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**ROLE OF DIGITAL INDIA INITIATIVE IN SUPPORTING E-LEARNING THROUGH THE DIGITAL LIBRARY DURING PANDEMIC COVID-19**

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**Shambhu Raj Upadhyay<sup>1</sup> & Dr. Bhaw Nath Pandey<sup>2</sup>**

<sup>1</sup>Asst. Librarian (CUJ) Research Scholar, Deptt. of Library & Information Science, Mahatma Gandhi Central University, Bihar.

<sup>2</sup>Assistant Professor, Deptt. of Library & Information Science, Mahatma Gandhi Central University, Bihar.

*Corresponding Author - Shambhu Raj Upadhyay*

**Email - shambhu412@gmail.com**

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**Abstract:**

*This paper represents the role of the digital library during the covid-19 pandemic. It expresses how technology has become a boon for the whole society in a time of lockdown and closure of everything. It also describes the role of technology and a digital library in supporting e-learning during the pandemic.*

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**Keywords:** *Pandemic, COVID, E-Learning, Digital Library, Education.*

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**Introduction:**

Education aims to make a man perfect in every walk of life at social, mental, political, and economic levels. Learning is a lifelong process, and knowledge is acquired by teaching, experience, skills, and study. Any turbulence that creates hurdles in the standard learning system has impacted education. In the last month of 2019s, the world witnessed a threat to human life. COVID-19 emerged as a deadly contagious pandemic throughout the world. The impact of the coronavirus is observed in every sector of the globe around the whole world. To counter a fatal virus, the only way known to the health sector expert was to maintain social distancing, and this can be acquired by lockdown only. Lockdown impacted all sectors of human activities, including education deeply, also. Black footprints of

the COID-19 pandemic moved deep on the education system in India and the world. Lockdown compels educational institutions to follow the central and state government's guidelines and shut down the education sector's doors. There was no alternative to arrange another mode because this happens like a seismic wave. This happens so that no educational institution was in a position to react in the form of an alternative route. This resulted in the teaching community and experts thinking of alternative teaching methods during the pandemic lockdown. The only solution sows the use of technology to counter the problem. The revolution of the INTERNET welcomes this idea with open hands. Publication of e – the material was in practice earlier. The spread of internet connectivity and smartphone in hand, laptops, and desktops made it easy to sit in the digital world of learning. Now the

classroom teaching mode started shifting to virtual classrooms without walls. At the beginning of e-learning, both readers and teachers faced technological issues but, later, technology supported Google meet, Webex, Zoom, Telegram, Skype, and other social media. Facebook, YouTube, and other platforms act as a bridge between learners and teachers to fill the gap created due to pandemics and emerge as a new way of traditional classroom teaching. Pandemic has taught us that change is permanent. This crisis can be used to develop new ideas and ways practices continue the education journey without a halt in such a way we haven't thought before. We are in the 21<sup>st</sup> century, and technology is with us. Why not technology be used as a boon for the education sector?

#### **Government of India E-Learning Initiative:**

The world has gone under lockdowns due to the Covid-19 virus. The entire sector of human activities fronted crisis, but the worst was the education sector. Students were forced to stay at home from KG to the University level, their examinations were canceled, and students and teachers struggled to survive. A hope of rays emerges from technology-based education using the Internet. The Government of India has always been using technology for the welfare of the country's citizens. The first steps toward computer literacy were launched in 1984 by the Govt. of India as CLASS (Computer Literacy and Social on School) for schooling students.

ISRO launched a communication satellite called EDUSAT (Educational satellite) on 20<sup>th</sup> Sept 2004. EDUSAT has become a milestone, especially for remote areas, in enabling information to the doorstep in distance learning mode.

During the pandemic, MHRD issued guidelines and SOPs for the functioning of academia. UGC taking care of MHRD guidelines, suggested utilizing valuable time effectively online learning during the pandemic, resources available in the digital form by the teachers, students, and researcher. A significant step was seen in the development of SWAYAM by MHRD and AICTE in collaboration with Microsoft technology, designed for working professionals, students, and remote areas. The main objective behind SWAYAM is access, equality, and quality. The brain behind SWAYAM can be traced back to the year 2003 with starting of National Programme on Technology Enhanced Learning (NPTEL) by IISc and IITs. National Mission of Education through ICT (NME-ICT), with its launch in 20 became the backbone of the higher education sector. Other initiatives like the formation of Consortium, National Programme on Technology Enhanced Learning (NPTEL), IGNOU, and Institute of Life Long Learning (ILL) took in e-learning. There is a long list of digital learning platforms initiated by MHRD UGC and supported by Govt. of India in creating a digital learning environment for the students.

**SWAYAM** *online course:*  
*swayam.gov.in*

**UG/PG** **MOOCs:**  
*https://ugcmoocs.inflibnet.ac.in/ugcmoocs/moocs\_php.*

**e-PG Pathshala:** *epgp.inflibnet.ac.in*  
*23,000 interactive modules containing e-text and videos.*

**SWAYAMPRAKASHA:** *It is a cluster of 32 Direct to home (DTH) broadcast channels dedicated to the educational program.*

**CEC- UGC YouTube channel link:**  
[www.youtube.com/user/cecedusat](http://www.youtube.com/user/cecedusat)

*National Digital Library: Digital repository of the voluminous quantity of digital contents. Link-  
<https://ndl.iitkgp.ac.in>*

*Shodhganga: A repository of Ph.D. Theses. Link:  
<https://shodhganaa.inflibnet.ac.in>*

*E- Soudh Sindhu: Provides peer-reviewed Journals and bibliographic details, citations, and database.  
<https://ess.inflibnet.ac.in/>*

### **Initiative during COVID-19 by Govt. of India:**

Traditional methods of teaching through chalk and talk method in the classroom is still in practice in the Indian education system from school to universities. The sudden outbreak of corona, widely known as Covid-19 (caused by the coronavirus SARS- Cov-2), resulted in the early suspension of classes and shutdown of education institutions and physical classes closed. In these situations, E-Learning, online classes, and information and communication technology emerged as an alternative to continuing education.

MHRD, on 21<sup>st</sup> March 2020, launched an online learning platform for students to continue learning during the covid- 19 period. The DIKSHA portal contains a large number of online curriculum-based learning materials. This curriculum was prepared under the guidance of CBSE and NCERT. E-Pathshala, National Repository of Open Educational Resources (NROER), provides a platform for teachers and students.

### **E-Learning: Historical Background:**

The term E-learning was coined by Elliot Maisie in 1999. This term was first applied during the BT system seminar in 1999. In due course of time, more other

words came into the scene to represent e-learning as “online learning,” and Virtual learning. In other words, it can be said “**learning without border**” or learning without a wall. The advent of the computer and its application in the publishing industry in the 20<sup>th</sup> century extended the idea of e-publishing and e-learning. In simple understanding, we can say e-learning can be defined as: *E-learning is a process utilizing electronic technologies to access and deliver educational curriculum outside a traditional classroom.* The interactive use of information and communication technology to expedite learning is popularly known as e-learning. This is in line with the university’s vision to achieve and provide quality education and research during the increasing demand for higher education. It is relevant to mention here that efforts are made to graft e-learning is a result of broader application of ICT in the age of global information by integration of internet and web.

American Society for training and development (ASTD) defines e-learning as delivered, enabled, or mediated purpose of learning. E-learning form of learning that uses the network for delivery. It is also known as distributed learning, distance learning, and technology-enabled learning. E-learning is empowering the learners and learning environment through a paradigm shift from traditional blackboard classroom teaching to using microfiches to whiteboard technology-based OHP (Over Head Projector) learning. Education is becoming technology-oriented, and classrooms are becoming smart classrooms. The traditional curriculum is shaped with new ideas, and learner participation is more and more reader oriented. Curriculums are driven towards employment and industry demand based.

The goals of e-learning at the university level are defined as improving the quality of research and graduates and postgraduate students by using the latest means of modern instructional materials and methods.

**Objective:**

The study aims to know the role of library e- initiatives during the pandemic in response to COVID-19.

1. Assess the role of the government of India taken in this direction
2. Evaluate the library's facility for its users, and major steps are taken.
3. To find out the digital skills of learners.
4. To find out challenges faced during the pandemic by the library in supporting e- le-learning

**Library and Education:**

Library and education are inseparable. Both are two faces of one coin. The traditional teaching method has a print collection of books, journals, and other reading materials. With the democratization of education and education for all, the right to education and education as a fundamental right has become a constitutional provision expectation from libraries to serve learners become high. In the traditional form of education flow of education was one-sided. The traditional **chalk and talk** method was a slow learning method compared to the new technology-based method. Primarily library plays a supportive role in facilitating information in the extension of education ideas for both formal and informal education. Library collection development policy is supportive in nature in academic activities, facilitating curriculum-based collection in the library. Education and library march hand in hand till new technology emerges

and is applicable in both library and education. The application of new technology changed the face of the library from traditional to digital library and education to e-education. The use of technology as a supportive teaching method recreated a new term known as E-Learning. Technology has changed the face of education and declined the boundary of the physical classroom and personal contact between learners and educators.

**Digital Library:**

The advent of web-based services and their application in libraries gave the digital library concept. The edge-leading technology and its application for storing, processing, and disseminating information at a large scale with accuracy and speedy delivery made it very popular. Digital libraries differ from collections in traditional libraries. A Digital library has a collection of digital work that would be born digital or digitized via scanning as a collection of library resources. These materials are organized so that they can be accessed online. A Digital library can be defined as the process of storing, processing, and disseminating digital content to users with the help of ICT in digital form. In other words, a digital library is not confined to a particular location; it is virtually distributed worldwide.

**Digital Library and E-learning:**

COVID-19 impacted all aspects of human life and activities deeply. The impact of a pandemic can be observed in all sectors of the world. It has forced the government to shut down educational institutions, which badly affected academic activities and students. The pandemic has changed the education sector

forever with the burst of coronavirus. The shutting down of universities has only one option to adopt online teaching and learning methods to continue the academic calendar and save the students' academic year. Educational organizations have decided to switch from their traditional teaching methods to e-learning. There was a lack of technological infrastructure in the early stage, and the pandemic spread so seismically that no one had time to think about a new method to apply. But in due course of time, institutions set up the facility. This online teaching opened a new window of opportunities for remote teaching. The unique feature of online education is that teaching and learning activities take place in a virtual mode where there is no need for the physical presence of students and teachers in the classroom; they are connected through technological devices.

Technological advancement and its application, like ICT, started rapidly in the late 20<sup>th</sup> century. The 21<sup>st</sup> century has witnessed another technological revolution applying digital technology in our daily activities. Information and communication technology has changed society as well as individual life in a short period from its appearance. Education is one of the fields that has seen a significant impact on technology.

As we know, education and the library both have an interdependent inculcating education. In recent years, the development of new technology and a combination of ICT has created a new form of education named web-based, online learning, and E-learning. In the same way, the library has also witnessed to adoption and welcome of new technology and observed recent changes not only in its collections of physical form but also in its services and name as e-library, cyber

library, digital library, and so on. One of the mammoth burdens shouldered on digital libraries during the pandemic period was to support online services for e-learning and teaching to students, faculty, and researchers. The introduction of a digital library to support e-learning embarked an influential impact on learning during the COVID-19 pandemic and met the requirements of both readers and teachers. Using supportive technology, purchase, and arrangement of learning materials in the required digital format and providing real-time access to anyone, anywhere, anytime made the supportive successful journey of the digital library. Digital library is growing in the dynamic environment of collection and flexible accessibility and is frequently up-to-date with the broader structure of higher education in supporting e-learning in university, higher learning institution, and even at the secondary level. Digital libraries can change fundamental classroom teaching by using technology in education to reach the goal of education for all. E-Learning has quickly grown to include online and distance modes and traditional “**bricks and mortar**” courses enhanced with e- contents. Traditional classroom teaching is changing with the application of new technology to access, create and use information by both learners and educators. The library has opted for new opportunities to redesign its traditional services with new ones to highlight their expertise ability and lead a unique role in changing the face of education to e-learning. Digital libraries can make it easier to support education by using the internet and web-based distance program mounted on the library website or in digital format. During the pandemic catering to the needs of all stages of education from primary to university level,

online education mode has appeared as an alternative method to the traditional face-to-face teaching method.

However, libraries are in a fatal crisis and have begun to adopt new technology to strengthen their prevailing systems. Technology is being used to develop websites, e-mail support systems, and remote access to their holdings, such as databases, e-books, and e-journals. Digital Library is a combination of digital content and advanced technology used for performing information and communication. The success story of a digital library only depends on the quality and contents of digital resources a library has.

### **E-learners exceptions from Digital Library:**

COVID-19 has changed human behaviour, education, and even living styles. Everywhere lockdown and shutting down of all human activities are in exercise. The impact of the pandemic is shown around. The working culture shifted from traditional to technology-based or work from home. Educational institutions are closed or slowly moving towards opening with a long list of precautions and strictly following the guidelines of COVID-19 as new strains of the virus appear with new symptoms known before. Academic activities cannot be stopped. Education institutions are shifting their curriculum to online mode for the sake of students. Expectations from the user side are more from libraries and librarians, and they see the library with stretch-opened eyes. During the e-learning, it came to notice that sometimes, due to technical error or connectivity issues and happenings beyond the educator's and listener's control in such a situation, proper communication was interrupted, and the

purpose of e-learning was not achieved. The only ray of hope is library and librarians for e-learners what they need from the library. Here, the role of librarians becomes essential in support of e-learning, and digital library declares themselves as lead-in role players in the learning process-learning. Here the changing role transformed from information providers to educators and transformed part from "information stakeholder" to Information facilitator. Libraries participate in a supportive role in the teaching community to assist the users in meeting their needs from library resources in a transformed environment of e-learning. The linking of digital library collection to web-based connectivity provides a meaningful connection between learners, learning activities, and learning resources to educators engaged in teaching. In the traditional form of a library, librarians act as a bridge between information seekers providing them assistance in searching for information through different tools and documents. The digital library role of librarian and library changed to information facilitator in the information age.

### **Problems in e-Learning:**

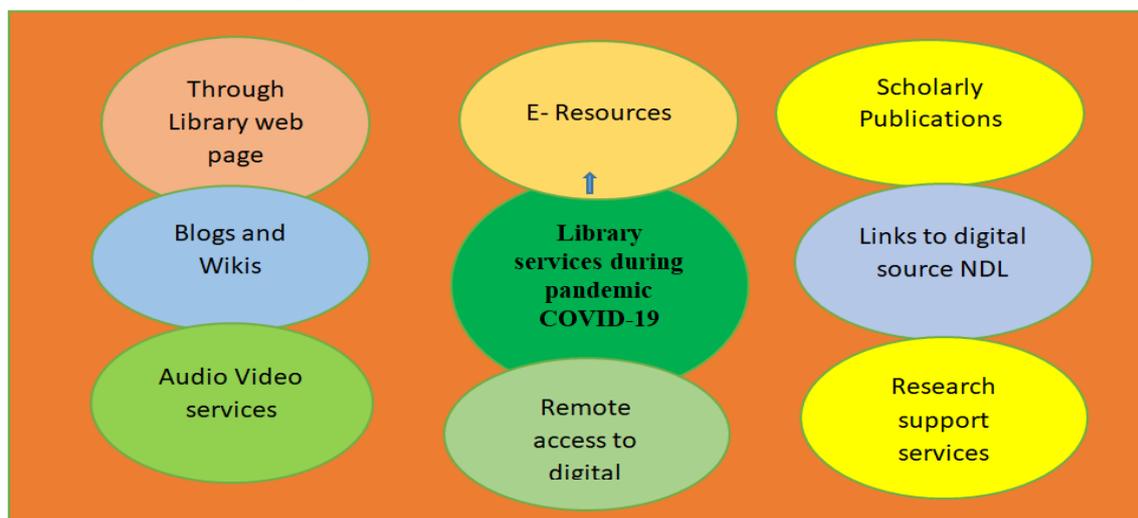
The beginning of COVID-19 impacted deep-rooted social, economic, industrial, and education structures around the globe. UNESCO monitoring indicates that over 181 countries in the world decided to shut down academic institutions and implemented nationwide closures impacting 1.5 billion students. The majority of schools have an IT syllabus and computer lab in the school curriculum, but lack of infrastructure is a known phenomenon in handling such a crisis. Libraries came forward to narrow the digital divide between learners and

resources as the pandemic widened. This pandemic has shown us an opportunity to set up the infrastructure for the future once we return to the new normal as both traditional and online methods continue. A developing country like India has a vast population, and economic inequalities are among the students. In the conventional method, they can manage anyhow. Lack of infrastructure, network issues, environments in academic institutions, and significant factors like the digital divide and information literacy be major challenges in e- e-learning in the deprived section of society. Despite the educational curriculum's continued using technology support and a large number of publishers and non-profit organizations have come forward to provide e-resources for learners and researchers. Libraries have a limited number of digital content made available through their library website and providing links to their users on the library webpage.

### Library services during COVID-19:

During the pandemic period, libraries supported online learning as medicine to fill the gap between shutdown and offline classroom teaching. Subsequently, libraries are in a race to explore the e- collection that the library has and many publishers came to the forefront providing their e-content open access for the interest of the academic fraternity and researchers. Library having digital collection put it on remote access. The main aim and objective of the academic library are to improve and support teaching, learning, and research work by providing access to information. During the pandemic library acted and served from its digital collection in supporting e-learning. India's National Digital Library (NDL) is the key frontline warrior in supporting e-learning during the pandemic.

### Library services during COVID-19:



### Other supportive Services:

In response to fighting the coronavirus, the present was dark, the past continued as horror, the future was uncertain, and hard time for the survival of life. Academic activities were at a halt; in such a crucial time, some publishers

extended their access to e-resources extra free of cost. This became a blessing for e-learning, and web hit cases increased searching for e-learning content. INFLIBNET e-repository, ETDS, DOAJ, and DOAB opened new learning landscapes. TV channels started

broadcasting educational recordings to get access for students where internet access is little or no access. Some other online modes like web conferencing and online meeting tools like zoom, Google meet, WebEx, Telegram, and so on provided a meeting platform for online e-learning and real-time live streaming.

### Conclusion:

The sudden outbreak of the coronavirus has forced us to incorporate and implement revolutionary change not only in its traditional nature of service but to adopt new technology and train staff to work according to pace with time. The internet and web-based technologies strengthen the teaching-learning environment and bridge the digital divide through innovative educational applications. The use of computers was not a new concept during the pandemic in the library. The library was user-friendly for a long time, but the present crisis acted as a catalyst to strengthen the basic infrastructure. The effect can be seen in digital libraries as fulfilling the laws of library science by adding e-learning resources in collections every reader his / her Books.

### Suggestions:

The success of online learning depends upon the ability and capability of the person to train the right people to develop the right skills, knowledge, and the right time to implement it. The success of e-learning depends on devotion to implementing modern technology in the traditional classroom. Bixler and Spats (2000) have identified seven parameters affecting the successful implementation of e-learning: institutional support, course development, teaching and learning, course structure, student support, faculty support, and evaluation and assessment. Support from the institution and dedication from the staff is the key point of the success of e-learning.

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