

SOCIAL MEDIA IN TEACHING AND LEARNING, STILL

AN UNDEREXPLORED REALM

SIMMYKURIAN¹ & HAREESH N. RAMANATHAN²

¹Associate Professor, Toc H Institute of Science & Technology, Arakkunnam, Ernakulam, Kerala, India

²Head, Department of Management Studies, Toc H Institute of Science & Technology,
Arakkunnam, Ernakulam, Kerala, India

ABSTRACT

As the ubiquitous universe of social media continues to ever expand its horizons the faculty usage of social media is not very different from that of the larger population. While the faculty usage of social media in the classrooms makes them unique consumers of social media, this area still lags far behind the majority when compared to the usage of social media by other professionals. Faculty are sophisticated users of social media. Although the Faculty personal use of social media has shown an ever increasing trend the professional use of social media has lagged somewhat behind. A majority of faculty now use social media in a professional context (including all aspects of their profession outside of teaching). The number of faculty who use social media in the classroom still does not represent a majority. They match different sites to their varying personal, professional, and teaching needs. In general, they see considerable potential in the application of social media and technology to their teaching, but not without a number of serious barriers. This paper attempts to ascertain the current faculty usage of social media. It also attempts to reckon the barriers that have deterred faculty from wide-scale usage of commercial social media tools in the classroom. A total of 87 faculty from various b-Schools were interviewed for the purpose of the study. The study used the Unified Theory of Acceptance and Use Technology (UTAUT) to ascertain the faculty perception towards social media. Garrett's Ranking method to rank faculty preferences while choosing a social media site for teaching learning purpose. Statistical tools along with percentage analysis were used to analyze the data. The results indicated that although faculty had high effort expectancy, performance expectancy, behavioral intention, social influence and facilitating conditions for the adoption of social media their usage was largely found to be high for the purpose of reading /listening /watching content rather than for creation of new content. The study also reports the prime barriers to social media usage by faculty as the lack of integration of social media with the learning management system, lack of social media effectiveness measures and privacy concerns.

KEYWORDS: Social Media, UTAUT, Garrett's Ranking, Learning Management System, Privacy Concerns

1. INTRODUCTION

Social Media is the future of communication. It provides a countless array of internet based tools and platforms that increase and enhance the sharing of information. Social media is becoming an integral part of life online as social websites and applications proliferate. Social Media is not only popular for its capability to allow social networking with friends and foe but it also throws open a plethora of options to educational institutions for promoting their course and curriculum, network with stakeholders, provide personalized services and share knowledge even better than ever before.

Faculty in higher education form an integral part of the consumer base of social media. Virtually all higher education teaching faculty are aware of the major social media sites and literature from previous research reveals that more than three-quarter visited a social media sites within the past month for their personal use and nearly one-half posted content. Even more impressive is their rate of adoption of social media in their professional lives: over 90% of all faculty are using social media in courses they're teaching or for their professional careers outside the classroom. There are big differences, though, among the pattern of use from one social media site to another. On the side of academia, we still have faculty who firmly believe that traditional classroom teaching is the most effective way to reach out to our students. But with the fast increase in educational demand, limited classroom space has become a learning barrier. Non-traditional student population is increasing on a daily basis. Students have been labeled as "Digital Natives" by Marc Presky (2001). When Web 2.0 social media technologies emerged in the market, students quickly bonded themselves to those tools such as YouTube, iTunes, Facebook, blogging and twittering, to mention a few. For the purpose of this study we define social media as a group of Internet-based applications that builds on the ideological and technological foundations of Web 2.0, which allows the creation and exchange of user generated content. The most popular types of social media include social networks such as Facebook and Twitter, file sharing sites such as YouTube and Flickr, blogging sites such as Blogger and also micro blogging sites such as Twitter

2. REVIEW OF LITERATURE

There has been unpredictable growth in the number of users and the kinds of usage of social media sites among the Indian population. Several studies have also noted that not all faculties share a positive opinion of social media, especially as it related to their teaching. This means of communication needs to be better exploited. The study helps to understand the use of social media by management faculty for personal and professional purposes. So that it become beneficial for the entire teaching and learning communities. Using a representative sample of teaching faculty from across all of Management institutes, the study reviews their use of social media.(Brooks, 2015) This research addresses the gap by investigating the effects of personal social media usage on task performance. To extend this research, the author examined the effects that the personal social media usage has on individuals' techno stress and happiness levels. Another article has been written by (Alwagait, Shahzad, & Alim, 2014) explores a survey on university students in Saudi Arabia in regards to social media usage and their academic performance The survey also explored which social network is the most popular amongst Saudi students, what students thought about their social media usage and factors besides social media usage which negatively affect academic performance. This qualitative study explores the use of social media among faculty in the discipline of public administration in the United States (Chen & Marcus, 2012). Despite the high popularity of personal use of online social media, a low percentage of students and instructors use them for educational purposes(Rooyen, 2015). This research focused on how using social media can enhance the teaching and learning of Accounting Online. Student support is frequently used by distance education institutions worldwide, but in South Africa it remains a challenge to educators as not all students have access or can afford using the internet regularly. From the study it is explored that, most students at the University of South Africa (Unisa), a distance education institution, have mobile phones, opportunities emerge for academics to make use of social media(Rienties, Brouwer, & Lygo-Baker, 2013). Author stated that most professional development programmes provide teachers with formal and informal social networks, but limited empirical evidence is available to describe to what extent teachers build internal (ie within their programme) and external (ie with colleagues not involved in the programme) social learning relations. However another study has been conducted by (Gruzd, Staves,

&Wilk, 2012) on the content analysis of 51 semi-structured interviews of scholars in the Information Science and Technology field. This paper contributes new knowledge to methodological discussions as it is the first known study to employ UTAUT to interpret scholarly use of social media. It also offers recommendations about how UTAUT can be expanded to better fit examinations of social media use within scholarly practices.(Zolkepli & Kamarulzaman, 2015)

The study was conducted by testing and quantifying the relationship between the uses and gratifications of social media, while taking into consideration the mediating effect of social media technology innovation. Overall, the findings suggest that social media adoption is significantly driven by three types of need category – personal (consisting of enjoyment and entertainment), social (consisting of social influence and interaction) and tension release (consisting of belongingness, companionship, playfulness). In turn, these needs are motivated by the social media innovation characteristics (relative advantage, observe ability, compatibility) that increase the likelihood of the adoption.(Mohammadi, 2015) Based on the e-learning user data collected through a survey, structural equations modelling (SEM) and path analysis were employed to test the research model. The results revealed that —intention and —user satisfaction both had positive effects on actual use of e-learning. System quality and information quality were found to be the primary factors driving users' intentions and satisfaction towards use of e-learning. E-learning outcomes such as actual use and perceived learning assistance were positively predicted by satisfaction and intention.(Rosmala & Falahah, 2012) This research explored the usage of social networking in higher education environment, especially among lecturers and students, and analyse the impact into teaching-learning activity. (Ainin, Naqshbandi, Moghavvemi, &jaafar, 2015) This research illustrated that there is a positive relationship between students' Academic Performance and Facebook usage i.e. the higher the usage the better they perceived they perform. This study done by (Aqda, Hamidi, &Rahimi, 2011) showed that Computer Aided Instruction was significantly more effective on creativity, elaboration, and originality of students than traditional teaching of math.

3. NEED AND OBJECTIVES

Social media have a vast scope in the field of education. This study helps to assess the extent to which teachers are using social media for teaching and learning, to identify areas where the faculty engage in social media and for what purposes and also to identify the barriers if any that prevent them from embracing this media of communication wholeheartedly in their classroom environment.

The objectives of the study are the following:

- Highlight the social media sites most popular among the B-School teaching fraternity
- To assess the faculty perception towards social media using the attributes of the UTAUT model
- To understand the prevailing usage pattern of social media among Management Professionals in Kochi.
- To ascertain the barriers to faculty usage of social media

3.1 Theoretical Framework and Hypothesis

Unified Theory of Acceptance and Use Technology (UTAUT)

The acceptance of Social Media by faculty for teaching may be treated as information and communication technology acceptance. The UTAUT [12] theory could predict the acceptance of an information communication technology in approximately 70% of the cases. Comparing with TAM, it could only predict the acceptance of an information

communication technology in approximately 40% of the cases. On the other hand, the validity of UTAUT in the information system context needs further testing [13].

Therefore in this study the UTAUT with some of information system successful factors that mentioned below in this section are tested. Thus, the following hypotheses have been proposed for this study.

H1: Performance expectancy of management faculty with respect to their intention to use social media for teaching is high

H2: Effort expectancy of management faculty with respect to their intention to use social media for teaching is high

H3: Social influence of management faculty with respect to their intention to use social media for teaching is high

H4: Facilitating conditions of management faculty with respect to their intention to use social media for teaching is high

H5: Behavior Intention of management faculty with respect to their intention to use social media for teaching is high

4. RESEARCH METHODOLOGY

The questionnaire was developed after thorough review of literature. The structured questionnaire contained the questions to elicit information based on the various levels of data measurement. The survey was conducted using print copies of structured questionnaire as well as the online forms which were circulated among the management faculty in Kochi an urban city of Kerala. Most of the questions used the 5-point Likert scale format to record the social media usage pattern of management faculty.

The sampling method is used for the study is snowball sampling. In this study B-school faculty were considered as the population. Each respondent referred the next respondent for the study, so the process was repeated for the collection of 87 samples used for the study. One –Sample t-test was used for analyzing the data. The one sample t-

Test is a statistical procedure for testing the mean value of distribution. It is often used for testing the mean value of hypothesis.

5. RESULTS AND DISCUSSIONS

5.1 Factors that Act as Barriers to Social Media Usage

5.1.1 Friedman Test

The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is used to test for differences between groups when the dependent variable being measured is ordinal. It can also be used for continuous data that has violated the assumptions necessary to run the one-way ANOVA with repeated measures (e.g., data that has marked deviations from normality). This test has been used to rank the various barriers to the usage of Social Media reported by faculty.

Table1: Friedman Test

Test Statistics ^a	
N	87
Chi-Square	90.542
Df	8
Asymp. Sig.	.000
a. Friedman Test	

Table 2

	Mean Rank
I failed to use social media due to lack of support from institution	6.38
Usage of social media takes too much time to learn & use	6.10
Social media is yet to be integrated with learning management system	3.61
I feel social media effectiveness measures are unavailable	4.17
Grading and assessments are difficult when I use social media	5.48
I am concerned about privacy while using social media in teaching purposes	4.84
I am concerned about integrity of students submissions when I use social media	4.50
Use of social media in teaching leads to a higher risk to the personal privacy of faculty	14.89
Blocking outside users to view class related content is difficult	5.03

The following were the factors that were analyzed as the barriers of social media:

- **Rank 1:** Social media is yet to be integrated with learning management system
- **Rank 2:** Effectiveness measures are unavailable
- **Rank 3:** Integrity of students submissions while using social media is questionable

Faculty Preference of Social Media Websites for Usage in Teaching

Garrett's Ranking Technique has been used to analyze the factors influencing the preference for the selection of social media site by the respondents. Under the Garrett's Ranking Technique the percentage position is calculated by using the following formula:

$$\text{Percentage Position} = 100(R_{ij} - 0.5)/N_j$$

Where R_{ij} = Rank given for i th variable by the j th respondent. N_j = Number of variables ranked by the respondents. The respondents were asked to rank the seven social media sites identified for the purpose of this study as 1,2,3,4,5,6 and 7 in order to know their preferences in the selection these sites for the purpose of reading, watching,

listening to content, creation of new content, adding of comments and creation of group assignments. The calculated percentage positions for the ranks 1, 2, 3, 4, 5, 6, and 7 and their corresponding Garrett's table values are given in Table 2 below.

Table 2: Percentage Positions and their Corresponding Garrett's Table Values

Rank	Percentage Position	Garret Rank Table Value
1	$100(1-0.5) / 7 = 7.14$	79
2	$100(2-0.5) / 7 = 21.43$	66
3	$100(3-0.5) / 7 = 35.74$	57
4	$100(4-0.5) / 7 = 50$	50
5	$100(5-0.5) / 7 = 64.29$	43
6	$100(6-0.5) / 7 = 78.57$	34
7	$100(7-0.5) / 7 = 92.86$	21

The above table shows the percentage positions for the ranks 1, 2, 3, 4, 5, 6 and 7 and their corresponding Garrets table values. For Rank1, the calculated percentage position is 7.14 the table value is 79. This value is given in the Garrets ranking table for the percentage 6.81, which is very near 7.14. As like for all the calculated percentage positions, the table values are referred from Garrett's ranking table.

Table3: Ranking of Social Media Websites

Media Site	Read/Watch/Listen Content	Add Comments	Create Content	Group Assignments	Total Respondents	Total Score	Mean	Rank
	Rank1	Rank2	Rank3	Rank4				
Facebook	50	6	3	1	87	93	1.06	III
Twitter	10	4	2	-	87	24	0.275	VI
YouTube	42	-	-	-	87	42	0.482	V
LinkedIn	18	1	-	-	87	18	0.206	VII
WhtsApp	19	21	10	3	87	103	1.18	II
Google Drive	3	-	18	36	87	201	2.31	I
Blogs & Wikis	63	-	-	-	87	63	0.724	IV

Source: primary Data

The study found that among the seven social media websites reviewed, Google Drive and WhtsApp followed by Facebook were the most preferred by the management faculty for teaching and learning purposes. Blogs & Wikis was the fourth most preferred social media followed by youtube in the fifth position, Twitter was found to be in the sixth position and LinkedIn being the least preferred in the seventh position.

5.3 Performance Expectancy

Performance expectancy is the degree to which an individual believes that using the system will help him or her to attain gains in job performance or improve job performance. In this context performance expectancy refers to social media usage by teachers, performance expectancy denotes the beliefs of faculty that the usage of social media would be beneficial to them and the student community at large with whom they interact. High performance expectancy denotes a high amount of positive expectation that the usage of social media would result in improved and enhanced results.

Table 4.1: One Sample Statistics for Performance Expectancy

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
Effort Expectancy	87	14.8391	1.74458	.18704		
One-Sample Test						
Test Value = 12						
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Effort Expectancy	15.179	86	.000	2.83908	2.4673	3.2109

Source: primary Data

Ho = Performance expectancy of management faculty with respect to their intention to use social media for teaching is equal to Test mean, H1 = Performance expectancy of management faculty with respect to their intention to use social media for teaching is higher than test mean

This test mean compared with the sample mean is found to less. So we reject the null hypothesis. From above One sample T-test, it was found that the test was significant i.e.; p value =.000, so it is statistically proven that the Performance expectancy mean is higher than the test mean. So we infer that the management faculty have high performance expectancy with respect to the use of social media for their professional work. Majority respondents show high score on Performance expectancy. Thus the variables were grouped into 3 categories. The categories are:

- Very high
- High
- Low

Table 5.1: Grouped Performance Expectancy

Performance Expectancy					
		Frequency	Percent		
Valid	Low	4	4.6		
	High	41	47.1		
	Very High	42	48.3		
	Total	87	100.0		

48.3% of the faculty were having very high score in performance expectancy, 47.1% of the faculty's are having high score and the remaining 4.6% of the having low score. From the analysis it is interpreted that majority of 48.3% of the faculty are having perception in performance expectancy.

5.4 Effort Expectancy

Effort expectancy is the degree of ease associated with the use of the system. Effort expectancy denotes the expected amount of ease which faculty presume while using social media to accomplish their professional goals. Effort expectancy refers to extent to which faculty feel that use of social media for their professional accomplishments would be hassle free.

Table 5.0: Effort Expectancy One Sample Test

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
Effort Expectancy	87	14.8391	1.74458	.18704		
One-Sample Test						
Test Value = 12						
	T	Df	Sig. (2-Tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Effort Expectancy	15.179	86	.000	2.83908	2.4673	3.2109

Source: primary Data

H₀: Effort expectancy mean of management faculty with respect to their intention to use social media for teaching is equal to Test mean

H₂: Effort expectancy mean of management faculty with respect to their intention to use social media for teaching is higher than the Test mean

From this One sample T test, it was found that the test was significant i.e.; p value =.000, so it is statistically proven that the Effort expectancy mean is higher than the test mean, which implies majority of management faculty felt social media is easy to use and user-friendly medium to be adopted for teaching and learning

From the scores of Effort expectancy, the variables were grouped into 3 categories. The categories are:

- Very high
- High
- Low

Table 5.1: The Grouped Effort Expectancy

Effort Expectancy					
		Frequency	Percent		
Valid	Low	8	9.2		
	High	66	75.9		
	very high	13	14.9		
	Total	87	100.0		

75.9 % management faculty having high score on Effort Expectancy and 14.9 % having very high score only 9.2 % having low score on Effort expectancy.

5.5 Social Influence

The degree to which an individual perceives that important others believe he or she should use the new system. In the context of social media usage by faculty we refer to social influence as the impact of superiors, peers and administrative authorities' support to such an endeavor by management faculty. It refers to the active role played by the institutional heads in encouraging such use of technology in the curriculum delivery.

Table 6.0: Social Influence One Sample Test

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
Social Influence	87	14.4483	1.98107	.21239		
One-Sample Test						
Test Value = 12						
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Social Influence	11.527	86	.000	2.44828	2.0261	2.8705

Source: primary Data

H₀: Social influence of management faculty with respect to their intention to use social media for teaching is equal to Test mean

H₃: Social influence mean of management faculty with respect to their intention to use social media for teaching is higher than test mean

Here the test is found to be significant, Social Influence mean is higher than the Test Mean. So we reject the null hypothesis. The Social influence mean of management faculty with respect to their intention to use social media for teaching is high

Majority respondents show high score on Social Influence, they were grouped into 3 categories. The categories are:

- Very high
- High
- Low

Social influence score was calculated on the basis of four 5- point Likert scale statements. Thus the least score was 4 and the highest score 20 the mid value is 12. While grouping the responses into 3 categories, those scores which are below 12, were categorised as 'low', values from 12 – 16 were categorised as 'high' and scores above 16 were categorised as 'very high' respectively.

Table 6.1: Grouped Social Influence

Social Influence				
		Frequency	Percent	
Valid	Low	15	17.2	
	High	63	72.4	
	very high	9	10.3	
	Total	87	100.0	

This shows the high score on Social influence by management faculty is 72.4%, 17.2 % having low score and 10.3% having very high score.

5.6 Facilitating Conditions

Facilitating conditions means the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system. It includes training to faculty, hands-on user support through user manuals and expert solutions to faculty queries, physical infrastructure support in terms of dedicated networks connecting classrooms with internet, uninterrupted power supply ready availability of laptops, desktops scanners and printers.

Table 7.0: One Sample Test of Facilitating Conditions

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
FacilitatingConditions	87	14.3103	1.90660	.20441		
One-Sample Test						
Test Value = 12						
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Facilitating Conditions	11.303	86	.000	2.31034	1.9040	2.7167

Source: primary Data

H₀: Facilitating conditions of management faculty with respect to their intention to use social media for teaching is equal to Test mean

H₁: Facilitating conditions of management faculty with respect to their intention to use social media for teaching is higher than the Test mean

This test mean compared with the sample mean.. So we reject the null hypothesis. The test was significant, so it is statistically proven that the Facilitating conditions mean is higher than the test mean. Thus it can be concluded that the management faculty perceive facilitating conditions as conducive for the usage of social media.

The respondents for this study shows high score on Facilitating conditions were, they were grouped into 3 categories. The categories are:

- Very high
- High

Table 7.1: Grouped Facilitating Conditions score

Facilitating Conditions					
		Frequency	Percent		
Valid	Low	17	19.5		
	High	61	70.1		
	very high	9	10.3		
	Total	87	100.0		

Low Facilitating conditions variable include 4 questions of 5 point Likert scale. Thus the least score will be 4 and the highest score would be 20. The mid value is 12. While grouping the responses into 3 categories, those scores which are below 12, were categorized as 'low', values from 12 – 16 were categorized as 'high' and scores above 16 were categorized

as 'very high' respectively.

About 70% of management faculty having high score on facilitating conditions. 19.5% having low score and 10.3% having very high score.

5.7 Behavioural Intention

The degree to which a person has formulated conscious plans to perform or not perform some specified future behavior. In case of social media usage by faculty, behavior intention is based upon cognitive appraisal of how the use of social media would improve performance or result in other positive outcomes in their profession,

Table 8.0: One Sample Test of Behavior Intention

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
Behaviour Intention	87	1.8506	.58127	.06232		
One-Sample Test						
Test Value =12						
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Behaviour Intention	29.695	86	.000	1.85057	1.7267	1.9745

Source: primary Data

Ho: Behavior Intention of management faculty with respect to their intention to use social media for teaching is equal to the test mean, H1 = Behavior Intention of management faculty with respect to their intention to use social media for teaching is higher than test mean

Sample mean when compared with the test mean was found to be higher so the null hypothesis was rejected. From this One sample T test, which was significant i.e.; P value =.000, it was proven that the Behavior Intention mean was higher than the test mean.

Majority of respondents show high score on behavior Intention. Thus these scores were grouped into 3 categories. The categories are:

- Very high
- High
- Low

While grouping the Behavior Intention scores into 3 categories, those scores which are below 12, were categorized as 'low', values from 12 – 16 were categorized as 'high' and scores above 16 were categorized as 'very high' respectively.

Table 8.1: Grouped Behavior Intention

Behavior Intention				
		Frequency	Percent	
Valid	Low	22	25.3	
	High	56	64.4	
	very high	9	10.3	
	Total	87	100.0	

Among the faculty responses 64.4 % of management faculty had high scores on Behavior intention and 25.3% had low score and only 10.3% had very high scores on behavior intention. From the analysis it was interpreted that a majority of the faculty had high behavior intention.

6. CONCLUSIONS

From the present study it was found that respondents generally prefer to be mute consumers of social media and use it for the purpose of reading/watching/listening to content. For this very purpose Google drive was most preferred with almost 72% of the total respondents having admitted their usage of it to read /watch/listen to content, followed by 70% of the respondents having vouched for Facebook. The researcher through the study attempted to ascertain the extent to which faculty were using social media for creation of content. The result however show that although social media is popular among faculty for the purpose of reading/watching/listening to content the same as not true when it comes to creation of content. It is worthwhile to note that Whats App and Google Drive have emerged as the most popular social media among the management faculty. The study reports that Google drive was been used by 41% of respondents for group assignments and 20% of the respondents have used the same for creation of new academic content. Whats App the study reports was used by 24% of respondents for adding comments, 11.5% respondents use the same for creation of content and remaining 3.4% used for group assignments. Further on the study analyzes various barriers that deterred management faculty from using social media for teaching, learning purposes. Among the various factors that were analyzed, the most highly ranked was the lack of social media integration with learning management system followed by lack of social media effectiveness measures. The dearth of mechanisms to ensure the integrity of student's submissions while using social media for teaching learning purposes was ranked as third most important deterrent in this study. This study reiterates the fact that although social media is all so popular among the masses, due to the lack of proper mechanisms which integrate Social media it to the learning management system, faculty are still unable to explore the full potential of this mode of communication to share with the student community their valuable insights.

7. SCOPE FOR FURTHER RESEARCH

Though the paper identifies the key social media which are of interest to management faculty and their usage preferences, there is a need for in depth analysis of factors which would empower them to enhance their usage pattern further in terms of actively creating new content and facilitating the same of the student community. Further as the paper has highlighted concerns like lack of integration of social media with the learning management system and even integrity concerns, efforts on the part individual institution and all its stakeholders need to be beefed up so as generate innovative and effective mechanisms for the same.

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