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SWOT Analysis of the Role of Open Educational Resources in Future Education with Special Reference to Open University Library and Librarian

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Abstract:

Recent years have seen an immense increase in the digitization of research libraries and institutions especially of higher educational Institutes as well as higher learning. The reason for the same witnessed are E-Learning allows for more efficient learning at a lower cost, as well as expanded worldwide access to learning and explicit accountability for all participants in the learning process. The usage of Open Educational Resources (OER) in modern Indian higher education is playing an increasingly important role in improving the quality of education in both developed and developing nations. The goal of OER is to make this information freely available, therefore increasing educational possibilities for previously

underserved groups of society and thereby equalizing access. The study addresses the advantages, disadvantages, and prospects of OER in India. Librarians work in a wide range of disciplines. By framing OER they are critics of open educational commons. It also discusses the difficulties that have arisen as a result of the progress of OERs in India, as well as the recommendations that have been made to solve these concerns.

Key words:

OER, Open Education, education reforms, Higher education, Library and OERs, OER's Initiative by the Government of India, OER SWOT analysis Open University.

Introduction:

In today's world, technology has emerged as a convenient medium for both teaching and learning. ICTs have given strong instruments for disseminating information over a broad spectrum. These complexities in education have prompted the creation of a huge number of digital materials that may be obtained from a variety of sources. Take the internet and information repositories, for example. One of the causes of the rising amount of digital material is that professors and students frequently utilize the internet in their classes. The usage of Open Education Resources (OERs) has a significant impact on improving the quality of education in both developed and developing nations. Where in developing nations it may have still impact at higher level The OER movement intends to make this information freely available in order to improve educational possibilities for previously underserved or rather we may say unreached segments of society, resulting in access equality.

Through a variety of national policy measures, the Indian government has played a vital role in accelerating the expansion of the it in the country, Through an OER movement. The Open Educational Resources (OER) community has grown into a worldwide movement that has reduced the cost of higher education considerably making it available to more learners and saving time as well as monetary investments.

Define the following terms:

Open educational resources (OER) are defined as "the open availability of educational materials, sanctioned by information and communication technologies, for discussion, application, and assimilation by a community of users for noncommercial purposes" (John stone, 2005). Open Educational Resources are digital materials given freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research, "according to the most often used definition.

Generally the quality of the educational material decides or plays vital role on the education and knowledge earned by the learners. The utilization of open educational resources has revealed a practical method for delivering high-quality education to people. Open educational resources (OERs) and massive open online courses (MOOCs) are at the forefront of the open education movement and have proven indispensable in educational institutions throughout the

world. "We are on the cusp of a whole new world for education," as Olcott put it. In the year 2002, UNESCO used the acronym OER to describe the promise of open programming for education in developed nations. The core concepts of OER are "the freedom to share information" and the idea that knowledge should be open legally, socially, and technologically.

The relevance of OER is derived from the fact that these materials are viewed as rudimentary to the knowledge of community and wealth, according to Mishra. “The usage of open educational resources (OER) in educational institutions leads to expanded access, improved education, and increased sharing among educators.”

Its main feature is the possibility to use educational resources for free. According to UNESCO (2017), open educational resources (OER) are any type of learning material which is in the public domain or published under an open licensing. Anyone can legally and freely copy, use, adapt, and re-share these open works along with their nature. Open Educational Resources (OER) are digital materials that are openly and freely accessible for use and re-use by learners, students, and self-learners for teaching, learning, and research, as per the OECD (2007). The key point in these perspectives is that OER could be freely accessible and used.

Openness:

When in the whole world where GER is great concerning issue and especially National Education Policy 2020 in India has great emphasis on 50 % GER, obviouslyOpen University as well as Openness in Educational Resources would play quite a vital role but at the same time anticipated social benefit and ethical debate connected to freedom to use, contribute, and share are vitally important to openness in the endemic world.

In education, openness means:

1. Make an open entry
2. Learning may take place anywhere. (flexibility/ openness in place)
3. I can learn at my own speed and in my own place.(openness/ Flexibilities of Place / time)
4. Course selection freedom/flexibility (Openness/ flexibility in selection / choice)

Educational:

OER in education is meant to increase learning, notably a type of learning that encourages the development of both individual and community knowledge and action skills.

Resources:

A resource is defined as a stock or supply of materials or assets that may be called upon or used to perform a certain task.

OER is defined as "initialize material given freely and openly for instructors, students, and self-learners to use for teaching, learning, and research." These types of resources are amassed as a benefit that may be enjoyed without reducing the practicality of doing so. We may also argue that "open" indicates that anybody can contribute to or share the resource. It is crucial to note that OER is still in its early stages, and practices and technology are fast evolving.

As a result, giving the idea a clear definition is impossible.

Format and Types of OER Resources:

As the term implies, open education materials cannot be inflexible or limited to a single style of learning. To live up to its name, OER incorporates a variety of formats and resource kinds. Formats are frequently mistaken for resources. OER comes in a variety of formats, including texts, videos, pictures, animations, and multimedia. When it comes to OER materials, there are OER encyclopedias, open text books, and OER online archives, among others.

Open Educational Resources and Libraries

- **Lifelong learning and OER**

The information manager who deduced open thinking from open gesture will grant among the many learning civilizations those teachers, apprentices, or sponsors who have a strong desire to escort and master the various elements of knowledge available to them.

"Access to education is not the same as access to knowledge, despite the two end ends of a continuum," Lynch says of the similarities between learning and getting an education. When it comes to learning, the library is unlike any other classroom, which raises the issue of how learning takes place. Does learning occur as a result of a demonstration organizing materials to show utilizing a variety of techniques, including the most up-to-date technology.

Lynch adds another issue: how can people learn in an age when there is so much information available? He claims that social contact is a vital element of learning, and that technology plays a significant role in this. He also claims that the problem of analysing data has become a decisive factor. He recalls that modern schooling has been ingrained in our society. With the introduction of OER, we may anticipate the need to instill continuing education, which is referred to as being a lifelong learner, as the one component of the open movement provides. Those assembling open education resources will likely offer to manage and modest teaching communities forming around these resources, just as librarians and become lifelong learners and research scholars will likely form bind or tie the new teaching communities that want to make use of these information assets in their own teaching. More questions arise as a result of

the demand for more learning modules. Learning raises new concerns about the need for certification and degrees to demonstrate learning.

OER's Initiative by the Government of India.

- **Digital library of India for the country (NDLI):**

NMEICT has set up a pilot project to build a framework of a virtual repository of learning resources with a single-window search facility, under the jurisdiction of the Ministry of Human Resource Development (i.e. India's National Digital Library) (MHRD) now know as Ministry of Education. Focused searching is performed instead of typical and filtered searching. This lets users quickly choose the best resource while limiting the amount of effort and time needed. The library has over 6.5 million volumes available on the internet. Many books in English and Indian languages are made available with free access. The goal of the NDL India is to keep the content up to date for all language groups and to help with interfaces for popular Indian languages, as well as to assist with research, discovery, education, and lifelong learning for students. It is good for kids to know strategies and tactics from throughout the globe in advance of important tests and competitions. It is a distinct advantage to help scholars discover connections among multiple study resources. This new invention is now in development at the Indian Institute of Technology, Kharagpur.

- **School books to e-Books:**

There are the books in soft copies to be read and used on tablets and laptops, in digital format (i.e. e-books). The goal is to link publishers and educational institutions together on a single platform. Book publishers, school teachers, students, and other retailers can work together using a web-based application for the framework that's hosted on tablets for navigation. Each year, e-Basta provides more than 5,000 textbooks in e-book format for grades 1-12, with multiple Indian languages available.

- **SwayamPrabha (DTHchannels):**

This instructional programming uses the GSAT-15 satellite for 24-hour, round-the-clock broadcasting. Through 32 DTH (Direct to home) television channels,it will deliver quality educational programmes, produced by specialists, in order to improve consistency in education standards. For at least 4 hours of the day, there will be new information available, which will be replayed 5 more times during the day. As a result, it is simple for students to pick a time that is convenient for them. BISAG. Gandhinagar, India, uplinks the channels. NPTEL, IITs, UGC, CEC, IGNOU, NCERT, and NIOS are providing the contents. The INFLIBNET Center is responsible for the online portal's upkeep. It offers its DTH viewers: The total content of our

- Academic Degree of Bachelors Masters etc. level that are solely curriculum-based, which deal with major academic disciplines such as the fine arts, science, commerce,

performing arts, social sciences, humanities, engineering, technology, law, medicine, and agriculture. All these courses are being offered through SWAYAM, which is the platform for offering MOOCs (Massive Open Online Courses). This Platform is being offered by UGC on this platform variety of courses that are prepared by the Higher Education Teachers are being offered to the learners, Even UGC through its circulars has announced that any student from any higher educational institute can opt for these online courses earning certain credits from the same.

- Primary and secondary education (9 to 12 levels) to ensure effective teacher training, teaching and learning aids for students are well-understood subjects and assist students better prepare for entrance examinations for graduate degree programmes. Curriculum-based courses that fulfill the needs of people from India and throughout the world, regardless of where they live for the rest of their lives. To assist the class of 11th and 12th graders with their preparation for competitive tests.

- **e-PGPathshala:**

It is an e-learning platform maintained by INFLIBNET Centre and funded by MHRD, Government of India. At post-graduate level, it is a stepping stone for all degrees. To give the majority of the universities' Master of Commerce, Master of Arts, and Computer Science courses uniformity, E-PG Pathasala was created. The guidelines laid up under this programme guarantee that all courses offer interactive content of the same quality, offered across all the fields of humanities, social sciences, visual arts, languages, mathematical and natural sciences. It is accessible through a Sakshat portal and the INFLIBNET Center's e-learning system management. The University plan to generate e-content for post-graduate students that is multifaceted, and we hope to provide educational value to the students who use it. The purpose of preparation and production of the e-contents is

- To produce post-graduate-level e-content utilizing college, university, and R & D laboratory subject experts.

- To employ subject experts and professionals in the development of e-content, and plan and supervise their training.

- Third, to further increase the use of electronic content among students and researchers.

- Accessible to SCORM-compliant digital repositories that are maintained by the INFLIBNET Centre.

- **Sodhanga (ETD)**

National Theses Repositories, known as Sodhanga It has been proven to be a successful initiative of the Indian government with the introduction of INFIBNET, which has made all research output of higher learning institutions available on a single platform that offers

complete text of the same. The Shodhganga@INFLIBNET Center offers a central repository for students with doctoral degrees to deposit their dissertations and research works making them freely available to the scholarly community. Shodhganga@INFLIBNET is a project running on DSpace, open source digital repository software developed by MIT with Hewlett-Packard participating (HP). Also, a web-based interface to help people find relevant information is being developed at the Centre.

- **SugamyaPustakalaya:**

SugamyaPustakalaya is an online library where the books may be accessed by blind, visually impaired, or otherwise print-disabled individuals.

- **Nakshe Portal of Survey of India:**

Free downloadable topographic maps, which are known as Open Series Maps (OSM), are now available on the "nakshe" online portal in PDF Format. Use the map for personal studies, research, and project development for all Indians.

What Libraries Are Doing with Open Educational Resources (OERs):

Various libraries and library groups have taken the lead in developing materials for the general public. Harverd's open programme is an example of ingenuity at the institutional level. This is a component of Harvard's museums and libraries.

This is distinct from previous examples of library ingenuity. The library materials themselves are the most important aspect of this opens collection; it is designed more for the user than for the information provider; however librarians may use this depiction as a model for their own future open collections.

A collection of such universities would have all of the best features, primary and valuable resources, and a comprehensive search engine for material development, adjustment, and production. A global, overarching initiative system would be the perfect library OER. It was made into a webpage. It would be created by an organisation comparable to the International Federation of Library Associations (IFLA) or a completely new organisation tasked with establishing this system.

India's OER Challenges:

While the proper use of information technology can help equalize the assignment of high-quality knowledge and education opportunities for learners, instructors, and institutions in India, there are certain barriers to the proliferation of OER that have been listed below.

- **Economic Issues**: Teachers are uninterested in producing open courseware since most of them are already overworked, and supporting the OER movement by developing content at no cost is unappealing to them. Somewhere even the salary the get or

financial satisfaction of lake of ambition are also few of the reason for of the reason for the same.

- **Intellectual property rights (IPR)** are still the most pressing problem in the Indian resource sector. To protect copyright, content is not available under a Creative Common License.
- **Infrastructure:** Learners are harmed by the lack of Internet access. Users can not profit from the internet if it is not available. In India, rural areas are suffering from a lack of electricity, and students in these areas are being deployed by ICT at their feet. To make the OER movement effective, a strong network-enabled delivery infrastructure with a focus on access and delivery is necessary.
- **Lack of Awareness:** Many students in India are unaware of the availability of open educational resources (OER) and the opportunities they bring for educators and students. Until now, librarians have been active in OER-related projects. A kind of orientation is required is required for awareness as well as for the use of OER.
- **Language:** Because most OERs are only available in English, they are only accessible to people who are fluent in the language, and Indian learners are most likely from non-English speaking backgrounds. Thus lake of content in regional languages in such multi-lingual country is an obstacle in India.
- **Financial constraints:** the institute is primarily run on a shoestring budget. Because there are no fees associated with the use of OER, there may be no incentive for institutes to update their OER or guarantee that content remains available online.

Recommendations:

- Friendly systems development is essential for quality word of honour courseware execution.
- Assumption of new and appropriate technology for OER learning.
- Initial efforts toward raising awareness among instructors, researchers, and students.
- An honor system should be implemented to encourage learners to create OER.
- OER inclusion should be encouraged more and more in academic curricula and organisational systems.
- Implementation of Intellectual Property Rights, Licensing, and Copyrights
- Teachers' abilities to use shared materials created by other institutions should be enhanced.
- A framework for software and middleware services creation and discovery of open educational resources (OERs) must be created.
- Appropriate and appropriate e-infrastructure must be developed throughout the country.

OER SWOT analysis:

- **Strengths:**
  - The primary goal of open educational resources (OER) is to generate, share, and curate information. OER allows anybody, wherever in the world, to get access to information.
  - It provides time utility by allowing access to resources at any time.
  - There is no charge for the books.
  - They can access things while traveling without having to lug along heavy books.
  - The creation helps to avoid repetition.
  - The creation helps to save time and money.
  - Its help to have larger benefit to scholars across the globe.
  - It helps to share best practices as well as best knowledge reservoirs.
- **Weakness:**

  The primary flaw is that there is for OER awareness. The needed advantages are not realized due to a lack of knowledge. The third flaw is the difficulties instructors encounter while producing online resources. The validation of the content is equally weakness as well as challenge.
- **Opportunities:**

  The biggest advantage of OER is the wide platform. A good educator may make a name for himself or herself all over the world. A university can avail student's benefit of the knowledge of the scholars from any corner of the world being at the same place. Education can improve as a result of global competitiveness.
- **Threats:**

  The term "free" poses the greatest danger. Because OER is available at any time, it is both strength and a danger. Students get irritable and do not finish assignments on time, posing a threat. It necessitates learners' commitment and consistency. Many a times the regional-social-cultural need of the community is different so complete adoption of OER may not serve the purpose and so adaption of the OER requires set of training to the academic community.

OER's Future:

Gurukuls influenced education in ancient times, and as the system evolved, so did the school and Higher education Who would have guessed that one day such systems would be invented, allowing an inquisitive individual to obtain as much knowledge as he desires through technology while sitting at home? He does not require the assistance of a Guru, such as Dronacharya. Thanks to Open Educational Resources (OER). This enables and satisfies one's desire to learn by allowing them to study and gain knowledge of foreign languages or foreign subjects too. Students had to travel to various libraries for research, but today everything is available on the internet and in institutional repositories. There has been a lot of debate about pollution and how to manage it, but no actual actions have been made. We want paperless education, but how far have we succeeded? The government needs still clear strategy on education, jobs, or qualifications, but if knowledge is freely available, education levels will grow, and we will be able to compete on a global scale. If open education is available, people will be able to obtain more and more information and degrees since content and resources will be readily available, enhancing personality and allowing for more effective and efficient work. In ancient times, without technology, all manuscripts were the only source of information; nevertheless, the printing press revolutionized the world, and materials were available only on a national level; however, OER has expanded knowledge globally.

Many start-ups are focusing specifically on OER, demonstrating that what traditional education cannot do, open education is attracting an increasing number of individuals. What is emerging at a rapid pace is open education combined with Artificial Intelligence. Open education can help bridge the gap between students and teachers by assisting teachers in taking inputs and producing effective outputs, supporting real-time interaction, and providing instant access to relevant information when needed. Students come to class with a variety of skills, interests, and abilities and open education resources are more personalized for each and every learner. And it can enable the creation of software that can act as a virtual adviser who can explain their work and curriculum based on the skills of the learner. The next hot market will be open education of professional courses to improve employability and efficiency. It is certain to develop more as the globe becomes a global community with more resources and opportunities to learn together. Open educational materials are a profitable sector that is being tried and adopted at a quick pace. Given the way the Digital India campaign is being promoted, it would come as no surprise if education becomes entirely digital and online in the next few year.

Some topics I'd like to address about how OER will change in the future:

- Classrooms are being turned over at a faster rate.

- More self-generated material, or project-based learning, is on the horizon, and digital portfolios will be the norm.
- Learners and teachers should collaborate more digitally.
- Learners are producing and using more e-reading and digital material.
- Big data and big analytics are two terms that are often used interchangeably.
- More gadgets are being purchased by institutes. This may cause financial constraints in the short term as more data and feedback loops are generated.
- Digital devices are used for e-learning.
- Peer-to-peer learning through use of technology.
- Better teacher training and even continuing coaching via portable devices are hoped for.
- Knowledge advancement.

Conclusion:

In India, the Open Educational Resources (OER) movement is barely getting begun. The creation of open education materials in numerous fields by specialists from reputable universities would allow teachers to access these materials with a single mouse click, which will aid them in classroom teaching. Furthermore, it will benefit students because they will get the opportunity to hear lectures from internationally renowned professors or scholars Resources for learning that are freely available. Learners from rural or far areas will be able to have access to great metropolitan scholars. These are often web-based and interactive in nature, allowing the learner to interact didactically with the lecturers and thus clear up any doubts quickly. Furthermore, because it requires internet connectivity, it may be accessed from any remote location. The added benefit is that one can register for multiple online courses (depending on availability of course) through these open education resources portals, resulting in additional certificates. When NEP2020 focuses on Academic Bank of Credit, earning of more credit at a time would help learner to gear up for higher rate and faster rate of success. It will be a godsend to educational institutions that do not have adequate library resources. Colleges and universities can connect through NMEICT and NKN and use the capabilities for their students and teachers. The government's effort, support and committed can be seen in the introduction of NMEICT and NKN, as well as the allocation of a significant budget for it. The government needs private sector and corporate initiatives to assist and continue its efforts to make India a center for open educational resources. The greatest issue for the academic community is to develop free educational materials in a variety of vernacular languages for a broad demographical population, as the majority of our students come from various vernacular media. This will also help us to serve prophesy of NEP 2020 where all the India Languages and Literature carrying rich reservoir of our soil will enrich education system The problem is educating various stakeholders about the various open educational resources that are available to them for free. Last but not least, students and teachers must make the best use of it. Because globalization has transformed education and its system, we teachers must collaborate, adapt and adopt, and translate educational resources with the outside world, as it is extremely difficult to generate all types of materials. Overall, the success of the OER movement can be equated to the success of higher education.

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