

Electronic Social Media in Teaching: Usages, Benefits, and Barriers as Viewed by Sudanese Faculty Members

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Abstract

The purpose of this paper is to investigate the current use of social media and its benefits in teaching and learning as well as the perception of barriers by Sudanese university faculty members. The study surveyed a sample of 65 faculty members (educators and non-educators) through the use of a questionnaire. The results indicated that educators, both male and female, across academic ranks are using social media tools and agree to the benefits and barriers of social media usage. Also, the study found that there was a significant difference in the scores for educator and non-educator faculty members regarding social media usage in teaching, with the former demonstrating greater use. Moreover, the results found no significant effect of age and rank on faculty members' use of social media in teaching. Therefore, the study recommends that future research on usage of social media sites in teaching could be extended to include a wider demographic base to further explore the extent to which the findings are generalizable. The study provided valuable information that may help administrators, professors, and decision makers to recognize the extent to which university faculty members' use social media in teaching.

Keywords: social media use, social networks, benefits of social media use, barriers of social media use

Introduction

Today, educators and researchers are taking advantage of the advances in Internet technology and applications more than in the past. With the introduction of electronic social media, a new approach to teaching and learning may be taken seriously into consideration. Electronic social media technology, derived from the social software movement, is a collection of Internet websites, services, and practices that support communication, collaboration, community building, participation, and the sharing of information. As defined by Bryer and Zavattaro (2011), "Social media are technologies that facilitate social interaction, make possible collaboration, and enable deliberation across stakeholders" (p. 327). These technologies now include blogs, wikis, media sharing tools (audio, photos, videos, text), and networking platforms such as Facebook, MySpace, Ning, YouTube, Flickr, Twitter, and Friendster. Most of these technologies allow individuals to create a profile and then post content (text, video, audio, photos) or link to things that correspond to their areas of interest or expertise (Safko & Brake, 2009, p.26). Kitsantas and Dabbagh (2010) refer to these tools as "community networking tools" that help students create a network of friends with whom they can share multimedia resources, collaborate and share common interests, and "enable a connection between knowledge, community, and learning" (p. 169). There are big differences, though, among the patterns of use from one social media site to another. For personal use, Facebook is both the most visited site and, by a large margin, the one with the highest rate of postings. YouTube is the second most visited, but posting rates are low. YouTube and Facebook are also the most frequently cited when faculty report on their uses of social media in support of their professional careers (Moran, Seaman, & Tinti-Kane, 2011). Research shows that there is a great potential in using social media in educational settings. Consequently, the research literature related to the use of social network tools such as Facebook, Twitter, and YouTube technologies in education revealed different views.

Many studies showed that the integration of such social media tools has a positive impact on teaching and learning by allowing teachers to actively involve learners by creating knowledge, sharing, and collaborating in the learning process (Boulos, Maramba & Wheeler, 2006). Moran, Seaman, and Tinti-Kane (2011) investigated how today's higher education faculty use social media for teaching, learning, and sharing, discovering that social media sites can be valuable tools for collaborative learning. Their results showed that online videos from sites such as YouTube are valuable tools for teaching. Ishtaiwa and Dukmak (2013) investigated pre-service teachers' perceptions towards using blog and wiki applications to enhance their learning. They also examined pre-service teachers' perceptions towards the application which is the most effective in their learning. Qualitative data collected from 15 pre-service teachers using semi-structured interviews revealed that web applications such as blogs and wikis are primarily useful tools to facilitate collaborative learning instead of the competitive learning that dominates traditional classes. They regarded them as good tools to enhance interaction, facilitate the creation, sharing, and dissemination of knowledge, as well as to develop reflective and critical thinking skills. Yakin and Gencil (2013) explored the utilization of social media tools for informal learning activities. Their study found that Facebook is an important social media tool preferred by the majority of students to fulfill their learning activities. They indicated that networking, mentoring, learning from experts, information distribution, and self-analysis activities are managed through Facebook. Cain and Policastri (2011) presented a mixed-methods study on the use of Facebook as a learning activity in a pharmacy management and leadership course. Their study showed that students appreciated the informality of the activity and the opportunity to connect with professionals in the field and be exposed to "real world" experiences. Another study conducted by Irwin, Ball, Desbrow, and Leveritt, (2012) explored students' interactions on Facebook course pages and their perceptions of Facebook utility as a learning tool. They described the learning activities of 253 students across four courses (two undergraduate and one postgraduate) in the School of Public Health at Griffith University's Gold Coast campus. Facebook pages were created for the four different courses, and they were used to provide the students with course-related information and an opportunity to connect with each other. Instructors posted notifications about content or lecture notes added to Blackboard, reminders about assessments, useful external resources, and discussion questions on the Facebook course pages to engage students in content-related discussions. Students were also encouraged to use the comment feature to ask questions or answer discussion questions. The majority of students found the Facebook page to be an efficient and familiar tool that enhanced communication and interaction with their instructors and their peers, and provided instantaneous updates and feedback. This result was viewed by Rambe (2012), who examined the use of Facebook informally to supplement face-to-face interactions in two first-year clusters in an information systems module at a South African university that covered three courses. Results showed that communication on Facebook encouraged collective intelligence and provided students with a third space in which to communicate their ideas outside the classroom and to ask questions whenever the need arose.

In a study that explored how Twitter, a Web 2.0 tool, is used in combination with PowerPoint, a Web 1.0 tool, to foster cognitive communication in lectures and large groups in higher education, Andrade, Castro, and Ferreira (2012) surveyed 122 students across ten master's classes. The activity that students engaged in consisted of a hashtag included in a PowerPoint presentation, which gave the students a space on Twitter to ask and answer questions, vote on answers, and answer multiple choice questions. This activity provided the students an opportunity to interact with the content, with each other, and with their instructors. The results showed that the activity was very interactive through the participatory features that Twitter affords, which moved communication in Web 1.0 technology (PowerPoint) to Web 2.0 technology. Lin, Hoffman, and Borengasser (2013) presented a qualitative case study to explore the uses of Twitter when used as a supplement to online and face-to-face course learning among undergraduate and graduate students in a college of education (n=44). Students were asked to create a Twitter account, follow each other, follow the course hashtag, and post 75 tweets throughout the semester. The instructor also tweeted class announcements and course-related information. Tweets were analyzed and students had to turn in three reports answering questions about Twitter usage. As a result, the researchers suggested that given the unstructured nature of the activity, students did not interact enough through Twitter. Students who were already using Twitter before the course activity shared information through Twitter. However, when questions required an answer, none of the students responded. When implementing Twitter in the classroom, the researchers proposed having more structured activities and more scaffolding and modeling on the part of the instructor. Despite the worldwide growth of social media for personal use, educators have been slow to utilize social media technologies for academic practice.

The Faculty Survey of Student Engagement (FSSE, 2010) surveyed 4,600 faculty members from 50 US colleges and universities and discovered that over 80% of the faculty had never used social media technologies such as blogs, wikis, Google docs, video conferencing, video games, or virtual worlds. Through telephone interviews Chen and Bryer (2012) documented the perceptions and experiences regarding social media usage of 57 faculty members from 28 universities across the United States. The results indicated 100% use of social media either for personal, academic, research, or professional purposes, with the majority using Facebook for personal communication and LinkedIn for professional connections. Further probing regarding social media use for academic practice revealed that activities were designed as informal, open, and self-regulated reinforcements to classroom teaching. That is, participation in such activities was an option and the use of conventional assessment (e.g. quizzes, tests) was absent. Major issues prohibiting further use of social media for academic practice point to time constraints and faculty workloads, cyber security and privacy issues, cyber bullying, and assessment strategies. The published literature regarding faculty use of social media for academic practice cite cyber security, cyber bullying, and faculty workloads for the lack of innovative practice; moreover, when used by faculty as a supplemental tool, social media activities were informal, open, and self-regulated (Chen & Bryer, 2012). Similar to student use, faculty members are using social media technologies for personal communication, information sharing, and professional connections (Chen & Bryer, 2012; Tiryakioglu & Erzurum, 2010). Kevin, Lori, and Bethany (2010) investigated the use of alternative social networking sites in higher educational settings as a tool for teaching and learning and their benefits. The study revealed that social network sites, like Ning in education, can be used most effectively as a technological tool in higher education to improve communication and collaboration among students both to support and enhance student learning. This result is also supported by Junco, Heiberger, and Loken (2011), who explore the effect of Twitter on college student engagement and grades. They suggest that Twitter can be used as an educational tool to help engage students and to mobilize faculty into a more active and participatory role.

Although there is a move toward more use of social media in teaching, some barriers still remain. Despite the aforementioned benefits, critics argue that there are serious risks to using social media in the classroom. Furthermore, educators and instructional designers believe that social media technologies are not always neither appropriate nor successful vehicles for teaching and learning activities (Waycott, Bennett, Kennedy, Dalgarno, & Gray, 2010). Lederer (2012) cites the same reasons to censure the integration of social media for academic practice. First, she suggests that social media can be a distraction, in accordance with a common complaint among instructors that tools such as Facebook and Twitter divert students' attention from classroom participation and ultimately are disruptive to the learning process. Secondly, while social networking sites provide ways for students and instructors to connect, Lederer argues that cyber bullying can be used as a weapon for malicious behavior. Finally, Lederer argues that social media discourages face-to-face communication, that is, "while real-time digital stream may create a safe harbor for students who are uncomfortable expressing themselves, students are missing valuable lessons in real-life social skills" (Lederer, 2012, p. 2). The use of social media for teaching purposes has lagged even more, but like the other patterns of use, it has increased every year. The number of faculty who use social media in the classroom still does not represent a majority, but continues to grow annually (Seaman & Tinti-Kane, 2013). Moran et al. (2011) indicate that the use of social media is not without its problems, and most faculty members are concerned with the time it requires. The two most pressing barriers about faculty use of social media are lack of integrity and privacy (p.3). Both lack of training and the amount of time that using social media takes are also seen as barriers. Faculty members clearly have not embraced social media in a purely uncritical manner, retaining many concerns. Given the worry about the amount of time it takes to use social media and about issues of privacy and integrity, it might be expected that faculty do not see a great deal of potential for social media use in class.

This study investigates the current usage of social media and its benefits in teaching and learning as well as perceived barriers by Sudanese university faculty members. The role of social media such as Facebook, Twitter, and YouTube may offer new opportunities to enhance the learning experience. Specifically, this study seeks to answer the following questions:

1. To what extent do Sudanese faculty members use social media in teaching?
2. Are there any significant differences in the use of social media by Sudanese faculty members due to gender, Specialty, academic rank, and age?
3. What are the benefits of social media usage in teaching as viewed by Sudanese faculty members?
4. What are the barriers facing social media use in teaching as viewed by Sudanese faculty members?

Importance of the study

The findings of this study can help administrators, professors, and decision makers to recognize the extent to which university faculty members use social media in teaching and how that will affect their academic performance in the future. Also, the study will illuminate the benefits of social media in teaching in order to maximize its usage and attempt to address and thus solve the barriers facing such use.

Method

The present study was primarily carried out with a quantitative approach using a survey methodology. It was carried out during the 2014 summer semester at Sudan. The questionnaire was distributed through online to faculty members who participated in the workshops at the advanced training center of Khartoum University and faculty members from Sudan University of Science and Technology who were available at that time, with the total sample size being 65 out of 101. There were 36 male and 29 female, 32 holding educational degree and 33 holding scientific degrees. The questionnaire was collected from the sample through direct contact and online using Google forms sending them the links through their emails. The researchers reminded the participants to respond to the questionnaire from time to time until they got 65 respondents. The data were entered in the computer and treated using SPSS-21. After that, the data were analyzed by the suitable statistics to obtain the answers to the research questions.

Instrument

In order to develop the instrument, the researchers surveyed the literature and informally interviewed some faculty members to obtain some initial information regarding their use of social media in teaching. The instrument consists of three sections. The first section collects demographic data, whilst the second section consists of 46 Likert-type items, 23 for use of social media and 23 for their benefits. Finally, section three consists of 15 Likert-type items to assess the perception of barriers inhibiting social media use. The survey was expected to take ten to fifteen minutes to be completed, and the instrument was given to a panel of faculty members for face validation. They reviewed the instrument and gave some suggestions, which the researchers used to revise the instrument accordingly. The reliability coefficient of the instruments were measured by alpha Cronbach and was found to be 0.84 for utilization, 0.86 for benefits, and 0.83 for barriers respectively. After that, the instruments were ready for distribution to the study sample to obtain the necessary data, which were then analyzed using SPSS.

Findings

The first issue investigated in this study was the faculty members' use of social media in teaching. For this purpose descriptive statistics for 23 items of the instrument with a five-point Likert-type scale were conducted. The mean and standard deviation for each item of these of social media in teaching are calculated in Table 1. The overall result indicated that faculty members occasionally use social media in their teaching and learning (mean=2.5).

Table 1: Descriptive Statistics for Faculty Members' use of Social Media in Teaching

I use social media in teaching to:	N	Mean	Sd
1. Illustrate basic concepts briefly	65	2.1385	1.10223
2. Diversify teaching methods	64	2.0313	1.14044
3. Attract students' attention	64	3.0781	.93103
4. Communicate with my students	64	2.4688	1.20803
5. Exchange discussions and dialogues with my students	65	2.1231	1.11113
6. Encourage students to share information inside the classroom	65	3.2000	1.09259
7. Advertise, instruct, and generalize for lesson support	64	2.7500	1.03892
8. Enrich the subject of the lesson	64	2.1563	1.01134
9. Respond to students' questions	64	3.1250	1.01575
10. Present lesson materials e.g., posters, slides, and videos	64	2.0469	1.09007
11. Benefit from students' comments on the lesson and teaching	65	2.0154	1.03821
12. Link students' learning with the free space available in social networks	65	1.8462	1.13510
13. Allow students to access lesson information from anywhere at any time	65	2.3692	1.06901
14. Summarize the main important ideas in the lesson and support academic writing skills	65	2.1385	1.14396
15. Communicate with colleagues and staff to benefit from their previous experiences	65	3.6769	1.03241
16. To link students to lesson-related websites	63	2.8571	.87726
17. Observe and assess student progress	64	1.6250	.96773
18. Strengthen the academic relationship between students through information interchange	64	2.0000	.95950
19. Instill responsibility and self-confidence through free writing expression	64	2.0938	1.00347
20. Increase technical understanding by searching for the latest information	64	2.1719	1.12058
21. Assist students to understand the lesson through their discussions	64	3.2656	.96350
22. Give students more time to meditate and reflect on the lesson	64	2.0938	1.03462
23. Encourage students to use technology in the instruction process	64	3.5156	.99191
Overall mean of usages	65	2.4671	.71221

Table 1 shows that the use of social media in teaching as rated by faculty members was between the ranges of "rarely" and "sometimes," indicating a moderate level of usage of social media in teaching. The results showed that faculty members use social networks to communicate with their colleagues to benefit from their previous experiences (mean=3.67), and to communicate with students (mean=2.4688). Moreover, the respondents indicated that they used social media to encourage students to use technology in the instruction process (mean=3.51), help students to understand the lesson through their discussions (mean=3.26), encourage students to share information inside the classroom (mean=3.2), respond to students' questions (mean=3.12), attract students' attention (mean=3.07), and to link students to lesson-related websites (mean=2.85). However, overall the results showed a lower level of social media usage in teaching by the faculty members in Sudanese universities. This result was not surprising given the lack of infrastructure in some Sudanese Universities (e.g., bad internet connectivity, limited computer labs, excessive teaching hours, lack of incentives for faculty members, and low level of managerial and technical support to improve and facilitate technology usage in higher education curriculum).

Are there any significant differences in the use of social Media by faculty members due to gender, specialty, Academic rank, and age?

In order to perform the t-test procedures, two assumptions of normality and homogeneity of variance were tested. The normality was evaluated by using the one sample Kolmogorov Smirnov test and the Shapiro- Wilk Test. Since we have only 65 elements, the Shapiro-Wilk test is used. From table 2 P-value is 0.147. We can reject the alternative hypothesis and conclude that the data comes from a normal distribution.

Table 2: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	p	Statistic	df	p
Utilization	.229	65	.129	.883	65	.147

An independent-sample t-test was used to compare the usage of social media in teaching for gender and specialization. To test differences in means between faculty members' academic rank and age, the analysis of variance (ANOVA) test was used.

Table3: t-Test (Usage of Social Media in Teaching and Gender)

Gender	n	Mean	sd	t	f	p
Male	36	2.6638	.73353	2.590.	63	0.012
Female	29	2.2228	.61260			

As seen in Table 3, an independent-sample t-test was conducted to compare the means of faculty members' use of social media in teaching with respect to the gender variable. It is clear from Table 3 that there was a significant difference in the scores for male and female faculty members for the 23 items of social media usage ($t_{63}=2.59$, $p<0.05$) in favor of males. Males reported a significantly higher mean value (2.66) than females (2.22) for social media usage. These results may be explained by the fact that males are exposed to new technology more than females. Also, these results match those of Ono and Zavodny (2003) who found that females are less frequent and intense users of internet applications. Some research has supported the argument that there is a difference between the genders when it comes to the use of technology and the Internet in general and social media in particular (Agbatogun, 2013; Huang, Hood, & Yoo, 2013; Ruleman, 2012). A recent Forbes article disagreed with the result of this study; reporting that 57% of Facebook users are female and those women are more active with 8% more friends and accounting for 62% of the sharing (Goudreau, 2010). Other research suggested that females are more likely to use communication social tools (e.g., Facebook) than males as reported by Rovai and Baker (2005) and Ruleman (2012). Agbatogun (2013) reported that gender did not make any significant contribution to the faculty use of social media. However, he found that faculty with higher academic qualifications and a higher academic rank had a greater tendency not to integrate social media tools into the classroom.

Table 4: t-Test for (Usage and Specialization "Educators –Non-Educators")

Specialty	n	Mean	sd	t	df	p
Educators	32	2.8156	.89113	4.490	63	0.00
Non-educators	33	2.1291	.07723			

It is clear from Table 4 that there was a significant difference in the scores for educator and non-educator faculty members for social media usage in teaching ($t_{63}=4.49$, $p<0.05$). Educators reported a significantly higher mean value (2.815) than non-educators (2.129) for social media usage. Similarly, Parry (2010) claims that faculty members working in the humanities and social sciences report greater social media use than their colleagues in mathematics, science, and business (p.36). This is not surprising as most educators are aware of the benefits that social media can have on supporting teaching and learning activities. For example, some educators are encouraging students to use blogging platforms (e.g., Word Press) for the development of e-portfolios which have become an important authentic assessment tool in higher education (Rosen & Nelson, 2008), while others are using Twitter to stimulate student engagement in the classroom (Rankin, 2009). Regarding academic rank, ANOVA was used to explore relationships between the usage of social media in teaching and academic rank variable. The result is presented in Tables 5.

Table 5: ANOVA for Mean Difference in Usage of Social Media with Respect to Academic Rank

Source of variability	Sum of Squares	df	Mean Square	F	p
Between Groups	.222	2	.111	.214	.808
Within Groups	32.241	62	.520		
Total	32.464	64			

The ANOVA test indicated that there were no significant differences in means among the three groups of academic ranks (lecturer, assistant professor, and associate professor) on social media use in teaching ($F_{2, 64}=.214$, $p > 0.05$). This result could be explained by taking into consideration the point that social media platforms are new to most of the sample in the study regardless of their academic status. This result is supported by studies which show no generational differences regarding the use of technology (Kim, Kwon, & Cho, 2011; Sahin & Thompson, 2007). Furthermore, Kim, Kwon, and Cho (2011) found no significant relationship between the use of social media and academic rank, while Agbatogun (2013) reported that faculty with higher academic qualifications and a higher level of academic rank had a greater tendency not to integrate social media tools into the classroom.

Table 6: ANOVA (Mean Difference) for (Usage and Age)

	Sum of Squares	df	Mean Square	F	p
Between Groups	2.337	2	1.168	2.404	.099
Within Groups	30.127	62	.486		
Total	32.464	64			

The ANOVA test indicated that there were no significant differences in means among the three groups of age on social media use in teaching ($F_{2, 64}=.214$, $p > 0.05$). Therefore, it indicates that there is no significant effect of age on faculty members' use of social media in teaching. This is not surprising, because social media sites like Facebook, Twitter, and YouTube are currently used by various people with different ages, education level, gender, and social status who participate and incorporate social media into their daily lives. This result is supported by Roebuck, Siha, and Bell (2013) in their study which indicated that faculty members, regardless of sex or rank, held statistically the same views of the advantages as well as the concerns related to social media usage in the classroom. But this result contradicts Ruleman's (2012) findings which show that older faculty members (61+), both male and female, use social media more than the middle-aged group (45-60). Also, it contradicts Parry's (2010) findings that faculty members with more than 20 years of teaching experience use social media only slightly less than their younger peers.

What are the Benefits of social media use in teaching as viewed by faculty members?

The third issue investigated in this study is the faculty members' opinions regarding the benefits of social media in teaching. The descriptive statistics for each of the 23 items assessed using a five-point Likert scale of the benefits of social media in teaching are calculated in Table 7. The overall result indicates that faculty members viewed the benefits of social media as medium in teaching and learning (mean=2.96).

Table 7: Descriptive Statistics of the Benefits of Social Media Use as Viewed by Faculty Members

Social media are beneficial for	N	Mean	sd
1. Communicating with colleagues and staff to benefit from their previous experiences	61	4.0492	.76215
2. Encouraging students to use technology in instruction processes	62	3.8065	.95538
3. Assisting students to understand the lesson through their discussions	62	3.7742	.93070
4. Encouraging students to share information inside the classroom	61	3.6721	.97846
5. Responding to students' questions	62	3.6452	1.16079
6. Instilling responsibility and self-confidence through free writing expression	62	3.4516	.88108
7. Attracting students' attention	62	3.4032	.96597
8. Summarizing the main important ideas in the lesson and supporting academic writing skills	61	3.2623	.98152
9. Diversifying teaching methods	62	3.2581	.90419
10. Deepening the academic relationship between students through information interchange	62	3.2258	1.01496
11. Advertise, instruct, and generalize for lesson support	62	2.9355	.76546
12. Giving students more time to meditate and reflect on the lesson.	62	2.7419	.99070
13. Increasing technical understanding by searching for the latest information	62	2.6935	1.22258
14. Enriching the subject of the lesson	62	2.6290	1.28336
15. Communicating with students	62	2.5645	1.22302
16. Linking students to lesson-related websites	61	2.5410	1.37324
17. Benefitting from students' comments on the lesson and teaching	61	2.5246	1.27288
18. Allowing the students to obtain lesson information from anywhere at any time (from their cell phones)	61	2.4426	1.42038
19. Presenting instructional materials e.g., posters, slides, and videos	62	2.4355	1.32592
20. Linking student learning to the free space available in social networks	61	2.3934	1.35743
21. Exchanging discussions and dialogues with students	61	2.3770	1.24048
22. Illustrating basic concepts briefly	61	2.3607	1.34205
23. Observing and assessing students' progress	62	2.2258	1.04676
Overall mean of the benefits	62	2.9692	.73625

Table 7 shows that the benefits of social media in teaching as viewed by faculty members in general are moderate (mean =2.97). Faculty members rated the first six items as of high benefit, including communicating with colleagues to benefit from their previous experience, encouraging students to use technology in instructional processes, assisting students to understand the lesson through their discussion, encouraging students to share more information inside the classroom, responding to students' questions, and instilling responsibility and self-confidence through free writing expression. This result agrees with many studies which have indicated that social media fosters communication, engagement, and collaboration (Harris & Rea, 2009; Hung & Yuen, 2010; Junco et al., 2011; Wankel, 2009). Social media allows students to communicate with each other and the instructor through a three-dimensional simulator which comes complete with a variety of audio and visual objects (Wankel, 2009). Some social media sites are perfect tools for millennial students to investigate, socialize, and collaborate (Harris & Rea, 2009). Faculty members rated the last six items as of little benefit, including letting students access lesson information from anywhere at any time (from their cell phones), presenting instructional material (e.g., posters, slides and videos), linking students' learning with the free space available in social networks, exchanging discussions and dialogues with students, illustrating basic concepts briefly, and observing and assessing students' progress. This result agrees well with the study which cites a loss of control, a much bigger time commitment to preparation, and the possibility of information overload for students (Reuben, 2008). This means that faculty members' concerns about the benefits are similar and not limited to Sudanese universities only and this should be addressed in the future by maximizing the benefit through motivations and incentives for faculties, taking into consideration the context and the environment in which the social media are used. Also, it was observed that students do not learn social media skills for academic reasons and their use of social media is for social purposes only (Abdelraheem, 2013). Moreover, the study by Moran et al. (2011) found that the two most pressing concerns faculty have about the use of social media are privacy and integrity.

Barriers facing social media Use in teaching as viewed by faculty members

To answer the question "what are the barriers facing social media use in teaching as viewed by faculty members," SPSS was used to calculate the descriptive statistics for 15 items of the difficulties for using social media in teaching with a five-point Likert scale. Table 8 shows the means, and standard deviations of the aspects that concerned faculty members and prevented them from using social media in teaching.

Table 8: Descriptive Statistics of the Barriers for Using Social Media in Teaching and Learning

The barriers for using social media in teaching and learning are:	N	Mean	sd
1. Lack of high-speed Internet.	65	4.3385	.79602
2. Smart phones required for rapid access may not be available to most students.	65	4.1846	.65889
3. Lack of teacher confidence in their instructional role.	65	3.9385	.78813
4. Small screen spaces do not provide an adequate opportunity for writing expression.	65	3.9231	.98912
5. Technical problems impede performance.	65	3.8769	.85710
6. The nature and philosophy based on slack exchange of information is inconsistent with their use in teaching.	65	3.7231	1.02329
7. Lack of student seriousness in dealing with these technologies for academic purposes.	65	3.6000	.99687
8. Difficulty assessing student work.	65	3.5231	.93721
9. Invasion of teacher privacy.	65	3.5077	1.00192
10. Invasion of student privacy.	65	3.4308	1.03031
11. Lack of teacher training.	65	3.0923	1.27136
12. It takes more time to learn to use appropriately in the teaching process.	65	2.6000	1.16994
13. Restriction of the university to be used in the educational process.	65	2.4769	1.03241
14. The confusion between the course account and other accounts.	65	2.3846	.91331
15. Difficulty integrating these technologies with other learning management systems, e.g., MOODLE.	65	2.3231	1.20036
Overall mean of barriers	65	3.3949	.37718

Table 8 shows that the mean scores of the rate of the first nine barriers for social media usage were somewhere between the options of "agree" and "strongly agree."

Lack of high-speed Internet was found to be the most important variable among the 15 obstacles presented in the study (mean=4.33), followed by lack of smart phones for rapid access, lack of teacher confidence, small screen space, technical problems, and lack of teacher training. Similarly, Al-Daihani (2010) investigated the problems that inhibit Master of Library and Information Science students from using social software sites in two different universities. He found ten problems: not receiving training, lack of technical support, not useful, using the Internet for a long time, no time, information privacy, lack of encouragement, religious reasons, slow internet connection, and not allowed at school. Al-Daihani found that there are significant differences between both groups in several obstacles, including not receiving training on social software. The least important obstacles, in descending order, were that it takes more time to learn, restriction of the university to be used in the educational process, confusion between course account and other accounts, and the difficulty integrating these technologies with other learning management systems. Also, the result is similar to Moran et al. (2011). They found that 80% of 1,920 faculty members from various disciplines reported that a “lack of integrity of student submissions” is an “important” or “very important” barrier, and over 70% say privacy concerns are an “important” or “very important” barrier. Other barriers identified in their study include a lack of training, the amount of time that using social media takes, and lack of institutional support. The findings of this study agree with Baltaci Goktalay (2013). She indicated that the instructors were concerned about not having enough support and not knowing enough about social media use in instruction. Faculty members with less experience had greater self-concerns than their peers with more social media experience. Results of the interviews, obtained from her study, supported the higher rate of self-concern. Of the 12 faculty development and support activities analyzed, technology support and incentives were perceived as the most effective ones. In spite of those concerns, however, these faculty members believed that social media is valuable in teaching.

Conclusion and Recommendations

The goal of this research was to gain insight into the use of social media tools by Sudanese faculty members. A survey was conducted and the responses of 65 participants were analyzed. Results suggest that educators, both male and female, across academic ranks are using social media tools and agree on the benefits and barriers of social media usage. It was thought that the rapid advance of technology and increasing student use were driving faculty to implement technology within the classroom, but the faculty who participated in this study were self-motivated to use social media for teaching. However, as Kelm (2011) states, faculty can still learn how to use technology by observing how their students use mobile devices and social media to complete assignments and interact with their peers. First, the study found that there was a significant difference in the scores for male and female faculty members’ usage of social media in teaching in favor of male. Second, it showed that there was a significant difference in the scores for educator and non-educator faculty members for social media usage in teaching in favor of educators. Third, the study showed that there were no significant differences among the three academic ranks (lecturer, assistant professor, and associate professor) on social media use in teaching. Finally, the results found that there is no significant effect of age on faculty members’ use of social media in teaching. The study found that faculty members, regardless of gender or academic rank, who are currently use social media, concur regarding the benefits and barriers of using social media. The benefits include communicating with colleagues to benefit from their previous experience, encouraging students to use technology in instructional processes, assisting the students to understand the lesson through their discussion, encouraging students to share information inside the classroom, responding to students’ questions, and instilling responsibility and self-confidence through free writing expression. In contrast, the barriers shared by the respondents include the lack of available high-speed Internet, lack of smart phones for rapid access, lack of teacher confidence, small screen spaces, technical problems, and lack of teacher training monitoring. These findings should be recognized as valuable to faculty who may not have used social media so that they become aware that a consensus exists regarding the benefits and barriers of using social media in the classroom.

Limitations

First, only three types of social media sites were addressed in this study, and thus future research should also examine usage of other social media sites in teaching at university level. The sample of this study focused specifically on a limited number of faculty members, so future research on usage purposes of social media sites in teaching could be extended to include a wider demographic base to further explore the extent to which the findings are generalizable. Finally, there have not been formal measurements of the benefits and barriers of using mobile devices and social media.

Most of the published research is based on surveying students and faculty, and thus is self-reporting data. Clearly, there is a need to establish measurements of the benefits or the effectiveness of the use of social media in the classroom that would provide guidelines to help educators employ those technologies in their lessons. Without additional research these barriers will limit the use of social media in teaching.

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