E-Learning For Higher Education: Using Social Media Platforms For Enhancing Learning Process

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Abstract- Today we live in a world where technology is an active player in our lives, as well as in our learning system. Learning is an activity that aims at improving knowledge, skills and abilities. Since the emergence of a global movement that calls for a new model of learning for the twenty first century, it has been argued that formal education must be transformed in order to enable new forms of learning that are needed to tackle complex global challenges (Scott1, 2015). Currently, millennials acquire knowledge and develop different kinds of skills such as: communication skills, leadership and management skills, intellectual understanding through interactions on social media platforms. The major reason behind this rapid technological development & engagement on social media, is massive emergence of the Internet in the last 20 years that have influenced almost every aspect of human society & specially faculties & students involved in the higher education institutes.(Nakamura, 2013). E-learning using social media platforms are vital tool in eLearning courses, as these sites can be useful for enhancing engagement & subject understanding amongst students & instructors.(Miguel, 2017). The major attraction for the use of social mediain delivering formal education is that it offers instructors unrestricted opportunities to communicate, collaborate, and share educational content.(Arshavskiy, 2018). Therefore, there is need of adoption of new technologies of e learning via social media platforms. In this research paper, researcher will elaborate various new technology adoption models and will highlight usage of Social media platforms by various universities across the world for learning in higher management space

Keywords- Social Media Platform, E-learning, Higher education, TAM

I. INTRODUCTION

1.1 Higher Education Sector in India:

India holds an important place in the global education industry. There are more than 1.5 million schools with over 260 million students enrolled and about 751 universities and 35,539 colleges across the country. India has one of the largest

higher education systems in the world. However; still there is lot of possibilities for further development in the education system.

With India emerging as second largest market for elearning after the US. The sector is currently reached US\$ 2 billion and is expected to reach US\$ 5.7 billion by 2020. Moreover, the aim of the government to raise its current gross enrolment ratio to 30 per cent by 2020 will also boost the growth of the distance education in India. (https://www.ibef.org, 2018)

As per the budget presented in Parliament for fiscal 2020-21, Finance Minister, Sitharaman announced a new education policy and proposes to provide about Rs 99,300 crore and Rs 3,000 crore for the education sector in 2020-21 and about for skill development respectively. (https://economictimes.indiatimes.com/industry/services/educ ation/budget-2020-online-degree-courses-to-students-from-weaker-sections-new-edu-policy-soon/articleshow/73835980.cms,2020)

1.2 e-LEARNING:

As per article published in economics times, eLearning is learning system based on formalised teaching but with the help of electronic resources is known as E-learning. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning. eLearning is utilizing electronic technologies to access educational curriculum outside of a traditional classroom. It also refers to a course, program or degree delivered completely online. (http://www.elearningnc.gov/about_elearning/what_is_elearning/, 2020).

According to M. Samir, Abou El-Seoud, majority of Egyptian universities undergo many educational obstacles that technology can help to overcome, and they focused on relevance of open source tool, such as Moodle e-learning platform, has been implemented at many Egyptian universities. They also examined that how Moodle could be used as an aid to deliver e-content and to provide various

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possibilities for implementing asynchronous eLearning webbased modules. Researchers also shows that the use of interactive features of e-learning increases the motivation of the undergraduate students for the learning process.(M. Samir Abou El-Seoud, 2014)

1.2 e-Learning through Social media platforms:

1.2.1SOCIAL MEDIA IN HIGHER EDUCATION

As per the research conducted in recent years social media has penetrated almost all types of sectors, so is the Higher education institutions who have been fastest adopters of this global phenomenon.

Social media consists of social networking sites, blogs, vlogs, instant messaging and virtual communities. Though amongst all the platforms, the social networking site, Facebook emerged as a winner predominantly because of its large number of users. As irrespective of their geographical dimensions, it allows its users to create and share content, build relationships and enable collaboration and connectivity. With this fast rise of social media users, there is emergence of ample opportunities for higher education institutions to adopt it to further their learning and teaching endeavours. The ease of use & free availability of social media platforms have made it suitable for administrators, managers, learners and teachers in higher education institutions too. (Dr. Ritesh Chugh, 2018).

1.4 Understanding the TAM (Technology Acceptance Dimension):

User acceptance of technology is one of the important dimensions for this study. Significant research has been done to examine the factors that provide in-depth insights into the user acceptance of technology. Technology acceptance model (TAM) is an information systems theory developed with intention of making predictions about technology acceptance. It was first proposed by Fred D. Davis to provide a valid measurement scale for assessing user acceptance of technology. To measure user acceptance, TAM provides two variables:

- (a)**Perceived usefulness** (**PU**) which is as defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance".
- (b)**Perceived ease-of-use (PEOU)** The degree to which a person believes that using a particular system would be free from effort" (Davis 1989).

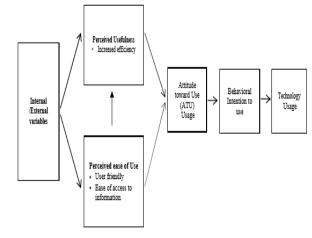


Fig.1 Technology Acceptance Model [Source: (David Gitumu Mugo1*, 2017)\

The technology acceptance model (TAM) has been adapted for many different technologies and is very useful in a research context. For product development, TAM adaptations areless appropriate. In this paper, the researcher has applied this model in a study on the acceptance of smart payment cards and provided helpful insights into the relevance of different potential benefits. Researcher also suggested that usefulness perception is most impacted by increased convenience, improved transaction overview and usage fun. (Lisa Diamond, 2018)Further, TAM has been uninterruptedly studied and expanded—the two major upgrades being the TAM 2 & UTAT. Also TAM3 has also been proposed in the context of e-commerce with an inclusion of the effects of trust and perceived risk on system use. (Venkatesh & Bala 2008).

1.5Unified theory of acceptance and use of technology (UTAUT):

Venkatesh & other has purposed technology acceptance model called "User acceptance of information technology: Toward a unified view". (Venkatesh, 2003) It aims to explain user intentions to use an information technology & it's successive usage behaviour. The authors formulated four determinants, four moderating variables, and two dependent variables for the development of UTAUT. These constructs help to explain worker acceptance of, and their behavior towards, information technology. The four primary variables are performance expectancy, effort expectancy, social influence, and facilitating conditions. The four moderating determinants(variables) are gender, age, experience, and voluntariness of use. The two dependent variables are behavioural intention and usage behaviour. (Pope, 2014).

In their paper, Michael D. Williams, Nripendra P. Rana and Yogesh K. Dwivedi performed the literature analysis

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of 174 existing articles on the UTAUT model by collecting data including demographic details, methodological details, limitations, and significance of relationships between the constructs from the available articles based on the UTAUT. UTAUT suggests that four core constructs (performance expectancy, effort expectancy, social influence and facilitating conditions) are direct determinants of behavioural intention and ultimately behaviour, and that these constructs are inturn moderated by gender, age, experience, and voluntariness of use.(Michael D. Williams, 2015)

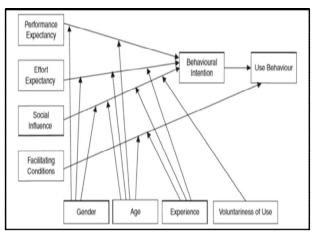


Fig 2. Unified theory of acceptance and use of technology [Venkatesh et al. (2003)]

As per UTAUT, there are four key factors (i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions) and four moderators (i.e., age, gender, experience, and voluntariness) for predicting behavioural intention to use a technology. According to UTAUT, performance expectancy, effort expectancy, and social influence were found to influence behavioural intention to use a technology, while behavioural intention and facilitating conditions determine technology use. (Viswanath Venkatesh, 2016)

Source	User	Technology	Task	Time	Organization	Location	Relationships validated
Alapetite et al. (2009)	Physicians	Speech recognition	Electronic medical recording	Adoption	Clinical departments in a hospital		Expectations vs. experiences of UTAUT variables
Al-Shafi et al. (2009)	Citizens	E-government services		Adoption	Fifteen public agencies	Qatar	Main effects and the moderating effects of age, gender, and experience
Bühler & Bick (2013)	Citizens	Accessing political social media appearances	Political campaigns	Adoption and use		Germany	Main effects and the moderating effects of age, gender, experience, and voluntariness
Chang et al. (2007)	Physicians	Clinical decision support system	Diagnosing	Adoption	Three hospitals	Taiwan	Main effects in UTAUT
El-Gayar and Moran (2007)	Students	Tablet PC	Learning	Adoption	A public university	Midwest USA	Main effects in UTAUT
Gruzd et al. (2012)	Academic researchers	Social media	Research	Adoption and use	The American Society for Information Science and Technology		Main effects in UTAUT
Gupta et al. (2008)	Employees	Internet		Adoption	A government organization	India	Main effects and the moderating effects of gender
Liao et al. (2004)	Students	Web-based learning environment	Learning	Adoption	A university	South USA	Main effects in UTAUT
Pynoo et al. (2011)	Teachers	Digital- learning environment	Teaching, communication, and administration	Adoption, initial use, and final use	A secondary school	Dutch- speaking part of Belgium	Main effects in UTAUT
Seid & Lessa (2012)		Telecenter		Adoption		Ethiopia	Main effects in UTAUT
Workman (2014)	Consumers	Social media and smartphone applications	Social networking and daily functions' such as navigation, weather information, & travel	Use		Florida, USA	Main effects and the moderating effects of experience

Fig 3. Summary of UTAUT Applications

1.6 Role of eLearning in an pandemic situation:

As per the article published (D'Mello, 2020),in order to provide an online learning for the students at home the Ontario government has launched an online learning program during COVID-19 pandemic which includes a new e-learning website for high school students with high quality math and literacy resources created by certified educators.

After the World Health Organization's designation of the novel coronavirus as a pandemic on March 11, inorder to slow down effect of its spread ,universities across America are shutting down. Following the steps taken by the University of Washington bycanceling all classes, others universities like University of California, Berkeley, U.C., San Diego, Stanford, Rice, Harvard, Columbia, Barnard, N.Y.U, Princeton and Duke have also taken similar security measures. There is major shift from actual in-person classes to virtual classrooms in order to prevent COVID-19 from entering university populations and spreading to local communities. Also such steps will be fruitful to facilitate classes through virtual medium. (Iwai, 2020)

To mitigate the effect of loss of studies caused during COVID-19 pandemic, Singapore international university had taken following measures:

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- Classes with more than 50 student's strength switched to online learning. For laboratory/practical sessions where face to face interaction is needed, the sessions were broken into small groups.
- All teaching staff & students were provided with licensed access to various video conferencing & team collaboration apps like Zoom, Respondus & Microsoft Team.
- Previous years' lecture recordings were also uploaded by Professors & lecturers. Most of the academic staff also conducted live streaming classes and attempted to use polls and quizzes to engage learners.
- 4. Special arrangement of learning materials were also provided to students under quarantine.(Lim, 2020)

II. LITERATURE REVIEW

Waqas Tariq analysed the impact of social networks in terms of the future and carrier of students. According to the study done, the social networking websites like https://www.linkedin.com, http://www.facebook.com/ and https://twitter.com/ are continuously distracting students from their studies, as major focus of student should be education but unfortunately today's student are emphasizing on such sites which can be a complete wastage of time. This paper purposes the negative side of Social media. usage for studies.(Waqas Tariq1, 2012)

As per Sahar Yassine (Sahar Yassine1, 2016), measuring effectiveness of Measuring the effectiveness of smart education depends on measuring the desired learning outcomes. This paper suggests major key features to be taken in consideration while developing learning analytics tool to measure and assess any course learning outcome. As well as it demonstrates the relationship between smart learning environments, learning outcomes and learning analytics.

According to Sanusi Bernice, initially social media was used as fun way to connect with friends and families, but later experts noticed it as powerful tool for education beyond their uses to socialize. In today's world, most of the students and academicians are using sites like Facebook, Twitter, LinkedIn, Youtube, MySpace, Flicker, Netlog, Slideshare and tools such as Skype, Ovoo, and Yahoo messenger to connect students to learning opportunities in multiple ways. This research explains how Osun state government y gave out smart phone dubbed "opon imo" (tablet of knowledge) to all secondary students in the state loaded with several learning materials. Authors explore various ways in which social media can be used to enhance formal learning by identifying opportunities and challenges using the exploratory method. As per researchers, social media can provide better opportunities

to help students in learn outside the classrooms but at the same cost of acquisition and sustenance could pose as challenge for those in the lower income bracket of the society.(Sanusi Bernice Oluwalan, Vol. 3, No.9; April. 2014) Azeem Amin & Jegatheesan Rajadurai in their study focused tension prevails between the expectations of higher education institutions and students in utilizing social media as a learning tool. This study discusses that there is a huge gap and considerable conflict surrounding the expectations associated with the integration of disruptive technologies like social media into the educational fabric of many higher education institutions of Pakistan. Also this study provides an overview of the social media principles and their possible impact on a number of societal institutes such as media, academics, government and commerce. As per the researchers, higher education sector is left behind in the adoption, adaption and recognition of the reality of new developments in social media. Five key points that need special attention have been higlighted by the researcher in the study: 1.) Prior experience while implementing new learning, 2.) Active participation3.) Negotiation in learning environment 4.) Social cultural interaction is must 5.) Effective learning happens in social cultural environment. Researchers used document analysis & performed purposive study for the research. Researchers found that quality & accreditation can be one major issues while implementing social media in higher education education in Pakistan. (Azeem Amin, Vol. 10, No. 3 (2018 Special Issue))

Researcher in their studies mentioned #ColinKaepernick is an excellent example of a pedagogical strategy to help students in learning and engaging with a wider audience on topics discussed in an African American history course. In the research work, researchers had done secondary data collection that discussed also mentioned. By utilizing social media platforms, students can draw contemporary parallels to historical events and narratives though, one of the disadvantages of using #hashtags in learning is that one ends up searching huge volume of data posted on social media platforms.(Boyce, 2017)

Ahmed, Rana Alhajri and Salah Al-Sharhan, in their article highlighted a study conducted in Kuwait to examine perceptions of instructors about mobile learning(m-learning) and social media learning (SM) tools. Also, researchers examined & investigated that whether instructor gender & age has effect in understanding social & cultural issues in implementation of m-learning in Kuwait. A questionnaire was circulated amongst 132 instructors from different higher education institutions. Study revealed that there are positive opinions of instructors about m-learning. Also, according to the findings, there is significant age and gender differences &

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social and cultural influence which may act as barriers in implementation and adoption of mobile technology into teaching & learning.(Ahmed Al-Hunaiyyan, 2017)

As discussed by researcher, Professor Brian McKenzie used Twitter in his class to recreate the history of the Battle of Stalingrad and the Paris Commune. Students of his class assumed identities of historical figures for their respective Twitter handles and tweeted using primary sources in real time. (McKenzie, 2014)

Professor Elizabeth Pollard, a historian at San Diego State University, used Twitter in her World History survey course to allow students to create back channel during lectures and outside the class. The technique resulted in an interactive course in a class setting of 400 students (Pollard, 2014).

As per the researcher's article, it demonstrated that although usage of social media surrounding Kaepernick is extremely racist & nasty, but at the same time it is an excellent pedagogical strategy to help students put their learning into practice and engage with a wider audience on topics discussed in an introductory African American history course.

According to LIANGFEI QIU, QIAN TANG, AND ANDREW B. WHINSTON, there is dynamic spead of user defined content across social media networks. Also there is unbeleivable change in landscape of entertainment & marketing. Researchers in their study examined diffusion of online video due to learning & network effects. As per the study done, it was found that learnings& network effects have statistically& economically significant effects on video views using a unique datasets from Youtube. Also they focused on the fact that Youtube plays significant role in encouraging the creation of original content by roping the multiplier effect. (LIANGFEI QIU, 2015)

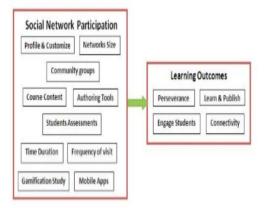


Fig. 4 Learning Outcomes using Social Learning

It was discussed by M.R.M. Veeramanickam, (M.R.M. Veeramanickam, Apr 24, 2014),that the importance and use of social networking for E-

learning will help to promote teaching and learning for learner to increase learning outcomes and effects. It was also suggested that E-Learning through social networks make learning environment live classroom effects by connecting with multiple users.

Dimitrios in his research focused on eLearning progress, development and challenges and opportunities in the GCC (Gulf Council Countries) particularly in Saudi Arabia.(Dimitrios Xanthidis, 2014).

III. CONCLUSION

As social media has become inevitable part of society, with millennials spending on an average 11 hrs daily on these platforms, there is need for engage youngsters on social media for educational purposes as it will result in more engagement and participation. This innovative strategy of utilised social media platforms for learning will soon become popular amongst youngsters will leave traditional teaching behind. At the same time there is need of third-party intervention on millennial's actions performed on social media as they may mislead from learning path due to lot of distracting activities available to social media nowadays. As per the researchers, due to availability of lot of multiple innovative learning techniques through on social media platforms, eLearning through social media is future of learning by higher education space. Also, such virtual learning approach can be utilised by whole world at the time of pandemic like COVID-19, Swine Flu, Plague etc where social distancing had become a major necessity and unique technique of learning.

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