Digital India Initiative For E-Education And Skill Development Portals : A Review

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ABSTRACT

Governments all over the world have been forced to involve citizens into their operations as a result of the introduction of ICT. It can be seen in the rise of online service delivery platforms, open data portals, and complaint resolution, to name a few examples. Another type of ICT use that involves e-Education platforms is the creation or enhancement of communication channels using new media/digital ICTs. Digital India's aim is for inclusive growth in many areas as a campaign in which technologies and connections will come together to increase the quality of all parts of e-Education and skill development. This paper attempts to delineate the Digital India initiatives e-Education and Skill Development. Digital India's vision of NPE 2020 seems to be an Initiative to empower, educate, encourage and enlighten the new generation.

Keyword : Digital India, Digital India Initiative, e-Education, Skill Development

INTRODUCTION

The Prime Minister of India launched the Digital India on 2 July 2015 with the goal of connecting rural areas to high-speed Internet networks and promoting digital literacy. Digital India's objective is for inclusive growth in a variety of fields, including electronic services, products, manufacturing, and job possibilities. The digital world in which we now live is one in which every citizen has the potential to improve their lives in a variety of ways that were unimaginable just a few years ago. It is the result of a number of technological advancements and breakthroughs. All services will be provided electronically, and digital literacy will be promoted.

In this paper, an attempt has been made to interpret the Digital India Initiative for education and skill development, as a campaign in which technologies and connections would come together to impact all elements of governance and improve citizens' quality of life. The Indian government announced Digital India, a Rs. 1.13 lakh key effort, in order to develop a fully "tomorrow ready," internet-enabled e-government for greater accountability, responsiveness, and openness.

OBJECTIVES OF THIS STUDY

1. To understand the concept of Digital India initiatives
2. To know the opportunity e-Education Portal
3. To update the knowledge and development skills

LITERATURE REVIEW

Midha (2016) stated that while Digital India is a brilliant plan to improve India for the future of knowledge, its bad implementation owing to inaccessibility and inflexibility to the requirements could lead to its failure. Though the Digital India programme has a lot of obstacles, if effectively executed, it can ensure that every citizen has a bright future. As a result, it is necessary that Indians must collaborate to shape the knowledge economy.

Dr.Kavita (2020) conclude that the NEP, 2020 is a ground breaking and forward-thinking document that recognises the critical role of online/digital platforms and resources in education. The Indian government has taken significant steps to provide teachers and students with online platforms and tools. The government has also launched a number of digital initiatives that would aid in the transformation of India's education system to one that is digitally empowered.

Krishnaprabu (2019) the government should have its own exclusive communication network for disaster/crisis management, administration, and security. Telecom systems, networks, phones, products, and services must all be available, accessible, and inexpensive to the average person. Only by mentally preparing all citizens for the changes and challenges that will come with executing the policy will the Digital India program's goals be met.

RESEARCH METHODOLOGY

The present study is constructive, as a desk research for observing and recommending digital India initiative connected with e- Education and Skill Development in education sector based on the previous and existing published data gathered from periodic magazines, research papers, authentic official website data and other articles related to e-Education.

SWAYAM (Study Web of Active Learning for Young Aspiring Minds)
(https://swayam.gov.in/)

It was established to provide online learning platforms using information and communication technology for students from high school through higher education courses, as well as skill development courses.It has proven to be a watershed moment in knowledge sharing, and it is a Government of India programme aimed at attaining the cardinal values of education policy of access, equity, and quality, as well as offering the best instructional learning resources to all e-learners. It also serves as a digital divide bridge for learners who have been left out of the knowledge economy's mainstream.

The SWAYAM platform facilitates the hosting of all courses available for students from 9th grade to post-graduation, and can be accessed by anyone, anywhere, at any time. The courses are provided to the learners free of charge, and over 1000 faculty and teachers from across the country assist in the preparation of different courses.

SWAYAM also organises all of the programmes and courses into four quadrants: video lectures, printed text content, self-assessment examinations or quizzes, and online discussion forums. The following national coordinators have been formed to ensure the learners receive the highest quality content: UGC, AICTE, NPTEL, NIOS, IGNOU, IIMB, CEC, and NITTTR

SWAYAM PRABHA (https://www.swayamprabha.gov.in/)

It's a group of about 32 DTH channels dedicated to educating students by broadcasting higher-quality knowledge-sharing programmes. The channels offered on this platform are linked with the Gandhinagar-based BISAG. UGC, CEC, NPTEL, IITs, NCERT, IGNOU, and NIOS make study content or study material available.

SWAYAM Prabha also provides a learning environment for higher education students via DTH channels. Curriculum-based courses are also available for (UG) undergraduate and (PG) graduate students, and they cover a wide range of subjects including science, art, commerce, social science, engineering and technology, humanities, agriculture, law, and medical. Vageesh, Sanskriti, Prabodh, Saaraswat, Prabandhan, Vidhik, Kautilya, Aryabhatt, Spandan, Daksh and channel 11 to 22 for humanities, social science, economics, commerce and finance, science, engineering, and computer field are some of the DTH channels provided by SWAYAM Prabha for higher education learners.

NATIONAL DIGITAL LIBRARY (NDL)(https://ndl.iitkgp.ac.in/)

The National Digital Library of India (NDL India) pilot project was launched by the Ministry of Human Resource Development (MHRD) as part of its National Mission on Education through Information and Communication Technology (NMEICT) to develop a framework for a virtual repository of learning resources with a single-window search facility. The MHRD has sanctioned IIT Kharagpur's project "Development of National Digital Library of India, towards Building a National Asset" under NMEICT.

NDL is a single-window platform that collects and collates metadata from prestigious Indian and international educational institutions, as well as other relevant sources. It's a digital library that houses textbooks, articles, films, CDs, lectures, simulations, fiction, and other forms of educational content.

The project's goal is to provide an overarching framework for collecting a significant number of e-contents for school, college, and higher education, as well as an e-content, virtual library that meets the demands of students of various abilities. Design and development of "OAI-PMH" Server for Metadata Harvesting, Indexing, and other functions.

It serves as a pan-India virtual teaching-learning-evaluation-knowledge platform and for key national asset. Collect resources from other Ministries such as Ministry of Culture, Health, Rural Development, and Department of Science and Technology on this portal.

VIRTUAL LABS (https://www.vlab.co.in)

Under the auspices of the National Mission on Education through Information and Communication Technology, the Ministry of Human Resource Development (MHRD) of the Government of India has launched the Virtual Labs project (NMEICT). IIT Delhi is the coordinating institute for this initiative, which is a partnership of twelve collaborating institutes. It's a watershed moment in ICT-based education. For the first time in distant testing, such an endeavour has been taken. Over 100 Virtual Labs with over 700 web-enabled experiments were built for remote operation and viewing as part of the Virtual Labs initiative.

All students and faculty members of Science and Engineering Colleges who do not have access to good lab facilities and/or instruments are the intended beneficiaries of the projects.

➢ Students in high school, whose curiosity will be piqued, maybe pushing them to pursue higher education. Researchers from a variety of institutions who can work together and exchange resources.

➢ The curriculum and related teaching resources can be used by a variety of engineering colleges.

➢ For conducting experiments at the user's location, Virtual Labs do not require any additional infrastructure. The internet can be used to access the simulation-based experiments.

e-PGPathshala (https://epgp.inflibnet.ac.in/)

e-PGPathshala is a content-focused internet portal that is open to the public. This portal is an MHRD project being built by a team from the NME-ICT department in accordance with UGC norms. e-PGPathshala is an online course that graduate students from various institutions, organisations, and universities PGPathshala was designed by a group of professionals who worked under various criteria across the country. This effort was initiated by the National Mission of Education through Information and Communication Technology (NME-ICT), which was established by the University of Georgia under the Ministry of Human Resource Development. The Ministry has provided funding to the University of Georgia for the development of online course work for postgraduate students. It offers course content for each of the 77 subjects, organised by disciplines.

It includes high-quality, interactive course materials for a variety of special areas in the social sciences, arts, fine arts & humanities, natural & mathematical sciences, linguistics, and languages, among other disciplines. Anyone, from wherever, can access all of these materials without paying a fee. This project covers the void left by teachers in various institutions and assists students in receiving education and increasing their knowledge of the subject. For all postgraduate courses, it improves the self-learning process, assessment, and updating with other courses. It offers a distinct platform for students as well as a separate platform for content creators. Students can study and learn by downloading a module.

SPOKEN TUTORIAL (https://spoken-tutorial.org/accounts/login/)

Spoken Tutorial is an educational multimedia platform that has won numerous awards. One can self-learn a variety of Free and Open Source Software here. Our self-paced, multilingual courses allow anybody with a computer and a desire to learn from any location, at any time, and in any language. The Spoken Tutorial project is an initiative of the Ministry of Human Resources and Development's 'Talk to a Teacher' programme of the National Mission on Education via Information and Communication Technology (ICT).

Spoken Tutorial Forum is a welcoming online community. You can join existing debates or initiate new ones, and the Spoken Tutorial community will respond quickly. Forum registration is absolutely free and takes less than a minute. Even for computer rookies, using forums is quite simple. Formatting forum posts with fonts, colours, and a variety of other options is simple. You can simply attach files to your postings using your PC.

The MHRD has granted a project to IIT Delhi under the NMEICT to establish up a strong 24X7 supported Data Centre, and the activities have been set up at the NIC / NKN Data Centre, and the cloud is known as 'Baadal.'   e-e-content Acharya's and video content are hosted on the IIT Delhi cloud.

THE FREE AND OPEN SOURCE SOFTWARE FOR EDUCATION (FOSSEE) (https://fossee.in/)

The IIT Bombay-sponsored FOSSEE project has promoted the adoption of open source software in educational institutions (http://fossee.in). It accomplishes so through educational materials like spoken tutorials, documentation like textbook supplements, and awareness programmes like conferences, training seminars, and internships. The Textbook Companion (TBC) is a library of code for solved textbook examples. Approximately 2,000 college students and professors took part in this exercise, with close to 1,000 TBCs produced solely in Scilab and Python. All of the TBCs have been released open source and are available for free download through FOSSEE. TBCs for Scilab and Python are also on the cloud, so all you need is a browser to access/execute the TBC programmes.

Open FOAM, an alternative to the proprietary programme Fluent for computational fluid dynamics, and DWSIM, an alternative to the proprietary product Aspen Plus for chemical process simulation, are both promoted by FOSSEE. FOSSEE has also taken on several new open source software projects, including raising Scilab toolboxes to Matlab levels, developing eSim, an electronic design automation software that is an alternative to ORCAD, and developing Sandhi, a data acquisition and control software that is an alternative to LabVIEW. The FOSSEE team also contributes to open source hardware projects like Open PLC and Arduino. A vast number of students have been trained around the country as a result of these projects.

e-YANTRA (https://new.e-yantra.org/)

An MHRD initiative under NMEICT Programme, named "e-Yantra" is implemented to incorporate Robotics into engineering education with the objective of engaging students through exciting hands-on application of mathematics, computer science, and engineering principles. Creation of robotic platforms has been very successfully demonstrated during Phase-Iof the project. Presently, e-Yantrahas been implemented in 100 colleges.

eYantra is creating skills by setting up lab infrastructure for project based learning and training teachers in these 100 engineering colleges. Going ahead, MHRD sees the core skills developed by IITB as generating, distributing and analysing content to further create manpower with practical skills.

eSkill India (https://eskillindia.org/)

The National Skill Development Corporation (NSDC) is a public limited company that was established on July 31, 2008 under Section 25 of the Companies Act, 1956. (corresponding to section 8 of the Companies Act, 2013). The National Skills Development Corporation (NSDC) strives to encourage skill development by assisting in the establishment of large, high-quality, for-profit vocational institutions. Furthermore, the organisation invests in the development of scalable and profitable vocational training programmes. Its mandate is also to enable support system which focuses on quality assurance, information systems and train the trainer academies either directly or through partnerships. NSDC acts as a catalyst in skill development by providing funding to enterprises, companies and organizations that provide skill training. It also develops appropriate models to enhance, support and coordinate private sector initiatives.

NSDC has created the e-Skill India e-learning aggregator platform to help with this. In the skilling ecosystem, the aggregator brings together B2C e-learning portals that operate via the internet. In a hub-and-spoke model, these portals also develop and source e-learning content. As a result, multiple e-learning players with expertise in specific skilling areas can pool their resources as part of this aggregation effort. While students benefit from the e-learning alternatives available, they should keep an eye out for awards and bonuses for early e-Skilling accomplishments!

PRADHAN MANTRI KAUSHALVIKAS YOJANA (PMKVY) (https://www.pmkvyofficial.org/)

The Pradhan MantriKaushalVikasYojana (PMKVY) is the Ministry of Skill Development and Entrepreneurship's flagship scheme (MSDE). This Skill Certification Scheme's goal is to enable a large number of Indian youth to participate in industry-relevant skill training. It will assist them in finding a better way of life. The programme aids in mobilisation, motivation, counselling, reward, and certificate distribution. The implementing agency will engage a third party to assess the training requirements in order to design a consistent skill development methodology. It is significant in the sense that it will aid in the development of skilled labour tailored to the industry's specific needs.

PMKVY objectives of Enable and mobilise a large number of youth to participate in industry-designed quality skill training, become employable, and earn a living; Increase productivity of the existing workforce, and align skill training with the country's actual needs; Encourage standardisation of the Certification process, and lay the groundwork for creating a skills registry.

CONCLUSION

The study's major goal is to comprehend a digital endeavour for an e-Education and skill development platform. These initiatives ensured that students had access to a variety of educational resources and guiding tools so that they may continue their education online. The value of e-Education has been recognised by numerous stakeholders in the education community. The country has benefited from the availability of numerous digital platforms and e-Education materials. These digital initiatives will have a significant impact on education's inclusivity, equity, and quality. In the end, the efforts made thus far will assist boost the country's e-Education and skill development.

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