

## CHAPTER 5

### **Open Educational Resources (OER): *Enhancing Open Learning Provision in Bangladesh***

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#### **Abstract**

All people, regardless of gender, religion, race, or socioeconomic status, have a basic human right to get an education. Easy access to qualitative educational resources is increasingly essential for students to participate in the global information superhighway. Quality educational resources are only accessible to those who already attend higher education institutions through subscription content and those who can afford the purchase. The development of Open Educational Resources (OER) was initially inspired by the open or distance education and open knowledge movement, which have become indispensable tools for disseminating high-quality educational materials to a large audience. Open Educational Resources are materials for instruction, study, and research in any format (mostly digital), that are in the public domain or made accessible under an open license that allows anyone to use, modify, share, and redistribute the contents for educational and research purposes. The idea of open educational resources (OER) is based on the core tenet that everyone should be able to use, adapt, enhance, and disseminate educational materials for non-commercial purposes. Over the past several years, the notion of free and open sharing of educational content has been increasingly used to support pedagogical initiatives and learning needs. This ongoing movement toward more openness in education has inspired more individuals and institutions to share digital content via the Internet without any technical, legal, or financial barriers. However, one of the significant challenges of using OERs is producing and maintaining the quality of the resources. This chapter covered the fundamentals of open educational resources (OERs), obstacles, and the ways in which student communities may benefit from OERs. It also covered open education in Bangladesh, OER-

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specific repositories, and policy implications for closing the knowledge gap and achieving equitable education in Bangladesh.

**Keywords** *Open Educational Resources (OER), Open Learning Provision in Bangladesh, Bridging Digital Gaps.*

## **The concept of Open Educational Resources (OER)**

Open Educational Resources is also referred to as OER, an ongoing movement toward more openness in educational resources. The term OER first appeared in July 2002 at a UNESCO-organized event in Paris called Open Courseware for Higher Education in Developing Countries (Butcher, 2011). This forum defines OER as the free and unrestricted distribution of educational materials for non-commercial community use and consultation that is made possible by information and communication technologies (UNESCO, 2002). Since then, the OER initiative has increased in many countries and is widely adopted in universities and colleges (McBride & Abramovich, 2022). It encourages them to open up their knowledge repositories to provide mass access to those who could not afford to buy/access quality education resources (Griffiths et al., 2022). Although MIT OpenCourseWare (launched in 2001) is considered the pioneer of the Open Education Resources initiative, it makes all its course materials freely available to anyone (Cheung et al., 2013).

OER has emerged as one of the most innovative educational initiatives that have great potential to counter the inequalities (Ramoutar, 2021) in accessing high-quality teaching, learning, and instructional content. Any educational resources made publicly available in the public domain and distributed under an open license without any access barriers, and usually delivered by electronic means via the Internet are collectively referred to as open educational resources (OERs). These are openly licensed educational materials with no traditional copyright restrictions from the content creator (Sandanayake, 2019). Users can freely access, download, modify, reuse, and redistribute those resources for non-business uses (UNESCO & Commonwealth of Learning, 2011).

The William and Flora Hewlett Foundation (2015) provided the most precise and acceptable definition of OERs: educational materials that are either in the public domain or have been made available under an intellectual property license that allows others to use and repurpose them for free. OERs are created and shared by the communities working together to broaden access to information through open and free content (Thomas, 2017). Books, articles, podcasts, lectures, online courses, instructional materials, streaming videos, multimedia apps, interactive simulations, software, assessment tools, and more are a few examples of open educational resources.

Open Educational Resources are gaining interest for their potential to remove learning barriers related to demographics, economics, and geography, while also supporting lifelong and personalized education. The fast advance of OER presents different educational prospects but also challenges traditional higher education practices (Yuan et al, 2008). There are three strategies to broaden OER's reach and impact (Cape Town Open Education Declaration, 2007):

**Engage Educators and Learners:** Encourage active participation from instructors and apprentices in the open education movement and support the creation and use of open resources as an essential part of education.

**Free Sharing of Resources:** Share OER freely under open licenses that allow use, revision, translation, enhancement, and redistribution. Ensure resources are published in user-friendly formats compatible with various platforms.

**Prioritize Open Education:** Educational institutions, including their administrations, should prioritize open education by converting publicly funded resources into OER whenever possible. Accreditation and adoption processes should favor OER.

## Characteristics of OERs

Access to information and knowledge resources is becoming essential for participating in the global information superhighway. The pedagogical ambitions and learning requirements of researchers, instructors, and students can be greatly enhanced by the usage of open educational resources (OER). Higher education institutions throughout the globe have begun to view OERs as a vital instrument for assisting with teaching and learning. OER is user-generated content (Cheung et al., 2013) and only reflects those resources that attract no cost, subscription fees, registrations, etc. The following four characteristics are considered very important in the case of Open Education Resources.

**Openly licensed (typically through Creative Commons):** An open license is a set of conditions that let you retain ownership of your creative works while allowing others to access, reuse, repurpose, adapt, and redistribute them without requesting prior permission from the content creator. Though open educational resources have been created to be freely accessible from anywhere (Griffiths et al., 2022a), most OERs have a Creative Commons attribution license (Thomas, 2017). Assigning a Creative Commons license to OER provides the legal infrastructure that allows OER to be shared freely in the public domain. The open license gives more freedom to work with open educational resources than the copyright law usually allows.

**Freely accessible:** Any online educational resources freely available and openly licensed for public consumption are categorized as open educational resources. OER is cost-free and can be accessed without paywall subscriptions or temporary access codes (The Commonwealth of Learning, 2017).

**Modifiable:** Open educational resources are often released under a Creative Commons or GNU public license. With the use of this license, anybody can provide the public permission to use their creative work in accordance with copyright laws, regardless of size from individual creators to major organizations (Creative Commons, 2022). End-users can modify and remix existing OERs to meet their needs without constraint.

**Digital Access:** Digital access is a fundamental characteristic of Open Educational Resources (OERs) (Griffiths et al., 2022a). OER covers a wide range of online formats including, full courses, course materials, modules, textbooks, streaming videos, etc., which ensures resources are available to a diverse global audience regardless of technological barriers. The digital aspect of OERs significantly broadens their reach and inclusivity, enabling individuals from underserved or underrepresented communities to access high-quality educational materials. This global reach is critical for promoting educational equity.

## Types of Open Educational Resources (OER)

OER became more well-known in 2002, and there has been a surge of open educational resources. These resources are increasingly being promoted by enthusiasts and faculty members, especially from developed countries, to overcome the educational crisis and support universal access to information and knowledge. Cheung et al. (2013) have categorized online resources into four primary categories, despite the fact that OERs encompass a vast array of materials:

**Open textbooks:** Open textbooks are a specific category within the broader range of OERs funded, published, and licensed to be freely available in the public domain. In the case of Open Textbook publications, the copyright holder has waived the copyright, published under an open license, or the copyright has already expired (Pitt et al., 2020). Primarily, these books are distributed in e-book format and can be downloaded or purchased without any cost. Some representative examples of open textbook publishers are Open Textbook Library (<https://open.umn.edu/opentextbooks>), Project Gutenberg (<https://www.gutenberg.org/>), Directory of Open Access Books (<https://www.doabooks.org/>), OpenStax (<https://openstax.org>), BC Campus OpenRd Textbook (<https://open.bccampus.ca>), etc.

**OpenCourseWare (OCW):** OpenCourseWare is an innovative and revolutionary educational concept. It is a part of the Open Educational Consortium that aims to fulfill people's desire to learn and offers an alternative to the traditional classroom. It allows students and independent learners worldwide to access complete courses to online lectures and course modules provided by the world's most renowned universities and colleges as free and open digital publications, primarily organized as courses (Tovar Caro et al., 2012). These frequently consist of course preparation resources, complete syllabi, lecture slides, video lectures, course evaluation tools, etc. The most anticipated benefit

of OCW is it serves as a life-altering educational resource for those without access to higher education and lets students learn at their own pace. Examples: MIT OpenCourseWare (<https://ocw.mit.edu>), Middle East Technical University OpenCourseWare (<https://ocw.metu.edu.tr>), Open Learning Initiative - Carnegie Mellon University (<https://oli.cmu.edu>), University of California OpenCourseWare (<https://open.uci.edu>), etc.

**Open Online Course:** Open Online Courses are accessible to everyone over the Internet and offer free interactive learning opportunities. It is a free web-based distance learning model for delivering learning content online to many geographically dispersed students who want to learn a particular course. Open Online Courses, as opposed to OpenCourseWare, permit communication between the teachers and learners. The learning contents of Open Online Courses are created in a course format (with video lectures and integrated tests) by an educational institution or other organizations that can be accessed without any cost (Mallinson & Krull, 2015). Examples: Khan Academy (<https://www.khanacademy.org/>), EdX (<https://www.edx.org/>), Saylor Academy (<https://www.saylor.org/>), University of the People (<https://www.uopeople.edu/>), etc.

**Free Open Source Learning Management System (LMS):** E-learning platforms require a reliable learning management system for instructors to create and organize educational coursework (Karunanayaka & Naidu, 2019). Open Source Learning Management Systems are web-based software applications that provide a learning platform to create, manage, and carry out educational and training programs. Most of the LMS is free, although they also offer an upgraded subscription plan to make the most of its features. The source code remains accessible so that the institutions can adjust the applications to their test for an improved user experience. These programs are always up-to-date because any developer can contribute to the source code. Examples: Moodle Open Source Learning Platform (<https://moodle.org/>), ATutor Learning Management System (<https://atutor.github.io/>), Forma Learning Management System (<https://www.formalms.org/>), Odoo Learning Management System ([https://www.odoo.com / app/elearning](https://www.odoo.com/app/elearning)), Open edX (<https://openedx.org/>), etc.

## OER Provision in Bangladesh

The concept of OER has been recognized globally for over two decades, yet its implementation in Bangladesh remains nascent. The Bangladesh Open University (BOU), the Commonwealth of Learning (CoL), government's few projects, and several private universities have taken pivotal steps to promote and familiarize OER within the country. Limited access to educational resources and poor infrastructure prevent many students from pursuing postsecondary education. Recently, private universities in Bangladesh have increasingly relied on digital learning, which is often costly for students. Implementing OER in these institutions could facilitate

easier and more cost-effective access to education for both teachers and students (Aker & Mahbub, 2020).

The Bangladesh Open University (BOU), with support from the Commonwealth Educational Media Centre for Asia, has established BOU-OER, an open platform for accessing educational resources licensed for reuse, revision, remixing, retention, and redistribution. Through the innovative, collaborative, and interactive creation of a learning environment using high-quality open educational materials, this program seeks to promote inclusive and equitable education. BOU offers both in-person and online learning through the use of self-study tools, lecture notes, audio/video lectures, assignments, and course materials. With the use of information and communication technology, this OER resource improves learning environments (Bangladesh Open University, n.d.). BOU offers Open Educational Resources (OER), allowing students to access learning materials anytime, use technology to enhance understanding, and obtain admission forms and other information online (Billah, 2013). In 2014, Bangladesh Open University (BOU) implemented an OER policy, making some of its educational materials available under Creative Commons licenses through its eBooks Portal (Rahman & Panigrahi, 2017). The Commonwealth of Learning (COL) enhances Bangladesh's progress towards Sustainable Development Goals, especially SDG4, through initiatives in higher education, gender equality, skills for work, and technology-enabled learning. COL's programs, supported by the Commonwealth Educational Media Centre for Asia (CEMCA), include renewing Bangladesh Open University's five-year license in the CEMBA/CEMPA Programme, developing OER policies at 20 universities, issuing 9,246 certificates under the Skills Online programme, and training 5,000 women and girls. Additionally, Bangladeshi learners benefit from COL's free online courses and resources (Commonwealth of Learning, 2023).

In promoting OER in Bangladesh, several key organizations play vital roles:

**Bangladesh Research and Education Network (BdREN):** BdREN, a high-performance data communications network supported by the World Bank, is connecting academic and research institutions in Bangladesh. BdREN facilitates the efficient use of OER across the nation by enabling educational institutions to make advantage of digital resources and high-speed internet (BdREN, n.d.). This platform could be an ideal foundation for executing OER in higher education (Aker & Mahbub, 2020).

**UGC Digital Library (UDL):** UDL is managed by the University Grants Commission (UGC) of Bangladesh and is primarily financed by the World Bank's Higher Education Quality Enhancement Project (HEQEP). By providing users with access to a wide range of digital academic resources, UDL makes it easier for higher education institutions to integrate and distribute OER (University Grants Commission of Bangladesh, n.d.).

**Library Consortium of Bangladesh (LiCoB):** One of the main initiatives of the Bangladesh Academy of Sciences (BAS) to promote top-notch research and instruction in Bangladesh is the Library Consortium of Bangladesh (LiCoB). LiCoB enhances collaboration among libraries by promoting resource sharing and the use of OER to enable access to instructional content (Bangladesh Academy of Sciences, n.d.).

**Aspire to Innovate (a2i):** The Government of Bangladesh created a2i, a key driver for global digital transformation, with technical assistance from UNDP. Established in 2008 within the Prime Minister’s Office, a2i is central to the government’s acclaimed Digital Bangladesh 2021 initiative, now driving progress towards the SDGs by 2030 and the government’s smart Bangladesh 2041 agenda. With the goal of enhancing educational possibilities and promoting lifelong learning, this program promotes the usage of OER. It emphasizes digital literacy and inclusivity (A2i, n.d.).

**Shikhhok Batayon (Teachers’ window):** The a2i platform ‘*Shikhhok Batayon*’, which was recognized with the 2024 United Nations (UN) World Summit on Information Society (WSIS) Award, played a pivotal role in sustaining academic endeavors in a hybrid format throughout the COVID-19 epidemic. Through the use of information technology, it currently offers rural institutions high-quality instructional resources (Bangladesh Sangbad Sangstha, n.d.). Educators may improve their education and resource availability by using the OER library offered by this online resource.

**Muktopaath (Open education):** Muktopaath is a leading online learning platform in Bangladesh that provides a variety of courses and educational resources. It promotes the use of OER to ensure flexible and accessible learning opportunities for all (*Muktopaath*, n.d.).

## **Bridging Education Gaps through OERs in Bangladesh**

The phrase “knowledge is power” (Collins & Olson, 2014) is a famous proverb that can be used to change the world. Knowledge is considered a familiarity, awareness, or understanding of someone or something, such as facts, skills, and understanding gained through experience, study, and observation. Knowledge is built up from data, information, and prior knowledge. It is essential for personal growth and development as it lasts a lifetime and assists in overcoming any weaknesses, flaws, and potentially harmful life situations. The importance of knowledge goes far beyond textbooks and classroom learning because, with knowledge, one can understand the world around us and how and why things work in the world.

The knowledge divide, commonly called the digital divide, identifies the gap between different individuals and social groups regarding the disparities in finding, managing, and accessing information, knowledge, quality education, and

opportunities to use modern technologies. This discrepancy is rooted in various factors, including proficiency with digital technologies and access to the Internet. This disparity is a significant problem today because it limits individuals' and communities' ability to participate in the digital age and benefit from the vast amount of data and services available on the Internet (University of Waterloo, 2017). Bridging this divide is not just about equity; it's about ensuring everyone has equal access to opportunities, education, and knowledge.

Availability of information and access to quality education are strong drivers of progress on both a personal and societal level. It has become evident that access to knowledge and education is not evenly distributed globally (Danler & Pfaff, 2021), and significant differences in academic achievement and opportunity persist. It is crucial to acknowledge these differences and comprehend the factors that contribute to them. They can help to create an inclusive and equitable academic environment for all, regardless of socioeconomic status, gender, level of income, or other factors that lead to disparities in educational outcomes. Creating an equitable and inclusive educational environment for all can ensure everyone can succeed and reach their full potential if they all get the opportunities they deserve. When Individuals are denied equal access to knowledge, information, and modern technologies due to their socioeconomic status, race, gender, or other factors, issues such as income equality, quality of life, and social mobility remain elusive. By eliminating these inequalities, we can create a more inclusive society where everyone can develop their potential, contribute to community and social development, and participate fully in the opportunities and challenges of the 21st century. It is a collaborative responsibility to ensure that the gateway to knowledge should be open to all, regardless of their circumstances. This collective responsibility requires the concerted efforts of governments, policy makers, educational institutions, technology providers, and communities worldwide to create an environment where social, economic, or geographical constraints do not hinder the pursuit of knowledge. Access to information is a fundamental right of every human and acts as a key pillar in building inclusive knowledge societies (UNESCO, n.d.).

Knowledge equity and openness in education are interrelated principles that seek to democratize learning opportunities and ensure fair access to educational resources. The goal of equity of knowledge is to break down educational barriers so everyone can access it, regardless of their financial situation, location, or cultural background. This notion acknowledges that everyone should have an equal opportunity to gain knowledge and skills regardless of background (Alam & Mohanty, 2023). In response to the challenges associated with knowledge acquisition and ensuring quality education for all without barriers, openness in education and the emergence of OER have proven promising solutions. These approaches advocate for transparency, collaboration, and the unrestricted sharing

of instructional resources online, thus enabling learners and educators worldwide to access limitless quality educational content without any cost or subscription fees (McGreal, 2017).

Open education is a global movement working to increase collaboration across the international level and broaden access to quality education for teachers, students, and learners worldwide. It works with the open-access principles to provide equitable learning opportunities for all by making educational resources more accessible and affordable. It ultimately comes down to tearing down obstacles to education and striving for unrestricted access for everyone to high-quality instruction and learning materials (Ochieng & Gyasi, 2021). It could be an instrument to bridge knowledge gaps and promote educational equity by providing various access points with no barriers to entry for both official and informal education. Adherents of this theory believe that human knowledge can only be grown through free sharing and collaboration; that's why everyone should access high-quality educational content and resources without any access barriers. Such barriers might include high education expenses, overpriced textbooks, high subscription fees for journal and e-book, outdated course materials, etc. By creating an open education ecosystem in education, it is possible to make the teaching and learning process more accessible to the underprivileged population groups (Griffiths et al., 2022a). It includes instruments, materials, and methods that enhance educational access by utilizing an open-sharing framework. It also contributes to closing the attainment gap, sharing resources and experiences between education and industry, and supporting the supremacy and diversity of teaching and learning envisions. As the open education movement works to make educational resources more affordable and accessible, this concept is associated with the popular idea of OER.

OERs are any teaching, learning, and research materials released under an open license, freely available in the public domain without copyright law restrictions, and accessible to all who want to teach (Griffiths et al., 2022a). Education is the great equalizer, whereas OER supports inclusive and equitable quality education (Grove & Montgomery, 2003). Without equity, we cannot achieve excellence in education and research. To understand the potential of OERs in eliminating the knowledge divide and delivering equitable quality education in Bangladesh, it is essential to concentrate on a few things.

**High Cost of Education:** Learning is a process of gaining knowledge, skills, and understanding to enable a person to contribute better to human civilization. Developing knowledge and skills can involve various methods, such as reading books, attending class lectures, engaging in e-learning, or learning from online tutorials. However, traditional classroom-based teaching and learning remain of utmost importance. Education costs are rising, and tuition hikes at numerous colleges and universities are anticipated to persist. As per a recent CNDC report,

the average student and their parents' combined income and savings cover roughly 50% of college expenses (Epperson, 2023). In the last two decades, the cost of education in Singapore has increased by 75.7%, and this upward trend is expected to grow, aligning with the increased cost of living (Lee, 2023). At the same time, the ever-increasing cost of textbooks has become a significant obstacle to expanding higher education. Because of the relatively high textbook cost, most students skip buying assigned books mentioned in their curricula. The escalating prices of textbooks can compromise students' education by hindering their ability to afford the necessary course materials. The higher cost of textbooks and rising tuition and fees have led to a decline in student enrollment in higher education and diminished learning gained from the classroom. Open Educational Resources (OER) offers a potential solution to the high costs of textbooks and overall educational expenses, providing students with the freedom to innovate with study materials and customization (Abramovich & McBride, 2018). OERs are freely accessible educational materials available to everyone. This accessibility allows users to utilize scholarly resources online or in information centers without any financial barriers. By embracing OER, education becomes inclusive, catering to individuals eager to learn. The potential benefits of OER include enhanced teaching efficiency, improved teaching quality, and the elimination of economic and geographic obstacles to education. It signifies a shift towards universal education, ensuring that learning is not restricted to specific groups and minimizing educational discrimination. OER enables learners to access necessary scholarly resources without financial constraints, fostering education for all. Moreover, OER facilitates diverse information sources, allowing students to continue their education without the financial burden of expensive textbooks. It also encourages students to engage with study materials before classes commence and provides them with relevant, applicable, and exciting topics.

**Geographical barriers to education:** According to the Universal Declaration of Human Rights, everyone, wherever in the world, should have access to education since it is a fundamental human right (UNESCO, 2020). Unfortunately, many encounter significant obstacles in accessing quality education due to where they live (Ndambakuwa & Brand, 2020). Geographical barriers encompass various challenges that impede individuals' access to educational opportunities based on their physical location. These obstacles include distance, remoteness, limited infrastructure, and socio-economic disparities. For instance, individuals residing in rural or isolated areas often face limited access to schools, universities, and educational resources, hindering their educational prospects. Moreover, remote communities distant from urban centers struggle due to the scarcity of educational resources and qualified teachers. These barriers have profound implications, leading to disparities in educational opportunities, perpetuating social and economic inequalities, and stalling overall development efforts.

OERs play a pivotal role in addressing these challenges and offer a pathway to universal education, ensuring accessibility to all individuals regardless of their background or social status. By providing free access to essential scholarly resources, OER mitigates educational discrimination and alleviates financial burdens on learners (Leonard, 2022). This democratization of education fosters inclusivity and empowers learners worldwide to pursue their educational aspirations without hindrance. Therefore, OER not only open the doors to universal education but also serves as a catalyst for equity and inclusivity in the educational landscape.

**OER empowers educators to be more innovative:** OERs have revolutionized teaching and learning practices, empowering educators to unleash their creativity and innovation in the classroom. Unlike traditional teaching methods that often tie educators down with time-consuming tasks like developing learning materials and reviewing lecture notes, OER liberates teachers from these constraints, allowing them to focus more on fostering engaging and interactive learning experiences (Abramovich & McBride, 2018). With the openness and flexibility inherent in OER, educators have access to a wealth of educational materials in the public domain or under open licenses. This abundance of resources enables teachers/educators to customize their curriculum to suit their student's diverse needs and interests, creating dynamic and tailored learning environments. OER encourages cooperation and information exchange among instructors throughout the world, offering chances for professional growth and the sharing of best practices. By leveraging OER, teachers can tap into a treasure trove of global content, localize it without restrictions, and create inclusive learning communities where all students can thrive (The Commonwealth of Learning, 2017). This shift towards OER-based teaching enhances the quality of educational offerings and promotes equity and accessibility in education, ensuring that every learner has the opportunity to succeed.

**Larger Audience and Reputation:** OERs have significantly widened access to educational content globally, promoting the ideals of universal education and breaking down barriers to learning. By providing free access to scholarly resources, OER ensures that education is not restricted to specific demographics, thereby reducing educational discrimination and fostering inclusivity (Miller, 2019). One of the key advantages of OER is its ability to facilitate the sharing of teaching materials beyond the confines of individual classrooms. This enables academics to reach a broader audience and enhances their productivity by tapping into a repository of high-quality, ready-made resources developed by peers in their field. As a result, students benefit from more extensive learning materials spanning their core subjects and related topics. Moreover, the widespread availability of OER-based online learning represents a contemporary approach to education, allowing learners and educators to utilize copyright-free materials for academic purposes (Muthanga et al., 2023).

The sharing of OER has been shown to enhance the reputation of educational institutions and the educators associated with them. Research indicates that institutions that make quality courses and materials openly accessible online can attract new students, bolster their institutional standing, and fulfill their public service mandate (UNESCO & Commonwealth of Learning, 2011). By showcasing teaching achievements and fostering collaboration across university boundaries, OER serves as a platform for highlighting excellence in education on a global scale (Zaid & Alabi, 2021). This visibility not only elevates the reputation of university teachers but also enhances the overall perception of the institution. However, to fully capitalize on the benefits of OER, institutions must strategically integrate OER initiatives into their branding efforts while carefully considering the potential impact on revenue streams generated from the sale of educational materials.

**Global Accessibility:** OERs offer a transformative solution to the barriers of affordability and accessibility that have long hindered equitable access to education. Unlike traditional educational materials, such as textbooks, which often pose significant financial burdens on students, OER is freely available to anyone with an internet connection (Cheung et al., 2013). This accessibility eliminates many learners' financial hurdles, enabling education to reach a broader demographic regardless of socioeconomic background. The global accessibility of OER has the potential to bridge the education gap and reach underserved populations worldwide, both in developed and developing countries. Utilizing information and communication technology, the educational sectors are actively adopting the creation and execution of open access to educational resources, thereby guaranteeing that education is universally accessible without financial hindrances.

OERs act as a driving force in democratizing knowledge, offering learners and educators unrestricted access to many learning materials (Piedra et al., 2015). This encourages possibilities for continuous learning for both individuals and governments, and it increases access to education, especially for students from non-traditional backgrounds. By fostering collaboration and knowledge exchange across borders, OER facilitates the dissemination of high-quality educational content from prestigious universities and academic institutions worldwide (Griffith's et al., 2022b). This exchange enriches teaching practices and empowers learners to engage with diverse perspectives and resources. In bridging the gaps between developing and developed nations, OER is vital in promoting global equity in education, allowing learners to access the world's best educational resources and educators, regardless of geographical or economic constraints.

**Promote a Culture of Collaborative Teaching and Learning:** OERs are very significant for creating a culture of collaborative teaching and learning, in the course of which very effectively prevents the knowledge divide in education

(Petrides et al., 2010). It breaks the geographical and economic boundaries of education by offering free, accessible educational materials to anyone with an internet connection, making quality education available for people in under-resourced areas. OER encourages a collaborative environment in which lesson plans, course materials, and other necessary tools can be shared without subscription or charges, forming a global practice of open sharing. This culture of sharing enhances educational quality because educators refine each other's work through improvement and localization of content to fit diversity in student needs.

OER can be adapted and personalized for contexts relevant to an educator's particular setting, which can be very attractive for students. Teachers and educators can modify or make necessary changes to educational resources to ensure students can easily understand the concepts taught in the classroom. In this way, OER ensures the teaching and learning materials respect the local culture and are contextually relevant to the learners (Kurelovic, 2016). Continually improving OER through feedback and reversion makes the resources current and of good quality, benefiting all users and further contributing to a higher standard of education. Moreover, OER removes the need for textbooks and other learning materials, thus decreasing accessibility and affordability concerns about education, especially for students from low-income families. The other benefit is promoting lifelong learning since it provides learning resources to all, not necessarily those under formal education. OER promotes equity in education and social justice through equal access to quality educational resources, thereby leveling the playing field for students from marginalized or underserved communities.

## **Conclusion**

Open Educational Resources (OER) resonate well with the values stated in Article 26 of the United Nations Universal Declaration of Human Rights (UDHR) and are a transformational force in attaining open learning equity. "Everyone has the right to education," states the Universal Declaration of Human Rights (United Nations, 1948), regardless of background, gender, race, or religion. Irrespective of their background, religion, color, or gender. This universal right obliges states to protect, respect, and fulfill the right to education without any form of discrimination. Quality education for all can help societies pull people out of poverty and slim down inequalities toward more sustainable development. However, there are many parts of the world where quality education eludes people solely because of the high costs associated with obtaining quality education. Therefore, OER becomes an attractive solution to this challenge: universal, inclusive access to information with no barrier to entry for top-quality teaching and learning resources. They remove the cost factor, thus making high-quality educational content accessible to all without fear of exorbitant prices. Through a culture of sharing and collaboration, OER empowers educators and learners to drive innovation and continuous

improvement in education practices. OER is about lifelong learning, inclusion, and democratization. Moving forward, the increasing use of OER will close these educational gaps and guarantee that knowledge becomes the common heritage of humankind. This will lead to a more balanced, informed, and empowered society, hence realizing the promise of education as a basic human right for all.

In Bangladesh, there is a growing recognition of the value of OER, which encompasses easily reachable learning resources at free of cost. The appreciation for OER in Bangladesh extends to comprehensive course modules, learning tools, and management systems, emphasizing their role in education. Key steps to familiarize higher education with OER include literacy campaigns, seminars, and capacity-building programs. Universities are encouraged to establish OER repositories and integrate OER into curricula, supported by a national policy ensuring open access to publicly funded educational materials. However, challenges persist, such as economic barriers to internet access and technology adoption among students. The predominance of English in OER creation poses linguistic challenges, while institutional unfamiliarity and inadequate infrastructure hinder widespread OER adoption. Addressing these challenges requires governmental support for affordable internet access, capacity building, and awareness campaigns among students, educators, and parents.

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