Economic & Political Weekly*, 56(4), 13-16.*

*Tilak, J. B. G. (2020). National Education Policy 2020: A critical analysis. *Social Change*, 50(4), 591-610.*

UNESCO. (2019). Recommendation on Open Educational Resources (OER). UNESCO.

Wiley, D. (n.d.). Defining the "Open" in Open Content and Open Educational Resources.