Exploring perceptions of faculty and students’ use of social media in higher education

Ghania Zgheib

George Mason University

Abstract

The use of social media or Web 2.0 tools has become widespread, and it has been impacting the way people learn and interact with each other in general and in the classroom in particular. Five faculty members at a higher education institution in were interviewed to explore how they use social media in their courses. The interviews were followed by a student survey targeting students in the courses in which the five faculty members used social media. Results revealed that faculty and students perceived social media as playing an important role in (a) extending learning beyond the classroom, (b) triggering students to use new technology, (c) giving the students an opportunity to create personal learning environments, and most importantly (d) facilitating and enhancing students’ learning.

*Keywords:* social media, higher education, learning activities, connectivism, students’ learning

**Exploring perceptions of faculty and students’ use of social media in higher education**

The spread of social media has impacted the way people learn and interact with each other. This phenomenon has brought to surface inquisitions on how people benefit from this interaction and how it might impact their knowledge and education. Social media is old and is rooted back to the invention of the telephone when people used this technology to communicate with each other, but today’s use of social media is much more sophisticated than a one-on-one conversation, and it entails a network of people communicating through the web. Many research studies have described the different use of social media in education (Heibergert, & Loken, 2011; Cain & Policastri, 2011; Kelm, 2011), and some studies have suggested the positive impact of social media on students’ learning (Oskoz & Elola, 2011; Yang & Chen, 2012; Churchill, 2009) , however, little of the studies has looked at how faculty members are using social media across the curriculum, and how they perceive the role of social media in their students’ learning as compared to their students’ perceptions. Understanding this role and the learning activities that are assigned through social media can inform faculty members in implementing social media in their courses.

Initially, my interest in this topic started through my own teaching practices in which I use social media tools informally to facilitate communication with and among students , in addition to sharing class activities and assignments. I have been using these tools to encourage students’ interactions and to help them improve their English language skills, but I have not been able to identify how the use of blogs, wikis, resource sharing tools, and social networking sites have influenced their learning. My beliefs and experience using social media drove my curiosity further to look at how other faculty members use social media to support formal instruction. I got more interested in learning about the instructional strategies that enhance student learning from the perspectives of professors’ who have been using social media in their courses for a while. . Social learning theory supports the principle that learners learn and grow through social interaction, however, due to some of my students’ mixed feelings about the use of social media in my course, I am approaching my research using an exploratory strategy in order to better understand sound practices for using social media in higher education.. Moreover, I would like to understand how faculty’s experiences compare to courses in which they did not use social media and how these experiences compare to their students’ experiences.

**Conceptual framework**

Social media, also known as social software or Web 2.0 tools, refers to a group of technology tools that promotes a personal repertoire of information through interaction and communication in an online, internet-based application (Anderson, 2004; Dabbagh & Reo, 2011; Cistek-Chandler, 2012; Chen and Bryer, 2012). Mason and Rennie (2010) emphasize the construct of collective intelligence that is harnessed by social media networking through the collaborative efforts of the users while Bates (2011) presents the term “E-learning 2.0” as suggested by Downes (2005) to refer to social media’s pedagogical use in education. Bates elaborates on Web 2.0 affordances and states “that they empower the end user to access, create, disseminate and share information easily in a user-friendly open environment” (p. 25). In sum, based on the common definitions presented by researchers, social media/Web 2.0 tools afford the following activities:

* Communicating
* Interacting
* Accessing
* Creating
* Sharing

For the purpose of this study, I refer to social media tools that as described by McLoughlin and Lee (2011), “foster and encourage informal conversation, dialogue, collaborative content generation, and the sharing of information” (p. 45) and serve as means to facilitate and enhance students’ learning.

**Types of social media tools**

Social media tools are used for different purposes although they share a common process and outcome by affording interactivity, communication, and sometimes creativity between the end users. While some of these tools promote collaboration between users to produce some kind of a collaboratively created work (Wikis, DropBox, Google Docs), others allow for connecting and socializing with friends around the world (Facebook, Friendster, Google +). Other social media tools support media sharing (YouTube, Flickr) while some allow bookmarking (Delicious, Diigo) (Dabbagh & Reo, 2011; McLoughlin and Lee, 2011; Bates, 2011). The most current social media tools are listed below:

* Social networking sites (e.g. Facebook, MySpace, LinkedIn, etc.)
* Blogs (e.g. Wordpress, Blogger, etc.)
* Microblogs (e.g.Twitter)
* Wikis (e.g. PbWorks)
* Podcasts (e.g. Podomatic)
* Bookmarking (e.g. Delicious, Diigo)
* Social studying sites (e.g. Cramster, CourseHero)
* Resource Sharing tools (e.g. Dropbox, Google documents)
* Media Sharing tools (e.g. YouTube, Flickr.)
* Virtual worlds (e.g. Second Life, Farmville)

**Learning theories that support social media**

Social media stems from natural interaction and collaboration between individuals to create communities, and it stems from the social learning theory that is rooted in Vygotsky (1978) in which he argued that humans develop cognitively and learn through social interaction with other humans using language, cultural history, and social context. Vygotsky started the concept of student-teacher relationship as more of a reciprocal benefit rather than a one-way benefit. He advocated the role of the teacher as a facilitator rather than the only provider of knowledge which is evident in today’s e-learning pedagogy. Vygotsky did not study this theory in the light of the technologies and the social media tools that exist today, but he discussed the natural, non-linear phenomenon of humans’ learning which could be translated into what we are witnessing today in the dynamic, collaborative world of social media. Dabbagh and Bannan-Ritland (2005) explain that knowledge from the social constructivist perspective is distributed and moves from the individual to become collective as suggested by the situated cognition theory. Hence social media is rooted in both social constructivist theory and situated cognition theory (Dabbagh and Reo, 2011).

Siemens (2005) proposes a new learning theory, connectivism, in which he addresses more than the process of learning that the social learning theory, behaviorism, cognitivism, and constructivism suggest. In connectivism, he emphasizes the value of what is being learned, and he defines it as follows:

Connectivism is the integration of principles explored by chaos, network, and complexity and self-organization theories. Learning is a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual. Learning (defined as actionable knowledge) can reside outside of ourselves (within an organization or a database), is focused on connecting specialized information sets, and the connections that enable us to learn more are more important than our current state of knowing. (para. 23)

In other words, Siemens explains that learning happens informally when individuals make sense of information circulating around them unlike the formal learning strategies that take place inside the classroom. He also emphasizes the fluidity and the growth of learning in a cyclical manner as a result of connections between ideas that keep changing across place and time due to networks and interactions. Siemens offers a more up-to-date learning theory which embraces an information age that offers accessible data for all individuals resulting in learner-centered personalized learning (Dabbagh & Kitsantas, 2012), otherwise referred to as personal learning environments that are supported by Web 2.0.

Hence, social media pedagogy is not a new phenomenon, it is rather deeply rooted in existing theory, but the constant development of the Web 2.0 tools and their varied affordances has shaped the way researchers look at existing theories. Dabbagh and Reo cite Brill and Park (2008), and Weigel, James and Gardner (2009) to emphasize the idea that Web 2.0 tools have many affordances that hold promises in education if they were “developed into discipline-specific pedagogical practices and competencies” (Dabbagh and Reo, 2011a, p. 179).

**The use of social media in higher education: Pedagogy 2.0**

Not only did social media lead to a paradigm shift in how people learn, it has also added a new suffix to education: 2.0. Researchers question whether social media will have positive or negative effects on higher education due to the affordances of Web 2.0 technology.

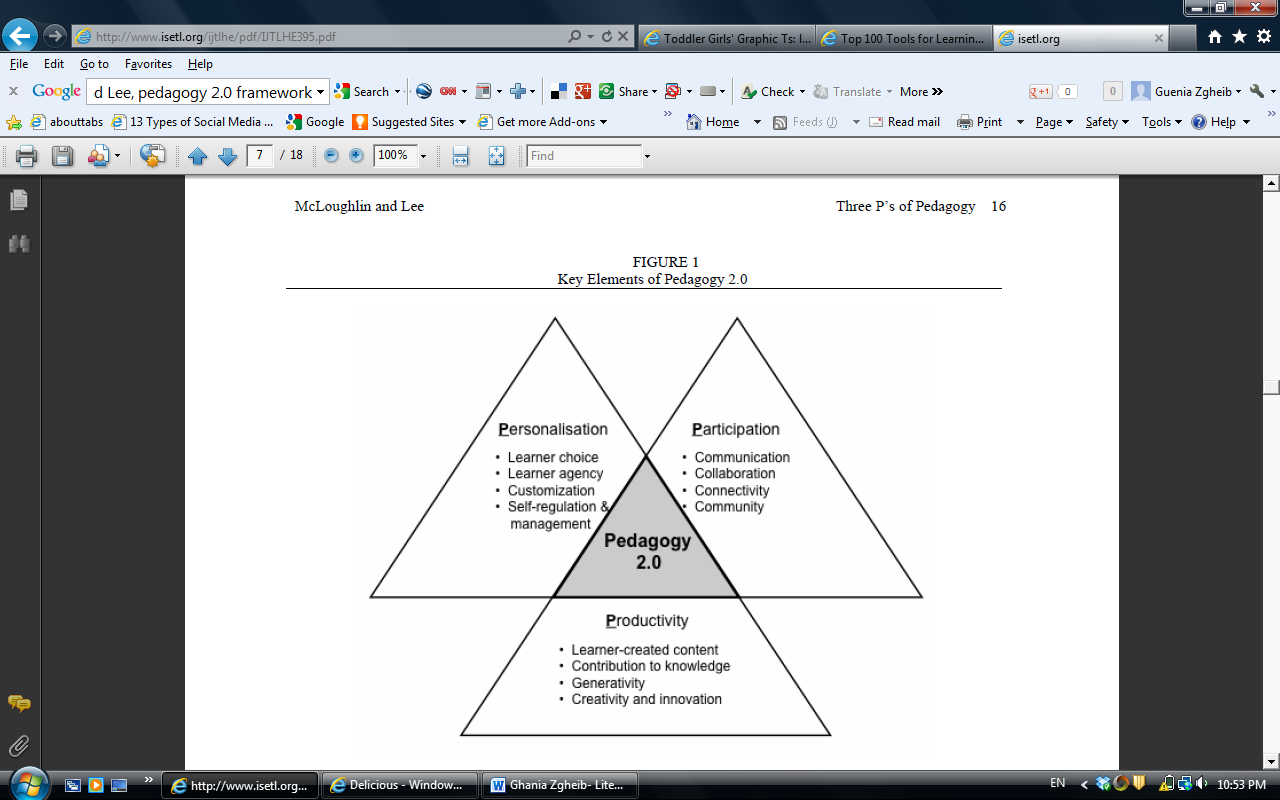
Dabbagh and Reo (2011a) discuss the impact of Web 2.0 on all aspects of higher education including faculty, students, classrooms and pedagogy as discussed in the previous sections. To describe their current and potential roles in higher education, Dabbagh and Reo, refer to them as Faculty 2.0, Students 2.0, Classroom 2.0 and Pedagogy 2.0. Faculty in the 2.0 era no longer can represent the only source of information (Siemens, 2005), but are more of co-learners and co-designers who are surrounded by a 2.0 generation who has access to information anywhere and anytime and can make sense of it. To elaborate on this idea, Dabbagh and Reo (2011a) also cite Sample (2009) who advocates openness in education where open content sharing is part of teaching and research. Similarly Students 2.0, who use social media as part of their daily activities have different expectations from their professors than previous generations, and they come into 2.0 classrooms that are equipped with interactive technology and bring in with them their mobile technologies including laptops, smart phones and tablets. Hence all of these new demands which are part of the student’s everyday life bring a significant fast-paced change into higher education that faculty, curricula, and even the classroom setting has to adapt to (ECAR, 2012; McLoughlin & Lee, 2011).

The abundance of social media tools and their use in education has led researchers to consider a 2.0 pedagogy and a 2.0 lifelong learner characteristics. Cigognini, Pettenati, and Edirisingha (2011) present the 2.0 Lifelong learner’s personal knowledge management (PKM) skills as situated in a Web 2.0 era which in turn inform their learning design model that supports these skills. Cigognini et al. present provide four online learning phases, activation, demonstration, application, and integration to represent their learning design model (Figure 1). McLoughlin and Lee (2011) also present a 2.0 pedagogy framework that emphasizes personalization, participation, and productivity (Figure 2). Similarly, Dabbagh and Kitsantas (2012) present a framework for faculty and instructors to support students’ self-regulation in developing their personal learning environments through the different affordances that social media tools propose (Figure 3). The pedagogical framework is divided into three different levels: personal information management, social interaction and collaboration, and information aggregation and management.

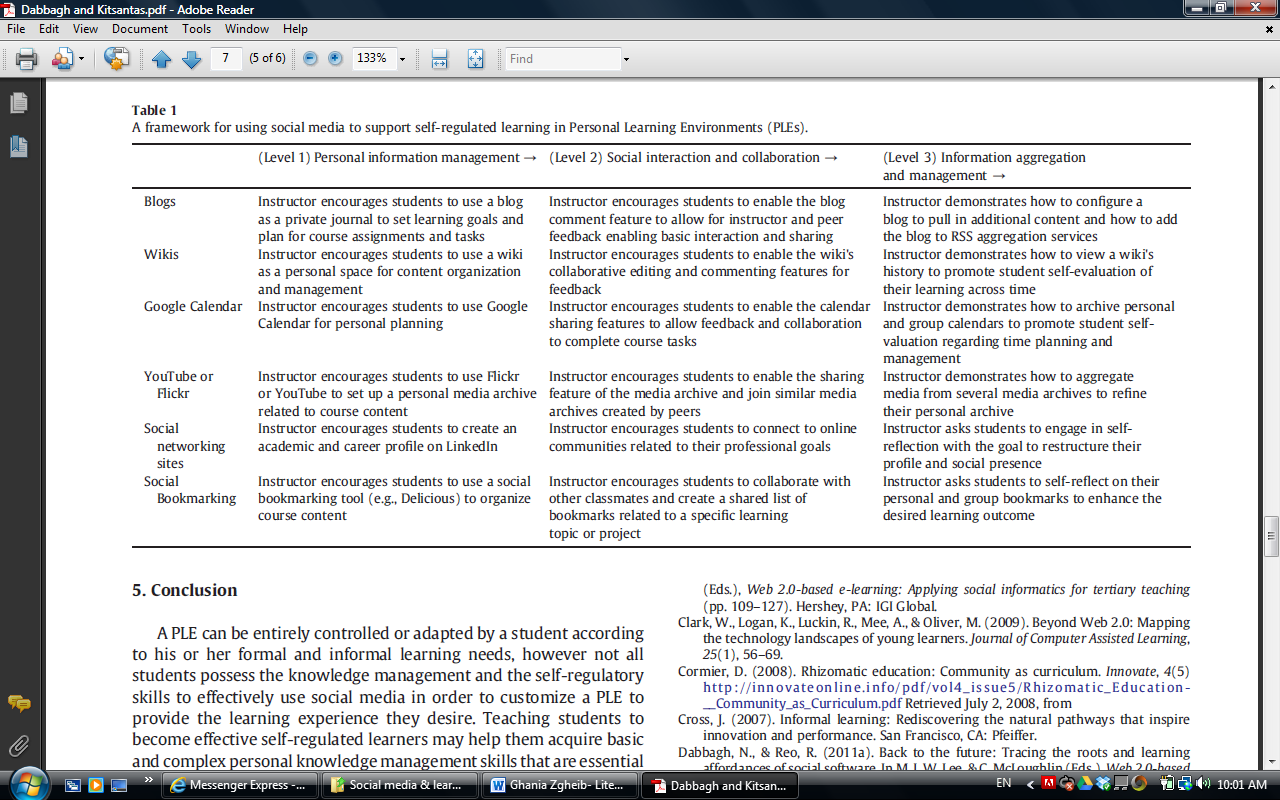
*Figure 1.* Instructional design principles and online learning phases.



*Figure 2.* Key elements of pedagogy 2.0



*Figure 3.* A framework for using social media to support self-regulated learning in Personal Learning Environments (PLEs).



While Cigognini et al. present a cyclical framework, Dabbagh and Kitsantas present a phased framework that faculty could use to help students become lifelong learners and make sense of the profuse knowledge that social media offers, and McLoughlin and Lee present a non-linear framework that supports education in the Web 2.0 era. All three frameworks highlight the affordances of social media that reflect the learning strategies that could be applied in an educational setting. As a guide for my study, I present a shared diagram that highlights the common strands among the three diagrams and that includes the different cognitive affordances that could be developed through social media (Figure 4).

*Figure 4.* A summary of key elements of figure 1, 2 & 3

Cigognini et al., Dabbagh and Kitsantas, and McLoughlin and Lee all define the terms in the frameworks. Drawing key terms and descriptions from their work, I define each of the terms presented in the diagram above to be used as a guideline for analyzing social media learning activities.

**Activate**

At this stage, learners get introduced to the different tools and “become accustomed to handling information and knowledge abundance” (Cigognini et al., p. 118, 2011). McLoughlin and Lee (2011) also mention that introducing these tools is important to help learners engage with their peers.

**Connect**

McLoughlin and Lee state that Web 2.0 tools “increase the level of socialization and collaboration with peer groups, experts and community, and by fostering connections that go beyond the walls of the classroom or the institution” (p. 52). Hence, at this stage learners connect with others to form a personal network of resources. Dabbagh and Kitsantas suggest that at this stage, learners can connect with people in their professional field through social networking sites.

**Contribute**

At this stage, the learner contributes to the network of peers or professionals, and as Cigognini et al. call him, he becomes a “visible node.” McLoughlin and Lee emphasize productivity and knowledge creation in the 2.0 pedagogy as the “new genre of dynamic, self-published content” (p. 54).

**Personalize**

Although different researchers have placed personalization in different positions in their diagrams, however, my definition of this construct is related to Dabbagh and Kitsantas as well as Cigognini et al.’s description on personal learning environments. At this level, students are aware of their learning by selecting appropriate resources, and they possess self-evaluation and metacognitive skills that makes the learner knowledgeable in the subject area as suggested by Cigognini et al. **Examples on the use of social media use in higher education**

Despite the fact that undergraduate students prefer to use social media for academic purposes rather than personal interaction with their instructors as reported by ECAR (2012), however, students showed an interest in connecting and interacting with other students through social media. This report also suggests that social media and technology tools such as open educational resources (e.g. the OpenCourseWare Consortium and the Khan Academy), social studying sites (e.g. Cramster, CourseHero), simulations or game-based learning, e-portfolios, learning management systems, online chatting tools, web-citation libraries, and ebooks all contribute positively to the students’ learning and academic success. This report provided 10,000 undergraduate students’ perceptions about technology tools that help them in academic success. ECAR report does not define what academic success stands for but it could be interpreted as passing a course, learning the content, or getting prepared for the work place.

In a study that investigates the use of Twitter in a pre-health professional seminar, Junco, Heibergert, and Loken (2011) present the results of a semester long study on students’ use of Twitter for academic and co-curricular discussions. Students were divided into control and experimental groups. The experimental group participated in the following educational activities that promote connectivity : continuing class discussions, asking questions in a low-stress environment, engaging in a book discussion, receiving class and campus event reminders, receiving academic and personal support, connecting with peers and with the instructors, organizing service learning projects and study groups, and completing optional and required assignments that require the students to reflect on readings, videos, or sayings and post their tweets and then comment on two of their friends’ tweets. The researchers suggested that Twitter had a positive effect on the experimental group’s (the group who was using Twitter to communicate with the professor or other students) GPAs while both experimental and control groups had the same GPAs in high school.. This study also shows that the experimental group showed more engagement with the content than the control group. Furthermore the faculty member in this experiment represents the faculty 2.0 characteristics that Dabbagh and Reo (2011) described earlier.

Kelm (2011) describes his experience using blogs and media sharing tools with a group of students who are part of China Global Connections program that provides students with international business communication experience abroad through an MBA program. As part of this experience students are required to post comments (75-100 words) about the daily activities that are scheduled. The students’ comments were to have focused on their takeaways about Chinese culture and their awareness of aspects related to the American culture. In this same course the instructor asked students to post seven photographs and videos on LESCANTE’s photo-sharing tool and YouTube channel, a University of Texas at Austin database that allows students to post media and comment on it in a blog format. These social media-based activities encouraged students to engage in discussions, reflections, and collaboration to decide on videos to share, and since the program’s purpose was to enrich students’ experience in business communication, exposure to the language and the culture and communicating about them is what enriched the students’ experiences as suggested by Kelm.

Blogs can be used interactively as illustrated by Kelm (2011) as well as personal reflection tools. Yang and Chang (2012) present a study in which they describe a learning activity using blogs that requires the experimental group to post a blog contribution after each lecture in which they write about course content-related material (Information technology). Students in this group were also asked to read and comment on three of their peers’ blog contributions. Students in the experimental group who were using blogs in an interactive way were compared to another group of students using blogs for personal reflections in an isolated way. As a result, Yang and Chang show that blogs, when used in an interactive manner can enhance peer interaction, improve critical reflection , and increase students’ positive attitude towards academic achievement.

Cain and Policastri (2011) present a mixed-methods study on the use of Facebook as a learning activity in a pharmacy management and leadership course. They created a Facebook group and invited students optionally to join the group. As a result, of the 128 students enrolled in this course (80%) of the students joined the group. The purpose of the Facebook group page was to invite guest speakers to submit posts on contemporary management, pharmacy, and leadership issues not covered in the course. The students’ participation in the posts was optional with no requirements so that the researchers ensure the informality of the nature of the Facebook activity. Data from the student survey, exam responses, and student focus groups revealed that students appreciated the informality of the activity and the opportunity to connect with professionals in the field and be exposed to “real world” experience.

Churchill (2009) describes a study on the effectiveness of the use of blogs in a postgraduate course “in which students were accessing course material, posting reflections, featuring artefacts created through the learning tasks, commenting on each other’s contributions and otherwise participating on a regular basis throughout the semester” (p. 179). Data was collected through observations of the blog, faculty reflections, student interviews and surveys the results of the study suggested a positive learning impact of blogs on student learning. Interesting findings from the study suggest students’ perceptions that they learned more in that course compared to other courses and that blogging facilitated and contributed to their learning. Hence, social media played an important role in this course through the interaction that was taking place among students enrolled in one course and the reflection tasks that they had to conduct.

Oskoz and Elola (2011) present the findings of a study in which they explored the use of a wiki and chat tools? to complete a writing assignment in a Spanish foreign language face to face course which consisted of 10 students. The researchers looked at students’ essay, wiki drafts, chat discussions and a questionnaire that was administered with the students. Findings suggested that students learned more about foreign language writing through the collaborative nature of the wiki and the chatting that took place among the group members. Students also reported that the combination of a collaborative site with a chatting tool was very helpful. However, the study also suggested that some students did not take full advantage of the affordances that wikis provide and they preferred to meet on campus. The studies presented above have described and investigated the use of an individual social media learning activity in a course; such studies have focused on the use of blogs, wikis, Facebook, or Twitter and have explored students’ learning experiences as a result. In general, these studies have demonstrated a positive impact of these tools on the classroom environment and on the students’ learning. However, none of the studies analyzed and categorized these activities based on the type of cognition that students are engaged in while completing these activities. Moreover, the studies presented did not lay out how social media is used across disciplines but they focused on the use of one social media tool in one course. It is worth analyzing these activities across disciplines and exploring how they are used in different fields. Also, several studies presented above revealed students’ perceptions (ECAR, 2012; Churchill, 2009), but it would be worth comparing faculty and the students’ perceptions about the use of social media in an educational context.

**Research Questions**

This study aims at addressing the following research question:

*How are faculty members using social media across the disciplines in higher education, and how do faculty and students perceive the role of social media in the learning?*

The research question was further divided into several questions:

* In what ways are faculty members using social media in higher education?
* What are the most common learning activities that faculty assign for students to complete through social media?
* What perceptions do faculty have about their students’ learning using social media tools?
* What perceptions do students have about their learning through social media tools?
* How do faculty and students’ perceptions about the use of social media in an educational context compare?

**Method**

Several mixed methods studies have been conducted to investigate the impact of social media on students’ learning by comparing experimental and control students’ GPAs, and interviewing students, however, no studies have compared faculty perceptions to students’ perceptions in this area. Hence, this study is conducted using mixed methods of qualitative and quantitative techniques. Greene (2007) describes the originality of mixed methods research in creating paradoxes and conflicts which results in new information, and hence my goal is to identify the “What” of social media using quantitative methods and the “how and the “why” using qualitative methods as Maxwell(2013) suggests. I am much more interested in the process of how social media is used in higher education and how it affects students’ learning rather than understanding relationships and variances. While quantitative methods will provide me with descriptive statistics, qualitative research methods will give me the flexibility to explore the topic from different facets due to its narrative nature which gives rise to unexpected themes and elaborates on others.

**Research setting and participants**

This study was conducted in a higher education institution in Northern Virginia where I currently teach. The institution is known for its innovation and has been selected as number one up and coming national universities in 2012. The participants were five faculty members and their students, 152 in total, who are enrolled in the courses in which social media tools are used. Participants in this study were purposefully selected “to provide information that is particularly relevant to your [my] research questions and goals, and that can’t be gotten as well from other choices” (Maxwell, 2013, p. 97). To find participants, I contacted the manager of the Wiki platform at that institution and asked for names of faculty members who are using social media in their teaching. He was very supportive and gave me names beyond the number that I was looking for. I tried to contact faculty from different disciplines to establish heterogeneity as Maxwell proposes, and to explore how social media is used across disciplines. However, the responses were few and three of the participants ended up being faculty members in the same college; two of which were co-teaching a course and using almost the same social media learning strategies, but each was also teaching another course individually. For confidentiality purposes, I am using pseudonyms in this paper although I am mentioning, with their approval, the college name in which these faculty members teach and their course numbers and assignments. Although the participants and I teach at the same institution, however, we teach in different departments and we never met before the interviews took place. The faculty participants are described below.

*Katie* holds a PhD in Spanish Linguistics and General Linguistics and teaches Spanish in the department of Modern and Classical Languages in the College of Humanities and Social Sciences. She has been teaching at that institution since 1996 where she has developed interactive web-based material for courses she taught. She has authored and co-authored handbooks and textbooks on the instructional use of Web 2.0 tools. She is currently teaching a undergraduate online course and a graduate face to face course in which she is integrating social media tools.

*Nelly* holds a PhD in modern history and an MFA in creative writing and she teaches in the New Century College courses related to digital activism in which her research interests lie. She has been teaching at that institution since 1998, and she has received several grants from the Technology across the curriculum program to enhance teaching and learning in higher education. She is currently teaching 200 and 300 level courses in which she uses social media.

*Susan* holds a PhD in Counseling and Personnel Services and teaches in the New Century College courses related to leadership. She has authored and co-authored textbooks and manuals on leadership and is currently teaching 200 and 400 level courses. She is currently using social media in all the courses that she is teaching.

*Allie* holds a PhD in Education with a concentration in Assistive Technologies. She teaches graduate courses related to special education and assistive technology as well as research methods courses. She is using social media in the courses that she is teaching this semester as she has used it in previous courses.

*Haley* has a PhD and is the Director of the Center for leadership and community engagement and is teaching this semester a 200 and a 400 level courses. She co-teaches the 200 level course with Susan. She is also using social media in her 400 level course.

As for the student participants, they were all undergraduate students except for one group of graduate students enrolled in the following courses at the same higher education institution described earlier:

*Table 1:* Student participants by course

|  |  |  |  |
| --- | --- | --- | --- |
| **Course title** | **Name of Faculty participant who teaches the course** | **Number of enrolled students** | **Number of actual respondents to the survey** |
| **SPAN 115 (online)** | Katie | 24 | 0 |
| **SPAN 505: Advanced Spanish stylistics (f2f)** | Katie | 15 | 7 |
| **NCLC 348: Digital activism** | Nelly | 24 | 1 |
| **NCLC 204: Leadership theory and practice** | Susan | 24 | 1 |
| **NCLC 435: Leadership in changing environment Change** | Susan and Haley | 34 | 6 |
| **EDIT 590: Introduction to research methods (hybrid)** | Allie | 6 | 4 |
| **NCLC 295-002: Leadership & Community Engagement** | Haley | 25 | 6 |
| **Total:** 7 courses |  | 152 | 21 |

**Data Collection**

The study was submitted for review by the IRB office and it was exempt from review. A copy of the consent forms is included in Appendix E. The faculty members were contacted via email through which we agreed on a meeting time and place. All the interviews were conducted in the faculty’s respective offices where they had their own computers to share with me the types of activities or social media activities that they are using. The interviews were conducted between October 4, 2012 and November 15, 2012. The faculty members were asked to sign a consent form before the interview. Interviews were semi-structured with open-ended questions that allowed faculty to talk about their experiences using social media in their respective courses. Interviews lasted between 35 – 64 minutes as presented in Appendix B. The interviews asked faculty to describe the tools that they use in their respective courses, the learning activities that their students are required to complete through the social software, their experiences teaching with and without social media, and their evaluation of their students’ learning as a result of using social media Appendix A. The interview asked eleven questions and one of them had three follow up questions.One of the interviews was not recorded because the digital recorder gave me a false signal, so I had to come back to type in on the same day all the notes that I could remember from the interview. These notes were used in the data analysis although direct quotes were not included.

At the end of the interviews, faculty participants were asked if they are willing to follow up with an online survey that would be sent to their students to explore their perceptions on the use of social media in general and in their courses in particular. Four participants agreed to send the survey link that I create while the fifth asked if she could include the student survey questions with her online survey for the course. The online survey was sent to seven courses because each of the faculty participants was teaching two courses and the survey was sent to courses in which they use social media; only twenty-one students completed the survey. The survey consisted of eight questions, and it required 10-15 minutes to be completed (Appendix A). It explored the students’ general use of social media in courses they are enrolled in, and they were also asked to rate how well specific social media tools help them learn the course content and how well the learning activities that are implemented through the social media tools help them learn. The students were also asked to compare their learning experience in a course where social media is not used to a course in which social media used. All survey questions for the seven courses were identical except for questions 5 and 6 which asked the students to rate learning activities which were collected from the interviews and were specific to the courses in which they are using social media. In courses, where there was only one learning activity assigned through social media, question 6 would be directed toward that activity while in courses where more than one activity was stated in question 5, students were asked in question 6 to describe their learning in experience in only one of the activities. Students’ response rate as described in table 1 was not high despite the fact that a reminder was sent out to students during the data collection process and faculty reinforced it in class.

**Data Analysis**

After I conducted the interviews and transcribed them, I went back to the literature review and focused the latter around emerging themes. One of the obstacles that I had with data analysis was the lack of a framework that I could base the analysis of the social media learning activities on. So I did some research and found three existing frameworks as presented in figures 1, 2 and 3 that could guide me in my analysis. However, I figured that I should combine all three frameworks in one simplified diagram that could help me in my data analysis, and that’s when I created the diagram presented in figure 4.

To begin with the data analysis, I categorized all the learning activities that I collected from faculty interviews and their syllabi (table 2) to help me organize these activities in terms of the level and the type of engagement that they involve the students in and the ratings per assignment as students responded in the survey. Moreover, I created a table with the main topics (Appendix C) that were covered in my interviews: course titles, social media tools used, purpose for selecting these tools, description of learning activities, impact of social media on students’ learning, professor’s experience teaching with and without social media, and challenges and included each of the faculty responses to create a matrix that could assist me in comparing the participants’ responses and to look for common themes. Afterwards, I looked at the students’ survey responses, specifically the open-ended questions, and identified common themes and compared them with the faculty interview themes in a chart (Appendix D) to compare the perceptions of both faculty and students using social media. There were several common themes between student and faculty perceptions as well as different themes as discussed later in this paper . I used a thematic approach for data analysis (Glesne, 2011; Maxwell, 2013). The major common themes include the use of social media as a tool to activate students’ technology skills, to extend classroom discussion beyond the classroom, to help students create a personal learning environment, and to produce quality learning.

Finally, I looked at the quantitative sections of the student surveys and created an average percentage and rating of all 6 surveys that students responded to. I looked at the descriptive statistics to analyze how students rate social media tools and the learning activities that they have to complete through the use of social media.

*Table 2.* Categories of learning activities assigned through social media

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course assignments** | **Activate** | **Connect** | **Contribute** | **Personalize** |
| *Reflecting on my Learning Blog: students reflect on their language errors.* | √ | √ |  |  |
| *Oral Projects through LanguageTwin: students video conference with native speakers of Spanish* | √ | √ |  |  |
| *Blogging: The voice of my story*  *Students blog about any topic related to the Spanish language.* | √ | √ |  |  |
| *Twitter: sharing resources*  *Professor shares resources with students* | √ | √ |  |  |
| *Twitter: Connect with informants- students connect with people in their field and draw lessons from them* | √ | √ |  |  |
| *Twitter activity: Personal transformation experiment- Students tweet about leadership aspects they are developing in themselves.* | √ | √ |  | √ |
| *Wikis: Students have personalized pages to post their assignments; also collaborative class activities are shared there* | √ | √ |  |  |
| *Online Exhibit: Video festivalof at least ten videos, available to watch online, which will inspire, instruct, animate and/or spur to thought and even action the intended audience.* | √ | √ | √ |  |
| *Online Exhibit: Curating an exhibit which mixes media to instruct, animate…* | √ | √ | √ | √ |
| *Wikipedia edits: Students edit an existing Wikipedia post to participate in collaborative knowledge-building activity* | √ | √ | √ | √ |
| *Collaborative note-taking in wikis: students collaborate to post their weekly reading notes* | √ | √ |  |  |
| *Reading Reflections: 5 wiki posts- personal learning spaces- students post their reflections on the readings* | √ | √ |  | √ |
| *Wikis: students collaborate to review each other’s research proposals and give each other feedback* | √ | √ |  |  |
| *Blogging: Students writefive posts through the semester about any topic and they have to comment on each other’s posts.* | √ | √ | √ | √ |

**Results**

The interviews and the surveys suggested several findings that addressed how faculty members are using social media in their courses and their perceptions about the role of social media in their students’ learning. As stated earlier, Appendix D provides a table that compares common themes between students and faculty as well as student-only and faculty-only related themes which is represented visually in the Venn Diagram below.

*Figure 5:* Visual representation of the major themes**Activating technology skills**

Student survey themes

Faculty and students common themes

Faculty interview themes

After analyzing and categorizing the different learning activities that faculty assign through social media (table 1), I noticed that faculty mainly assign activities that encourage students to use a new tool and connect with peers as well as with professionals in the field. Likewise one of the students in the survey suggested that social media allows her “to step outside of her comfort zone” because she is an older students and the use of social media in her coursework forces her to be more “engaged with the technology.” Four out of five faculty members reported that many students lacked technology skills and that was a challenge for them to teach them how to use the tools before implementing them. Faculty reported that many students did not have Twitter accounts before enrolling in their courses, or they did not know how to use blogs. Nelly for instance stated that her students found the Wikipedia editing activity a whole new experience which they were unaware that it even existed. Faculty also explained that blogging was also considered a new tool to most of the students except for one participant who reported that five of her students were already blogging before being enrolled in her course. Hence, working with students on learning new social media tools and activating their skills is a big challenge in the participants’ classes before they move to more advanced activities.

Several activities that involved blogging, tweeting or using Wikis were basically used by the participants to prepare their students for the workplace. Two of the faculty members considered social media very essential to their students’ professional development since these are tools they will be using in their future jobs. Similarly, students see this value in social media and one of the students reported that “classes that utilize social media prepare us for our future careers that would use social media tools to communicate in the company.” Faculty believe that it is necessary to activate the students’ social media skills because when they graduate they won’t be using Blackboard in their jobs but rather social media tools.

So social media for me is you know a little scale on the classes so students can get to know each other and get like the technicalities of using Wiki, Blog, Twitter in safe space, but then I want them to move that knowledge to you know to their professional lives. (Katie)

I said, “You know, how many times … You're not gonna graduate and go to a job that uses Blackboard, but you are gonna go to a job that use Wikis and Twitter and LinkedIn.” You know what I mean? So I’m trying to push them towards…The tools they’ll actually be using in the workplace. (Susan)

Similarly, Nelly believes that social media gives the students a sense of what real life looks like and it is “a bridge between the classroom and outside.” Hence preparing graduates for the workplace has taken a different approach and the skills that a student should graduate with are different from what they used to be in the past. Using social media in the classroom helps students learn more than the content, it helps them acquire necessary skills for the job.

**Extending the discussion beyond the classroom**

Faculty believe that social networking sites such as Facebook and Twitter encourage students to be mindful and think about the topic every day, “seeing the topic everywhere they go” (Haley). Both Haley and Susan who co-teach a course believed that the Twitter assignment “personal transformation experiment” allowed the students to think about the topic all the time because they had to post 14 Tweets about it. One of the students who participated in the “personal transformation experiment” concurs with Haley and Suzan in this aspect when she stated that “microblogging… kept my mind on it and kept me progressing.” In fact, 100% of the six students who responded to this course survey rated this activity as helpful for their learning of the course content which suggests that continuously tweeting about a topic made the students more engaged in the topic and aware of it.

Moreover, results from faculty interviews and student surveys suggested that social media creates a sense of community. In a Facebook group that Haley’s students created, students post any questions or comments that they have from the course. Although this Facebook group was created by the students and not as part of a course requirement, Haley sees the value of social media in fostering a sense of community. Similarly, students believed that the Wiki workspace in particular “has created an online writing community of the class” while social media in general “makes a stronger community” that extends beyond the classroom.

Blog assignments were also popular in extending the course content beyond the classroom. In both Blogging activities listed in the table, students were asked to post anything related to the course content to extend the discussion beyond the classroom. Faculty believe that students should have total freedom to choose what they want to blog about as long as the topics are related to the course. Students rated blogging activities as useful; for instance, in “The voice of my story” blogging assignment, out of the 6 respondents, 57.2% reported that they found this activity at least helpful in learning the content. In another, blogging assignment where students are asked to write five posts through the semester about any topic related to the course content and comment on each other’s posts, out of the six respondents, 88.3% of the students rated it at least as helpful. In this sense, the use of social media tools keeps students aware of the courses they are enrolled in and of the content and could contribute to their learning.

The affordance of connecting with professors, peers, or professionals in the field was perceived as useful by both faculty and students. All of the learning activities presented in the table have a “Connection” component in them. In some activities such as “Reflecting on my learning” blog, students connect only with their professor rather than with their peers, but this activity allows the students to reflect on their learning growth. In other activities such as “Language Twin,” students have to connect with Spanish native speakers around the world. Similarly, in the Blogging activity “The voice of my story” and the Twitter assignment “Connect with informants,” students connect with people from around the world. Several students reported the value of building connection with their peers as a method for reflecting on their own learning. Students also explained that through online collaboration and interaction with peers they got to know them as opposed to a course in which they don’t use social media. Hence, connection which is central to social media can take several forms in the classroom. Such assignments prepare students for the workplace by connecting with people in the field to learn from their expertise and to develop some expectations for their careers.

**Facilitating and enhancing students’ learning**

Despite the fact that several previous studies suggested that social media has a positive impact on the students’ learning, it was worth finding out in what ways faculty members as well as students perceive the value of social media in higher education. As a result, 84.74% of the students who responded to the survey think that they learn more in courses that engage them in social media activities. Students were also asked to explain ways in which social media has enhanced their learning and several factors came to surface from their responses as described below.

To begin with, both faculty and students believed that social media gives students ease of access to material where they can refer back to assigned material and read each other’s work or event contribute to an online activity. A student explained that “it is more flexible because I don’t need to bring all my books and papers with me, anywhere I have internet I can get information about the class and assignments.” From a faculty’s perspective, Susan explains that social media allows for ease of access to material which facilitates learning. This ease of access creates a sense of immediacy as suggested by both students and faculty, and one of the students explained how easy it was to write about how she was feeling at the exact moment that she was feeling it. Furthermore, Susan and Katie explain that the ease of access to information through social media as well as the immediacy of accessing information as reported by Allie facilitate students’ learning and create better quality of learning through the online nature of these tools which allow students to check these sites anytime and anywhere and through any web-enhanced mobile device.

Collaboration and sharing perspectives which are facilitated by social media play an important role in students’ awareness of each other’s’ work. Several assignments in table 2 suggest collaboration between students to produce an outcome. Haley believes that wikis allow students to share their work and give each other feedback whereas before social media existed her students did not use to collaborate on a project in a real sense. They used to divide parts of the project among each other and then compile them in one document, and the project used to lack coherence. Now with the use of wikis, students collaborate easily and instantaneously and Haley states that “there you can see a definite improvement, in terms of the goals that I wanted for the assignment.” Likewise, students found a great value in sharing perspectives and learning about their peers’ perspectives through social media which encouraged peer learning:

“It has enhanced my learning of the course content through an increased sharing of ideas and perspectives of my own as well as from my fellow colleagues.”

“It was a great way to share open and ideas. I also learned lot about leadership reading other’s peoples blogs.”

“It has broadened my view of the opinions of others.”

“It brings in many different perspectives for me to explore.”

“…the ability to see other students' work allows us to learn about each other and from each other”

Hence, students perceive a value in aggregating knowledge from their peers by reading different perspectives and transferring them to their own personal learning. As a result, students explained that using social media, they feel that they are writing to an audience rather than to one person (the professor) which in turn makes them reflective of what to write and of the quality of their work. From a faculty’s perspective, Nelly resonates with this idea about the public nature of social media which encourages students to produce quality work. Two of the students elaborate on that idea as follows:

Posting my work where others can view it has made me more conscious of how I write. Also, the ability to see other students' work allows us to learn about each other and from each other, making the class a community in which every writer is teaching the others.

When social media tools are used, however, I realize how my connection with the world enhances m work and vice versa. I understand now that social media can make our work known or can simply make the works and opinions of others known to me while I'm in the process of researching or writing. The use of social media brings forth an interaction between the world and the course that often does not exist otherwise.

**Creating personal learning environments**

Several activities that are presented in table 2 demonstrate a certain level of reflection that is facilitated by the social media used. Although the use of Twitter or blogs facilitate reflection, however, only in the Twitter assignment “Personal transformation experiment” and in the Wikipedia edits assignment, the students think about their learning and their transformation. The personal transformation Twitter assignment was rated by students as helpful for the development of their learning which suggests that assignments which engage students in metacognitive activities that promote their learning. A description by the professor who designed this activity is provided below:

… They design their own experiment, and they say, “Here’s where I am with risk taking, for example, now…” And they say, here’s what I’m gonna do for the next few weeks to try to sort of become better at that in my own way,” and they develop accountability partners to sort of check in with them and they sort of, um … and at the end they have to say how much they’ve transformed or not. So part of that assignment is that they have to tweet almost every day.

As for the Wikipedia assignment, after the students complete the edits for one of the articles, they have to write 750-1000 words to reflect on their learning experience and “discuss the ways in which you [they] might apply your [their] new knowledge, of the medium and of the field of digital activism, in the future” as Nelly explains in her syllabus. In other tasks that involve blogging such as is “The voice of my story”, students reflect on the content of the course and make connections to topics that they find interesting.

Furthermore, faculty believe that social media’s affordances allow students to archive and organize their work to create a personal repertoire of their work so that they can come back and reflect on their progress; in this respect Nelly reports that the use of Wikis promotes a sense of achievement in students. This is one of the roles that social media plays, and Dabbagh and Kitsantas (2011) illustrate how archiving through social media allows students to reflect on their learning and is a steps toward guiding students to develop their personal learning environments (PLEs). Cigognini et al. (2011) as well discuss meta-reflection and meta-cognition as a strategy to guide students through integrating knowledge that helps the e-learner be more successful in the information age.

But for me it’s more at the graduate level particularly or at the advanced level for students to get connections with the world and to have this personal learning environment where they are not so dependent on what I know as a professor or on the years they are in college, but they build up something that they are going to be using in the future. (Katie)

Nelly also sees the value in social media as tools that encourage students to learn on their own and to adapt to any new learning situation “learn to learn”, and it encourages students to be flexible learners. Susan emphasizes the personalizing feature of social media which allows students to create personal learning spaces which in turn foster autonomous learning.

Although students did not describe social media spaces as personal learning environments, however, I could infer from their experiences using social media that they are already aggregating information from different resources through social media tools which allow them to share their perspectives and read about each other’s perspectives. One of the students mentioned that social media allows him to evaluate his own learning and contributions while other students reported on the quality of learning achieved through exposure to different perspectives as discussed in an earlier section of the results. Another student described how she could go back and look at her transformation through the “personal transformation assignment” on Twitter. All of these examples are evidence of personal learning even if they were not articulated by the students in this sense.

**Teacher-student relationship**

Students identified a unique student-teacher experience through social media activities which one of the students labeled as “equality, as the professor and the students have the same knowledge about these tools.” In this sense, social media meets the basic foundations of the social learning theory in which Vygotsky advocates for a reciprocal benefit in student-teacher relationships though not equal as that student reported. But as one of the students explained, social media activities allowed him to get to know his professor more, an acquaintance that is hard to make in course which do not include social media.

**Fun and interesting**

Many students mentioned how fun and interesting a course that involves social media as compared to a course that does not. Students believe that courses in which social media is used are more relatable to the students’ interest, through these tools, they can interact with peers and look at each other’s work. Students believe that these tools also keep them connected to current trends in their field. Therefore, social media brings a dynamic to the classroom that does not exist in courses which do not involve social media use, and as students suggested, it keeps them engaged with the course content.

**Technology vs. learning activity**

Finally, when exploring students’ learning through social media, two factors are involved: the technology and the pedagogy which work hand in hand to produce quality learning as suggested by Haley. She believes that making use of the social media affordances is what produces quality work. The tool by itself does not enhance the learning but rather how the features of a tool are used for a specific assignment is what matters.

I think the design of the assignment needs to take advantage of what social media can do. But if you’re using it in exactly the same way than no, there’s probably not any benefit at all. If my students were just writing five reflection papers and posting them to a blog instead of what I’m asking them to do which is truly a blog, like link around, comment on each other’s stuff – and I can tell them, once the first round of blogs is done, if you want your second blog to be in response to somebody else’s first blog, awesome. Right? So they love that too. And that’s not something that can happen if you just say five reflection papers. Except for post them on a blog instead of typing them. Right?... it’s not just that you’re using social … It’s not just the platform, it’s the design of the … The platform allows you to design the assignment differently, and that is what I think enhances student learning. (Haley)

However, the student survey asked students to rate the usefulness of the social media tools for their learning growth, and it asked them to rate their learning through specific social media activities. Students wereasked to rate the tools and the activities on a scale of 1-4 (1 being not useful at all and 4 being extremely useful). The following table compares the results on both questions. Only tasks which students rated are included.

*Table 3:* Students’ ratings of technology tools and learning activities

|  |  |  |  |
| --- | --- | --- | --- |
| **Social media tools** | **Average rating of the effectiveness of the tool by students** | **Individual activities implemented through social media** | **Rating of activities by the students** |
| Social networking sites (Facebook, Linkedin) | 3.13 |  |  |
| Blogs | 3.30 | Blogging: The voice of my story | **7 responses:**  **28.6%:** extremely helpful  **28.6%:** helpful  **14.3%:** somewhat helpful  **28.6%:** not helpful |
| Blogging: Students write five posts through the semester about any topic and they have to comment on each other’s posts. | **6 responses:**  **33.3%** extremely helpful  **50%** helpful  **16.7%** somewhat helpful |
| Microblogs (Twitter) | 2.64 | Twitter: sharing resources | **7 responses:**  **14.3%:** helpful  **14.3%:** somewhat helpful  **71.4%**: not helpful |
| Twitter activity: Personal transformation experiment | **6 responses:**  **66.7%**: helpful  **33.3%**: extremely helpful |
| Wikis | 2.77 | Wikis: Students have personalized pages to post their assignments; also collaborative class activities are shared there | **7 responses:**  **85.7%:** extremely helpful  **14.3%:** somewhat helpful |
| Collaborative note-taking in Wikis | **1 response:**  **100%**: extremely helpful |
| Reading Reflections: 5 wiki posts | **6 responses:**  **50%**: extremely helpful  **50%**: helpful |
| Sharing tools (Dropbox, Google docs) | 3 |  |  |
| Media sharing tools (YouTube, Flickr) | 3.21 |  |  |
| Presentation tools (Slideshare) | 3.37 |  |  |

Data presented in the table above suggest that blogs as educational tools were rated as helpful and contributing to the students’ learning as suggested by the students. Learning activities implemented through blogs were also considered as useful by students. However, Twitter was somewhat considered useful as an educational tool, but ratings of the different learning activities showed that these ratings might have depended on whether the students liked the activity or not. Surprisingly, while most students considered Wiki activities useful, wikis were rated as somewhat helpful. Hence, it was hard to detect through quantitative data students’ experiences and whether they rated the tools or the learning activities.

**Discussion**

The study initially investigated two research questions; the first is related to the types of learning activities that faculty are assigning through social media and the second question is related to how faculty members and students perceive the role of social media in learning. Previous studies have looked at the use of a social media activity in one course and compared experimental to control groups. This study added a layer to these individual studies by showing how social media is used across the curriculum and faculty’s perceptions about their students’ learning as opposed to their students’ perceptions about social media. It was interesting to look at the different learning activities across disciplines and see the levels of interaction that social media tools afford in each of these activities. It was also interesting to understand the motives behind faculty’s selection of the different social media tools and the activities, and how they perceived implementation in their courses. Although other studies have suggested a positive influence on students’ learning as a result of social media, this study shed the light on the “HOW” social media can influence students’ learning based on the faculty’s perceptions.

The study suggested that the use of social media in higher education plays an important role in preparing students for the workplace. Both faculty and students see the value of this aspect. Moreover, this study suggested that social media tools are essential in bridging the gap between the classroom and the students’ everyday activities or even creating a connection with their peers and people in the field. Students perceived this connection very useful in their learning growth since it keeps them mindful of the topics discussed in the class and it gives them different perspectives of the content of the course. This network of information and the connection with peers and people in the field give the students an opportunity to learn better in an accessible way through the technology affordances. Social media affordances provide students with all the necessary features to collaborate, evaluate, reflect, connect, and create learning communities to achieve quality learning.

Moreover, the results suggested that students perceive a greater learning value in courses that engage them in social media activities, however, it was hard to detect through the quantitative data the parody presented in table 3. While students rated some tools as efficient educational tools, they rated the activities that they completed these tools as somewhat helpful and vice versa. Only blogs’ rating concurred with their respective learning activities, but it’s evident that activities which engaged students in reflection helped students learn better. On the other hand, the open ended questions gave a clearer idea about the value that students perceive in social media.

Therefore, this study suggests that using social media tools publically, that is shared among peers or outside the classroom rather than privately, contributes to the students’ learning. Furthermore, interactive and reflective activities through social media are highly valued by students because they feel that they produce quality work for an audience rather than for a professor. In addition, despite the perceived challenges of students’ adoption of technology tools as reported by faculty members, students highly value learning about tools that they will use in the workplace, and hence faculty should carefully select social media that resonate with the students’ future career goals. Finally, faculty should make use of all the affordances that a specific social media tool presents while designing a learning activity to promote learning. After all social media promotes collaboration, communication, creation, and sharing, and in order for these tools to be pedagogically sound, the learning activities designed through social media should take advantage of these affordances.

**Limitations and validity issues**

The study poses several limitations that could be addressed in future studies. The sample size for this study was small, and five faculty members using social media tools are not representative of all faculty who use social media tools at one institution or in higher education in general. Furthermore, only 21 students responded to the surveys, and that is a small size of participants in a survey. More faculty using social media need to be interviewed in order to identify a common pattern of learning activities that enhance learning, and more students need to complete the online survey. The study investigates the types of instructional strategies that faculty implement through social media as well as their perceptions of their students’ learning as a result of using social media. As a result, it was hard for most of the participants to compare their students’ learning to students they taught without social media. They rather suggested possible benefits and opportunities that social media tools provide learners with.

Several validity threats are presented in this study. First, validity threats could be a result of faculty’s perceptions that social media tools should enhance student learning due to their initial beliefs that this is true and that is what drove them to include social media in their courses, and so their description of their students’ learning was all positive except for the challenges they faced with students adopting some new tools. This leads to a validity threat related to myself as a researcher and an instructor using social media in my courses. My knowledge of the topic and my current teaching practices might have influenced the interviewees and data analysis and provided positive analysis of the findings because of my belief that social media does have a positive impact on students’ learning. I noticed that in the interview I praised the faculty for their proficient use of social media and that might have influenced their answers and drove them to talk about the positives. Another validity threat is reactivity. The participants work at the same institution in which I teach, and so they might have conveyed the most desirable responses rather than their true experiences. Last but not least, data was collected for a short term, during one semester, which might not be enough to understand the participants’ experiences across semesters. Besides the participants are using social media in all their courses, and it would be worth observing a course in which they are not using social media. Finally, students responses to the survey data might be impacted by their professors’ description of the usefulness of social media as opposed to their actual perceived use of social media, and so they wrote in the survey what they wanted their professor to hear.

**References**

Bates, T. (2011). Understanding Web 2.0 and its Implications for E-Learning. In M.J.W. Lee and

C. McLoughlin (Eds.), *Web 2.0-based e-Learning: Applying social informatics for tertiary*

*teaching* (pp. 21-42). Hershey, PA: IGI Global.

Cain, J. & Policastri, A. (2011). Instructional design and assessment: Using Facebook as an

informal learning environment. *American Journal of Pharmaceutical Education,75* (10),

1-8.

Chen, B. & Bryer, T. (2012). Investigating instructional strategies for using social media in

formal and informal learning. *The International Review of Research in Open and Distance*

*Learning, 13*(1), 87-104.

Churchill, D. (2009). Educational applications of Web 2.0: Using blogs to support teaching

and learning. *British Journal of Educational Technology, 40* (1), 179–183.

Cigognini, M. E., Pettenati, M. C., &Edirisingha, P. (2011). Personal Knowledge Management

Skills in Web 2.0-Based Learning. In M.J.W. Lee and C. McLoughlin (Eds.), *Web 2.0-based*

*e-Learning: Applying social informatics for tertiary teaching* (pp. 109-127). Hershey, PA:

IGI Global.

Dabbagh, N. & Kitsantas, A. (2012). Personal Learning Environments, social media, and self-

regulated learning: A natural formula for connecting formal and informal learning. *Internet*

*and Higher Education*, 15, 3–8.

Dabbagh, N., & Reo, R. (2011). Impact of Web 2.0 on higher education. In D.W. Surry, T.

Stefurak, and R. Gray (Eds.), *Technology integration in higher education: Social and*

*organizational aspects* (pp. 174-187). Hershey, PA: IGI Global.

Dabbagh, N., & Reo, R. (2011). Back to the future: Tracing the roots and learning affordances of

social software. In M.J.W. Lee and C. McLoughlin (Eds.), *Web 2.0-based e-Learning:*

*Applying social informatics for tertiary teaching* (pp. 1-20)*.* Hershey, PA: IGI Global.

Dahlstrom, E. (2012). ECAR study of undergraduate students and information technology.

Available from <http://www.educause.edu/ecar>.

EDUCAUSE Learning Initiative. (2012). Horizon Report > 2012 Higher Education Edition.

Available from<http://www.educause.edu/library/resources/2012-horizon-report>.

Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (4th ed.). Boston: Pearson

Education.

Junco, R. (2012). Too much face and not enough books: The relationship between multiple

Indices of Facebook use and academic performance. *Computers in Human Behavior*, 28,

187–198.

Junco, R., Heiberger, G. & Loken, E. (2011). The effect of Twitter on college student

engagement and grades. *Journal of Computer Assisted Learning, 27*, 119–132.

Kelm, O. (2011). Social media: It’s what students do. *Business Communication Quarterly*,

*74*(4), 505-520. DOI: 10.1177/1080569911423960.

Maxwell, J. (2013). *Qualitative research design: An interactive approach* (2nd ed.). Thousand

Oaks, CA: Sage.

McLoughlin, C. Lee, M. J. W. (2011). In M.J.W. Lee and C. McLoughlin (Eds.), *Web 2.0-based*

*e-Learning: Applying social informatics for tertiary teaching* (pp. 43-69). Hershey, PA: IGI

Global.

Oskoz, A. & Elola, I. (2011). Meeting at the Wiki: The New Arena for Collaborative Writing in

ForeignLanguage Courses. In M.J.W. Lee and C. McLoughlin (Eds.), *Web 2.0-based e-*

*Learning: Applying social informatics for tertiary teaching* (pp. 209-227). Hershey, PA: IGI

Global.

Rudestam, K.E. & Schoenholtz-Read, J. (Eds.).(2010). *Handbook of OnlineLearning*, 2nd Ed.

Thousand Oaks: Sage Publications.

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International*

*Journal of Instructional Technology and Distance Learning, 2*(1). Available from

<http://www.itdl.org/Journal/Jan_05/article01.htm>

Sistek-Chandler, C. (2012). Connecting the digital dots with social media. *Journal of Research*

*in Innovative Teaching 5*(1), 78-87. Retrieved October 28, 2012 from

<http://www.nu.edu/assets/resources/pageResources/journal-of-research-in-innovative->

teaching-volume-5.pdf

Yang, C. & Chang, Y.S. (2012). Assessing the effects of interactive blogging onstudent attitudes

towards peer interaction,learning motivation, and academic achievements. *Journal of*

*Computer Assisted Learning, 28,* 126–135. doi: 10.1111/j.1365-2729.2011.00423.x

Vygotsky, L. (1978). Interaction between learning and development. In *Mind and Society* (pp.

79-81). Cambridge, MA: Harvard University Press. Retrieved December 1, 2012 from

<http://www.psy.cmu.edu/~siegler/vygotsky78.pdf>

**Appendix A**

**Instruments**

**Faculty Interview Questions**

1. What courses are you teaching this semester?
2. What social media tools are you using in the courses that you are teaching this semester?
3. Is the use of social media optional for students or is it a course requirement?
4. Why did you choose this specific tool(s)?
5. What type of activities are students required to carry through the social media tools?
   1. Explain a task or two that they are supposed to do
   2. Describe a learning activity that you think (or students have reported) has enhanced students’ learning.
   3. Are these tasks mentioned in the syllabus?
6. Think about a course that you have taught but without using social media. How was your experience different/

similar to a course in which you used social media?

1. What impact do you think social media has on your students’ learning of the content? On the class environment in general?
2. Do you consider social media as an essential component in your course? Please explain.
3. How accepting of social media tools for educational purposes do you think students are? What is their response when you tell them that you be using a social media tool in your course?
4. What is the level of serious commitment that students show when they use social media for educational purposes?
5. As a second step in my research I am planning to investigate students’ perceptions of social media activities in their coursework. Would you be willing to share an anonymous online survey with your students to learn more about their social media learning experiences in your course?

**Student Survey questions**

**Text Version of the Student survey**

**(Informed consent form will be included here)**

Thank you for agreeing to participate in this online survey. Your response will assist us in understanding how useful social media tools are to your learning.

1. Are you taking any courses this semester which engage you in using social media tools (Twitter, Facebook, blogs, YouTube, wikis, Flickr, etc.)?
2. Yes b. No
3. What are the name (s) of the courses in which you are using social media?
4. Check all the tools that are part of the course requirements this semester.
5. Social networking sites (e.g. Facebook, MySpace, LinkedIn, etc.)
6. Blogs (e.g. Wordpress, Blogger, etc.)
7. Microblogs (e.g.Twitter)
8. Wikis (e.g. PbWorks)
9. Podcasts (e.g. Podomatic)
10. Bookmarking (e.g. Delicious, Digg)
11. Social studying sites (e.g. Cramster, CourseHero)
12. Sharing tools (e.g. Dropbox, Google documents)
13. Media Sharing tools (e.g. YouTube, Flickr.)
14. Presentation tools (e.g. Slideshare)
15. Virtual worlds (e.g. Second Life, Farmville)
16. On a scale of 1-4 (1 being not useful at all; 4 being extremely useful) rate the usefulness of these tools as they are used in your courses.

1 2 3 4

1. Social networking sites (e.g. Facebook,

MySpace, Linkden, etc.)

1. Blogs (e.g. Wordpress, Blogger, etc.)
2. Microblogs (e.g.Twitter)
3. Wikis (e.g. PbWorks)
4. Podcasts (e.g. Podomatic)
5. Bookmarking (e.g. Delicious, Digg)
6. Social studying sites (e.g. Cramster, CourseHero)
7. Sharing tools (e.g. Dropbox, Google documents)
8. Media Sharing tools (e.g. YouTube, Flickr.)
9. Presentation tools (e.g. Slideshare)
10. Virtual worlds (e.g. Second Life, Farmville)
11. On a scale of 1-4 (1 being not useful at all; 4 being extremely useful) how has each of the following course assignments helped you learn the content?

List all the assignments that students have to complete through social media tools.

1. Explain how this task(s) has helped you learn the content of the course.
2. Compared to courses in which your professors do not use social media as part of the course requirements, do you think that you learn more in courses that engage you in social media learning activities?
3. Yes b. No
4. Please explain how your experience is similar or different in a course where social media activities are used as opposed to courses in which social media tools are not used.

**Appendix B**

**Table of Interviews**

|  |  |  |
| --- | --- | --- |
| **Participants** | **Date of the Interview** | **Length of the interview** |
| **Katie** | October 4, 2012 | 64 minutes |
| **Nelly** | October 18, 2012 | 41 minutes |
| **Susan** | November 1, 2012 | 35 minutes |
| **Allie** | November 12, 2012 | 50 minutes (but the interview could not be recorded) |
| **Haley** | November 15, 2012 | 50 minutes |

**Appendix C**

**Interview Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Professors’ names** | **(Katie)** | **(Nelly)** | **(Susan)** | **(Allie)** | **(Haley)** |
| **Course Titles** | Undergrad: Spanish 115 (online)  Grad: Spanish 505: Advanced Spanish stylistics (f2f) | NCLC 348: Digital activism  NCLC 245: Visual culture and society | NCLC 204: Leadership theory and practice  NCLC 435: Leading Change | EDIT 590: Introduction to research methods (hybrid)  EDRS: Advanced research methods course (f2f) | NCLC 435-001: Leadership in Changing Environment  NCLC 295-002: Leadership & Community Engagement |
| **Social media tools used** | Span 115: **Language Twin**(R) and the **Blog (R)** feature in Blackboard  SPAN 505: **Wikis, Twitter (optional), Blogs** | 200 level: **Wiki** (not a requirement)  NCLC 348: **YouTube (shared with the course group), Twitter (course hashtag and twitter assignment)** | NCLC 435:  **Wikis (individual wikis)**  **Twitter**  NCLC 204**: Wikis** | EDIT 590: **Wikis** in blackboard (mandatory)  **Twitter** (optional) | NCLC 435:  **Wikis (individual wikis)**  **Twitter**  NCLC 295: **Class blog** |
| **Purpose for selecting these tools** | -Twitter helps students connect with people in the field (p.3), use Spanish in a real world and learn from their mistakes, connect with the world and create their Personal learning environments, and learn about a tool that they will use beyond the classroom.  -social media helps students transfer skills to the workplace in the future  -faster exchange of information  -Develops students’ autonomy | -Wikis help students “learn and author collaboratively; it helps them to learn to compose multimedia presentations”, “ease of access and use”, “trains students to collaborate and organize information online”,  -Twitter helps “students communicate their knowledge and their learning with the public audience and become part of a public conversation”  -Youtube encourages students to use what they are already using (creating videos) for educational purposes  -Professor encourages students to choose the social media tool that matches their goals.  -social media teaches students to learn on their own and to adapt to any new learning situation “learn to learn”; encourages students to be flexible learners | -“Technology mediates leadership in good and bad ways” and that is why she chose to model it for the students.  -Uses social media in the graduate class because she thinks that students cannot learn to change organizations until they figure out how they can change themselves  -prepare students for the workplace  -Wikis are personal working spaces and they allow students to personalize them unlike blackboard.  -Twitter helps students articulate their thoughts briefly. | -wikis create an order for files and students can use it as a repertoire of their artifacts and they can visit it any time to reflect on their growth.  -The professor also chose twitter (but students disagreed to use it) because of its immediacy. She could get instant updates from students especially when the class number is large.  -social media communication is more immediate and informal and it creates a relationship between students and the teacher which might be absent in an online course. | - the blog was created to extend the discussion beyond the classroom.  -The first one, like in terms of thinking about trying to use social media in any class in general, for me I’m always just interested in having students have this on the brain. Have the content, like the topic of this class, I want them to have it on the brain more than just like I said the hour that I get them inside the classroom, or the time that they are writing a paper or reading, like I want them to be … Maybe it’s because of the topics that I teach.  - we want them to start seeing interactions with other people and seeing interactions in groups with a leadership lens. We want it to be on the brain.  - seeing the topic everywhere they go |
| **Description of activities** | SPAN 115:  *Reflecting on my Learning Blog*  Every two weeks, students will write a 100-word log reflecting on the errors they made in the discussions and in the compositions, when applicable. Students will explain why they made the errors and how they corrected. Other reflections about the learning process are welcome.  *Oral Projects*  Students will submit regularly oral samples through Centro and through LanguageTwin space at http://www.languagetwin.com. Students are required to videochat EIGHT TIMES with students located all over the Spanish-speaking world.  Span 505:  *Blogging: The voice of my story*  Students have to write five entries throughout the year about Spanish language, writing or literature, and they have to comment on each other’s posts. This activity encourages students to write in Spanish.  *Twitter:*  A hashtag is created for the course and professors shares announcements and extra resources through the hashtag.  *Wikis:*  It’s the main course site where files are shared between teacher-student and student-student. Every student has his individual space to upload his work. Also the wiki is used so that students post their in-class collaborative work (p.2). | NCLC 348  *Online Exhibits*  In this assignment, you need to focus on a specific issue where you would like to be, or already are, digitally active. You should choose a specific audience for your exhibit (elementary school students, college students, fellow activists, political representatives whose views you wish to influence, etc.), and tailor your exhibit precisely to that audience. Your exhibit could range from the instructional to the inspirational, and you must create it online.  •***Online Exhibit #1***  You are creating an online video festival of at least ten videos, available to watch online, which will inspire, instruct, animate and/or spur to thought and even action your intended audience. As you filter your films and videos, you will need to investigate their producers (your festival needs to be credible and should not peddle misinformation) and their sources.  • **Online Exhibit #2**  For this exhibit, you are curating an exhibit which mixes media to inspire, instruct, animate and/or spur to thought and even action your intended audience. You may want to include any or all of the following: academic articles, government reports, newspaper or reputable magazine or journal articles, photographs, graphics and charts, video clips, audio clips, music, etc. You need to include at least ten items in at least 5 – 6 different forms.  *Twitter*  Expert Twitter users not only post the fruits of their own reading, viewing, and knowledge building. They also curate a collection (sometimes large, sometimes small) of well-qualified “informants” whose contributions to public digital forums substantially enhance their own practice and knowledge.  In these Twitter assignments, you face three challenges. First, you need to research and start to follow your key digital informants. Second, you need to explore the ideas and information to which they link you. Third, you need to summarize the key content you are acquiring in 140 characters.  *Wikipedia*  As active citizens, we need to engage with as many aspects of our information ecologies as we can. And Wikipedia certainly dominates at least the initial quests for information for billions of people. Some scholars and teachers try to ban Wikipedia. A more responsible attitude might instead be to improve Wikipedia for everyone by participating as scholar, teacher and citizen in this experiment in collaborative knowledge-building.  At the end of your Wikipedia assignment, you will compose a 750-1000 word reflection on what and how you learned during the assignment, and discuss the ways in which you might apply your new knowledge, of the medium and of the field of digital activism, in the future. You should include with your analysis screenshots of your edits to Wikipedia, and notes from the history page of the article(s) on which you have collaborated.  *Participatory Reaction video.* Students create a video about their experiences in doing the project. | NCLC 204:  *Collaborative note-taking*  For this assignment, you will work in small groups to create notes on the assigned readings from the Northouse text. At the courses conclusion, each student will have a comprehensive set of notes on the most central scholarly leadership theories. The notes will be collected and stored online using a wiki. You will need a (free) account with PBWorks. Notes will address:  o Origin story (how the theory evolved)  o Summary of the theory  o Strengths and criticisms of the theory  o Application of the theory (how would someone apply this to inform a leadership experience or their own leadership practice?)  o How can you learn more about this way of thinking about leadership? (including links)  In this activity students work collaboratively to collect notes on the reading and to organize them.  NCLC 435:  *Reading Reflections:* 5 wiki posts- personal learning spaces where students post their individual work in an individual workspace. Professors also use the wiki to post files.  *Twitter activity: (Personal transformation experiment)* minimum 14 Tweets; students set up a unique twitter account for the class.  In this assignment, “they have to pick one of the aspects of social entrepreneurs and social innovators. Their sort of research of this is they have these sort of six aspects to develop in themselves, and there are things like risk taking, resilience, gratitude, um, something about transformative communication. So they pick and say … They design their own experiment, and they say, “Here’s where I am with risk taking, for example, now…”  And they say, “Here’s what I’m gonna do for the next few weeks to try to sort of become better at that in my own way,” and they develop accountability partners to sort of check in with them and they sort of, um … and at the end they have to say how much they’ve transformed or not. So part of that assignment is that they have to tweet almost every day.”  In this manner, Twitter encourages students to be mindful and think about the topic every day.  “So they use a fake email, they get the Twitter account and they're … they use, like, 435 is the name, the number of the course plus their last name. And then they use hashtags for which element they're working on, so they all, um, use the class hashtag, and then they use a hashtag if they're in the risk taking group or if they're in the gratitude group or if they're in the communication group or the innovation group or whatever, and they have to tweet … And what I tell them, we talk about creative, like what creative tweets look like.” Professor encourages students to share resources in their tweets. | EDIT 590:  *Wikis*  Professor is mainly using it so that 5 of the 6 students collaborate to review each other’s research proposals and give each other feedback. Also the wiki is used as a communication tool with the professor who in turn gives them feedback on their research proposals.  *Twitter*  The professor also tried to use Twitter in this course but the students seemed to be resistant to use this tool. | *Blogging:*  They do five posts through the semester, every other week and I put them into teams so that one week team A is posting and team B is responding, and the next week team B posts and team A responds. So they have to comment on at least three of their classmate’s posts, and I had some, you know, I had this discussion about what a comment is. They have the freedom to post about any topic.  “…so this is going to be really short, and you can use … You know, put in cartoons, put in a photo, put in a drawing, you know”  It’s a public blog |
| **Impact of social media on students’ learning** | -In order for students to actually learn through social media they have to be active participants. Opening a Twitter account and not follow someone or interact with others does not impact the students’ learning.  -not sure about the source of the impact on the students’ learning; is it adding more opportunities for students to practice the language? Or is it the quality of the tools? (quality vs quantity)  -Professor is not sure about the quality of the students’ learning because she does not have quantifiable data  -educating better citizens and better professionals. | -Students see the value in using the Wikis as a tool to organize and archive their work in one place.  -Students are choosing the online exhibit assignment over the others (professor thinks they’re porpular)  -Creating work for an audience rather than for a teacher  -Teaching using social media produces a better quality of students’ work.  - Students have a sense of achievement.  -Gives the students a sense of what the real life looks like (Wikipedia assignment p.8); “a bridge between the classroom and outside”  -Some students transfer social media skills to the workplace after they graduate  - | - Twitter encourages students to be mindful and think about the topic every day.  -social media helps students who have different learning styles to express themselves differently. (p.13)  -ease of access to material which facilitates learning  -Twitter allows the professor to check on the students’ inner reflections  -Hyperlinking in wikis can create students’ metacognition  - hyperlinking makes students think visually  -students see the value of learning social media later and not on the spot  “I hated it while I was doing it, but now I get it”  “I was with you and I was lost and I didn’t know why we would do that and then I… Now I’m a believer.” | -The professor does not see a difference between classes in which social media as opposed to classes in which social media is not used. The reason is because she teaches face 2 face and blended courses so the experience does not compare in types of course delivery. But the professor thinks that the students learn more in an online course and they learn more when they collaborate through blackboard wiki. The professor think that wikis can help students learn more because they can come back and look at their progress and give each other feedback. | -wikis allow students to work collaboratively and be aware of each others’ work. By posting on the wiki page findings: “They probably still don’t meet in person, but they are all touching on each of those issues. The very same class, but instead, the class created each small group had a wiki. So instead of sections in a binder, there was a page for each of those, right. So here’s our page on volunteer management with links, and here’s our page where we found ten organizations that also address this issue, links to all of them.  So yeah, I came up with three, you came up with three, you came up with three – oops, we came up with the same one, we’ll have to find a different one. And since it’s in a wiki I can go onto the page history and I can see every single one of them posted pieces, and I know that they didn’t just hand off different sections to different people – this was a collaborative effort on each of the topics, like I wanted it to be. Um, so yeah. There you can see a definite improvement, in terms of the goals that I wanted for the assignment and the wiki helps me with that.”  -Professor thinks that social media helps students learn if designed well and if faculty take benefit of what social media can do. (p. 13) It’s the design of the assignment through social media that helps students learn and not the tool itself. “it’s not just that you’re using social … It’s not just the platform, it’s the design of the … The platform allows you to design the assignment differently, and that is what I think enhances student learning.”  -social media allows all students to participate |
| **Professor’s experience teaching with and without social media** | -Students have access to more resources  -facilitates learning |  | -With presence of social media, classtime is used more efficiently, students work on collaborative activities virtually  -before social media everything was note-based and professor could not monitor who is doing what.  -students have access to each other’s work which makes them evaluate how well they’re doing in a course  -students share resources in a social media environment |  | -Engages all students in the assignment |
| **Challenges** | -Students’ lack of technology skills.  -Students’ resistance to use social networking sites (Twitter, Facebook) for educational purposes. | -Students consider Twitter frivolous and resist using it (p. 2)  -Fewer students choose social media assignments (Twitter, editing wikipedia, and blogging)  -Some skills do not transfer through the next semester  -Facebook is private for students and the professor doesn’t like to use it in class  -Students have to be persuaded to use social media as educational tools(p.9) | - age; some older students are overwhelmed by the use of new technology or several tech tools at the same time.  -students are not good at teaching themselves new tools or finding solutions to problems and they are even resistant to that.  -students’ lack of technology skills.  -students are intimidated when it comes to asking a question about a technology they’re using because they think that others have gotten it. | -students’ older age is the first barrier and the second is barrier is  -Students are special education teachers and they don’t want their students’ parents to follow them on Twitter and know about their personal lives. | -some students were already using Twitter and blogging |

**Appendix D**

**Themes by Categories and Subcategories**

|  |  |
| --- | --- |
| **Faculty Interview Themes** | **Students’ Survey Themes** |
| **Activating students’ technology skills.**   * Learning a new technology * Preparing students for the workplace | **Activating students’ technology skills.**   * Learning a new technology * Preparing students for the workplace |
| **Extending the discussion beyond the classroom**   * Be mindful of the topic * Connecting with the professor, peers, and professionals in the students’ field of study | **Extending the discussion beyond the classroom**   * Be mindful of the topic * Connecting with the professor, peers, and professionals in the students’ field of study, as well as with the world |
| **Facilitating and enhancing student learning**   * Collaboration * Ease of access * Immediacy * Evaluation * Taking advantage of what the tools offer * Writing for an audience | **Facilitating and enhancing student learning**   * Collaboration * Ease of access * Immediacy * Making learning relatable * Creating online communities * Engaging * Interactive * Peer learning (sharing perspectives, data aggregation) * 84.74% of the students stated that they learn more in courses which involve social media |
| **Creating personal learning environments**   * Metacognition * Developing students’ autonomy |  |
|  | **Teacher-student relationship**   * Student and teacher have equal skills * Getting to know the professor |
|  | **Fun and interesting** |
|  | **Technology vs. learning activity** |

**Appendix E**

**Consent Forms**

***Social Media Use in Higher Education***

**FACULTY INFORMED CONSENT FORM**

**RESEARCH PROCEDURES**  
This research study explores the use of social media (Twitter, Facebook, blogs, YouTube, wikis, Flickr, etc.) by faculty members at GMU. Mainly the study investigates the instructional strategies that faculty implement through social media and examines the faculty perspective on the effectiveness of these strategies in enhancing student learning. In addition the study explores students' perceptions on the use of social media in their courses and their perspectives on how it impacts their learning. If you agree to participate, you will be asked to participate in a 45-60 minute audio-taped interview.

**RISKS**  
There are no foreseeable risks for participating in this research.

**BENEFITS**  
There are no benefits to you as a participant other than to further research in how faculty are using social media effectively.

**CONFIDENTIALITY**  
The data in this study will be confidential. No names will be included in the study and only the researchers will have access to the study data. Audio recordings will be transcribed on the researcher's personal computer and stored under a password protected folder. Recordings will be deleted after the transcriptions are conducted. Data from the student online survey can only be accessed with the researcher's username and password. Therefore, they will be stored confidentially

**PARTICIPATION**  
Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.

**CONTACT**  
This research is being conducted by Dr. Nada Dabbagh, Professor, Instructional Technology, College of Education & Human Development at George Mason University, and by Ghania Zgheib, Doctoral student, CEHD at GMU. Dr. Dabbagh may be reached at (703) 993-4439 and Ghania may be reached at (703)993-5352for questions or to report a research-related problem. You may contact the George Mason University Office of Research Integrity & Assurance at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.  
  
This research has been reviewed according to GeorgeMasonUniversity procedures governing your participation in this research.

**CONSENT**  
I have read this form and agree to participate in this study.  
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Name  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Date of Signature

***Social Media Use in Higher Education***

**STUDENT INFORMED CONSENT FORM**

**RESEARCH PROCEDURES**  
This research is being conducted to explore the use of social media (Twitter, Facebook, blogs, YouTube, wikis, Flickr, etc.) by faculty members at GMU. Mainly the study aims at looking at instructional strategies that faculty implement through social media and investigate the faculty's perspective on the effectiveness of these strategies in enhancing students' learning. In addition it explores students' points of views on the use of social media in their courses and their perspectives on how it impacts their learning. If you agree to participate, you will be asked to complete a 10 -15 minute online survey.

**RISKS**  
There are no foreseeable risks for participating in this research.

**BENEFITS**  
There are no benefits to you as a participant other than to further research in how faculty are using social media effectively.

**CONFIDENTIALITY**  
The data in this study will be confidential. No names will be included in the study and only the researchers will have access to the study data. Audio recordings will be transcribed on the researcher's personal computer and stored under a password protected folder. Recordings will be deleted after the transcriptions are conducted. Data from the student online survey can only be accessed with the researcher's username and password. Therefore, they will be stored confidentially

**PARTICIPATION**  
Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.

**CONTACT**  
This research is being conducted by Dr. Nada Dabbagh, Professor, Instructional Technology, College of Education & Human Development at George Mason University, and by Ghania Zgheib, Doctoral student, CEHD at GMU. Dr. Dabbagh may be reached at (703) 993-4439 and Ghania may be reached at (703)993-5352for questions or to report a research-related problem. You may contact the George Mason University Office of Research Integrity & Assurance at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.  
  
This research has been reviewed according to GeorgeMasonUniversity procedures governing your participation in this research.

**CONSENT**  
I have read this form and agree to participate in this study.

Agree

Disagree