MOOCs and Digital Learning: Revolutionary Education System in India

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Abstract: A new generation of the education system in India has adopted digital learning in the teaching-learning environment. Technologies have played a vital part in the education system. Massive Open Online Courses have become a productive online medium to impart education and are open to all learners. Digital learning has become the easiest way to enlighten learners' knowledge with a productive outcome. The new generation in India is becoming digitally friendly and attracted to quality education in less time. This paper aims to enlighten the role of Massive Open Online Courses and digital learning in the education system in India. New Education Policy 2020 is ready to adopt this positive change to upgrade learners' knowledge in this digital era. Various Indian platforms of Massive Open Online Courses may enhance the professional skills of learners.

1 INTRODUCTION

Education is the pillar of any developed nation which leads to the status of a country in the whole world. All developed countries are entertaining and adopting digital learning in their education system. India is coming forward to utilize digital learning in its formal education system. Universities and colleges in India consider Digital learning a vital part of the curriculum. New Education Policy 2020 also emphasizes digital learning to enhance productive education. Massive Open Online Courses (MOOCs) act as a productive medium to impart mass education in this digital era. Massive Open Online Courses (MOOCs) provide online learning opportunities to learners who prefer to learn at their place. Now, Universities and colleges adopt blended learning to impart education in place of conventional teaching and learning in the formal education system. Higher Education Institutions highly demanded Digital learning to upgrade the skills and knowledge of learners. For building competencies, educational institutions provide ample resources to improvise the knowledge around information technology. Information and communication technology plays an important role in promoting Digital India. Digital Education and Information Technology will be useful to policymakers and educational institutions. Major initiatives are undertaken by the government authorities to encourage lifelong learning which is the vision of New Education Policy 2020. (Chatterjee and Nath, 2014) stated popularizing MOOCs especially in Higher education Institutions and their utility in the education market of India through their case study. Some key issues of MOOCs and several possible ways outs to extensive implementation of MOOCs in educational institutions from an Indian perspective. Ubiquitous Learning gives a global platform for the Indian Education System and MOOCs may act as an effective medium to promote this which leads to uplifting the quality of education as a whole. As new digital world provides more online learning opportunities to learners who eagerly want to learn at their own pace. For developing successful courses through MOOC in higher education, previous research has found that an empirically justified framework is required (Yang, Yusop, and Leng, 2022). Students learn through online mode and can experience digital learning which may enhance their skills in using digital tools. Their satisfaction in learning leads to effective and quality learning learners.

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2 DIGITAL LEARNING AND MOOCs: EFFECTIVE LEARNING AND FLIPPED INSTRUCTIONS

Effective Learning leads to learners adopting new skills and innovative ideas to upgrade their future concerning holistic development. Digital learning establishes a feasible platform to gain new skills and advance the skills of the learners. MOOCs are an affordable way to enhance their knowledge in each dimension or multidisciplinary area. Constant learning needs technological advancement which equipped learners effectively toward quality education. (Pant et al., 2021) aimed to investigate the current trends for the adoption of Massive Open Online Courses in the higher education system and point out that millions of learners learning on the SWAYAM MOOC platform in India. (Pant et al. 2021) found that there are several factors to facilitate the adoption of MOOCs in the Indian Education System. Digital learning supports all teaching and learning strategies in electronic form which are easily accessible to both learners and instructors. MOOCs act as n new innovative form of organization to deliver educational resources to teachers. (Nalla, D., 2021) presented a paper at a conference in which a case study was done to give training to teachers to deliver content in online mode effectively. These educational resources assist teachers to impart mass education and deliver quality education to learners. By using information and technologies, teachers can deliver skills, and abilities and develop cognitive practices in students' learning process. Assimilation of knowledge through digital learning emerges as a new system in the education sector, leading to efficiency and effectiveness in the Indian education system. (Berezytski and Oleksyuk, 2016) aimed to find the existence of Smart Universities, MOOCs, and cloud technologies. The traditional distance learning courses are very different from projects running on MOOCs. Enrolment in MOOCs is growing rapidly which leads to enhance literacy rate. (Berezytski and Oleksyuk, 2016) further point out that with the latest technologies, instructions should be in close connection in each area like education, economics, and law. Scientists and educationists are engaged in developing a productive teaching and learning model using digital technology. The education industry offers various Ed-tech startups at small, medium, and large levels that offer various digital tools and products to academic institutions. Digital tools are extensively utilized by educational institutions.

Flipped instruction is another modern instructional method which is learner-centered teaching and learning. Flipped instruction aims to motivate and engage the students interactively. It promotes higher-level cognitive learning. Teachers improve the skills of learners and act as specialists. To boost the motivation of students, a flipped classroom is a quality medium for learners. (Wang and Zhu 2019) studied and did a quasi-experiment in an inorganic chemistry course to study the effectiveness of MOOC based flipped learning and found that students had a favorable experience in the flipped classroom. Learning experiences and performance of learners were examined in MOOC-based flipped classrooms. Open online videos in flipped classrooms can promote student participation. Students performed better in MOOC based flipped classrooms than in traditional classrooms. The reason behind the development of micro-lessons in large numbers is the rise in MOOCs. MOOC-based classrooms involved both face-to-face learning and online learning. It supports and encourages quality teaching and learning process. Teachers ensured that students must have the ability to assimilate knowledge and the necessary concepts of the curriculum. Students-centric activities should be encouraged like brainstorming, problem-solving, and exploring. To revisit the media type courses become better than traditional courses for students in universities. Therefore, universities are ready to establish flipped instruction methods to impart education in their institutions. To encourage collaborative learning among students flipped-classroom approach has much more utility than the traditional classroom approach. This approach brings confidence among students and develops self-efficacy. It generates an internet learning environment which leads to self-efficacy among students. (Wang and Zhu, 2019) found that MOOC-based flipped class learning improves students' learning performance. Teachers have to consider what course should be taught through MOOC by that students' interest would not decline in their learning.

3 DIGITAL AND REMOTE LEARNING INITIATIVES ACROSS INDIA

Hybrid model placed in Indian Education System over conventional teaching-learning. Integration of online and offline learning during COVID in India observed that digital education is positively adopted

by learners. There were a few barriers during the pandemic of this hybrid model of education like equal access to digital devices for learning and internet connectivity in different regions. India Report Digital Education. (2021) initiatives are taken by the government to overcome all barriers which encourage Digital and Remote Learning in India. The India Report on Digital Education 2021 highlights the initiatives for digital and remote learning at various levels undertaken by the Ministry of Education to upgrade the Indian education system towards digital technologies. India Report Digital Education (2021) further mentions, to bring digital literacy, media, and the internet, various inclusive aspects are undertaken by each state and union territory of India. Earlier, tablets and smartphones were provided to engage students in some states. To overcome the digital drive, remarkable initiatives have been made. There are 3304 schools in Bihar, where one Smart TV is in the classroom under the Unnayan Bihar Initiative scheme launched on 5th September 2019. Laptops were distributed in 126 schools in Uttrakhand. "Motor Iskool" is initiated in Chhattisgarh to provide face to-face learning program, where teachers travel to remote locations across the state. To ensure a digital learning model, Alumni's effort in Kerala took place where all students can get access to digital classes. Special audiobooks for visually challenged students are also being a part of the process. Delhi government also facilitated all regular and guest teachers with tablets. Various measures and alternatives have been considered to bring digital literacy where digital devices are not available. Sharing resources through pen drive by making audio video classes, classes through local cable TV, and door-door learning have been done for establishing a digital teaching-learning environment so that learners become familiar with all digital devices. In Odisha, these kinds of initiatives took place.

4 REDUCING INEQUITIES: ENHANCEMENT IN LEARNING

The need to reduce equities in the Indian education system is a must. Education should be accessible to all and to attain this aim, digital transformation in the education sector is a major step. There is huge potential for technology in the Indian education sector for enhancing learning. New Education Policy 2020, aims to give quality education to all learners. A robust digital learning system is required to reform in new

education structure which emerges as the creative development of each child. Foundational literacy and numeracy are required for learners. Attracting the child's interest is the priority so that learners get engaged with the given activity. A most important target population is parents who are not well educated to avail the benefits due to lack of awareness and illiteracy. Building Teachers' capacity and involvement in delivering quality education by using digital devices are crucial as they have to upgrade themselves with technological advancements and accept it to the fullest. To design the capacity-building program, different workshops should be conducted. In NEP 2020. To upskill the students to get the best job according to their skills, digital and hybrid models should be considered. Vocational courses should be part of the student's curriculum mentioned in the NEP2020. Some people do have not digital devices and internet connectivity therefore it is essential to connect the unconnected. To reduce the dropout rate, accessibility to all should be the prior part of the implementation of NEP2020.

5 DIGITAL TRANSFORMATION: NEW GENERATION EDUCATION SYSTEM IN INDIA

Educational institutions are availing all resources and adopting innovations towards digital learning to resolve the academic loss that learners were suffering during the pandemic. Technological advancement in the educational sector is much needed for a new generation-education system in India. India somehow managed the pandemic situation with the availability of technology and advancement at that time. Now, all educational institutions have all ideas to upgrade their institutions according to the new technologies and demands of the education sector. Adopting digital learning and having MOOCs in some universities is an initiative by educational institutions to achieve these technological advancements in teaching-learning. (Singh and Tiwari 2021) state that new normal educational institutions require proper infrastructure, and well-trained teachers and students for fast universal access to networks. (Singh and Tiwari 2021) further mention online learning platforms which support learning during a lockdown like Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM), E-PG Pathsala, Digital Infrastructure for Knowledge Sharing (DIKSHA), CBSE PODCAST, National Digital Library of India

(NDL), IIT Pal, Vidwan, e-Shodh Sindhu, UMANG mobile app, One Class, One Channel, etc. To bring digital learning and technological advancement to the education sector, these initiatives were taken by the government of India. Further, the government is planning to provide financial assistance to those sectors involved in developing digital initiatives. Transformation is needed in each sphere for the development of the nation. New Education Policy 2020 is a major step towards this transformation after so many decades. Implementation of the New Education Policy 2020 would be a bigger challenge for academicians. All stakeholders should be benefitted and inclusiveness of all sectors should be the priority for the implementors. All institutions and the government of India gearing up for this transformation of implementing NEP 2020 at the grassroots as it is the betterment of all associations of the Indian education sector. The key face of future education is Digital learning. MOOCs are the medium to bring digital learning among learners. To bridge the gap between connected to unconnected with digital learning, digital transformation emerged as the new generation in the education system in India. Various steps are taken by the government and NEP2020 also ensures to bring digital learning in the Indian education system. Educational administration should be equipped with digital tools to administer digital learning in educational institutions. Flipped instruction model emerges as an effective path to impart quality digital learning to educational institutions. Several types of research are done on digital learning and MOOCs, saying that Digital learning and MOOCs are acceptable to all stakeholders in the education sector for enriching the quality of education. The implementation of Digital learning and MOOCs in educational institutions should be recommended for further research perspective. There would be some challenges in the implementation so this area should also be a part of research for the researchers from an Indian perspective.

6 CONCLUSION

The key face of future education is Digital learning. MOOCs are the medium to bring digital learning among learners. To bridge the gap between connected to unconnected with digital learning, digital transformation emerged as the new generation in the education system in India. Various steps are taken by the government and NEP2020 also ensures to bring digital learning in the Indian education system.

Educational administration should be equipped with digital tools to administer digital learning in educational institutions. Flipped instruction model emerges as an effective path to impart quality education by bringing digital learning to educational institutions. Several types of research are done on digital learning and MOOCs, saying that Digital learning and MOOCs are acceptable to all stakeholders in the education sector for enriching the quality of education. The implementation of Digital learning and MOOCs in educational institutions should be recommended for further research perspective. There would be some challenges in the implementation so this area should also be a part of research for the researchers from an Indian perspective.

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