E-Learning Student Perceptions in the 21st Century with social media In Higher Education

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ABSTRACT

This research study explores student perceptions of the impact that social media has on the student engagement of college students. Research has shown that student engagement has a direct correlation to student success. The main objective of this study is to explore students' beliefs with regard to social media use (SMU) in higher education and the consequences of such use on the perception of their academic performance. This study provides a brief outline of conceptual framework considerations by identifying applicable theories of student engagement. It is important to understand the role of social media on student engagement as educators strive to assist students with enhancing their student success. The result indicate that all of the students were familiar with social media and had used at least one type of social media for learning. It was found out that all students had very positive attitudes towards the use of social media and welcomed using these tools as a supplementary to the curriculum.

KEYWORDS: social media, Education, Online Learning, Technological Challenges, Virtual Meeting, Videoconferencing, collaborative learning, student performance, benefits of social media use

I. INTRODUCTION

College campuses provide a variety of disciplines, courses, and activities/events for students to attend. Students have specific requirements for each general education course and then later within their major, minor, and/or collateral courses. Many college professors encourage classroom discussions and active participation as part of the course. There are campus events that students can voluntarily attend that range from academic content to entertainment/social events to leadership opportunities. There are also events that students may be required or expected to attend as part of their course(s).

In considering the advancements in technology and the generational characteristics of college students today, students have become accustomed to accessing information immediately through utilizing the internet and social media. Most college students have smartphones or other wireless devices, that allow them to update their statuses, post a tweet, or even post a selfie as they walk to and from class. Some professors have even incorporated social media into their courses, while others stress in their syllabus that cell phones should be powered off during class. The shorthand of texting can be found in 2 correspondences of students, faculty, and

staff. While attending an academic or athletic event, many students are so consumed in the virtual world of social media, they are unaware and seem disengaged from what is occurring in the real world, right in front them. Another instance of observation is when students are seated with peers, or close friends, yet those students are on their phones instead of interacting with those who are physically present.[1]

The deadly and infectious disease Corona Virus also known as Covid-19 has deeply affected the global economy. This tragedy has also shaken up the education sector, and this fear is likely to resonate across the education sector globally. The Covid-19 pandemic outbreak forced many schools and colleges to remain closed temporarily. Various schools, colleges, and universities have discontinued in-person teaching. As per the assessment of the researchers, it is uncertain to get back to normal teaching anytime soon. As social distancing is preeminent at this stage, this will have negative effects on learning opportunities. Educational units are struggling to find options to deal with this challenging situation. These circumstances make us realize that scenario planning is an urgent need for academic institutions [2].

Current trends toward globalization and the functional integration of dispersed economic activities, an increased number of multiunit companies, and more project teamwork have made the ability to transmit information between external business partners and within multiunit companies essential for enterprises in the postindustrial knowledge economy [3]. India's apex regulatory body of higher education, UGC, has taken the present educational scenario very seriously and put some efforts proactively to resolve the deadlock of completing courses and examinations in on-going semesters as well as issued circular regarding the academic calendar after the recommendations of one of the committees constituted by UGC itself. It has also become mandatory for all the universities in India to complete the 25% syllabus through online teaching mode and 75% face-to-face interaction [4].

As social media technology develops, it allows users ever greater access to valuable knowledge. The proliferation of social media technologies is unprecedented, with these tools becoming an essential part of everyday life in a wide range of settings. Social media tools are beginning to get more attention from educational institutions because they have become effective means of communicating ideas and feeling among students.

II. LITERATURE REVIEW

- ### Social Media & E-Learning

The author of [5] describes online learning can be termed as a tool that can make the teaching–learning process more student-centered, more innovative, and even more flexible. Online learning is defined as "learning experiences in synchronous or asynchronous environments using different devices (e.g., mobile phones, laptops, etc.) with internet access. In these environments, students can be anywhere (independent) to learn and interact with instructors and other students".

In [6] authors have thoroughly reviews amidst this deadly virus spread such online platforms are needed where

(a) video conferencing with at least 40 to 50 students is possible,

(b) Discussions with students can be done to keep classes organic,

(c) Internet connections are good,

(d) Lectures are accessible in mobile phones also and not just laptops,

(e) Possibility of watching already recorded lectures,

(f) Instant feedback from students can be achieved and assignments can be taken.

Social networking sites and social media are closely similar, which provide a platform where students can interact, communicate, and share emotional intelligence and looking for people with other attitudes [7]. Facebook and YouTube channel use also increased in the skills/ability and knowledge and outcomes.

It was highlighted that 90% of faculty members were using some sort of social media in their courses/ teaching. Facebook was the most visited social media sites as per study, 40% of faculty members requested students to read and views content posted on social media; majority reports that videos, wiki, etc. the primary source of acquiring knowledge, social networking sites valuable tool/source of collaborative learning [8].

In [9-10] authors have designed and implemented during the school closures, existing inequalities connected to different socioeconomic situations have increased mainly due to the following reasons:

i.   Lack of resources, including access to educational technologies and the Internet,

ii.   Lack of physical spaces to carry out home-based learning among families from poorer backgrounds,

iii.   Who lack the basic skills to support their children, especially regarding secondary education.

III. METHODOLOGY

Social media platforms make it possible to create and share content across virtual communities and networks with the goal of transforming communication into interactive discourse. There are 13 subtypes, including blogs, microblogs, social networking tools for business and networking, collaborative projects, forums, photo-sharing tools for business, product and service evaluations, research networks, social games, and virtual worlds [11]. They can be accessed from many devices and locations around the clock, 7 days a week. They are therefore solely dependent on the availability of the internet and the users' will. They have an impact on politics, the economy, science, and the educational system. There are many divisions of social media, and new subtypes are possible every day. The following typology, used according to Aichner and Jacob in 2015 [11], defines the scope and applicability or use of the proposed models.

To gain an even deeper insight into teachers' attitudes about social media to the needs of higher education, teachers were asked to select which characteristics of social media teachers consider being advantageous. More than half of the teachers' survey point out easier and faster access to information, when and where it is needed, sharing ideas and experiences, photos and videos, flexibility in choosing technologies, quick feedback, and the possibility of creating digital content, as the main advantages of social media. While less than 20% of them pointed out reliability in continuous use over a longer period and the possibility of testing existing teaching models as advantages. The results are presented in percentages in Table 1

Sr. No	Characteristics of social media that teachers consider to be advantages:	Percentages
1	Easier and faster access to information, when and where it is needed	76.7%
2	Sharing ideas and experiences	64.4%
3	Sharing photos and videos	64.4%
4	Flexibility regarding the choice of technologies	57.5%
5	Fast feedback reactions	53.4%
6	The possibility of creating digital content	50.7%
7	Following current topics	49.3%
8	Marketing and recruitment of new students	47.9%
9	Expense reduction	45.2%
10	Strengthening ties with the wider local community, but also with people around the	40.1%

	world/international community	
11	Independence from a particular platform (e.g., computers, availability already with internet access and a browser)	39.7%
12	The possibility of integrating various web 2.0 technologies in learning and teaching activities	37%
13	Less time and effort needed to search for and manage information	37%
14	Optional access	35.6%
15	Maintaining existing contacts and connections	35.6%
16	Possibility of access control through user authentication	31.5%
17	Low level of complexity of use (minimum skills required)	31.5%
18	Focus on innovation in learning, not technology itself	31.5%
19	Acquisition of IT education	28.8%
20	The possibility of making new acquaintances	28.8%
21	Increasing the way of learning due to the variety of new technologies	27.4%
22	Strengthening self-confidence and motivation through interaction with other users	27.4%
23	Compatibility with fields of education	23.3%
24	Supporting existing or new businesses	23.3%
25	Reliability in continuous use over a long period	19.2%
26	Possibility of testing existing teaching models	15.1%
27	None of the above	2.7%

Also, teachers were asked to select which characteristics of social media teachers consider disadvantaged. More than half of the interviewed teachers pointed out fewer characteristics as the main disadvantages than as advantages and that; neglecting direct communication (face-to-face), the possibility of false identities, and privacy issues (lack of privacy…), while less than 10% pointed out that they are monetarily quantified (everything becomes "business" and "numbers"), they hide behind technologies and concepts that have not yet been sufficiently defined/researched, become a type of used web, that is, a medium for people with a low level of digital skills, time and knowledge spent on using it, the speed of the program is incomparably lower than the speed of desktop programs, the content means nothing to itself, it is only electronic "waste." The results are presented in percentages in Table 2.

Sr. No.	Characteristics of social media that teachers consider to be disadvantages:	Percentages
1	Neglecting direct communication (face-to-face)	58.9%
2	The possibility of false identities	57.5%
3	Privacy issues (lack of privacy…)	52.1%
4	Decrease in social skills	49.3%
5	They promote the offer of amateur content generated by users	39.7%
6	Stalking	38.4%
7	Electronic violence	34.2%
8	Information is offered in open sources with very unclear meaning and quality	34.2%
9	The possibility of developing an addiction	30.1%
10	They lead to low quality of the actual content	26%

11	They have limited security	26%
12	They give everyone a chance to complain, thus creating a community without rules	23.3%
13	They encourage negative behavior such as immorality and laziness	21.9%
14	Pedagogical expectations are reduced instead of the other way around	21.9%
15	Lack of systematic education on the use	20.5%
16	Scientific communication is becoming (too) informal	20.5%
17	Internet connection required (especially broadband connection)	16.4%
18	They negatively affect health (for example, diseases of the spine, and eyes…)	16.4%
19	They increase the gap between generations	16.4%
20	The extremely diverse offer of social media that can be used only makes it difficult to choose	11.0%
21	They are monetarily quantified (everything becomes "business" and "numbers")	9.6%
22	They hide behind technologies and concepts that are not yet sufficiently defined/researched	9.6%
23	They are becoming a type of second-hand web, that is, a medium for people with a low level of digital skills	6.8%
24	Time and knowledge spent on the use	6.8%
25	The speed of the program is incomparably lower than the speed of desktop programs	5.5%
26	The content means nothing in itself, it's just electronic "waste"	4.1%
27	None of the above	5.5%

Additionally, the research showed that there is no statistically significant relationship between teachers' self-confidence when using social media for higher education purposes, organizational factors, facilitating conditions for using social media for higher education purposes, and the expected ease (effort, effort) of using social media for higher education purposes. And the frequency of teachers' use of social media for higher education purposes. However, the results also showed that there is a statistically significant relationship between the expected work performance of using 'the use of social media for study purposes enables students to achieve better results during their studies and the teacher's intention to use social media for higher education in the next 12 months and the frequency of teacher use social media for the needs of higher education.

The problems associated with online learning and possible solutions were also identified based on previous studies. The SWOC analysis was conducted to understand various strengths, weaknesses, opportunities, and challenges associated with online mode of learning during this critical situation. This study is completely based on the secondary data. A systematic review was done in detail for the collected literature, Secondary sources of data used are

- Journals
- Reports,
- Search Engines
- Company Websites & Scholarly Articles
- Research Papers

Following table-3 is portrays the details of the varied modes of online teaching-learning modes being used by the teachers and students during the lockdown period of COVID-19 outbreak [12]

Table 3. Showing different modes of online teaching modes used by the teachers and students.

S.N.	Modes of online teaching-learning modes	% of teachers using online teaching modes	% of students using online learning modes
1.	Google Classroom	32	20
2.	Zoom/ Cisco WebEx/ Google Meet/ Skype	45	15
3.	Webinar	25	35
4.	YouTube Videos	50	28
5.	YouTube/ Facebook Streaming	6	18
6.	WhatsApp/ Telegram	100	100
7.	Telephonic Conversation	87	23
8.	Email	100	100
9.	Swayam Prabha educational DTH channels/Zonet Cable TV	11	27

Interestingly, despite having a variety of digital modes of teaching-learning, almost all the teachers and students both were using WhatsApp/Telegram and Email for educational interactions, submission of assignments, clarification of doubts and conducting class tests. There were 32% of teachers using Google classroom and 45% teachers using Zoom/Cisco WebEx/Google Meet/Skype platform for taking online classes, but the recipient students were found only 20% and 15% respectively. Twenty-five percent of teachers conducted Webinars as online teaching while 35% of students were attended University's webinars and outside the University's webinars for enriching themselves widely as an online mode of learning. There were 50% of teachers recorded their lectures on YouTube as teaching through web mode, whereas 28% of students watched presentations and recorded videos of all sources on YouTube.

YouTube and Facebook streaming as a means of virtual classes taken by the teachers found significantly very low with 6%, whereas 18% of students admittedly found using these online platforms for learning. Eighty-seven percent of teachers were found using telephonic conversation for educationally get connected with their students in relation to giving and receiving information. Still, students tend to feel hesitant to call their teachers, and the percentage found only 23. Some teachers(34%) showed an ardent interest in the pursuit of using the new technological tool of online teaching such as Swayam Prabha educational DTH channels/Zonet Cable TV with 11% only but students were found a little bit impressive 27% using this digital tool for online learning.

Fundamental questions of teachers & students

1. How long does the average person spend on social media per day?
2. Which social media platform should I use to promote my knowledge?
3. What is the challenges of online learning?
4. Online learning is effective?
5. Why a changing education imperative?
6. What are the challenges of using social media in education?

The following three question are mainly used tolled that teachers & students

1. How do I know if online education is right a way of learning?

2. Maintain Relationships. Trusting relationships between teachers and students are the bedrock of successful learning?

3. Keep Learning Active. Online learning can easily lend itself to more passive forms of learning like watching videos and listening to lectures?

IV. ANALYSIS OF ONLINE LEARNING

This pandemic may accelerate some changes in educational models based on the pros and cons of the technology used for learning purposes. Thomas and Rogers [13], starting from their experiences of online learning during the pandemic emergency, have observed that school-provided IT systems are frequently too expensive, cumbersome and quickly go out of date.

Table 4. summarizes some key obstacles to the effective use of online learning identified in the literature.

Table 4. Open challenges of online learning.

OPEN CHALLENGES		REFERENCES
TECHNOLOGICAL CHALLENGES	Access to infrastructure such as technological devices and an Internet connection.	[9], [10], [13]
PEDAGOGICAL CHALLENGES	Teachers' lack of skills in using technology. Need for training and guidelines for teachers and students.	[14], [15]
	Need for teaching materials in the form of interactive multimedia (images, animations, educational games) to engage and maintain students' motivation.	[13], [14], [15]
	Lack of student feedback and evaluation system.	
SOCIAL CHALLENGES	Lack of suitable home learning environment to study and parents' support.	[9], [10]

Free online platforms that support live-video communication

There are many live-video communication platforms are available in web, but some of the free online platforms are as listed below which can be used by learners of all categories [16]:

- **Zoom –** Cloud platform for video and audio conferencing, collaboration, chat and webinars.
- **Google Meet –** Video calls integrated with other Google's G-Suite tools. Video meeting recordings, Screen sharing, Join calls using Google Calendar
- **Facebook Live-** is a great fit for businesses, influencers, or individuals who are looking to broadcast demos, videos, or showcase their company culture while streaming live, followers on Facebook can comment and chat live, schedule videos ahead of time to gain excitement.
- **YouTube Live-**is a platform for demonstrating a product with live interaction, hosting an educational session to teach audience with screen sharing or using a whiteboard, having features with Location tags and advanced scheduling.

V. SUGGESTIONS

Some useful steps for smooth functioning of Online Learning are as suggested below:

1. Online platforms with enhanced safety and safeguarding measures, especially for virtual learning tools should be ensured. The devices must have the latest software updates and antivirus programs otherwise the security of personal data may be compromised as one can hack the digital devices.

2. High speed internet connectivity should be ensured in order to improve smooth access for all including learners of disadvantaged groups and low-income families.

3. All should follow the new guidelines released by UNICEF and partners to keep kids safe during online classes.

4. Schools should monitor good online behaviors of students while conducting online classes.

5. Parents should ensure that students' devices have the latest software updates and antivirus programs. They should work with students to establish rules for how, when, and where the internet can be used. They should also speak to their students on how and with whom they are communicating online.

6. Social networking platforms should enhance online platforms with more safety measures, especially while using virtual learning tools.

7. Government should take necessary steps to train all stakeholders of education on online learning platform to tackle such crisis of lockdown during any pandemics. Government should create awareness on online education with safety measures for children and take measures to create awareness on cyber security.

8. Online learning is not affordable for all including the poor and disadvantaged groups of the society. So necessary steps should be taken by Government/educational institutions to minimize this gap between privileged and unprivileged learners.

9. Learners and educators must be familiar with Web-based interactions such as email, discussion boards and chat rooms before joining online classes.

VI. CONCLUSION

Online Learning is the most common method of distance learning today. During the lockdown period for Covid-19, online learning is the best platform to keep learners/educators engaged and safe by maintaining social distancing. Govt. of India has initiated different online learning platforms to continue educational activities during lockdown period which are also been recognized by UNESCO and World Bank. Online Learning method utilizes various applications of the internet to distribute classroom materials and help learners and educators interact with one another. Using the various technologies available for Online Learning, educators can provide a more interactive distance learning experience by delivering real-time, synchronous video conferencing. Online learning is considered as future learning process and this platform has a potential of overall change in pedagogy of teaching learning in the modern world.

The results of research conducted in 2019 showed that demographic characteristics of teachers, such as age, gender, and the scientific field of the teacher's profession, do not affect the frequency of teachers' use of social media for higher education, and this is also the case with individual attitudes toward use, social influences, and anxiety during use. At the same time, a significant positive impact on the teachers' use of social media for higher education would have higher education institutions through the implementation of education for both teachers and students on the use of social media, which could reduce their feeling that the use of social media is for higher education a little scary. Also, teachers' social media usage is significant and students believe that teachers should use social media for higher education, as well as support the faculty administration regarding the use of social media for higher education.

The results of the analysis of the online discussion forum with international experts, the data from ISTAT and statements of opinion leaders in Italy have revealed several technological, pedagogical and social challenges, additionally confirmed by the reference literature. Reliable network infrastructure needs to be developed. Teachers, students and parents must have connectivity that allows them to be able to take lessons remotely even when other people in the same house are doing other online activities. In fact, the results of the online discussion forum underlined that the intensive use of networks during the pandemic crisis has produced connection failures in several countries, including Estonia, which is technologically advanced. One suggestion of experts was to develop 5G.

The use of intelligent technologies for remote teaching, like artificial intelligence, needs to be reinforced to encourage personalized, inclusive and participatory online learning paths. This can open up new possibilities and provide added value to online learning, as long as it is integrated with the pedagogical methodologies used by teachers. In fact, in this study a need to personalize learning and make it more effective emerged.

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