The Utilization of Social Media Tools for Informal Learning Activities: A Survey Study

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Today, educators and researchers are taking advantage of the advances in the Internet more than ever before. With the advent of social media tools, a new paradigm of teaching and learning has emerged. This study aims to explore social media uses in informal learning activities among CEIT students. A descriptive survey method was used in the study. The participants of the study were 357 undergraduate students in the department of CEIT in a state university. Data was collected through a survey questionnaire developed by the researchers. 18 popular social media tools and 6 major informal activities were selected and integrated into the questionnaire so as to identify the social media tool preferences of the students. Additionally, the participants were asked to identify their main reasons for not using social media tools. The results were presented with frequency and percentage tables. The findings indicated that Facebook is an important social media tool preferred by the majority of the students to fulfill their informal learning activities. This study also point out that besides Facebook, other social media tools are used for different purposes. The results also revealed that barriers for nonuse of social media tools can be grouped under psychological and technological factors. In light of the study results, some methodological and practical suggestions are made for further studies regarding the utilization of the utilization of the social media tools for informal learning activities.

1. Introduction

Advances in telecommunications and computer technology have dramatically altered the way educators do their jobs and the way students are engaged in learning activities and processes. With the advancement of Web 2.0 technologies, a new paradigm of teaching and learning has been created in a way that both educators and students take a role as co-constructors of learning in these environments (Baran, 2013). The rapid growth of research on technologies such as social media tools has aroused an interest in the area of education; some examples of specific areas of research are students' educational use, teachers' pedagogic practice, and related concern regarding trust and privacy factors (Madge, Wellens, & Hooloey, 2009).

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1.1. Social Media Tools

Emphasizing the social side of the Internet, social media as a term is often interchangeable with Web 2.0 and social software (Dabbagh & Kitsantas, 2012). In general terms, social media enable users to share information and collaborate with each other to create web content and utilize it. It refers to users' activities, practices, and behaviors occurring through media via sharing information, knowledge, and opinions (Safko & Brake, 2009). These technologies are internet-based and they facilitate creativity, information sharing, and collaboration among users (Clough, 2010). Indeed, social media puts great emphasis on sharing, participating, and collaborating processes and activities (Lucas & Moreira, 2009). Social media, social networks and social communities provide a new form of collaboration and communication for users (Ebner, Lienhardt, Rohs, & Meyer, 2010).

The use of these tools both facilitate and support the development of communities and networks where incidental or self-directed learning may occur resulting in established connections and interactions of their members (Lucas & Moreira, 2009). In general, collaboration, social interaction, and participation generate main constructions of the social software tools (Lucas & Moreira, 2009). Researchers have offered many typical technologies and applications that stand for the term Web 2.0. Clough (2010, p.1) asserts that "Web 2.0 is not any single collection of applications or technologies". More specifically, social media involve social networking sites, video sharing sites, wikis, blogs, subscription services, and folksonomies (Madge et al., 2009). Although thousands of social media tools are available today, it is important to categorize the tools in terms of their general features and functions (Safko & Brake, 2009). Based on the classification constructed by Safko and Brake (2009), social media tools are tabulated in terms of their common characteristics in the Table 1. In the literature, it is possible to see different tools and categories defined by different researchers in terms of particular functions of the tools. Day by day; moreover, new tools and applications are added to these categories and also shaped by the categorizations.

Table 1: Categorization of Social Media Tools

Categories	Social Media Tools
Social Networks	Facebook, Bebo, LinkedIn, Friendster, MySpace, MOLI, Plaxo, Ning, Orkut
Publish	Blogger, Constant Contact, Joomla, Knol, SlideShare, Wikia, Wikipedia, WordPress
Audio	İTunes, PodBean, Podcast.net, Rhapsody
Video	Google Video, YouTube, Metacafe, Brightcove, Hulu, Viddler
Microblogging	Twitter, Twitxr, Plurk
Livecasting	BlogTalkRadio, Live 365, TalkShoe, Justin.tv, SHOUTcast
Virtual Worlds	Active Worlds, Kaneva, Second Life, There, ViOS
Gaming	EverQuest, 4x4 Evolution, Entropia Universe, World of Warcraft
Productivity Applications	Survey Monkey, Yahoo!, Google Docs, Google Gmail, AOL, Acteva, etc.
Aggregators	FriendFeed, iGoogle, My Yahoo!, Reddit, Yelp, Digg, etc.
RSS	RSS 2.0, PingShot, FeedBurner, Atom
Search	Google Search, Yahoo! Search, EveryZing, Ice Rocket, MetaTube, etc.
Mobile	airG, AOL Mobile, CallWave, Jumbuck, etc.
Interpersonal	Acrobat Connect, AOL Instant Messenger, Skype, Go To Meeting, etc.

1.2. Informal Learning

In the literature, three perspectives on the nature of learning have been defined to address the intention to learn and structure or context in which learning takes place. While formal learning has been defined as learning occurring within organized and structured contexts such as formal education and training, non-formal learning occurs in an institutional

context; but it does not include the formalities of grades, degrees, or certificates (Kahnwald, 2009). Different from these two types of learning, informal learning refers to experiential and accidental learning (Colardyn & Bjornavold, 2004). This type of learning has been recognized as a widespread phenomenon for 50 years (Clough, 2010). Informal learning has been considered a vital element of new learning environments (Ebner et al., 2010). Indeed, it is conceptualized a vital element of person's' life cycle (Lucas & Moreira, 2009). An iceberg was used to represent a relationship between formal and informal learning by Coffield (2000a,b). According the illustration, informal learning was characterized by the two-thirds of the iceberg which is kept hidden from view. As for a definition of informal learning, it has been considered to be any learning that occurs outside the formal curricula of schools or other educational programs (Clough, 2010; Smaller, 2005).

The Organization for Economic Co-operation and Development (OECD) in its 2005 report defines informal learning as daily, work-related, family or leisure activities. Therefore, it is possible to assert that informal learning is not managed by any institution or curricula; rather, it is directed by individuals and their activities. In that sense, informal learning is not directed by any organized or structured objectives, time or learning support (OECD, 2005). Therefore, informal learning does not address educational objectives and results; rather, it focuses on practical objectives and purposes (Kahnwald, 2009).

The category of informal learning was established by both John Dewey's and Malcolm Knowles's terminologies (Kahnwald, 2009). After these categorizations were made, many informal learning activities have been defined in the literature. "Conversations, reading, watching TV, observing the world, experiencing an accident or embarrassing" situation (Lucas & Moneira, 2009, p.327), "observation, trial and error, asking for help, listening to stories, reflecting on a day's events, or stimulated by general interest" (Cross, 2007; Selwyn, 2007 as cited in Dabbagh & Kitsantas, p.3) can be given as examples of such activities. Because informal learning depends on learners' choices, it can be intentional, self-directed, unintentional or tacit (Clough, 2010).

1.3. Social Media and Informal Learning

In the literature, ICT, Web 2.0 and social software are often linked to informal learning (Kahnwald, 2009). As Greenhow and Robelia (2009) point out, these tools and applications give individuals an informal context for learning to complement and enhance formal learning processes and studies. Informal learning results from activities or products of social activities (Golding, Brown, & Foley, 2009). It takes places in many social contexts such as families, communities, and leisure activities (Golding et al., 2009). Because the web has transformed to a social platform, social software has been acknowledged as probable tools for fostering informal learning (Lucas & Moreira, 2009).

As Madge et al. (2009) indicate, young generations especially use social media in the daily routines. It allows them to connect in a diverse range of places and social environments. Indeed, these applications have been regarded as learning tools outside of school by the many youth (Greenhow & Robelia, 2009). Social media software including many tools, applications, and services embodies appropriate technologies to provide support of different types of learning (Lucas & Moreira, 2009). Therefore, it is possible to assert that social media can be used to promote informal learning processes and experiences (Dabbagh & Kitsantas, 2012). Because talking and sharing resources with others, searching the internet, and experimenting with new techniques can be considered informal learning (Lohman, 2006), students might be involved in these processes with social media tools. Moreover, exploration

of different learning channels, learning through exploring, wandering and finding the direction can be listed as functions that social software tools allow users to experience (Lucas & Moreira, 2009). In that sense, informal learning becomes a result of social knowledge through distributed by using tools (Lucas & Moreira, 2009).

To date, an educational implication for social media has not emerged; nor has a utilization of the tools and software in the informal learning activities been thoroughly examined. Therefore, this research aims to explore social media tool utilization in the informal learning activities of students in the department of Computer Education and Instructional Technology (CEIT). To fulfill the stated research purpose, the following main research question was addressed: How are CEIT students using social media tools in the context of informal learning activities? Moreover, the following four sub-questions guided this research:

- How much time do CEIT students spend with social media?
- How often do CEIT students use social media tools to facilitate their informal learning activities?
- Which social media tools are preferred by CEIT students to fulfill specific informal activities?
- What are the barriers to the use of social media tools within students' informal activities?

Method

2.1. Participants

The study was carried out in a state university with 357 student volunteers, 79.3% of the whole population (n=450), were in the department of CEIT. Of the 357 students, 143 were female whereas 214 were male. The demographics of the students are tabulated in Table 2.

Table 2: Demographics of the students

Gender	Grade				Total
	1	2	3	4	
Female	25	43	38	37	143
Male	32	56	58	68	214
Total	57	99	96	105	357

2.2 Overall Design and Instrumentation

In order to reveal the utilization of social media tools for informal learning activities, a descriptive survey method was used. The descriptive survey method is used to analyze, interpret and report the present status of the subject matter or problem (Ariola, 2006:47). The questionnaire was developed by the researchers. Aside from demographic questions, the questionnaire was composed of three main parts addressing students' social media usage, their social media preferences in the informal activities, and barriers to the use of social media tools in these activities. 18 popular social media tools (Facebook, MySpace, LinkedIn, Youtube, Foursquare, Pinterest, Flickr, Twitter, Tumblr, WordPress, Blogger, Wikipedia, iTunes, Second Life, Skype, MSN, Google Groups, RSS) and 6 major informal activities based on the Bartlett-Bragg's (2006) classification (networking, coaching, learning from experts or advisors, searching for solutions, informal distribution, and self-analysis or reflection) were integrated into the survey so as to identify social media tool preferences as well as the individual usage routines of the students. Lastly, the students were expected to

write down four main barriers against their usage of social media tools. The quantitative data obtained through the survey was analyzed through with descriptive statistics.

3. Results

3.1 Social Media Usage

The first and second research questions try to disclose the frequency and duration of use of students' social media tools usage. The duration of social media tools usage is tabulated in Table 3.

Table 3: The duration of social media tools usage

Duration	N	%
Less than 30 minutes	22	6.2
31-60 minutes	82	23.0
61-90 minutes	89	24.9
91-120 minutes	42	11.8
More than 120 minutes	122	34.2

As seen in Table 3, the results indicated that in this sample of 357 students, 34.2 % of students reported using social media more than 2 hours in a day while 48% of them stated they spent an average of 30 - 90 minutes per day using social media.

The frequency of major social media tools use among students for informal activities is presented in Table 4.

Table 4: The frequency of social media tools use

	Social Media Tools						
The Frequencies	Facebook (n)	Youtube (n)	Google Groups (n)	Twitter (n)	Blogger (n)	Wikipedia (n)	Skype (n)
Everyday	294	248	136	97	41	44	37
Every 2-3 days	37	74	50	40	19	89	35
Every 4-7 days	6	13	16	20	17	63	23
Once a week	7	13	29	14	30	64	31
Once a month	4	4	27	36	29	58	73
Never	9	5	99	150	221	39	158

According to Table 4, the most daily used social media tools for informal leaning activities are Facebook (82.4%), Youtube (69.5%), Google Groups (38.1%), and Twitter (27.2%). Although some tools such as Wikipedia and Skype are not used daily, the students did report using them regularly.

3.2. Social Media Tools Use Preferences for Informal Learning Activities

The results of social media tools use preferences by CEIT students are presented in seven specific informal activities.

3.2.1. Networking

The students' major and minor social media tool preferences regarding networking are presented in Table 5.

Table 5: Preferred social media tools for networking

Social Media Tools	n	%
Facebook	267	74.8
Twitter	148	41.5
Skype	146	40.9
Youtube	127	35.6
MySpace	18	5
Linkedln	7	2

As can be seen in Table 5, Facebook (74.8%), Twitter (41.5%), Skype (40.9%), and Youtube (35.6%) are the most preferred social media tools to build and join social networks. The results also indicate that the students do not use some tools for informal learning activities although they are considered as networking tools in the literature. To illustrate, it is possible to assert that very few students prefer MySpace (5%) and Linkedln (2%) for networking in the social media.

3.2.2. Mentoring

The students' major and minor social media tool preferences in terms of mentoring are presented in Table 6.

Table 6: Preferred social media tools for mentoring

Social Media Tools	n	%
Facebook	126	35.3
Google Groups	101	28.3
Youtube	77	21.6
Skype	24	6.7
Pinterest	2	0.6

Table 6 shows that the most commonly used type of social media tools are Facebook with a rate of 35.3%, Google Groups with a rate of 28.3%, and Youtube with a rate of 21.6% for mentoring. Related to these matters it is certainly interesting to note that some sharing and messaging platforms which can be used to support and encourage people to manage their own learning are not commonly used. To illustrate, only 24 students are using Skype (6.7%) for these purposes. Similarly, only 2 students prefer Pinterest (0.6%) as a content sharing service for mentoring.

3.2.3. Learning from Experts or Advisors

The students' major and minor social media tool preferences in terms of learning from experts or advisors are presented in Table 7.

Table 7: Preferred social media tools for learning from experts or advisors

Social Media Tools	n	%
Facebook	141	39.5
Youtube	123	34.5
Google Groups	76	21.3
Wikipedia	70	19.6
Twitter	48	13.4
Skype	41	11.5

According to Table 7 the rate of Facebook usage for learning from experts or advisors among students is 39.5%, and the rate of Youtube in the same group is 34.5%. These rates are 21.3% for Google Groups and 19.65% for Wikipedia. Twitter with the rate of 13.4% and Skype with the rate of 11.5% are used to communicate with experts or advisors. Responses given by students are indicated in Table 7.

3.2.4. Searching for Solutions

The students' major social media tool preferences regarding networking are presented in Table 8.

Table 8: Preferred social media tools for searching for solutions

Social Media Tools	n	%
Wikipedia	196	54.9
Youtube	133	37.3
Google Groups	117	32.8
Blogger	54	15.1
Facebook	49	13.7
Wordpress	45	11.5

As can be seen in Table 8 the students prefer using Wikipedia (54.9%), Youtube (37.3%), Google Groups (32.8%), and Blogger (15.1%) when they search solutions. Besides these social media tools, Facebook (13.7%) and Wordpress (12.6%) are also used for this purpose.

3.2.5. Information Distribution

The students' major and minor social media tool preferences regarding information distribution are presented in Table 9.

Table 9: Preferred social media tools for information distribution

Social Media Tools	n	%
Facebook	168	47.1
Youtube	122	34.2
Wikipedia	81	22.7
Google Groups	68	19.0
Skype	37	10.4
Myspace	16	4.5
Linkedln	9	2.5

Table 9 shows that Facebook (47.1%), Youtube (34.2%), Wikipedia (22.7%), and Google Groups (19.0%) are the most preferred social media tools to distribute information. Related to these matters it is certainly interesting to note that some sharing, messaging, social networking platforms which can be used to distribute information and knowledge are not used commonly. For example, Myspace (4.5%), Linkedln (2.5%), Pinterest (3.4%), and Skype (10.4%) are not preferred disseminating information.

3.2.6. Self-Analysis or Reflection

Students' responses regarding self-analysis or reflection given by students are indicated in Table 10.

Table 10: Preferred social media tools for self-analysis or reflection

Social Media Tools	n	%
Facebook	120	33.6
Youtube	82	23.0
Twitter	52	14.6

According to Table 10, 33.6% of the students surveyed use Facebook for self-analysis or reflection. While the rate of Youtube is 23.0% for this informal activity, 14.6% of the respondents prefer Twitter to comprehend their own personality, emotions, and behavior.

3.2.7. The barriers against usage of social media tools

Students' responses regarding the main barriers against use of social media tools were grouped under two factors. While the first factor was related to psychological reasons, the second barrier had to do with technological factors. The main psychological barriers are tabulated in Table 11.

Table 11: Psychological barriers

Barriers	n	%
I do not need it	154	43.1
I am not interested in it	93	26.1
I do not have time for it	55	15.4

As seen in Table 11, a very high majority of the students (n=154) stated that they do not feel any necessity to use these tools. The other two stated reasons are not having an interest in the use of social media (26.1%) and not having enough time (15.4%). The technological barriers are presented in Table 12.

Table 12: Technological barriers

Barriers	n	%
I use alternative ones	55	15.4
I do not trust them	47	13.2
They are not updated	23	6.4

Table 12 shows that 15.4% of the students stated that they do not use some social media tools because they prefer alternative ones. According to the students' responses, being unsafe (13.2%) and not being up-to-date (6.4%) are other technological reasons for nonuse of social media tools (Table 12).

4. Conclusion

The aim of this study was to reveal the utilization of social media tools among CEIT students for their specific informal learning activities. In general, the results pointed out that Facebook, Youtube, Google Groups, Wikipedia, and Twitter are the most preferred social media tools. More specifically, Facebook is an important social media tool preferred by the majority of students to fulfill their informal learning activities. For example, networking, mentoring, learning from experts, information distribution, and self-analysis activities are managed through Facebook. These results are congruent with those given by Madge et al. (2009) states that Facebook is utilized informally by students for learning purposes such as connecting with their tutors and collaborating on group projects. Students also use Facebook to informally discuss their academic work and studies. They continue to assert that Facebook offers university students the chance to build informal learning space. Kert and Kert (2010) found that students have positive opinions about using Facebook as a learning environment. In doing so, social networking tools provide users the opportunity to share information about themselves with friends and others (Safko & Brake, 2009).

This study also point out that besides Facebook, other social media tools are used for different purposes. In general, social software tools can be used to promote the development of communities and learning networks occurring unexpected learning processes due to the connections and interactions (Lucas & Moreira, 2009). Moreover, publishing tools support the management of online content through social media tools such as Wikipedia and WordPress (Safko & Brake, 2009). Webblogs and microblogs can be considered important representatives of social media technologies (Ebner et al., 2010). In the study, the students use

mainly Wikipedia (% 54.9 of respondents) to find solutions. As for microblogging services, Twitter is becoming popular for informal activities such as self-analysis and networking. In general, information sharing, information seeking, friendship-wide relationships, changing ideas, and reflections are the functions which microblogging provides students and teachers using in educational context (Ebner et al., 2010).

The results also pointed out that barriers for nonuse of social media tools can be grouped under two main categories, psychological and technological reasons. For many of the students surveyed, lack of necessity and preference for alternative social media were major barriers to specific media tool utilization. It is apparent that many factors may impact the use of and preference for social media tools to support informal learning activities. This study is limited to survey findings. Thus, future research should be conducted using qualitative and mixed methods to explore other barriers for nonuse of social media tools. Moreover, this study was conducted with a specific group of students and with a specific set of social media tools. Hence, the study results are highly dependent on this specific context. Therefore, the same study should be replicated within other contexts in order to validate the findings.

Although informal learning activities are not limited to specific frameworks and classifications, the taxonomies regarding these activities have been developed by different researchers for different purposes. To illustrate, Clough, Jones, McAndrew, and Scanlon (2008) proposed the framework including the informal learning activities for mobile learning environment. According to their framework, referential, location aware, reflective, data collection, constructive and administrative have been defined as main categories. Although these extensive categories were developed for general utilization of the mobile technologies, individual, collaborative/distributed, and situated as qualifiers can also be investigated specifically on the social media tools. Moreover, new technologies such as tablets and smart phones should also be integrated to the informal learning research studies so as to reveal more about the practical utilization of social media tools.

To conclude, in the literature, community building and its importance in society more generally, beyond formal learning, is increasingly being recognized. However, it still needs to be investigated how communities are developed and maintained within different technologies (Cook & Smith, 2004). Although the potential of social media tools and applications has been widely discussed for formal learning, the area regarding utilization of the tools in informal learning remains poorly represented in research. More specifically, informal activities conducted with the help of social media tools should be scientifically researched so as to understand how their utilization can be increased in the specific environments and contexts where they are most applicable. There is also a need to study shared understandings in preferences of social media tools for these perspectives.

Acknowledgement

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