

# Recent Trends of Learning using Social Media & Impacts on Education

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**Abstract**—Use of social media as a key element of the business world, entertainment industry, and education system, is one of the greatest and transformative technologies of the 21st century. Social media now forms a critical part of our lives, with profound effects on various elements of our everyday existence, such as education. The widespread adoption of social media platforms like Facebook, Twitter, Instagram, Skype, and WhatsApp, as well as individual web and blog sites, have revolutionized the teaching and learning process among students and educators. The concept of a global village in today's world is based on the use of social media platforms, as they facilitate instant communication, information/resource sharing, and collaboration, which enhance the educational experience among students and teachers. The usage of social media in education has reshaped traditional learning methods, offering new opportunities, but at the same time it brings challenges related to invalid information, privacy, cyber bullying, online bullying, and addiction to social media. Today, education system has been impacted by Social media positively and also negatively. This paper tries to concentrate on both of them and also find out ways for minimizing the adverse effects. This paper also tries to explore the usages and impacts of social media on education along with the applied latest technology, Artificial intelligence (AI). Integration of AI technology with social media is full of tremendous potential to improve the quality of education at every level of learning for its multifaceted impacts. A clear demonstration of the potential and urgency of AI is the application of ChatGPT in education. AI has improved learning outcomes, efficiency and global access to quality education. But, at the same time AI deals with some undeniable issues which are data security and privacy, bias and discrimination, plagiarism and academic dishonesty, and the teacher-student relationship.

**Index Terms**— Social media, Education, Impact, AI, ChatGPT.

## I. INTRODUCTION

Social media refers to digital platforms that provide users the ability to generate individual profiles or pages, transmit messages, share images, videos, and facilitate their interaction, content sharing, and online communication [1]. As per to the Dictionary definition, "Social Media is websites and applications which allow users to create and share content or to join in social networking." Social media has acquired credibility over the years as a reliable source of information and space where organizations can engage with audiences [2]. Some most popular social media platforms are Facebook, Twitter, Instagram, LinkedIn, YouTube, WhatsApp etc. Different social media platforms have different features and functionality, but their primary objective is to enable users to engage in social interactions and exchange information. Social media has made communication between strangers easier than ever.

Today, social media is used by at least half of the total world population for different activities. Social media was employed by approximately 2.078 billion people around the world in 2015. By 2016, it was increased to 2.307 billion people with 21% growth rate and in 2018, growth rate increased to 9% percent with 3.196 billion people. In 2020, it was estimated that around 3.960 billion people used social media. Since social media has started, Facebook has been the top favorite social media website. By 2024, Facebook had 69% of the world's social media users, Instagram had 40% of the world's social media users, LinkedIn had 28%, and Twitter had 23%. India is currently the number one nation to use Facebook, WhatsApp and Instagram. India currently has 581.6 million Facebook users, 535.8 million WhatsApp users, and 392.5 million Instagram users [3].

Social networking websites provide academic assistance to students, resulting personality and performance changes, and also invention and innovation help. Today, most of the young generations are members of more than one social networking site. Ninety five percent of youth state that social networking sites act as platforms for reconnecting with lost friends, maintaining existing networks/relationships and sharing knowledge, ideas and opinions. Ninety five percent of individuals who are members of one or more social networking communities spend some amount of time, ranging from less than 1 hour to about 5 hours daily in social networking sites [4]. Social networking sites have facilitated communication easier as members of such sites can easily form groups (called the communities) and exchange their opinions/resources among themselves. But the biggest challenge of using sites is that despite its many positive sides, sometimes these sites have become a privacy threat to the people worldwide, resulting in cybercrime.

Artificial intelligence (AI) is a field of computer science and technology to develop machines, systems, or software programs that are capable of executing the tasks involving human intelligence. AI systems are so designed that they can simulate or replicate human cognitive functions and adapt to new information and situations. AI is a fundamental component of how today's social networks function. Most commonly used forms of AI used in various applications are Expert systems, Fuzzy logic, Neural networks, Machine learning, Deep learning, Natural Language Processors etc. Artificial intelligence is a major component of all the popular social networks we use in our daily lives. For instance, Facebook does nearly everything on its site, such as suggesting user content, face recognition, friend suggesting, and targeted advertisement to the users using sophisticated machine learning technique. Numerous AI tools have been utilized by nearly all social media to enhance each user's experience [5,6,7].

## II. RECENT TRENDS OF LEARNING

Recent trends in learning and development are heavily impacted by technology integration and also demands continuous adaptation. Some of the key areas include personalized learning, AI powered tools, immersive technologies like VR/AR and focus on skill based learning. Below is a more detailed look at the trends:

### Social learning

People share their learning experiences and values on social media for others help.

### Collaborative learning

Learning Groups and Communities help students to connect with peers, share insights, and work on projects together.

### Distance learning

Traditional lectures are replaced by Virtual lessons and students can organize their time to learn. It involves no in-person interaction between students and teachers.

### E-learning

E-learning or digital learning, or virtual learning, or online learning is a process of learning in which instruction and learning occur through digital learning tools or platforms and learning management systems (LMS). It involves in-person interaction between students and teachers.

### Blended learning/ Hybrid learning/Flipped classroom

It combines traditional classroom instruction with digital learning tools. Here instruction is provided in both face-to-face format and online simultaneously.

Some other popular trends include:

### Virtual Reality (VR) and Augmented Reality (AR)

VR and AR are those technologies, which offer realistic simulations for training purpose in different fields. Here the users are allowed for hands-on practice in a safe environment rather than the practical environment.

### Micro learning

Micro learning is an approach to learning which breaks down complex topics into smaller, manageable units, typically lasting for a few minutes. It is designed to be convenient, easily digestible and engaging for learners. It is perfect for not only busy people, but also for common learners.

### Personalized learning

It is a learning strategy that personalizes the learning process to meet the interest and learning preferences of each student differently. It involves with individualized learning plans, technology integration and focus on student strengths.

### Adaptive learning

It is an educational approach which involves with technology to personalize the learning experiences for each individual student, tailoring content, pace and feedback to their specific needs and learning style.

## III. POPULAR SOCIAL MEDIA SITES USED IN EDUCATION

Some of the most popular/important Social Media Sites/apps/applications used between students and teachers for communication, sharing resources, and audio-video are Facebook, YouTube, Twitter, LinkedIn, Instagram, WhatsApp, Google Classroom, Skype, Zoom, Google Meet, MS Teams etc [8-10]. Different educational social media platforms that are widely used for learning, collaboration, and professional development can be categorized as listed below:

**General Educational Platforms:** Examples- Google Classroom, Moodle, Schoology, Canvas.

**Professional Development and Networking Platforms:** Examples-LinkedIn Learning, Coursera, edX , Udemy, Future Learn.

**Student and Educator Collaboration Platforms:** Examples- Microsoft Teams for Education, ClassDojo , Remind , Seesaw, Flipgrid.

**Subject-Specific Learning Platforms:** Examples- Khan Academy, Quizlet, Duolingo, Memrise , Codecademy.

**Content Creation and Sharing Platforms:** Examples- Pinterest, Wakelet , Padlet, YouTube Education , TED-Ed .

**Community-Based Learning Platforms:** Examples- Reddit (Educational Subreddits), Quora, Brainly, Stack Exchange, Research Gate.

## IV. IMPACTS OF SOCIAL MEDIA ON EDUCATION

The influence of social media on education is a two-edged sword, as it has opportunities and challenges. It improves communication, cooperation and information access for students and educators, but it also has some issues like distraction, mental health issues and susceptibility to misinformation. Most positive and negative impacts are as listed below [8-12]:

### Positive Impacts

#### Shared Learning

Social media can help students to learn beyond physical classrooms by providing access to extra educational resources, such as recent developments and other relevant enriching topics in the form of audios, videos and study materials posted by different subject experts. Students who use social media as an extra source of resources alongside their coursework may show improved academic performance.

**Collaboration**

Social media can help students to collaborate on projects and assignments without their physical presence. This builds teamwork among them and develops their communication skills.

**Creativity**

Social media helps students to share their creative works by providing a platform for exchanging idea/knowledge. It gives them the opportunity to receive feedbacks from teachers instantly, which increases their creativity.

**Socializing**

Social media helps the students to become more social by making friends and exchanging their knowledge/ idea to each other, which is an important part of growing up.

**Parental involvement**

Social media helps the parents to be involved in the learning process of their wards and update about their progress so that parents can provide the necessary support to students at home. Parental involvement plays an important part in the personal growth and educational growth of students.

**Distance learning**

Social media provides an effective solution to the students who are not able to enroll in their dream university/college for their personal constrains through online or distance education. Distance learning offers the opportunity to access study materials and attend online classes both recorded and live.

**Career**

Social media is used by the students for the career and job-related information. Social media marketing is considered now as an emerging career option. Social media marketing can prepare/help the young workers to become successful marketers.

**Negative Impacts****Reduced learning and research capabilities**

Students now depends for study materials and information more on the social platforms, and they use the material that are readily available on these platforms instead of spending time in the library, which reduces their learning and research capabilities.

**Reduction in real human contact**

Students spend more time on social networking sites, which in turn reduce their time to spend with real humans for face-to-face interaction. It affects badly in the development of their interpersonal skills, which is not good for their future lives.

**Reduces creative writing skills and command over language**

Students generally use informal language and incorrect/abbreviate words for interaction on social media, which reduces their command over the language. Again, for creative writing, they depend on spelling checkers or grammar checkers highlights and the language structure of the PC, which reduces their capacity for creative writing.

**Academic Distraction and poor Academic Performance**

The constant stream of notifications and updates coming on social media diverts the mind and make it difficult to concentrate in studies, causing a lack of time management for academics. This results in poor academic performance with their reduced learning and writing skills.

**Addiction**

Excessive or unnecessary use of Social media by the students can make them addictive, which results in prioritizing social media over their education. Examples of addictions are watching pornography, sending/forwarding sexual SMS, MMS, online gaming, continuously checking different apps for notifications.

**Cyber bullying**

Students around the globe spend a lot of time on mobile phones using social media, where they share information/photographs related to their personal lives, personal likes/ dislikes, comments/ messages, which sometimes results in to the case of Cyber bullying. Cyber bullying is one the major concern that happens a lot worldwide to mentally harass another person online. The mostly reported vehicle for Cyber bullying is Social Networking websites or applications. Bullies can target victims with more intensity and perseverance through social media than in person.

**Effect on Health**

Many students are not aware of the fact that excessive and unnecessary use of social media for non-academic purposes distracts them from their learning and academic activities, which results in poor mental health and physical health. Today, students prefer to play online games instead of outdoor games, which results in a significant impact on their psychological and physical well-being. Some students have developed irregular food habits and sleeping disorders, which can lead them to depression, anxiety and mood swings. Spending a lot of time on social media lowers our physical activity, which can lead to a sedentary lifestyle.

**Privacy issues**

Social media has become an integral part of our lives, leaving great impacts on different aspects of our day-to-day lives, including education. Social media gathers our sensitive data and personal information, which may result in privacy issues.

## V. IMPACTS OF AI IN EDUCATION

Integration of social media and artificial intelligence (AI) in education has resulted in an innovative change, reshaped educational landscape, and enhanced learning experiences. Using social media platforms, students have experienced a new way of remote learning, share knowledge, and connect with peers and educators anywhere around the world [6]. Personalized learning, intelligent tutoring systems, automated assessment, and teacher–student collaboration are the possible uses of AI in education. AI has improved learning outcomes, efficiency and global access to quality education. However, AI possesses challenges to modern teaching methods. In November 2022, the launch of ChatGPT, the rise of generative AI, and its embracement in education was regarded as a milestone. The sophisticated writing and reading abilities of ChatGPT impressed the external world outside the machine learning world and made them eligible to understand the potential and in-time nature of AI. ChatGPT has great potential to provide solutions to students on a wide range of tasks, from essay writing to code creation. The potential of ChatGPT to deliver intelligent tutoring systems, but at the same time it is a tool for academic dishonesty also, has created an intense debate among educators. Teaching professionals of various education institutions demanded the limitations on using ChatGPT in education, raising the alarm over the potential of the misuse of ChatGPT by students [13,14].

The main advantages of AI in education are improved learning outcomes, efficiency and global access to quality education. But, at the same time AI deals with some potential issues which are data security and privacy, bias and discrimination, plagiarism and academic dishonesty, and the teacher-student relationship [5,6,7,13,14].

## VI. STEPS FOR MINIMIZING THE ADVERSE EFFECTS OF SOCIAL MEDIA

Social media plays a significant role in educational institutes. So it is very important to create awareness on the use of social media and online communication etiquette among all the stakeholders. The followings measures can be adopted to minimize the adverse effects of the use of social media [1]:

### **Improving Social Media Literacy**

To improve social media literacy among students, the educational institutions should integrate social media literacy as a part of the curriculum or teaching program.

### **Supervision and Coaching**

Educational institutions must have some supervisory policies and mechanisms to monitor students' behavior at the time of using social media.

### **Education for Positive use**

Students, teachers and parents must be educated about the positive impacts of social media in education. There must be privacy and security awareness in educational institutions, and students' personal data must be protected by the educational institute.

### **Sustainability of Online Learning**

Educators can utilize social media for the expansion and diversification of learning resources for students.

### **Privacy and Security Awareness**

Privacy and security awareness in educational institutes is very important to maintain the privacy of students' personal data and any misuse of information.

## VII. CONCLUSION

Social media have significantly expanded the scope of both positive and negative factors of the holistic development of the younger generation. Social media have both positive and negative impacts on student academic achievements, and so it is important to use the social networks with a regulatory and responsible way. Teachers and parents should always remember about the negative consequences of using excessive social network. However, teachers, parents and educational institutions should always come forward to create awareness among students about the negative impacts of the use of social media. Educational institutions should promote social networks as a tool of learning at first and then to use for communication and entertainment. Students also themselves must realize all the potential harm resulted from excessive use of social networks and can avail themselves of the benefits of these latest emerging technologies of the 21<sup>st</sup> centuries. Integration of the latest technology, such as AI, in education has offered numerous advantages to students and educators, but the success will depend upon the positive and efficient use only. It is critical to balance between the positive impacts and negative impacts for the students. Together, students, teachers, and parents can create an effective and secure learning environment that maximizes positive impacts and minimizes negative impacts.

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