

## Learning by Going Social: Do We Really Learn from Social Media?

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**Abstract.** With the ever increasing ubiquity of smart phones and mobile devices, social networking has become a trend that has captured attention and interest of one and all. Young people, middle aged, and older generations are all engaged to certain extent in some sort of social networking over the web. While there are both pros and cons attached to the use of social networks, the usage of social media interestingly has always shown an upward trend in popularity and consumption. Are there real benefits in getting connected to people using social networks? Or does the use of web based social media actually isolate people and diminish the necessity of meeting face to face? Do we really learn from using social media? Does the use of social networks enhance collaboration and promote motivation and collective intelligence and learning? This research based discussion evaluates social media as an emerging educational and performance improvement tool from the perspective of social cognitive theory and social constructivist theories. We discuss some existing research that used social media as a teaching learning tool. We end this discussion with a decision making framework matrix for educators contemplating using social media within their course pedagogy.

**Keywords:** technology; social media; social learning theory; emerging technology

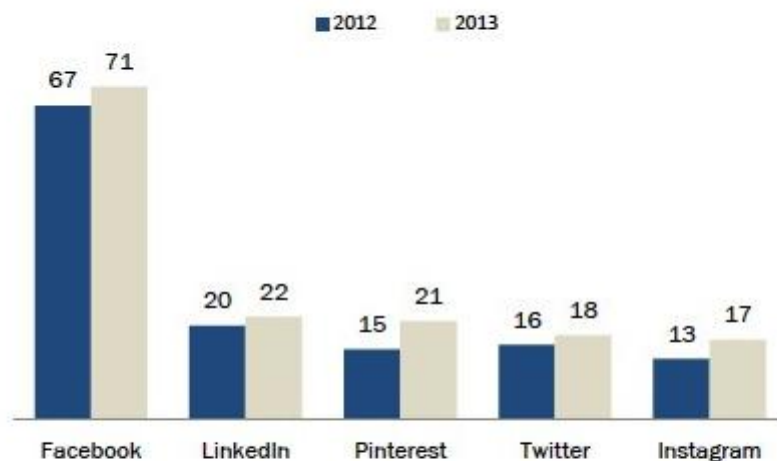
### **Introduction**

According to the 2014 Horizon Report, "Growing Ubiquity of Social Media" is one of the fast trends that will impact significant changes in the higher education arena in the foreseeable future. As mentioned in the Horizon Report, a report from Business Insider indicates 2.7 billion people, almost 40% of the world population, use social media. According to Pew Research Center (2013) report published December, 2013, around 73% of adult online users use social media of some kind. According to Pew Research Center's Internet Project, Facebook dominates the social media playground with 71% of online adults using Facebook for social networking and interaction. Figure 1 illustrates the

popularity of Facebook as a social media in comparison to other prominent social media currently in vogue.

### Social media sites, 2012-2013

*% of online adults who use the following social media websites, by year*



Pew Research Center's Internet Project Tracking Surveys, 2012 -2013. 2013 data collected August 07 -September 16, 2013. N=1,445 internet users ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on all internet users is +/- 2.9 percentage points.

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**Figure 1. Popularity of Facebook as a Social Media**

Several studies have investigated the impact of social media on learning both in the formal and in informal settings. With the increase in the popularity and usage of various social media, it is important to carefully consider the implications or direct and indirect benefits of engaging with social media, in order to harness the potential of this increasingly popular emerging technology. In this article we review research on social media in educational settings to investigate the impact of social media in formal and informal learning.

#### **Social Media and Social Networks**

According to Merriam Webster online dictionary (<http://www.merriam-webster.com>), Social media means:

“forms of electronic communication (as Web sites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (as videos).”

Merchant (2011) identified SixDegrees.com launched in 1997 as the first Networking website. According to Merchant (2011), social networks are web based services where individuals could create their profiles and connect to other users with similar interest and share information within the network. With the increasing popularity and use of Web 2.0 and Web 3.0, Social Networking Sites (SNSs) have increased membership over the years and have grown to be technology powerhouses (Alloway, Horton, Alloway, Dawson, 2013). Table 1 lists some of the most popular social media and social networking sites that are used in educational and instructional settings.

**Table 1. Popular social media sites used in educational settings**

Social Media	Brief description and URL
<b><u>delicious</u></b>	Social bookmarking; users are able to locate and save websites that match their own interests <a href="https://delicious.com/">https://delicious.com/</a>
<b><u>Flickr</u></b>	Used for sharing photographs, networking with photographs, <a href="https://www.flickr.com/">https://www.flickr.com/</a>
<b><u>Facebook</u></b>	General networking and communication: Share Photos, Videos, Blogs, Apps <a href="https://www.facebook.com/">https://www.facebook.com/</a>
<b><u>Google+</u></b>	General social networking site <a href="https://plus.google.com">https://plus.google.com</a>
<b><u>Instagram</u></b>	A photo and video sharing site <a href="http://instagram.com/#">http://instagram.com/#</a>
<b><u>LinkedIn</u></b>	Used primarily for business and professional networking <a href="https://www.linkedin.com/">https://www.linkedin.com/</a>
<b><u>Myspace</u></b>	General social networking site <a href="https://myspace.com/">https://myspace.com/</a>
<b><u>Ning</u></b>	Users create their own social websites and social networks, building a community <a href="http://www.ning.com/">http://www.ning.com/</a>
<b><u>Pinterest</u></b>	Online pin-board for organizing and sharing ideas, recipes, craft etc. <a href="https://www.pinterest.com/">https://www.pinterest.com/</a>
<b><u>Tumblr</u></b>	Microblogging platform and Social Networking Website. <a href="https://www.tumblr.com/">https://www.tumblr.com/</a>
<b><u>Twitter</u></b>	General. Micro-blogging, RSS, updates <a href="https://twitter.com/">https://twitter.com/</a>

### **Social Learning - Cognitive and Constructivist Perspectives**

Many recent researches in education have been inspired by social theories on learning (Vygotsky, 1978; Wenger, 1998). Social learning perspectives emphasize

learning as a social process, that involves both personal interpretations of events and meaning making through social negotiation (Jonassen & Land, 2000). Acquisition of knowledge and performance from social learning perspective is perceived as a social process (Littleton & Häkkinen, 1999).

Social Cognitive Theory helps to analyze the relationship between personal, behavioral and environmental factors that can influence the abilities for individuals to set goals and self-regulate learning (Wang & Lin, 2007). Social Cognitive Theory, founded on the works of Albert Bandura and J. B. Rotter focuses on the impact of social environment on learning. Rotter (1954) suggested that basic behavioral instincts are mostly acquired in social situations. He suggested that individuals behave in a certain way depending on the situation and how the individual values the outcome of the behavior in the situation in relation to the other possible outcomes. Albert Bandura's social cognitive theory, based on observational learning (1997) was expanded on Rotter's theory of social learning. It was based on the idea that people learn from observing the behavior of others through observation, imitation and modeling. Bandura's social cognitive theory assumes that the learners draw information by observing other people and making decisions on which to accept and perform. According to Bandura this observation, as well as decision making process to accept or ignore a behavior, is vital to learning, acquiring, and performing a behavior.

Like cognitivists, social learning theories and their impact on learning have also been recently studied and discussed by many social constructivists. Social constructivists view learning as a social, conversational and interactive knowledge construction process. Jonassen, Howland, Marra & Crismond (2008) suggest the use of technology as a social tool to enhance learning. They suggest using technology

- for collaboration
- for discussion, building argument, and building consensus among members
- for supporting communication between knowledge-building communities

According to Jonassen (2000), meaningful learning is intentional, active, conscious, constructive and includes reflective activities.

Many contemporary learning theorists focus on the social aspect of learning, through negotiating and meaning making. While behavioral and cognitive theorists focused on how an individual acquired knowledge, social constructivists believe that learning involves social exchange and negotiation. According to social constructivists, learning is an internal as well as a social process. Savery and Duffy (1995) define learning as inherently a social-dialogical process.

### **Social Learning in the 21st Century: Learning with Social Media and the Web**

Kamel Boulos and Wheeler (2007) suggested, Web 2.0 as the 'Social Web', because, it encourages interaction and communication. As we have progressed from Web 1.0 to Web 2.0 environment and now moving towards Web 3.0, social

networking has evolved to make it possible for people to communicate with others from anywhere, at any time.

Social networking sites are cloud based online services that enable users to create personal profiles and help to make connections with others. Social networking refers to applications such as Facebook, MySpace, Twitter, Google+, LinkedIn, where members set up personal profiles, connect with people, communicate, and share preferences and interests. Sites such as YouTube and different blogs are classified as social publishing websites. Another important Web 2.0 social learning tool that is being used extensively in educational settings is the wiki that enables collaborative creation over time and editing of documents on the Web by multiple users.

With the current trend in the increased number of online and blended courses, and the increased use of web based educational resources, creating a learning environment with social interaction components and social exchange among learners as well as the instructor poses a challenge to the instructional designer. According to Bandura (2002), technology plays a large role in the “globalization of human interconnectedness” (p. 2) thus influencing how people use and apply technology within their societal and cultural environments. According to Bandura, high self-efficacy and high motivation are necessary for individuals in order for them to be successful and productive in the information age. If individuals have a low perceived self-efficacy, they may not be able to access, process, and evaluate the information obtained from an Internet search. Conducting searches from the web for information to enable the construction of knowledge, or to perform an Internet-based inquiry, is a complex task that requires higher level thinking skills (Bandura, 2002). Bandura (2002) recommends that our educational environments focus on the instruction of skills, and not force the retention of subject matter, for the 21st Century students to be adaptable, proficient and self-directed learners. Facts can easily be attained by researching the many online libraries, museums and databases. As a result, individuals are no longer receivers of information, but are involved in their own learning as “agents of learning” (Watts, 2011).

In a study at Queensland University of Australia, by Carroll, Diaz, Niland & Adkins (2012), an interactive, online social media was integrated into the course as an assessment component. Students utilized the online forum Wikispaces (<http://www.wikispaces.com/>) to showcase their research on complex and contemporary health issues and also for peer review and critique of their work. It was discovered that at the end of this assessment, students developed deeper and long term learning with higher overall academic writing standards. This study verified Bandura’s social cognitive theory that modelled behavior can impact self-motivation positively. The learning in this study used a social setting, and the learning process was iterative, collaborative, as well as competitive where students observed peer works, and then become both imitated and innovated in their own work.

Gunawardena, et. al. (2009), define social networking as technology that promote collective intelligence by means of social negotiation among group of individuals that are engaged in working towards a common goal or a shared practice. Gunawardena et. al. (2009) analyzed a variety of Web 2.0 tools to assess their utility towards learning. The researchers concluded that self-efficacy was an important component that directly impacted collaboration in social learning process. Gunawardena, et. al. (2009) suggested that self-efficacy is also an important component that contributes to success for individuals who are new to online experiences. A complicated set of instructions and processes for using social networking tools can also be daunting to an Internet novice and that could add to the learning curve. Slow introduction to the newcomers to technology and tools, and structuring online participation for learning success can help learners in online or blended courses to boost their self-efficacy and be successful.

The rapid proliferation and innovation of web technologies and mobile devices have influenced how people communicate, learn and behave. Yu, Tian, Vogel and Kwok (2010) investigated the impact of individuals' online social networking engagement from a pedagogical perspective. Based on analysis of results in their research, they concluded that online social networking influenced students' learning outcomes, and also helped the students to adapt and adjust to the university culture, which played an important role in successful learning. Social networking also facilitated development of virtual and real relationships with peers or models, and also encouraged integrity and a sense of community and belonging to their universities. Online social networking had a positive impact on students' mental health and encouraged technical skill development. The researchers concluded that online networking sites, such as Facebook, can be used to design learning activities, e.g., orientation practices, to increase interaction among individual students and to build a collegial and peer supportive environment.

Other research on social networking and its educational impact have found better health, affective development and academic success (Morrow, 1999; Steinfield, Ellison & Lampe (2008) for students who engage in some kind of social networking. Treisman's (1992) study concluded that time spent in networking and communicating with peers form a critical factor in determining performance for college students. Hwang et al. (2004) also concluded that social networking with peers and instructors helped college student gain information and knowledge and achieve higher performance.

All of these studies indicated that students' online social networking engagement with peers as well as instructors helped to raise self-esteem of students and helped students feel motivated and succeed academically. Steinfield et al. (2008) in their study suggested that instructional use of Facebook helped to reduce barriers that students with lower self-esteem might experience. Social influences play a major role in in motivating people to share knowledge or participate in social communities. Strong community ties, for example provided important environmental conditions for knowledge exchange

(Snowden, 1998; Wellman & Wortley, 1990). Langerak, Verhoef, Verlegh & Valck (2004) concluded that satisfaction with interactions among individuals influences member participation positively. Trust is also a key factor that enables fostering higher level of participation in many virtual communities (Ridings, Gefen, & Arinze, 2002; Andrews, Preece & Turoff, 2002). Dholakia, Bagozzi & Pearo(2004) found that belonging to a group or a community had a strong effect on group intentions to participate online or in virtual communities. There were other studies which concluded that a sense of community (Hars & Ou(2002); Yoo, Suh & Lee (2002)) and social identity (Dholakia, Bagozzi & Pearo, 2004) enhanced participation and contribution in a virtual community.

### **Assessing Credibility of Including Social Media/Networking in Instructional Design**

Social media is a current and emerging trend that impacts learning both in the formal as well as the informal setting. To fully harness the potential of social media in learning, prior to any formal implementation, it is essential to critically evaluate the benefits that the use of social media would add to the coursework. Benefits and limitations of including social media within course pedagogy are listed in Table 2.

**Table 2. Benefits and Limitations of using Social media in educational settings**

Benefits	Limitations
<ul style="list-style-type: none"> <li>• Social media encourages collaborative learning</li> <li>• Social media enables modelling of behavior</li> <li>• Social Media motivates the learner to become active creators of content and more participation</li> <li>• Social media promotes building of learning communities and foster productive discussions and sharing of knowledge and information.</li> <li>• Social media can be used by instructors to enhance student engagement</li> <li>• Social media can be used to improve communication among learners and instructors</li> <li>• Alumni group can connect and grow with social media</li> </ul>	<ul style="list-style-type: none"> <li>• Making a safe community presence is a challenge. Use and access of social media when used in school work must be monitored closely by the instructor.</li> <li>• Social media can pose as a distraction for the learners and shift the focus from learning to other stuff on web.</li> <li>• Social media can easily become a tool for cyberbullying and other forms of cyber-crimes. Instructors need to be vigilant of any such possibilities and address civil and respectful cyber behavior.</li> <li>• Use of social media for communication might be a discouraging factor for face to face communication or human interaction.</li> </ul>

Implementing social media within the teaching learning process without careful considerations, for the sake of using the technology, might result in frustration, distraction, inequity, and deviation from the primary focus of the course. The table below, Table 3, is a checklist of some of the critical considerations for educators contemplating including social media within pedagogy as a means to engage learners in social learning. If majority of the answers to this checklist yields a “Yes”, it implies that social media in this course would actually enhance learning experiences of students in the course.

**Table 3. Considerations while Implementing Social Media in Courses.**

	<b>Critical considerations before integrating social media in pedagogy</b>	<b>Yes</b>	<b>No</b>
	Overall Learning Perspective		
1	Does the implementation of social media lead to in depth learning for the learners for this course?		
2	Does the implementation of social media lead to increased student engagement for this course?		
3	Does the implementation of social media lead to increased critical thinking by students?		
4	Does the implementation of social media lead to innovation in teaching learning styles and preferences for a particular course?		
5	Does the process lead to increased collaboration and exchange of information among the faculty and the students?		
6	Does the implementation of social media make teaching learning more interactive?		
7	Can we ensure that including social media will cause minimal to almost no distraction for the students from the main focus of the course?		
8	Will the implementation of social media enable timely and prompt feedback to learners?		
9	Will the implementation of social media act as a digital bridge and minimize the digital divide in this particular course?		
10	Will the implementation of social media address equity?		
11	Can we ensure that the implementation of social media will not result in a steep learning curve for learners who are new users and hence not overwhelm the learners?		
12	Will the social learning provide extra motivation for learners to engage in learning?		



13	Will the social media used for the course provide a stable platform for the learners to interact over a period of time?		
14	Will the social media enable reliable and valid indication for individual learner evaluation?		
15	Will the inclusion of social media in this course promote self-efficacy of the student?		
16	Will the inclusion of social media in this course promote active and critical reflective thinking by learners?		
17	Will the social media use in this course enhance independent inquiry and problem solving skills by the learners?		
18	Will the implementation of social learning enhance communication skills of the students?		
19	Can we ensure privacy and safety of learners if the social media is included within the course?		
20	Will the social media promote connections among alumni and help grow the alumni body as a community of professionals?		
	Social Cognitive Theory Perspective		
21	Does inclusion of social media in coursework provide opportunities of social interactions, observations, modelling and imitation for the learners? (Bandura's Social Cognitive Theory)		
22	Will there be significant, observable and measurable positive changes in a learners' behavior due to the inclusion of social media? (Bandura's Social Cognitive Theory)		
	Social Constructivist Theory Perspective		
23	Will the social media use in course work encourage collaborative learning among learners? (Jonassen, Howland, Marra & Crismond; 2008)		
24	Can the instructors utilize social media within course work to promote conversation and dialogue for problem solving and critical thinking on various issues among learners? (Jonassen, Howland, Marra & Crismond; 2008)		
25	Will the inclusion of social media within course pedagogy encourage interactive and social knowledge construction process among learners? (Jonassen, Howland, Marra & Crismond; 2008)		
	Total Score	Y=	N=

## Conclusion

Pew Research Center's (2011) report *The Digital Revolution and Higher Education*, predicted an increase in the trend of university and colleges offering online classes during the next ten years. The report also predicted that most students would access digital text books over mobile devices in the coming years. With this exponential rise and growth of online and web based learning environments and ubiquitous learning, further research on social learning theories in web based environments and design of instructions for online learning environments is extremely important. Instructional designers and online instructors need to investigate effective strategies to promote quality online social interactions, build effective online learning community, promote online collaborative work thus eliminating the perceived feeling of isolation in online educational settings, and promoting motivation, self-esteem, participation and engagement in web based learning. Social media when used effectively within the pedagogy can serve as a platform for promoting effective online interaction between a community of learners for engagement as a community and for sharing and co-construction of knowledge.

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