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**Facebook, WhatsApp, and Twitter: Journey towards Education**

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**ABSTRACT**

Social Media has become a routine activity for everyone. Today's digital citizens use to start their day with the notifications and end up by checking the newsfeeds on these sites. People use to celebrate important events of life, celebrate the festivals, create and participate in events, show their mood and reflect their thoughts and beliefs on these sites. Thus, Social Networking Sites (SNSs) have become the necessary part of life which cannot be separated from social, professional, academic or individual life. Social media originated strictly as a personal tool to communicate with people around, such as friends and family, but the innovative technology advancements paved the way to use web-based and mobile technologies to turn communication into interactive conversation. Through the present paper, the author tried to explore the features of selected social media, suitable for integrating these in education on the basis of a review of the previous studies and literature available. For the purpose, Facebook, WhatsApp and Twitter have been selected considering their popularity and relevance in the teaching-learning process. The paper provides an outlook to motivate teachers and students to use social media wisely and face the possible challenges smartly. It showcases a journey of social media platforms to begin or flourish its path towards education.

## **INTRODUCTION**

Social Media and education are not directly linked with each other. Glowatz & O'Brien (2015) argued that when researchers and educators consider the usability of social media for academic purposes, they "should bear in mind that Social Media was not intended for teaching and learning while it was built for social purposes and was later adopted as an academic tool in some institutions" (p.3). As it is defined earlier that Social media provide a space for collaboration, interaction, and reflection, it has potential to be used in education as well. But, anything cannot be considered for its potential value solely. There are many educational institutions practically applying social media tools for teaching and learning purposes.

The technological advancement and innovations in information & communication technology paved the way to use the internet as a daily routine activity for digital society. Today, mostly 16-24-year-old people are regularly connected with internet through wired or wireless technology to incorporate various features in the same device such as listening music, calling, internet surfing, instant messaging, social networking and so on (Barn & Mattson, 2009). Students are using Smartphone which attracts them more towards using various social media platforms as their daily routine and 24X7 access as well (Al-harrasi & Al-badi, 2014). Thus, broadly considering the association between social media and education, the further discussion is directed toward positive as well as negative prospects. Selected social media platforms (Facebook, WhatsApp, and Twitter) and their feature outputs connected with education are discussed in detail in the present paper to provide an insight to teachers and students to use these platforms more wisely considering the challenges to be faced.

## **FACEBOOK: A BRIEF INTRODUCTION**

The most successful and largest social networking site is Facebook with more than 1.5 billion users (Statista, 2018). Before creating the facebook.com, Mark Zuckerberg, in 2003, initiated a site named as Facemash, for which the founder of Facebook was charged with privacy violation of college students through the notice of administration and consequently the Facemash was shut down. In, 2004, the facebook.com was launched by Mark Zuckerberg in collaboration with Dustin Moskovitz, Chris Hughes and Eduardo Saverin with the purpose of connecting students of Harvard University where they were students at that time (Malone, 2010). In 2005, the word 'The' was dropped from its URL and it became 'Facebook' (Ahmed & Qazi, 2011). Facebook was designed initially to support distinct college network only, inconsistent with the existing SNSs at that time. In beginning, Facebook was limited to Harvard – only SNS which can only be accessed by the users having a harvard.edu, the specific institutional email address. Later on, Facebook decided to operate for other schools and institutions, however, the users still required to have the institution associated email addresses that kept the site relatively closed and limited to private community, but by September 2005, Facebook expanded to include high school students, professionals inside corporate networks, and eventually everyone by 2006 (Boyd & Ellison, 2007, p.8). Thus, since 2006, Facebook is an open platform for everyone with having a valid email except the children below 13 years of age (Bosch, 2009).

Facebook empowers users to associate with each other through private or public groups formed on various authorization layer in the network and unite with other cluster members and contribute text with others. Resembling other online social media users describe itself through an online profile that associate and put their expression or share knowledge with other members (Tiryakioglu & Erzurum, 2011). Reviewing the origin and history of Facebook tell the story of a profile based SNSs which gave a platform to create, share and react on different multimedia contents and stay connected anytime at any place via online connections.

As Facebook itself explains on its own Facebook information Page:

*“Millions of people use Facebook every day to keep up with friends, upload an unlimited number of photos, share links and videos, and learn more about the people they meet”* (<http://www.facebook.com/>).

In general, Facebook is profile-based internet community that facilitates to communicate through contents posted on the user's personal page or group page. The profile page includes a username and photograph of the member and personal information describing his or her interests, both of which provide information about one's identity. Members can view one another's profiles and can communicate through various applications, such as sending public or private online messages or sharing photos online (Pempek, Yevdokiya, Yermolayeva, and Calvert, 2009). Facebook allows users to connect primarily with their known relations. Ross et al. (2009) articulated that most of the online friends are known friends or family members, hence, people do not prefer to meet new people online.

Facebook also use the added applications to enhance the users' experiences. Facebook plays a vital role in people's social and academic interactions (Visagie & Villiers, 2010). Facebook allows users to communicate with others in chat rooms through synchronous and asynchronous messages, as well as share music, photos, Internet links, and other content (Ophus & Abbitt, 2009). It provides the user the opportunity to make groups, subgroups of member founded on common interests. Facebook comprise assistance such as of multiplayer online games, polls, chat room and texting services all of which support the concept of communicating and interplay with others. Personalization of user profile such as background image/pictures and page layouts also grant a path of interplay through interpretation of involvements or sharing these images. It gives a collection of gadget and application which offers users to swiftly connect to SNSs and to contribute their information on these websites with others (Wheeldon, 2010).

Furthermore, the users can blog under the “My Notes” section of Facebook. The user can join groups based on interests, profession, or school and post events, and messages can be easily exchanged between the users (Roblyer, McDaniel, Webb, Herman & Witty, 2010). Facebook News Feed is a core feature automatically generated for all Facebook users on their home page every time they sign-in or open their account on facebook app which shows the personalized feed of friends' updates. This provides an easy-to-read customized digest of recently edited digital content (Miller & Jensen, 2007, p.2).

Thus, there are many features of Facebook which allow the users to stay connected with their friends, relatives, and people with same interests. The communicative features of Facebook are chat, messages, comments, likes, status updates and so on. Along with plenty of features, it explores new ones to attract more people toward it. Recently, a new feature called “What friends are talking about” to increase the frequency of conversations is in the testing phase (Deccan Chronicle, 2016). The new feature of reactions on postings of Facebook along with like is also introduced March 2016 allowing users to signal love, haha, wow, sad, and angry as their responses (Verma, 2016). The idea of social globe or global village has been translated into reality through Facebook connecting millions of people from all around the world through its different features (Ahmed & Qazi, 2011, p.5023).

### **FACEBOOK: ITS PATH AS AN EDUCATIONAL TOOL**

Considering the use of Facebook as an educational tool lead the discussion towards present practices, potential, and challenges of integrating it in the informal system of education. As Facebook developed initially for an academic institution, it has some background in academia. Facebook has quickly become the social networking of choice by college students and an integral part of the “behind the scenes” college experience (Munoz & Towner, 2009). There are a huge number of people using Facebook apps which is available and one of the main ways of discovering these new tools comes from the automatic feeds you receive when one of Facebook friend adds an application to their profile. One of the relevant features of Facebook is “Virtual Bookshelf applications which enabled discussions about prescribed readings across many courses” (Griffith & Liyanage, 2008, p.79). However, the popular SNS is equipped with bulletin boards, news feed, reactions, instant messaging, video calling, and the ability to post videos, pictures, and other information. The personalized experience of learning is supported by these applications which can complement the formal teaching and learn to set (Griffith & Liyanage, 2008).

There are plenty of studies describing the educational use of social networking. One of such study by Manca & Ranieri (2013) identified five main educational uses of Facebook on the basis of review of existing literature that are “*supporting discussion and allowing students to learn from each other through mutual understanding and critical thinking exercises, to develop pieces of multimedia content, sharing resources, delivering content to expand the curriculum and expose students to external resources, lastly, using it to support self-managed learning*” (p. 498). Thus, Facebook promotes student engagement along with sharing resources, however, it facilitates “high levels of collaboration and academic discussion, which ultimately prompted deeper engagement” (Glowatz & O’Brien, 2015, p. 2 & 3). Munoz & Towner (2009) discussed Facebook is useful for interaction among students and with their instructors. Furthermore, it helps the instructors to connect with their students, post assignments, instructions, coming events, useful resources and hyperlinks to bridge the gap of classroom activities. Besides helping to connect students and instructors, it further offers a platform for building peer supported collaboration among students. Students are able to create groups with people of similar interests and share resources on these owned and self-controllable platform (Ryan, Magro & Sharp, 2011).

Despite positive practices and potential of Facebook as an educational tool, it also showcases some challenges of integrating it in Education which hinder its usability for educational purposes. Higher education teachers are not ready to adopt/adapt the technology advancement and remain laggards when it comes to adopting SNS and other technology innovations towards academic directions (Roblyer et.al, 2010, p.134). Chanania (2012) in her article addressed the challenges of Facebook integration in education including superfluous waste of time, addictive nature, and privacy issues.

### **WHATSAPP: A BRIEF INTRODUCTION**

The rapid development and dissemination of smartphones opened the innovative ways of instant messaging services. WhatsApp is one such “cross-platform instant messaging application enabling users to send and receive location information, images, video, audio and text messages in real-time to individuals and groups of friends at no cost” (Church & de Oliveira, 2013, p. 352). According to Whatsapp.com, WhatsApp, name comes from the phrase What’s Up, is being used by more than 1 billion people across 180 countries with the purpose of staying connected with friends and family, anytime and anywhere through freely offered, simple, secure, reliable messaging and calling features having access to phones all over the world.

The mission defined by its own platform explains:

“WhatsApp started as an alternative to SMS. Our product now supports sending and receiving a variety of media: text, photos, videos, documents, and location, as well as voice calls. Our messages and calls are secured with end-to-end encryption, meaning that no third party including WhatsApp can read or listen to them. Behind every product, decision is our desire to let people communicate anywhere in the world without barriers” (WhatsApp.com).

The features of WhatsApp include (WhatsApp.com):

1. Keep in touch with family and friends.
2. Create a group and connect people around with sharing messages, photos, and videos. The group limit of WhatsApp is up to 256 people at once. The group admin or the members both can name their group, mute or customize notifications and share posts on the platform. The mute application for incoming alerts can be enabled for the duration of 8 hours, a day, or a whole week.
3. WhatsApp calling service allows users for national and international calling with an internet connection.
4. WhatsApp is downloadable on the phone as well as desktop. However, the chats can also be sync on the web that provides the convenient use for this instant messaging app on different devices.
5. The end-to-end encryption secures the personal chats between two people. It secures the messages and calls between two users who only can read and listen, not even WhatsApp.

6. WhatsApp provides the file sharing facility that enables the users to share PDFs, spreadsheet, slideshows or more up to 100 MB.
7. Lastly, the voice-recording feature allows the users to record a quick or longer voice message.

### **WHATSAPP: ITS PATH AS AN EDUCATIONAL TOOL**

The digital era started with high penetration of smartphones allowing the growth of WhatsApp use “as a communication platform for various student groups, and more recently for groups of teachers and their students as well” (Bouhnik & Deshen, 2014, p. 219). WhatsApp is a social networking app with the convenient instant messaging feature allowing students and teachers to keep in touch with more interaction opportunities in a supervised environment. According to Ghailan (2016), the informal learning outside classroom supported by the teacher influence students that they are being cared and supported by their teachers outside the formal learning environment by using WhatsApp. However, they are learning vocabulary with enhancing reading and writing skills. She further presented that it is an innovative way to engage students in learning anytime-anywhere through the comments and clarifications with validation by the teacher and further the transcripts of students can also be used by the teachers for language analysis and progress (Ghailan, 2016). In addition, students believe that WhatsApp learning activities “facilitates learning, helps students find solutions to learning difficulties and easily construct and share knowledge, and supports research into useful information for learning” (Barhoumi, 2015, p. 232).

Furthermore, Bouhnik et al. (2014) explored the WhatsApp group advantages for teachers and students with focusing on educational advantages, they stated that it facilitates with pleasant atmosphere, belonging to the group, quality of expression among students, helping each other by sharing materials, teacher availability, anytime anywhere learning access, immediate correction of mistakes, secure environment and so on. The WhatsApp is a new application popularized over the last one to two years should be further explored for getting best practices of using it as an educational tool.

### **TWITTER: A BRIEF INTRODUCTION**

The well-known micro-blogging services provider Twitter allow the users to publish short messages publicly or within contact groups. It allows users to quickly tweet about any topic within the limit of 140-character including spaces and follow others to receive their tweets within the same limit. Twitter says that its mission is “to give everyone the power to create and share ideas and information instantly, without barriers” (twitter.com).

In addition, twitter engages users in constantly updated conversation and contact with their online networks. Twitter is also a device friendly networking that allows the user to broadcast and receive messages from a smartphone, laptop, desktop, tablet or iPad as well. Although twitter does not allow to directly share web pages, video or other media, the users can share embedded links of these media on their tweet. The profile page of the users of twitter consists information about them including their hobbies, interests, profession, and/or location posted by them (Risser, 2013).

## **TWITTER: ITS PATH AS AN EDUCATIONAL TOOL**

Twitter is being used in many institutions for educational interactions and up-to-date activities for students, teachers, and administration. The twitter makes the interaction dynamics and provides a platform for sharing resources with anywhere anytime access (Smith, 2016). It can be used to create an account of any educational institution for sending and receiving instant updates and posts by teachers as well as students such as homework or project, polls and quizzes, or convey other timely information (Knezek, 2008). Although Twitter can be used for private conversations between users, the use of the hashtag (#) also allows the users to “categories a series of tweets around a topic or an event” (McCool, 2011, p. 4). This indicate that when an individual post the specific word with hashtag such as a tweet on education with a hashtag #edchat after the information posted will automatically allow the twitter to tracks and trends the word edchat, which furthermore allows users to allow a topic-specific discussion and focus on that as well (Soluk, 2014).

The stakeholders accept that Twitter is an effective and quick way to communicate and interact with people. Hamidon et al. (2013) found that “Twitter is seen as the most suitable learning tool for community college students to use the target language effectively, effortlessly even outside their classroom” (p. 726). Managing the rapid communication and interaction between students and with their teachers about scheduling of lectures, tests, exams or other academic activities is emerged to be easy with Twitter which further develop critical thinking by using it to tackle content issues such as social issues, political communication and so on (Manca & Ranieri, 2016).

Thus, the above discussed social media platforms (Facebook, WhatsApp, Twitter) are being used in education, however, also have the potential to be used for educational purposes. Along with the positive usage of these social media as an educational tool, it also acts as a distraction for learning as experienced by other researches. These discussions about challenges pertaining to social media usage by educational stakeholders have been covered further in detail.

## **CHALLENGES OF INTEGRATING SOCIAL MEDIA IN EDUCATION**

There are plenty of research findings and theoretical articles which support social media as a tool to enhance teaching and learning experiences (Ghailan, 2016; Manca & Ranieri, 2016; Smith, 2016; Barhoumi, 2015; Bouhnik & Deshen, 2014; Soluk, 2014; Munoz & Towner, 2009; Knezek, 2008). At the same time, they also lead to many challenges that hinder the use of social networking for general social interaction and particularly in education as well. Thus, the social networking coin presents two faces having many potential benefits and uses on one side and some significant challenges on the other, which need to be addressed. These challenges will lead to help the users to strengthen their social networking experiences and to decide the appropriate use of these sites, maybe for a particular academic purpose and resolving the problems.

The popularity of SNSs lead to challenges related to safety and security of the personal identity further leading to privacy concerns. These challenges detect “the disclosure of personal information by the students themselves” (Henderson, Zwart, Lindsay & Phillips, 2010, p.5). A platform which encourages creating and sharing contents with others challenges the users in malevolent and insidious ways through some unwanted users who turn this platform into unsafe places. Yang (2015) explained that we actively work on privacy setting to ensure that when we post any information on a social platform, that information can be seen by authorized friends only, “but we have no idea who else can view it, and what exactly is visible” (p.11). Chewae, Hayikader, Hasan, & Ibrahim (2015) also highlighted the same by stating that with growing numbers of social networks, everything posted on it, is shared by default settings. These default settings and lack of awareness issues lead to security risks through unwanted contacts, identity theft, computer security issues, harming the reputation, offensive posts and so on. Thus, problem pertaining to confidentialities, privacy threats, identity theft, misuse of information and social network dependence are undeniable facts. However, to be particular privacy issues are expressive when the students are able to view teachers’ posts and pictures and vice-versa (Chanania, 2012). These concerns lead to creating and updating privacy policies and awareness campaign to use these sites in a safe and comfortable environment (Pullen, 2011).

Apart from privacy concerns, lack of awareness and experiences with the latest technology hinder the academic use of it. Barnes and Tynan (2007) argued that this is not surprising as many university teachers were themselves taught in a classroom and so as teachers who have not had much personal experience of online learning, they are likely to continue to teach in a way that is familiar to them. Rennie & Morrison (2013) discussed the limitations of user-generated content, the Internet comprises of surplus dubious, impure information and majority of the users have lack of proper knowledge, expertise/ability to pass this abundant mixture of material. The critical skills will develop with experiences.

Another challenge that is often overlooked is the major time commitment or even wastage of time. The more SNSs that one person signs up to, the more time is involved. Chanania (2012) impulsively dismiss social network sites as a superfluous waste of time. Madhusudhan (2012) found that students use social media more frequently with longer friends list and spend their time on social media accordingly. People use SNSs as procrastination tools that distract them from formal settings of learning. There should be proper guidance for students to utilize their social networking time more productively. On the other hand, educators may well be using social networking services themselves, but may not recognize the educational potential and opportunities for their learners, or understand the potential risks, both for themselves and their learners, therefore, it generates major challenge of using SNSs without knowledge (Childnet International Report, 2008).

Furthermore, technical issues also hinder the use of social media platforms in education. A certain amount of technical knowledge is required to join a social networking platform. After joining the platform, some features can be utilized with basic computer knowledge such as uploading photographs, posting comments, sharing information, checking the authenticity of the material to be posted, showing reactions and so on. Many social media platforms offer detailed help and FAQ (frequently asked questions) pages that can help to utilize the features of the particular SNS (Pullen, 2011).



For developing country like India and Indonesia, there are issues related to accessibility and affordability. Due to digital gaps, infrastructural challenges hinder the use of internet among students from various socio-economic backgrounds. Whitaker and Parker (2000) found the challenges of virtual communities which refer to SNSs also. These challenges hinder the online interaction and include lack of infrastructural facilities, accessibility, speed and information search facilities.

## CONCLUSION AND SUGGESTIONS

Despite having the educational features or features to be adopted by students and teachers, social media usage confronts many challenges also which need to be addressed for using these platforms appropriately and productively in education. Students should be encouraged by their teachers to use these sites carefully and utilize the innovative features for social interaction and collaboration. While social media are useful for bringing people together in cyberspace, students and teachers need to be aware of security issues with these platforms if they are going to use them. They have to use good judgment skill when deciding what information to share and what not to share on these sites. Problems arise when users do not take advantage of the privacy settings offered by the sites and sharing or re-share an online posted information without authenticity check. Despite the use of social media, students can balance their time between studies and their usage of these sites socially and particularly for academic purposes which can sustain good social networking habits to maintain their academic performance. Finally, social media are facing these challenges, but, at the same time filled with possibilities providing positive potential in education and presently used for academic purposes as well.

## REFERENCES

- Ahmed, I. & Qazi, T. F. (2011). A look out for academic impacts of Social networking sites (SNSs): A student-based perspective. *African Journal of Business Management*, 5(12), 5022-5031.  
Retrieved from: <http://www.academicjournals.org/AJBM>
- Al-harrasi, A. S., & Al-badi, A. H. (2014). The impact of social networking : a study of the influence of smartphones. *Contemporary Issues In Education Research*, 7(2), 129–136. Retrieved from: <http://www.cluteinstitute.com/proceedings/2013PFPapers/Article 433.pdf>
- Barhoumi, C. (2015). The effectiveness of whatsapp mobile learning activities guided by activity theory on students' knowledge management. *Contemporary Educational Technology*, 6(3), 221–238. Retrieved from <http://www.cedtech.net/articles/63/634.pdf>
- Barnes, C.; B. Tynan (2007). Learning in a web 2.0 millenium. *ALT-J, Research in Learning Technology*, Vol. 15 (3), pp. 189-200.
- Barnes, N. G. & Mattson, E. (2009). Social Media and College Admission: Higher-ed Beats Business in Adoption of new tools of third year. Retrieved from: [http://snrcr.org/sites/default/files/socialmediaadmissions\\_0.pdf](http://snrcr.org/sites/default/files/socialmediaadmissions_0.pdf)
- Bosch, T. (2009). Using online social networking for teaching and learning: Facebook use at the university of Cape Town. *Communicatio: South African Journal for Communication Theory and Research*, 35(2), 185–200.
- Bouhnik, D., & Deshen, M. (2014). Whatsapp goes to school : mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research*, 13, 217–231. Retrieved from <http://www.jite.org/documents/Vol13/JITEv13ResearchP217-231Bouhnik0601.pdf>
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), article 11. Retrieved from <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>

- Chanania, P. (2012, Feb 5). Leverage social networking for student engagement. *The Hindu*, p.4
- Chewae, M., Hayikader, S., Hasan, M. H., & Ibrahim, J. (2015). How much privacy we still have on social network ? *International Journal of Scientific and Research Publications*, 5(1), 1–5.  
Retrieved from: <http://www.ijsrp.org/research-paper-0115/ijsrp-p3755.pdf>
- Childnet International (2008). Young people and social networking services: a childnet international research report. UK. Retrieved from:  
[http://www.digizen.org/socialnetworking/downloads/Young\\_People\\_and\\_Social\\_Networking\\_Services\\_full\\_report.pdf](http://www.digizen.org/socialnetworking/downloads/Young_People_and_Social_Networking_Services_full_report.pdf)
- Church, K., & de Oliveira, R. (2013). What's up with whatsapp?: comparing mobile instant messaging behaviors with traditional SMS. *15th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI'13)*, 352–361.  
<http://doi.org/10.1145/2493190.2493225>
- Facebook testing new feature to boost conversations. (2016, September 11). *Deccan Chronicle*.  
Retrieved from <http://www.deccanchronicle.com/technology/inother-news/110916/facebook-testing-new-feature-to-boost-conversations.html>
- Ghailan, F. (2016). WhatsApp as a learning tool. Retrieved from  
<http://www.slideshare.net/FatmaGhailan/whatsapp-as-a-learning-tool>
- Glowatz, M., & O'brien, O. (2015). An exploration of the technological, pedagogical and content knowledge (tpack) framework: utilising a social networking site in irish higher education. *Irish Journal of Academic Practice*, 4(1). Retrieved from <http://arrow.dit.ie/ijap>
- Griffith, S., & Liyanage, L. (2008). An introduction to the potential of social networking sites in education. In *Emerging Technologies Conference* (pp. 18– 21). University of Wollongong.
- Hamidon, I. S., Alias, N., Siraj, S., Kokila, K., Mohammed, M., & Thanabalan, T. V. (2013). Potential of twitter in post-reading activities among community college students in malaysia. *Procedia - Social and Behavioral Sciences*, 103, 725–734. <http://doi.org/10.1016/j.sbspro.2013.10.393>
- Henderson, M., de Zwart, M., Lindsay, D., & Phillips, M. (2010). Legal risks for students using social networking sites. *Australian Educational Computing* 25(1), 3-7.
- Knezek, D. (2008). Conquering technophobia web 2.0 explained: teacher's resource guide. Retrieved from <http://ktitraci.wikispaces.com/file/view/Web2.0.pdf>
- Madhusudhan, M. (2012). Use of social networking sites by research scholars of the University of Delhi: A study. *The International Information & Library Review*, 44(2), 100–113.  
<http://doi.org/10.1016/j.iilr.2012.04.006>
- Malone, J. (2010). The rise of Facebook: history of a social network. Retrieved from:  
<http://www.telegraph.co.uk/technology/facebook/8204730/The-rise-ofFacebook-history-of-a-social-network.html>
- Manca, S., & Ranieri, M. (2013). Is it a tool suitable for learning? A critical review of the literature on Facebook as a technology-enhanced learning environment. *Journal of Computer Assisted Learning*, 29(6), 487–504. <http://doi.org/10.1111/jcal.12007>
- Manca, S., & Ranieri, M. (2016). Facebook and the others. Potentials and obstacles of social media for teaching in higher education. *Computers & Education*, 95, 216-230.
- Mccool, L. B. (2011). The pedagogical use of twitter in the university classroom (*Doctoral dissertation, Thesis / Dissertation ETD*, 2011) (pp. 1-66). Iowa: Iowa State University.
- Miller, S. & Jensen, L. (2007). Connecting and communicating with students on Facebook. *Computers in Libraries*, 27(8), 18-22.
- Munoz, C. L. & Towner, T. L. (2009). Opening facebook: how to use facebook in the college classroom. Paper presented at the Society for Information Technology and Teacher Education conference, Charleston, South Carolina. Retrieved from:  
<http://www46.homepage.villanova.edu/john.immerwahr/TP101/Facebook.pdf>
- Ophus, J. D. & Abbitt, J. T. (2009). Exploring the potential and perceptions of social networking systems in university courses. *merlot Journal of Online Learning and Teaching*, 5(4), 639-648.  
Retrieved from: [http://jolt.merlot.org/vol5no4/ophus\\_1209.pdf](http://jolt.merlot.org/vol5no4/ophus_1209.pdf)
- Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on facebook. *Journal of Applied Developmental Psychology*, 30(3), 227-238.
- Pullen, K. (2011). Challenges of online social networking. Retrieved from:  
[http://socialnetworking.lovetoknow.com/Challenges\\_of\\_Online\\_Social\\_Networking](http://socialnetworking.lovetoknow.com/Challenges_of_Online_Social_Networking)
- Rennie, F., & Morrison, T. (2013). E-learning and social networking handbook: Resources for higher education. Routledge.

- Risser, H. S. (2013). Virtual induction: A novice teacher's use of Twitter to form an informal mentoring network. *Teaching and Teacher Education*, 35, 25–33.  
<http://doi.org/10.1016/j.tate.2013.05.001>
- Roblyer, A., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *Internet and Higher Education*, 13(3), 134-140.
- Ross, C., Orr, E. S., Sisic, M., Arseneault, J. M., Simmering, M. G., & Orr, R. R. (2009). Personality and motivations associated with Facebook use. *Computers in human behavior*, 25(2), 578-586.
- Ryan, T., & Xenos, S. (2011). Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. *Computers in Human Behavior*, 27, 1658–1664.
- Smith, S. E. (2016). *The use of micro-blogging for teacher professional development support and personalized professional learning*. Pepperdine University.
- Soluk, L. C. (2014). *The effects of twitter on undergraduate learning*. A Masters Thesis. McGill University
- Tiryakioglu, F., Erzurum, F (2011). Use of social networks as an education tool. *Contemporary Educational Technology*, 2(2), 135-150. Retrieved from:  
<http://www.cedtech.net/articles/22/223.pdf>
- Verma, N. (2016, March 1). Emotions, in the time of facebook. *The Hindu*. Retrieved from:  
<http://www.thehindu.com/features/metroplus/emotions-in-the-time-offacebook/article8300173.ece>
- Visagie, S., & de Villiers C. (2010). The consideration of Facebook as an academic tool by ICT lecturers across five countries. In *proceedings of the annual conference of the Southern African Computer Lecturers' Association SACLA'10*, June 2010, South Africa.
- Wheeldon, E. (2010, April). A social society: the positive effects of communicating through social networking. Online Conference on Networks and Communities, Curtin University of Technology, Australia. Retrieved from: <http://networkconference.netstudies.org/2010/04/a-social-society-the-positive-effects-of-communicating-through-social-networking-sites/>
- Whitaker, V. M., and Parker, C. M. (2000). The factors enabling and inhibiting the development of agricultural internet virtual communities: An Australian case study. In *Proceedings of the 8th European conference on information systems, trends in information and communication systems for the 21st century* (ECIS 2000) (pp. 148–155). Vienna, Austria.
- Yang, S. (2015). *Review of social networking sites' security and privacy*. Retrieved from [https://helda.helsinki.fi/bitstream/handle/10138/159195/social\\_networking\\_security\\_and\\_privacy.pdf?sequence=2](https://helda.helsinki.fi/bitstream/handle/10138/159195/social_networking_security_and_privacy.pdf?sequence=2)