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Alamgir Biswas

ABSTRACT

Virtual Interaction has become the popular tool or rather a trend to interact distant individual. Education system has also adopted virtual learning pattern and this has got it boost during the COVID pandemic. The aim of this study is to find the implications of MOOCs and how it has positively impacted the education sector and the prospects of MOOCs in India. This paper also highlights and investigates the development process of MOOCs and their opportunities as well as challenges. Descriptive approach and extensive literature review have been implemented to carry out the research.

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Teaching and Learning through Moocs: Influence, Impact and Way Forward

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ABSTRACT

Virtual Interaction has become the popular tool or rather a trend to interact distant individual. Education system has also adopted virtual learning pattern and this has got it boost during the COVID pandemic. The aim of this study is to find the implications of MOOCs and how it has positively impacted the education sector and the prospects of MOOCs in India. This paper also highlights and investigates the development process of MOOCs and their opportunities as well as challenges. Descriptive approach and extensive literature review have been implemented to carry out the research.

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I. INTRODUCTION

After the introduction of computer and internet, the use of digital technology in the field of higher education is one of the most dramatic changes that the world has ever witnessed. During the COVID pandemic, India's education experienced a phase of realization, thought and learning. As per the announcement in the National Education Policy (NEP) 2020, the government plans to set up National Educational Technology Forum (NETF) to promote and monitor capacity building, develop e-content and provide a platform for educational institutes and stakeholders to share best practices leveraging technology. The new set up will act as a bridge to digital divide and ensure greater reach of online education and a virtual teaching-learning environment.

Technology driven new education policy is about to bring benefit to the youth where potential skills can be best utilized. The new policy supports digital literacy, coding, and computational thinking from an early age. The new learning approach where skill-based education is given at the foundation courses to identify hidden skill sets, and that empowers to be future ready for the virtual job market.

Apart from the leading edtech companies, different IITs, NITs, Universities have come up with their owned developed online courses. It aims to provide a range of e-courses not just in English but in several other regional languages. NEP, 2020 aims to provide different learning apps, satellite based TV channels dedicated to education, and systematic teachers training to strengthen online learning environment. The higher education centres are likely to collaborate with content providers to seek for advanced contents to fulfil the curriculum. This will bring a greater opportunity for the edtech companies to strive for the development high quality course content

II. LITERATURE REVIEW

In most of the cases, the MOOCs have been offered free of cost. The purpose of this research is to shed light on MOOCs, which has contributed significantly in the development of teaching and learning in universities during suspension of regular classes. There is no denying that this type of education through online courses, in its current state, is still in its early phases. Though, it faces some challenges that might not necessarily prove to be obstacles to its implementation in university teaching and learning in the higher education of India.

Some students seem to thrive and eager on online learning portal. Learning through online courses

where they can study what they like and when they want are highly motivating. MOOC's may provide one answer to their needs. The flexible nature of MOOC's was highly appreciated by the students (Cripps, 2014).

The student has their preference to find out about a new subject or to extend modern-day knowledge, and they had been curious about MOOCs and different courses offered, for the private challenge, and the desire to collect as many course completion certificates as possible. (Hew & Cheung, 2014).

MOOCs present new possibilities for the delivery of education over the internet, an offer learning opportunity to those who aren't able to attend traditional physical classes. Learners can enrol and attend virtual classrooms from the comfort of their homes or office, and earn course completion certificates from reputed institutions around the globe (Pujar and Tadasad, 2016).

Bralic and Divjak (2018) reveal that MOOCs support the experience of learning in virtual environments, providing a new experience to majority of the students, and make learning available to those who might not be able to follow conventional methods. Massive open online courses (MOOCs) have become a prominent feature of the higher education discourse in recent years.

As per the study conduct by Eom, Wen, and Ashill (2006) among 397 US students who has at least completed one MOOC course suggests that instructor feedback have influenced them a lot and affected both learning outcomes and users satisfaction.

From the above literature review, one conclusion is emerging; MOOC's has some impact on higher education globally. Educators and policymaker and local researchers should investigate the effect of MOOC in higher education and to explore more possibility that can impact higher education through MOOCs. Teaching and learning may face challenges and constraints when MOOC's are introduced to the higher education curriculum as an integrated course delivery system.

III. PROBLEM OF THE STUDY

The problem of this research focuses on the impact of MOOCs in the teaching-learning process. The MOOCs have impacted the higher education scenario worldwide though potential uses have not received yet but the pandemic situation has given more rises to the development of online courses nationally and globally. Universities and higher education institutions are thriving for better content development and to establish their own repository of online courses to be delivered to the classes.

IV. RESEARCH METHODS

The current study aims to find impact of MOOCs courses in teaching and learning. To accomplish this research, descriptive research methodology has been used. More than 50 research articles on MOOCs from 2012-2021 have been consulted and synthesised.

V. DATA ANALYSIS & INTERPRETATION

Analysis of this study has been made based on the data extracted from the secondary source of information consulted. Significant research papers were thoroughly gone through and synthesized their findings. Those findings are later synchronized to sum up the results of this study.

VI. RESULTS

The literature review made in this paper shows the exponential growth of MOOCs across the world. Special mention can be done when the COVID pandemic grasped the world and education institutions were forced to shut their physical classes, MOOCs brought a positive teaching-learning platforms to continue learning. Education has been profoundly affected, as classes were forced to move online at very short notice and partway through the semester. This worldwide transition had massive practical implications for schools (Viner et al., 2020) and colleges (Crawford et al., 2020). Educational institutions around the world closed rapidly in March, 2021 as the pandemic took grip (UNESCO, 2020). The China lockdown ran from 24 January

to 25 March, but most countries started their lockdowns in a three-week period from mid-March to early-April (Aura Vision, 2020). Lockdowns have eased in most countries at different times through April and May, although they have recurred as parts of the world experienced additional COVID-19 surges in late 2020 and early 2021. For the purposes of the paper, we set the period starting the data after the WHO declaration, March 12, 2020 as the time during the pandemic.

MOOC phenomenon has grown to 13,500 courses from 900 universities worldwide, reaching over 110 million students, a total which excludes China (Shah, 2019). For the UdeMy course, over the three years from January 2017 to the end of December 2019, an average of 840 enrolled in the course per month. In 2020, the approximate numbers that enrolled in the first five months of the year were 860, 720, 1590, 10820, and 2600. On UdeMy, the enrollment surge was concentrated in April, the first full month of layoffs and the lockdown in most countries. Adopting the normal spring enrollment baseline of 840, the extra enrollment from March to May was 12,490. During those three months, 83% of all

those enrolled were associated with the pandemic. Enrollments in Coursera also showed a surge by more than a factor of ten relative to the previous few years, but the timing was slightly different. An average of 1100 people enrolled per month from January 2017 to the end of December 2019. In the first five months of 2020, approximate numbers that enrolled were 1310, 1040, 4360, 16740, and 13980.

Since 2012, MOOCs have seen a dramatic growth worldwide. This surge can be witness even in the South-Eastern countries. Extended growth can be observed when the COVID pandemic spread all over the world and educational institutions started opting MOOCs as teaching-learning platform. Because of its very natures like free access, international course curriculum, own course-own space etc., MOOCs become a sensation and attracted the learners' community globally. Again, it can be perceived that the pandemic situation gave ample opportunity to the learners to explore and opt for their suitable course. The freedom to choose as many courses as they like again impacted the very growth of MOOCs.

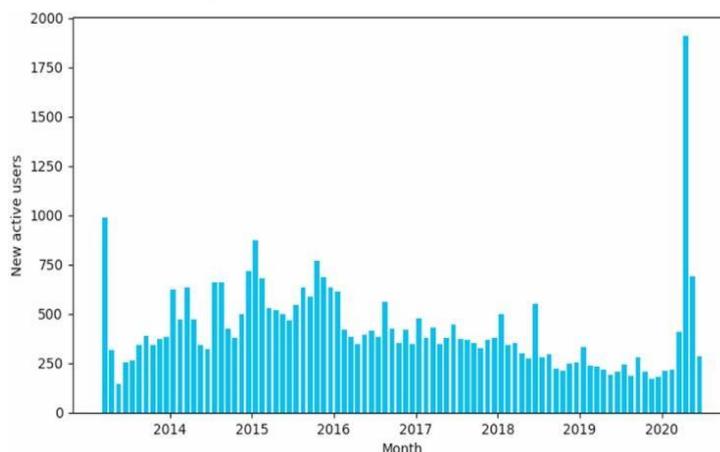


Figure 1: Year-wise growth of MOOCs' user

Source: MOOCs and 100 Days of COVID: Enrollment surges in massive open online astronomy classes during the coronavirus pandemic by Chris Impey and Martin Formanek (2021)

Most recently Bill Gates has opted a MOOC in Oceanography. In an interview in The Chronicle, he said, "It's a kind of ironic that I'm dropout. I

love college courses probably as much as anyone around." With this, he gives a hint that MOOCs are for everyone those who are passionate and genuinely seek to learn. Though the number of learners seem quite high in the following figure, yet the last tower catches special attention, where 60+ super-agers still have that passion to learn.

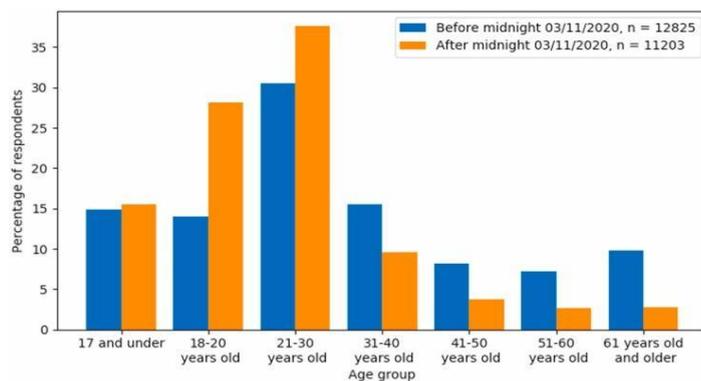


Figure 2: Demography of MOOCs user

Source: MOOCS and 100 Days of COVID: Enrollment surges in massive open online astronomy classes during the coronavirus pandemic by Chris Impey and Martin Formanek (2021)

VII. RESEARCH IMPLICATIONS

Even before the global pandemic hit in early 2020, online education was growing rapidly and it was delivering high quality instructional content to audiences worldwide. In less than a decade, MOOCs have reached 380 million people worldwide. There is a steady trend towards credentials, for-credit classes, and even full degree programs. If MOOCs can offer more tertiary education, they could make a big impact on economic development.

Higher levels of education correlate with higher earnings all across the OECD (Card, 1999). In the United States, with education beyond a Bachelor's degree, the gain in earnings is 90% (Autor, 2014).

Udemy issued a report documenting a surge in global online learning as the pandemic hit (Udemy, 2020b). In a month, they saw 425% enrollment growth from individuals, an 80% increase in use by businesses and governments, and 55% growth in new course creation. Surges in India, Italy, and Spain were coincident with orders to shelter in place. The biggest enrollment growth was seen in courses for technical skills like neural networks, courses for soft skills such as communication, and courses for hobbies and recreation. All the major providers of MOOCs saw an increase in traffic of over 50% (Shah, 2020b).

'Swayam' is a platform of India's higher education and offers an opportunity to students to earn academic credit earmarked as credit-eligible for institutions' certificates. Being the world's biggest Massive Open Online Courses (MOOC) platform, it offers over 700 courses from more than 135 Indian institutions. The portal saw over one crore enrolments as educational institutes resorted to virtual learning due to the pandemic and lockdowns.

VIII. CONCLUSIONS

National and institutional policy makers should be approached and made aware of the promising benefits of online learning environment. They should be encouraged to propagate and draft a national policy on online education (Shafiq, Wani, Mahajan & Qadri, 2017). Few studies revealed that the least number of courses have been contributed to the MOOCs platforms as a contributing nation and need to do more in this field. Talking about the most benefit of MOOCs, many people take great interest initially in these fields but due to lack of opportunities and continuous engagement, such people are discouraged to learn further. Therefore, MOOC platforms should revise their knowledge and course content frameworks as well as scope of subject matter periodically in order to meet all the information needs of students keeping into consideration the current scenario of information overload and information explosion.

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