# Reviewing Current State of Research on the Use of Social Media in Higher Education

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## ABSTRACT

Social media platforms are increasingly gaining popularity for various usages in higher education. However, research in this domain is still in nascent stage, especially in India. Through a systematic review process, this study has summarized some of the major findings of the 184 papers published in the last ten years (2010-2019) in highly reputed journals that are indexed in SCOPUS and EBSCOHOST. The findings are classified as emerging from Indian and international studies and research gaps have been identified. Future studies should explore this gap to help the policy makers at national and various institutional levels to come up with appropriate strategies for reaping more benefit of social media in higher education.

**Keywords:** *Social Media, Higher Education, Pedagogy, Literature Review*

## 1. Introduction

The recent years have been characterized by change in our daily lives due to rapid invasion of social media and social network sites (SNS). Its adoption has resulted in a fundamental shift in the way communication and collaboration take place. The education sector has also been affected by social media. Advances in technology in recent years have changed the learning behaviors of learners and reshaped teaching methods. The ongoing COVID-19 pandemic has made online teaching and learning mandatory for a large number of population all over the world. On the other hand, social media has become an important platform of interaction, communication and marketing in the education sector. Thus educators and researchers are being compelled to find out ways and means by which social media technologies may influence the education system, and explore avenues to ensure positive outcomes of its impact (Saini & Abraham, 2018).

### 1.1. Rationale of the Study

Social media can bridge formal and informal learning through participatory digital cultures. Openness, interactivity and sociability may make different forms of social media powerful drivers of change for teaching and learning practices (Manca & Ranieri, 2016). Technology-led reach and easy access is bringing about a socio-economic difference in the lives of Indian learners.

In spite of its great value for academic purposes, especially as teaching and learning tool, faculty members use social media minimally. Researchers have endeavored to find out barriers that cause this. In various studies, including those conducted in developing countries, teachers have generally agreed that social media could be an innovative and effective teaching and learning tool, if those barriers were removed (Sobaih et al., 2016). For instance, Facebook may facilitate increased teacher-student and student-

student interaction as well as engagement, better performance and convenient learning (Chugh & Ruhi, 2018). YouTube videos, which are relevant to a subject, can definitely enhance the learning experience. Thus, researchers have recommended that instructors integrate YouTube into their respective courses (Moghavvemi et al., 2018). Teachers have been suggested to embrace online communities to support their classroom goals (Faizi, 2018).

Indians comprise 136 million active social media users of the global total of 2.31 billion (Kemp & We Are Social, 2016). The largest Indian segment accessing social media consists of the college going students at 34%, followed by young men at 27%. School going children constitute 12% of the OSM users. College going students and young men together form the 60% of the OSM users in urban India (IAMAI & IMRB International, 2015). Moreover, Indian internet users spend nearly 5 hours online every day and more than half of the social media users are below 23 years or less (India @digital Bharat: Creating a $200 Billion Internet Economy, 2015; Kemp, 2015). With nearly a billion people on mobile phones, the online system certainly has vast potential to create the right kind of learning.

## 2. Objective of the Study

Since majority of the social media users in India fall in the age-group which should ideally be involved in higher education, social media may be an effective tool in different aspects of higher education. Through a systematic literature review, this research paper aims to summarize findings from Indian and international research which have studied the use of social media in higher education. As brought forth by different studies, the motivating and inhibiting factors behind using social media for education purposes perceived by students, faculty members and administrators as well as socio-technological and infrastructural aspects of various social media platforms are highlighted in this paper. By bridging the gap between expectations and executions of these stakeholders a policy framework for successful integration of social media in higher education may be formed, which will improve the quality of higher education through enhanced engagement of various stakeholders.

## 3. Research Methodology

A cross-domain search in the areas such as education, business management and information systems was used in SCOPUS and EBSCOHOST to find out the studies published in peer reviewed journals that discuss the use of social media in higher education. The use of social media in teaching and learning was identified by using the name of popular social media platforms or generic terms like social networking sites, which lead to the inclusion of keywords such as "Facebook", "Twitter", "Linkedin" and "Social networking sites". Similarly, various keywords were also used to portray the teaching in higher education, such as "Higher Education", "Educational organisation" and "Teaching". After removal of duplicates 184 articles were found. This literature review aims to highlight the important findings from some of these papers which were published in ten years ranging between 2010 and 2019, both years included. Articles which were cited in these research papers are also considered for the current study.

## 4. Review of Literature

Research studies on social media itself is an evolving field of study, which has gradually gained momentum in the last few years. Furthermore, research work on the use of social media for higher education is at a nascent level internationally. Although some studies in this area have been conducted recently, researchers unanimously suggested further work, especially of empirical nature at a national level.

### 4.1 Research Studies Abroad (International Level)

Researchers have studied social media as an educational tool in different contexts. The research studies have broadly focused on teachers, students, technological platforms in use, subjects, courses, level of education, pedagogy or use of social media for marketing and administrative purposes. Some relevant studies done at international level are summarized below based on themes identified from those researchers.

▪ **Students**

Born into a world of computing, the present and future generations of students are digital natives. Social media support new approaches to their learning, relying on voluntary and peer-to-peer communication using various devices and software. Understanding the modes and drivers of their participation can provide insights into how universities and instructors can be socially ready for this change (Mikum et al., 2018). For example, individual learning style (i.e. participatory, collaborative, or independent) may affect the adoption of social media technologies for learning purposes (Balakrishnan & Gan, 2016).

Social network sites allow students to connect formal and informal learning settings. It facilitates connection among similar-minded people and informal knowledge exchange among students for educational purposes. Studies revealed that generally freshers use social network sites for social interaction and integration to seek contact with other students regarding orientation. Communication about social issues on social network sites goes hand in hand with study-related knowledge exchange (Wodzicki et al., 2012).

Researchers have attempted to understand student perspectives on the inclusion of social media in higher education and to establish whether the inclusion of social media sites can impact students' motivation and goal orientation (Cooke, 2017). A research on the students of the Fiji National University scrutinized the effects of social media and network sites on students' behavior as well as education (Dubey et al., 2018). Many students view social media as a key means of the educational experience, alongside face-to-face meetings and learning management systems. They use social media for brief questions and answers, and to coordinate group work (Hrastinski & Aghaee, 2012).

However, students often perceive a distinct divide between educational and private use of social media. Although the vast majority of the students use social media frequently, earlier researchers noted a "digital dissonance" among students, because few of them felt that they could use such media to support their studies (Hrastinski & Aghaee, 2012). A study conducted in higher educational context found that students also use social media as a tool for career-building purposes (Josefsson et al., 2016). Facebook and Twitter have been found to augment participants' learning experience by providing an environment to connect with others through enhanced communication, easily share resources and provide a space to post personal feelings or reflections of learning in an informal and quick manner (Liu et al., 2016).

Researchers have attempted to understand the drivers of social media in higher education institutions (HEIs) in an emerging economy, based on the Technology Acceptance Model and including subjective norm, perceived playfulness, internet reliability and speed as additional constructs (Dumpit & Fernandez, 2017).

▪ **Teachers**

Similar to students, teachers also use social media for personal and educational reasons. Use of social media and other internet applications for discovering educational resources are gradually increasing (Hunter & Hall, 2018). Several studies have been conducted on teachers to understand their perception of social media as an academic tool to aid classroom teaching or disseminate research studies (Rochez, 2015). Studies in developing countries have been conducted to understand the value and use of social media as an effective teaching and learning tool in higher education (Sobaih et al., 2016).

Researchers have found that in spite of their willingness to use social media for networking, sharing and promoting their own work and that of others, many researchers prefer to stay away from online platforms in conducting and disseminating their work (Rochez, 2015). Similar reluctance to adopt social media has been noted through surveys done on teachers. Although they acknowledged positive impact of social media on teaching and learning, they would prefer not to effectively incorporate social media in education settings (Faizi, 2018). A study conducted on pre-service teachers indicated that the educational usage of social media is directly explained by purposes of social media usage and indirectly by social media adoption (Saini & Abraham, 2018).

▪ **Technology**

Massive open online courses (MOOCs) have been a topic of much debate for their potential to transform higher education by opening access to a large mass of people. Massive Open Online Courses (MOOCs) potentially challenge the traditional dominance of brick and mortar institutions as providers of quality higher education. While students may benefit from reduced education costs and global access to exclusive institution courses and instructors, the benefits for institutions are often vague because of the financial overhead required to develop and deliver content suitable for mass consumption. (Burd et al., 2015). On the other hand, in spite of attracting high volume of learner cohorts, controversies surrounding quality in learning and teaching provision abound in MOOCs. Impressive headline figures on MOOC enrolments often contrast with extremely low course completion rates (Freitas et al., 2015).

Research work revealed that lecturers in transnational higher education perceived MOOCs unsuitable for accredited prior learning. However, they believed that MOOC might be useful as a supplementary resource for student learning and for professional development (Annabi & Wilkins, 2016). Popular MOOCs have been found to have problem-centric learning with clear expositions, instructor accessibility and passion, active learning, peer interaction, and helpful course resources (Hew, 2014).

Mohapatra and Mohanty (2017) noted that skills of learners, usability of the course, availability of course and affordability of students are the prime influencers of the learner's perception regarding MOOCs. Their study also emphasized on the importance of reputation of educators associated with the offering, besides acknowledgement by other stakeholders.

Apart from MOOC, researchers have also attempted to study influence of other social media platforms, like microblogging sites, purely academic social network sites etc. Researchers attempted to validate the relationship between the use of social networking

sites, academic engagement and knowledge sharing using websites solely designed for academic activities (Koranteng & Wiafe, 2018). The findings revealed that academic social networking sites supported indicators of the social capital dimensions, e.g. social interaction ties, trust, reciprocity, identification, shared language and shared vision. Microblogging, on the other hand, may encourage engagement, participation, collaborative learning and reflective thinking under different learning settings (Gao et al., 2012).

Blogs may allow for fast sharing of research methods, results and conclusions in an open and transparent manner in the form of reliable evidence-based information via new media in response to emerging issues. They can also support other traditional goals of higher education institutions, by facilitating teaching, learning and outreach (Powell et al., 2012).

Social media and mobile computing created opportunities for interaction and collaboration, besides allowing students to engage in content creation and communication with the assistance of constant connectivity (Gikas & Grant, 2013).

▪ **Pedagogy**

Many researchers have focused on MOOC because of its emerging importance in fast dissemination of knowledge among a large number of people. Massive Open Online Courses (MOOCs) offer high quality, free courses to anyone with an Internet connection. Course materials and learning experiences have been found to directly, positively and significantly affect MOOC courses, which in turn significantly impact students' use social networks sites (Karajeh et al., 2018). However, as stated earlier, lack of student motivation to learn generally plays a significant role in student attrition and dropouts in MOOCs. Combining a plethora of learning strategies in a curriculum that integrates MOOC affects the sense of academic achievement in some students. Social learning strategies and self-regulated learning have been found to assist in promoting the learning in MOOCs (Magen-Nagar & Cohen, 2017). Benefits of using MOOC with classroom based teaching were identified by Bralić and Divjak (2018).

Studies revealed that content, accessibility, and interactivity significantly influence students' motivation to learn (Deshpande & Chukhlomin, 2017). Researchers attempted to explore the effect of Web 2.0 learning environment on higher education in adding value to the students' existing competencies and performances. Considering students' views on the use of technology in a university course deployment and from the students' personal opinions about a pilot course in a Web 2.0 learning environment, Karvounidis et al. (2018) strived to derive significant factors that should be taken into account in the deployment of these technologies to achieve the maximum possible benefits. Mikum et al. (2018) researched on the value of participation by liking and sharing which are available to read-only participants and 'lurkers' alike. On the other hand, Szeto, Cheng, and Hong (2016) attempted to gain a deeper understandings of the digital-native preservice teachers' pedagogies by exploring their preferred social media as instructional tools used in teaching practices.

▪ **Marketing & Administrative:**

The number of businesses in various industries that have integrated or are planning to integrate social media applications into their marketing programs is growing rapidly. Higher education institutions show increased interest in the potential of social media as a marketing tool. The potential of these tools to reach and attract future students is of particular interest. How potential students use social media and what role social media plays in the decision making process of choosing a program of study or an institute is an important issue for research. Le at al. (2018) found that reputation, career prospect, learning and teaching, administration and student life are the five major information requirements for prospective students while using social media.

Students are mostly interested in social interaction and information seeking in social media, while the content contributed by this group is limited to photo and video sharing. In spite of high penetration of social media among future students, the impact of these in the choice of study and institution is relatively low compared to more traditional forms of university marketing (Constantinides & Stagno, 2011). Universities can attempt to more accurately target their social media content by understanding the electronic word-of-mouth seeking behaviors of prospective students (Le et al., 2018).

However, employing data mining and quantitative methods to collect and analyze the available histories of primary Twitter accounts of institutions of higher education in the U.S., most of the institutional tweets have been found to be monologic, expressing neutral or positive sentiment, directed towards dissemination of information (vs. eliciting action) by linking to a relatively limited and insular ecosystem of web resources (Kimmons et al., 2017).

Rowe (2014) attempted to develop a categorization model for dealing with inappropriate or irresponsible comments that have been detected or reported in the university setting, such as Facebook. These inappropriate comments are widely accessible and may damage the reputation of institutions, create personal distress and compromise academic integrity.

The interactions received (e.g. retweets and favorites) and type of content posted (e.g. original tweets, retweets and replies) on social media vary by also by the curator type. Student curators have been found to be more likely to gain interactions from other students in comparison to staff (Marie Condie et al., 2018).

**4.2 Research Studies in India (National Level)**

Research studies in the area of social media for education related purposes in India is at a very nascent stage. Upon searching Scopus online database with the keywords "Social Media", "Education" and "India" only 56 journal papers were obtained. Relevant research papers from this search are summarized below to provide an understanding of the work performed in this domain.

▪ **Students:**

As India continues to experiment with more creative methods for teaching and learning, Bharucha (2018b) pointed out that the country is at an embryonic stage compared to advanced nations. A digital divide separates students between generations, as well as within the same generation. Students are far from reaping full benefit that technology offers to them.  His research paper attempts to build a model relevant to the Indian scenario as to how students can benefit from social media beyond the classroom.

Vijayakumar et al. (2017) observed a growing demand by students for integrating social media in future education. Through a convenient sampling of 120 students, in their research study, Sankari and Sripriya (2018) focused on the positive and negative aspects of social networking site in education, influence of social media in learners' academic performance, ways to use social media in learning system and the barriers of using social media in education. Similar to Vijayakumar et al. (2017), their study also revealed that social networking sites are very popular and most of the participants supported the idea of implementing social media and e-Learning in their academic life.

Bharucha (2018a) emphasized that the students' experience should be paramount when incorporating social media in higher education. This research focused on the use of social media in business education. He also deliberated on the flip side of learning with social media. The study points to the fact that the basic challenge lies in aligning social media with the curriculum.

▪ **Pedagogy:**

Study conducted by Madan et al. (2016) predicts that social networking on Facebook and higher education can work in parallel. The case-based research study conducted by Saurabh and Sairam (2013) provide information to academicians in enhancing the quality of education by using social media. Nadar and Kamatchi (2017) presented a hybrid research model by considering different factors of ICT education using social media to facilitate collaborative learning in a course of algebraic maths.

▪ **Technology:**

Jena (2018) developed a model to automatically detect students' learning styles based on their personal, academic and social media data. This research suggested that by capturing and analysing appropriate data from social media to identify students' learning styles teachers, educators and administrators can work together with students for overall improvement of their learning outcomes.

▪ **Marketing & Administrative:**

Upon conducting research based on publicly available data in social media sites of top 300+ higher education institutions in India, Tripathi (2018) commented that these institutions are slow to adopt social media. Chauhan and Pillai (2013) attempted to understand the role of content strategy followed by leading higher education institutes in India. They considered content type, posting agility, posting day and content context on number of likes and number of comments, which were assumed to be manifest variables for customer engagement. Rejeesh and Anupama (2017) found that social media and data mining enabled pre-counseling session techniques enhanced effectiveness of distance education counseling sessions.

**5. Research Gap**

Researchers have unanimously suggested empirical research on the use of social media as its usage continues to grow in higher education (Chugh & Ruhi, 2018). However, extensive surveys about actual use with large samples at a national level are rare (Manca and Ranieri, 2016). The most prevalent topic in this domain is based on research on common uses. The technology's effectiveness at improving student learning is arguably the least common type of research conducted related to social media in higher education (Greenhow & Askari, 2017).

Further insight into the different factors that drive students with different learning styles to use social media will help educators use this technology to assist learning more effectively (Balakrishnan & Gan, 2016). Hamid et al. (2017) have suggested that future studies develop relevant frameworks to propose an effective use of social media in higher education, supported by theories and by using quantitative, qualitative or mixed-method-based research.

Marie Condie at al. (2018) pointed at the dearth of literature related to social media use at the departmental level within Higher Education Institutions (HEIs). Upon searching different databases for research studies related to use of social media in higher

education in Indian context, the lacuna in this domain becomes highly visible. Higher educational institutes have not yet fully exploited the advantage that social media offers in order to engage students. Empirical studies related to use of social media in higher education in India is quite limited and its impact on student engagement is almost unknown (Bharucha, 2018a). Overall success of social media depends on its ability to engage different stakeholders (Kumar & Nanda, 2019). In the higher education context, this engagement may span from admission process and continue even after students have passed out from the institute.

Thus, considering all these suggestions provided by recent studies and personal experience of searching for literature, we feel the need for a national level study regarding use of social media for its effective use as a driver of innovation in higher education in India. This study will be supported by existing theories and by using quantitative, qualitative or mixed-method-based research. This study should underline the effectiveness of social media at improving student learning by analyzing underlying dimensions that may facilitate knowledge transfer among students in Indian higher education institutions. On the other hand, it will investigate the factors that motivate or demotivate faculty members as well as administrators from adopting social media for their teaching purposes. Finally, any mismatch in the expectations of students and faculty members will be highlighted before developing a relevant comprehensive framework to facilitate effective use of social media in higher education by involving all its stakeholders.

## 6. Conclusion

As a means of communication available to everyone in modern society, social media is challenging teachers, similar to other professionals, to decide whether to engage with these tools and, if so, on what basis – as an individual (personally), or as a teacher (professionally). Although teachers are guided by schools and codes of practice, teachers as individuals are left to decide whether and how to explore social media for either their own or their students' learning (Fox and Bird, 2017). Similarly, students also feel the need to use social media for their personal and academic use. However, recent studies have indicated at a probable mismatch in the expectation of these two groups. This might have also been caused by the execution of social media strategies by the teachers or administrators in institutes.

Future research should aim at exploring the factors that may motivate or inhibit these groups of stakeholders to use social media to reap its full benefit for various higher education purposes and thereby propose an empirically validated model, which may help in creating a policy framework nationally. This in turn should result in higher quality of education, improved employability of students, better workforce and increased productivity.

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