

# A SWOC Analysis of Use of Social Media in E-Learning

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## Abstract

The educational landscape has transformed as a result of social media integration with the system. Social media has become an essential part of our lives the way we interact with one other. E-learning is the transmission of knowledge and education using computer networks, particularly the internet. The objective of this research article is to study the strengths, weaknesses, opportunities and challenges of social media in e-learning. The strengths of social media in e-learning are better interaction, immediate data access, better potential for growth, quick and easy access, increased involvement of students, tools for content creation, free educational opportunities. On the other hands, the weaknesses are distraction issues, privacy issues, authenticity of data, availability of unsuitable content, adverse effect on mental health. Beside this, the opportunities of social media in e-learning are as micro-learning, social and interactive experiences, gamification, Combining Virtual Reality (VR) and Augmented Reality (AR), content created by users, AI-assisted education. There are various challenges are as data security and privacy issues, sustaining levels of student involvement, managing social and academic links, assessing the appropriateness of content, linking various social media sites, bringing inclusivity and accessibility into consideration, controlling social media time, consistency of content on all platforms, distractions and effectiveness, overcoming technological constraints. So, this paper explores the strengths, weaknesses, opportunities and challenges of social media in e-learning.

**Keywords:** Social Media, Social Networking, E-learning, Electronic learning, Digital learning

## INTRODUCTION

The digital age was considered to be the era of the newest IT developments, with internet services being used to provide e-learning solutions. The widespread use of social media platforms that give users access to information has identified the modern digital era. Social media is essential to the dissemination of education in the twenty-first century. (Al-Rahmi, M. W., Allias, N., Othman, S. M., Alzahrani, I. A., Alfarraj, O., Saged, A. A., & Rahman, A. H. N. A., 2018).

### Social Media

Social media is a collection of web tools and software that facilitates communication via the internet, content sharing, and the creation of a customized network of acquaintances, fellow workers, or organizations. These consist of Facebook, Friendster, Wikipedia, dating websites, YouTube, Instagram, and recipe sharing websites. There are numerous definitions of social media. "A medium to create

identities, make clear, and establish relationships" is how social media is explained (Boyd & Ellison, 2008). Web-based programs that offer features for groups, profiles, links, sharing, and conversations (Kietzmann et al., 2011). Another definition of social media is "The Internet-based applications built on Web 2.0, where Web 2.0 refers to a concept as well as a platform for harnessing collective intelligence." (Huang & Benyoucef, 2013 p. 246). Nowadays, social media is an essential component of education anywhere in the world (Buckingham, 2013). Students may follow prevalent social media platforms including Facebook, Instagram, TikTok, Snapchat, YouTube, Twitter, and video games (Kim, 2021).

### **E-Learning**

Students can access educational programs through electronic learning, or e-learning (Arkorful and Abaidoo, 2015). It is an online learning platform that uses a range of multimedia technologies and develops in a formal setting. Both online and offline system is supported by electronic hardware and software. Education or computer-enhanced learning associated with e-learning is typically delivered using a personal computer (Samsuri, Nadzri and Rom, 2014). By the use of texts, videos, sounds, collaborative sharing, and interactive graphics, e-learning guarantees that students are fully engaged in the learning process. It may enhance the standard of instruction and learning, emphasize the necessity for universities to preserve their competitive edge and give students access to education and training in this more globalized environment (Islam, Beer and Slack, 2015). E-learning is growing more popular in high schools as ICT applications continue to give instructors and students with a choice of teaching and learning possibilities (Broadbent, J., & Poon, W., 2015). In another manner, e-learning makes use of modern ICTs and computers connected to the Internet to provide educational resources. (Chow, W. S., & Shi, S., 2014).

### **REVIEW OF LITERATURE**

There are various studies have conducted at national and international level of social media in e-learning and these are as;

**Shahzad, M. F., Xu, S., Liu, H., & Zahid, H. (2025).** This study investigates how social media use and generative AI (ChatGPT-4) affect young students' academic achievement and psychological health. The study's findings show that generative AI (ChatGPT-4) and social media positively affect young students' academic performance and mental well-being. The results can help develop evidence-based methods to maximize the influence of technology on students' academic performance and well-being by facilitating a better understanding of their consequences in the educational context.

**Praveen Kumar, B., Kalpana, A. V., & Nalini, S. (2025).** Utilizing a deep learning model attention based on a bi-directional long short-term memory convolutional neural network with a gate mechanism to determine the academic performance of the students is the main innovation of this work. The findings demonstrate that the suggested paradigm has a significant impact on students' performance. When compared to students who only use social networks on the weekends, the investigation revealed that students who use them during the week performed worse.

**Amjad, A. I., Aslam, S., & Tabassum, U. (2024).** The purpose of this research work was to examine how social media, ChatGPT, and M-learning affect university students' academic performance. According to the analysis, M-learning significantly affects university-level students' academic performance ( $\beta = .460$ ,  $t(598) = 12.663$ ,  $p < .001$ ). The association between M-learning and academic performance was found to be strongly mediated by social media, with coefficient  $B = .267$ ,  $SE = .038$ ,  $t(597) = 7.08$ ,  $p < .001$ , and 95% CI [0.193, 0.341].

**Purnama, Y., & Asdlori, A. (2023).** According to the findings of the study, social media has altered how students communicate with one another. Students who use social media may also experience psychological effects and social pressure. The implications of social media's involvement include the necessity of teaching students social media literacy, utilizing social media in a responsible manner for learning, and providing them with the psychological support they need.

**Purwanto, A., Fahmi, K., & Cahyono, Y. (2023).** The aim of this study is to investigate the potential benefits of using social media in the classroom. The findings show that social media offers numerous benefits for students' educational journeys.

**Alismaiel, O. A., Cifuentes-Faura, J., & Al-Rahmi, W. M. (2022).** The main objective of this research is to find out what influences college students' behavior and intentions to utilize social media to improve their academic performance during the COVID-19 pandemic. The findings demonstrated utilizing social media for collaborative learning and student participation directly enhances perceived utility, usability, and enjoyment.

**Salloum, S. A., Al-Emran, M., Habes, M., Alghizzawi, M., Ghani, M. A., & Shaalan, K. (2021).** The ultimate purpose of this study is to better understand how social media practices, such as knowledge sharing, motivation and usage, and social media features, affect students' acceptance of e-learning systems by extending the technology acceptance model (TAM). The results showed that perceived usefulness (PU) and perceived ease of use (PEOU) are significantly improved by social media features, motivation and usage, and knowledge sharing. It is also critical to point out that PEOU and PU work well together to influence e-learning system acceptance.

**Giannikas, C. (2020).** The current study sheds light on the effects of Facebook use in postgraduate e-learning programs in higher education. The results show that most students have a positive opinion of Facebook groups since they are a convenient way to enhance Learning Management Systems (LMS). Additionally, according to the study, Facebook's interactive learning component made it more desirable to use during the course than their university's Course Management System (CMS).

**Mnkandla, E., & Minnaar, A. (2017).** The conceptual framework for higher education's online collaborative learning (OCL) was applied in this study. Under this meta-synthesis integrates the results of peer-reviewed qualitative research on social media in e-learning in an interpretive manner. Academics and instructional designers that wish to employ social media in higher education e-learning as a deep learning method and are interested in applying contemporary learning theories may find the suggested framework helpful.

**Zhang, X., Gao, Y., Yan, X., de Pablos, P. O., Sun, Y., & Cao, X. (2015).** The purpose of this study is to motivate staff members to support collaborative learning practices by switching from e-learning to social learning. This study mapped key references that drive SMKM development patterns, authors that have made significant contributions to this field, and trending topics across all linked articles using CiteSpace.

## **A SWOC ANALYSIS OF USE OF SOCIAL MEDIA IN E-LEARNING**

SWOC is stand for Strengths, Weaknesses, Opportunities, and Challenges. SWOC is the type of analysis which consists of four elements that's help to gain deep insight from the particular situation. The SWOC analyses of use of social media in e-learning are as follow;

## STRENGTHS OF SOCIAL MEDIA IN E-LEARNING

Social media has fundamentally altered the way we communicate, connect, and engage. It has a significant effect on education, posing challenging issues as well as wonderful opportunities. Whether you're a student or an educator, it's hard to ignore how social media platforms like Facebook, Instagram, Twitter, and Tik-Tok are impacting learning. The following are benefits of social media in e-learning as;

### a) **Better Interaction:**

In the classroom, social networking facilitates communication. Social media use in the classroom transforms passive, one-way instruction into two-way collaboration. Teachers can share news and information with students both within and outside of the classroom, as well as deliver homework or assignments. Students may use social media as a goal in the classroom to share their opinions, views, and ideas (Fouts, 2012; Gikas & Grant, 2013; Saunders, 2011). Additionally, this enhanced communication has made the classroom environment more inclusive and interactive. It facilitates the removal of physical barriers and promotes teachers' and students' active engagement in the teaching and learning process.

### b) **Immediate Data Access:**

Students and educators can also access real-time data using social media platforms, which keeps them informed about the latest developments, trends, and news in the e-Learning sector. The eLearning experience can be improved by this instant access to learning and development tools and insights. Additionally, social media makes it possible for academic changes and other significant developments to be shared, promoting a more dynamic and intellectual learning environment.

### c) **Better Potential for Growth:**

Social media gives improved growth prospects for teachers and educational organizations. Instructors and educational establishments can display their teaching qualities and expertise through social media channels, enticing more students to engage with them. Students frequently do not use social media in the classroom; on the contrary, they use it at home, on the road, and sometimes at school. As they have grown up with the internet, this generation of students foresees using technology in the classroom. On-demand, interactive, adaptable, and flexible course materials as well as content are favored by students. The learning methods of modern pupils demand visual resources as video lessons, graphics, and simulations (Fouts, 2012; Toppo, 2011; Magid, 2010; Baird & Fisher, 2005).

### d) **Quick and Easy Access:**

Social media has made it feasible for students and educational institutes to arrange classroom and study sessions anytime, anyplace. In the classroom, social media gives students quick input. Teachers can give students timely instructional support both inside and outside of the classroom by utilizing social networking. Studies have shown that students feel more in control of their own education and knowledge when they are able to ask for assistance and get appropriate advice (Goldfarb et al., 2011).

### e) **Increased Involvement of Students:**

Students can now easily and freely participate in a variety of learning projects or tasks as a result of social media. For instance, some students might not do well in face-to-face situations or in actual classes. They receive sufficient motivation to engage and discuss their topics, assignments, or projects during online classes. They will definitely be able to work together and take part in in-person presentations because to this encouragement. According to specific research, social media use in the classroom can boost student engagement and advance academic learning. (Roblyer, McDaniel, Webb, Herman, & Witty, 2010).

**f) Tools for Content Creation:**

Students, teachers, and organizations can now easily produce engaging and useful information to publish on social media with the help of social media. A lot of students look for instructional materials or useful content on social media, such as videos and short reels. This is because they may learn as much as possible in a short period of time with the aid of this kind of content. Some educators and parents support the use of social networking in the classroom because they think that denying kids access to social media will deny them the communication skills they need to create, investigate, and learn. (Roblyer, McDaniel, Webb, Herman, & Witty, 2010).

**g) Free Educational opportunities:**

Social media enables free study and learning possibilities which is another significant benefit of eLearning. Users are able to create free accounts, groups, and channels on nearly all social media platforms. Users can provide and get a lot of content at the same time without spending anything. Teachers can find ways to integrate new technologies into their lessons by using social media. Data, knowledge, guidance, resources, and analytical tools are all accessible to educators (Davis, 2010; U.S. Department of Education, 2010).

**WEEKNESSES OF SOCIAL MEDIA IN E-LEARNING**

Social media has numerous advantages; there are certain drawbacks as well that need to be taken into account to keep students' academic performance from being negatively impacted;

**a) Distraction Issues:**

The primary issue with social media in the classroom is that it can divert attention from learning, which lowers academic achievement. Sharing personal information, spreading inaccurate data or rumors about a student on social media, or dealing with someone who is actually someone else. In addition, students may encounter more problematic communication, such as threats, stalking, or inappropriate conduct. Bullying and public bullying in other forms of internet use, including email or instant messaging, are made simpler on platforms for social networking (Fouts, 2012; Stout, 2011).

**b) Privacy Issues:**

Privacy is another common issue when it comes to social media inclusion in the educational system. One of the most significant risks of using social media in the classroom is the publication of personal information. According to a Microsoft research study, 70% of employers have utilized social media data to reject job applicants that show inexperience, lack of judgment, or other unpleasant behaviors (Social Networking Pro Con, 2012).

**c) Authenticity of Data:**

It is true that social media apps greatly assist students in locating and compiling information about their particular courses, homework, or other projects. On social media, students are more likely to encounter inaccurate information. In contrast to other potential concerns such as compromised online safety, publication of confidential data, and exposure to illicit content. The U.S. House of Representatives' Committee on the Judiciary (2009) indicates that cyber bullying is the main threat that adolescents and kids face digitally (Goldfarb et al., 2011).

**d) Availability of Unsuitable Content:**

Students sometimes have access to unsuitable information, such as hate speech and violent content. These kinds of materials could negatively affect their thinking and cause them to make poor life decisions. Therefore, parents and teachers must make sure that their children or pupils use social media

in a secure manner. Some policymakers and educators keep preventing the use of social media in the classroom. These leaders and professionals believe that using social media in the classroom could put pupils in danger (Minocha, 2009). Exposure to offensive content is another probable issue. The primary concern of educators is that students might come across offensive content (Toppo, 2011; Guynn, 2010).

**e) Adverse Effect on Mental Health:**

Overuse of social media, especially when compared to others and under pressure to maintain a flawless online persona, can exacerbate anxiety, despair, and low self-esteem. According to a Pew Research Center study, adolescents between the ages of 12 and 17 who have encountered cruel or mean behavior on social media sites have not reported it, and all teenagers, irrespective of their age, gender, socioeconomic status, or ethnicity, are at risk for cyber bullying (Lenhart et al., 2011).

## **OPPORTUNITIES OF SOCIAL MEDIA IN E-LEARNING**

Social media and e-learning have revolutionized education by encouraging student participation and cooperation. Creating dynamic and engaging learning experiences has been made possible by integrating well-known social media sites like Facebook and Instagram into instructional procedures. E-learning has responded to this trend with grace, meeting students' changing demands and transforming online classrooms into dynamic communities of connected learners. The following are some significant e-Learning social media trends worth keeping an eye on:

**a) Microlearning:**

A notable instance of efficiency is microlearning, which blends in perfectly with the popular social media e-Learning trends. Short-form material has emerged as a preferred option for people looking to learn quickly as life gets busier and attention spans get shorter. Microlearning is a teaching strategy that addresses the drawbacks of conventional training methods by providing brief learning material in formats that are simple to understand (Hug, 2022). In accordance with their fast-paced existence, it allows students to learn in short intervals (So et al., 2020). Microlearning is accessible on a variety of devices and may include many different forms, including movies, tests, and models (Ghirardini, 2011).

**b) Social and Interactive Experiences:**

The social and interactive aspects of online learning are becoming increasingly important as social media trends change the educational landscape. Online learning communities are growing more varied and accessible as digital platforms advance, allowing students to easily exchange resources take part in discussions, work together on group projects, and give helpful peer-to-peer feedback. The physical distance between teachers and students can be reduced with the use of live streaming and virtual events, which are essential elements of social media trends in e-Learning. These solutions enable real-time interactions beyond geographic boundaries, bringing students and teachers closer together.

**c) Gamification:**

In order to enhance student learning outcomes, gamification which is the incorporation of game-like elements in non-gaming contexts has drawn a lot of interest from educational institutions (Deterding et al., 2011). Gamification aims to boost student motivation, engagement, and academic performance through the inclusion of components such points, badges, and leaderboards (Kapp, 2012). The method makes use of games' inherent appeal to create engaging and dynamic learning environments that have the potential to revolutionize traditional methods of instruction (Hamari, Koivisto, & Sarsa, 2014).

**d) Combining Virtual Reality (VR) and Augmented Reality (AR):**

Social media trends are being reshaped by the combination of augmented reality (AR) and virtual reality

(VR), which offers highly interactive training experiences that encourage active learning. Imagine a student entering a virtual world where they can engage with peers, manipulate things, and move through simulations of real-world situations. Beyond conventional techniques, this revolutionary approach to education provides a practical experience that increases comprehension and encourages participation.

Augmented Reality (AR) is a technology which brings together digital and real-world information, allowing users to interact with virtual things and view the real world at the same time (typically using a digital camera in a mobile phone or tablet) (Milgram P, Takemura H, Utsumi A, et al., 1995). VR uses digital visuals to create totally realistic simulations in real time (Burdea GC, Coiffet P., 2003).

#### **e) Content Created by Users:**

Organizations and educational institutions are realizing more and more how important it is to employ user-generated content and knowledge-sharing to create vibrant learning communities. Teachers can adapt content to each student's particular requirements on their own learning journeys by drawing on the collective wisdom of learners. This method creates a sense of community where students actively participate in the learning ecosystem in addition to personalizing the educational experience. Encouraging users to actively participate in content production and collaboration improves the interactive character of the educational experience in the context of social media trends in eLearning. Students become active contributors rather than passive recipients, encouraging a culture of participation and mutual learning.

#### **f) AI-Assisted Education:**

According to Sekeroglu, Dimililer, and Tuncal (2019), teachers may improve the learning experience for their students individualized instruction using the support of artificial intelligence. According to Pedro, Subosa, Rivas, and Valverde (2019), artificial intelligence could offer marginalized individuals and communities, persons with disabilities, refugees, individuals who are not enrolled in school, and residents of remote regions access to better and more suitable educational opportunities. Research demonstrates how intelligent learning environments and artificial intelligence techniques can assist the presentation of effective individually personalized approaches (Mohammed & Watson, 2019).

### **CHALLENGES IN USE OF SOCIAL MEDIA IN E-LEARNING**

There are various challenges of social media in e-learning are as follows:

#### **a) Data Security Issues:**

In order to safeguard sensitive data and protect user confidence when incorporating social media into e-learning, privacy and data security challenges must be thoroughly considered. Adopting strong security measures, which include encryption, restricted access, and periodic audits of security to guarantee data protection, is essential for reducing these concerns. This is validated by literature, which shows that students are anxious about their privacy when using social media due to the worry that their information may be shared. The results show that teachers are worried about their privacy when using social media for teaching purposes, which is consistent with recent academic studies (Chugh, Grose, and Macht, 2020).

#### **b) Sustaining Levels of Student Involvement:**

Teachers need to implement a variety of interactive methods of instruction that suit different learning styles in order to sustain high levels of student engagement in e-learning. In order to keep students interested in online classes, student motivation is essential. Teachers can create a more interesting and engaging learning environment through incorporating successful engagement strategies into practice,

such as fostering active participation levels and introducing engaging material. According to previously published research, families with low incomes may only be able to pay for a low-spec cell phone that is unable to use WhatsApp (Chisango and Marongwe, 2021).

**c) Assessing the Appropriateness of Content:**

While incorporating social media into e-learning, keeping an eye on the importance of the information is essential for ensuring a pleasant and safe online learning environment for every learner. In this process, content filtering is essential as it gives teachers control over the sorts of materials youngsters may access, ensuring their safety. Institutions can create an effective atmosphere for learning through establishing clear expectations for digital conduct and content through the introduction of appropriateness standards. By rapidly identifying offensive content, automated monitoring technologies can help keep an eye on what is shared on social media platforms. By anticipating possibly hazardous content, these solutions enable immediate action. The result supports research showing that some educators and students do not have access to the internet at home and are unable to pay data (Chisango and Marongwe, 2021).

**d) Linking Various Social Media Sites:**

One will encounter across platform compatibility issues when incorporating various social media sites into your e-learning scheme, which might ask for customized solutions. Encouraging users to engage on all of these channels is crucial to a fluid educational process. Maintaining a unified message and avoiding

Learner misunderstanding requires ensuring consistency in content across all platforms.

**e) Bringing Inclusivity and Accessibility into Consideration:**

Fostering inclusion in e-learning environments demands making sure social media tools are accessible to all students. In order to ensure that all students, regardless of their skills or disabilities, may fully engage in and take advantage of online learning opportunities, inclusive design and digital accessibility are important.

**f) Controlling Social Media Time:**

Effective time management techniques must be used when limiting social media usage in order to ensure efficiency. Finding a balance between social connections and academic work is crucial because distractions could hinder the way you grow. To stay focused and effectively accomplish the e-learning objectives, discuss establishing constraints on time for social media use. These results confirm the research literature where the difference between work and personal time for teachers gets dissolved. This is due to making themselves reachable to their pupils on social media (Rosenberg and Asterhan, 2018).

**g) Overcoming Technological Constraints:**

When incorporating social media into e-learning systems, addressing technological constraints is a major difficulty. Incompatibility issues between different social media platforms and e-learning systems provide rise to tech integration challenges. A comprehensive grasp of the technical specifications of social media and e-learning platforms is necessary to overcome those constraints. Students who are afraid to use technology, cannot access it, or lacking the abilities required may perform poorly when social media is used in the classroom (Wyse et al., 2020), extending the knowledge gap. The results confirm the present research through demonstrating that teachers who are unable to use ICTs or who fail to regularly take part in e-learning activities after school are more likely to be resistant to use them (Jenaibi and Mansoori, 2021).

## CONCLUSION

Social media has altered the complete process of learning from a passive to active or interactive mode. With billions of users exploring and discovering content every day, social media applications have emerged as the most popular platforms. Social media applications become useful tool in daily routines because of their exceptional and adaptable qualities. The education system has been enhanced and uplifted to new levels of success and accessibility because to the incorporation of social media into e-Learning. The drawbacks of this integration must be addressed in order to ensure the safe and healthy use of social media in educational settings. The blended strategy is the best approach that integrates the use of social media in e-learning.

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