

**Proceedings of
International Seminar on
Application of Communication
and Information Technology
in Library
(SACITiL-2014)**

January 28-30, 2014



 **IMU Library
Visakhapatnam**
606

BK6893

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Department of Atomic Energy
1/AF Bidhan Nagar
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**Board of Research in Nuclear Sciences
Department of Atomic Energy**



SACITiL
2014 JANUARY
28-30

Using Social Media and Mobile Technologies to Offer Special Services in a University Environment

S. Padmashree¹ and C. Sasikala²

¹Indian Maritime University, Visakhapatnam, India

²Library Science Department, Andhra University, Visakhapatnam, India

ABSTRACT: *The Technological advancement coupled with awareness among people helps the modern library and the librarian to deliver specialized services instantaneously. This paper tries to show how the social networking sites and mobile technology can be used to serve the library users better. The Indian Maritime University, Visakhapatnam Campus students, faculty and staff were surveyed through questionnaire method on their perceptions and use of social media and mobile technology. From the above study it was evident that almost all the respondents are aware of the usage of social networks and own mobile cell phones. However their usage of these technologies varied according to their age, educational status, job status and nature of their interests and attitudes. The paper suggests possible area of library services where adoption of latest technological tools helps in offering more cost-effective virtual information services to the academic and research community in Marine Sciences.*

I. INTRODUCTION

Indian Maritime University has seven campuses at various places in India. The IMU Visakhapatnam Campus has two schools, School of Naval Architecture and School of Maritime Design and Research. The School of Naval Architecture offers Undergraduate and Post Graduate courses in Naval Architecture and Ocean Engineering. The School of Maritime Design and Research (SMDR) handles research projects of various Ministry. One of the best facilities provided by the university is the fully automated and up to date library housed in an area of 600 sq. yards.

II. HISTORY OF SOCIAL MEDIA

In 1971 the first email was sent between computers. In 2004 Mark Zuckerberg, along with fellow computer science students Eduardo Saverin, Dustin Moskovitz, and Chris Hughes launched Facebook. Flickr, a photo sharing website, is also launched during this time. YouTube, the first video sharing and hosting site was launched in 2005, it was then purchased by Google in 2006.

III. SOCIAL MEDIA AND SOCIAL NETWORKING

Some resources debate the difference between social media and social networking. Cohen (2009) states that social media is "...an outlet for broadcasting..." while social networking is considered to be "...a tool and a utility for connecting with others...". In other words, social media is a vehicle that transmits information to be widely accessible, and it allows anyone to produce or distribute the information. On the other hand, social networking is "the use of communities of interest to

connect to others" (Cohen, 2009). The further proposes that social networking was developed first, then it evolved into social media.

IV. MOBILE TECHNOLOGY

Mobile Technology is the technology used for cellular communication. Since the start of this millennium, a standard mobile device has gone from being no more than a simple two-way pager to being a mobile phone, GPSnavigation device, an embedded web browser and instant messaging client, and a hand-held game console.

V. RESEARCH METHODOLOGY

The survey intends to assess the faculty and student's level of knowledge about social media and their usage and how best the library can make use of these technologies in serving them with latest information.

Results are based on a sample of 51 students and 30 faculties, by way of online questionnaire between 22/10/2013 and 12/12/2013. The online questionnaire for both student and faculty contained ten questions with multiple choice answers.

VI. SURVEY FINDINGS

A. Survey of Faculty

1. *Age of Faculty:* 80 percent of faculty is between the age of 20–30 yrs.
2. *Area of Specialization:* The respondents are from the following discipline—NavalArchitecture, Hydrodynamics,

Oceanography, shipdesign, Electronics and Instrumentation, Chemistry, Marine Design, Mathematics, Marine Engineering, Mechanical Engineering, Numerical Analysis, Naval Architecture Research, MarineMachinery and Piping, offshore, Thermal Engineering, Electrical Engineering.

3. *Department:* Department wise distribution of response shows that 80 percent of respondents are from SMDR, 13 percent from NA and OE and 7 percent visiting Faculty.
4. *Social Media Wise Distribution and Frequency of Use*

Table 1: Frequency of use of Social Media for Personal Use

Social Media	Daily No. (%)	Weekly No. (%)	Monthly No. (%)	Never No. (%)
Facebook	9 (30)	18 (60)	0 (0)	3 (10)
Twitter	0 (0)	4 (13)	8 (27)	18 (60)
LinkedIn	2 (7)	8 (27)	9 (30)	11 (37)
GooglePlus+	5 (17)	7 (23)	8 (27)	10 (33)
YouTube	5 (17)	13 (43)	7 (23)	5 (17)
LiveJournal	1 (3)	3 (10)	7 (23)	19 (63)
MySpace	2 (7)	0 (0)	3 (10)	25 (83)
Tagged	1 (3)	1 (3)	1 (3)	27 (90)
Pinterest	1 (3)	2 (7)	0 (0)	27 (90)
Total	26	56	43	145

It may be observed from the above table that among those social media sites that are visited daily and weekly, the facebook stood first in the list with 30 percent and 60 percent respectively. Among those sites mostly visited monthly by faculty, LinkedIn is in the top position with 30 percent followed by Twitter (27) and GooglePlus+ (27). There are social media site that are never used by the faculty. Among them first and second places are occupied by Pinterest (90) Tagged (90) and MySpace (83)

5. *Frequency of Use of Social Media for solving or dealing with problem on the day to day work*

In addition to purely personal use, faculty were asked about social media use in support of their professional careers (Table 2).

Among various frequencies majority of the faculty are using the facebook weekly for professional cause, monthly use of YouTube for professional cause is found to be more among the faculty (32). Highest percent of faculty in the case of all other social media sites have confirmed that they never used them for work related jobs (2 to 89)

6. *Use of Social Media for Teaching Purpose*

The present study has also attempted to find out the extent of use of social media for teaching purpose.

It is observed that highest percent of faculty of Naval Architecture (41) are using social media for teaching

purpose followed by those faculties in ship design and ship related department (27).

Table 2: Frequency of Use of Social Media for Professional Use

Social Media	Daily No. (%)	Weekly No. (%)	Monthly No. (%)	Never No. (%)
Facebook	4 (15)	13 (48)	4 (15)	6 (22)
Twitter	0 (0)	3 (11)	6 (22)	18 (67)
LinkedIn	3 (11)	7 (26)	7 (26)	10 (37)
GooglePlus+	4 (15)	6 (22)	5 (19)	12 (44)
YouTube	6 (21)	9 (32)	11 (39)	2 (7)
LiveJournal	1 (4)	6 (24)	8 (32)	10 (40)
MySpace	0 (0)	2 (7)	2 (7)	23 (85)
Tagged	0 (0)	0 (0)	6 (22)	21 (78)
Pinterest	0 (0)	1 (4)	2 (7)	24 (89)
Total	18	47	51	126

7. *Frequency of Use of Different Social Media for Teaching*

Faculty were also asked about their use of social media in classes they're teaching.

Table 3: Frequency of Use of Social Media for Teaching

Social Media	Daily No. (%)	Weekly No. (%)	Monthly No. (%)	Never No. (%)
Facebook	6 (27)	3 (14)	0 (0)	13 (59)
Twitter	0 (0)	3 (14)	2 (9)	17 (77)
LinkedIn	0 (0)	1 (5)	5 (23)	16 (73)
GooglePlus+	2 (9)	3 (14)	1 (5)	16 (73)
YouTube	4 (18)	6 (27)	4 (18)	8 (36)
LiveJournal	2 (9)	5 (23)	3 (14)	12 (55)
MySpace	0 (0)	2 (9)	1 (5)	19 (86)
Tagged	2 (9)	0 (0)	2 (9)	18 (82)
Pinterest	0 (0)	0 (0)	2 (9)	20 (91)
Total	16	23	20	139

The analysis as in Table 3 of responses reveals that the percent of faculty who never used social media is very high (91 to 36). Frequency of use wise analysis shows that among those who are using social media daily, faculty who are using Facebook are more (27). On the other hand among those who found to be using social media weekly, YouTube stood in the first place with 27 percent. Highest percent of monthly use of social media are using LinkedIn (23). Among the social media never used by faculty, Pinterest is in the top of the list with 91 percent of them ignoring it.

8. *Barriers to the Use Social Media:* In order to assess the reasons for not using social media, the present study identified different probable barriers and asked the faculty to choose the option relevant to them.

Highest percent of faculty (64) are concerned with privacy issue while using social media. Second highest percent of them (50) felt that even integrity of student submission and the need to maintain separate course and personal accounts are issues of concern.

9. *Value of Use of Social Media for Teaching?*

There was a good response to this query; Following are a few views—They create highly interactive platforms for the beginners and the experienced persons. We can assimilate new methods and improved method soft reaching by referring to social media. It improves the students thinking and visualization of things in better manner. Interactive video sessions can create lasting impressions on student's minds' more than reading from at extora teacher explaining to them. One very interesting and most valuable answer received from one of the respondent—"Yes. Social media has provided exceptional value. I have personally managed to integrate students of IMU, IIT and my Colleagues from past to work and discuss many engineering and industry related issues be it dredging operations, ship design and subseasy stems. In fact very recently with co-operation of IMU students (some of who mihardly ever interacted in person) and my ex-colleagues and I solved a SMDR project related issue on facebook."

10. *Purpose of Using Mobile Phone:* In addition to social media the use of mobile technology for various purpose is also significant in the contemporary society. The following table presents the nature of use mode of mobile phones by the faculty surveyed and is shown in Table 4.

Table 4: Purpose of Using Mobile Phone

Social Media	Personal Use No.(%)	Prof. Use No.(%)	Teach. Use No.(%)	None No.(%)	All No.(%)
Communication	21 (70)	5 (17)	0 (0)	0 (0)	4 (13)
Google	7 (23)	19 (63)	1 (3)	3 (10)	0 (0)
You Tube	7 (23)	15 (50)	4 (13)	4 (13)	0 (0)
Messaging	23 (77)	2 (7)	1 (3)	1 (3)	3(10)
WhatsApp	19 (63)	3 (10)	3 (10)	3 (10)	2 (7)
Social Network	14 (47)	8 (27)	3 (10)	4 (13)	1 (3)

The findings on the use of mobile phones reveal interesting facts. Among the personal reasons for using mobile phones, majority (77) are using them for messaging purpose. Using mobile phones for professional purpose is also significant among the faculty. Highest percent of them are accessing Internet using Google interface through mobile phone for job work. Using mobile phones for teaching purpose is found to be comparatively less among the faculty, (13) of them access YouTube through their mobile. Among those

who are using mobile phone for all the purpose, highest percent (13) are using it for communication.

B. Survey of Students

The sample of students comprises of students from B.Tech and M.Tech Naval Architecture and Ocean Engineering. They are in the age group of 17 to 24 yrs. 47 of them are boys and 3 of them are girls.

Frequency of Use of Social Media

The extent of use of social media sites can be best described by assessing the frequency of use of this media by students, as shown in Table 5.

Table 5: Frequency of Use of Social Media

Social Media	Daily No.(%)	Weekly No(%)	Never No(%)
Facebook	34 (69)	14 (29)	1 (2)
Twitter	3 (8)	9 (23)	27 (69)
LinkedIn	6 (16)	15 (39)	17 (45)
Orkut	1 (3)	6 (15)	32 (82)
Pinterest	0 (0)	1 (3)	37 (97)
MySpace	0 (0)	3 (8)	35 (92)
Tagged	0 (0)	0 (0)	36 (100)
CafeMom	0 (0)	1 (3)	37 (97)
Ning	0 (0)	1 (3)	37 (97)
Google+	6 (15)	16 (39)	19 (46)

The responses are distributed among three point scale of frequency of use of different social media. Frequency wise analysis of responses indicates that among the daily users of social media, highest percent (66) of students use Facebook. With regard to weekly use of social media, Google+ occupies the first place in the list with 39 percent of the students using it weekly. Among those social media never used by students—none of the students is found to be using Tagged (100) followed by Ning (97), Pinterest (97) and CafeMom (97). In general among all the media, the most frequently visited social media site is Facebook (66), Google+ occupies the second place in the list of social media sites with 39.

Value of Social Media

It is observed that for majority of the students, the value of social media lies in its ability to facilitate sending and sharing as well as receiving and viewing information.

Importance of Social Media for Students

The social media as a friendly and interactive platform is playing a key role in the life of youth. The opinions of students on the importance of social media in their life have been assessed using a five point scale. Majority of the students surveyed felt that social media are somewhat important in their life. About 33 percent considered social media as very important for them as students.

Reasons for Using Social Media

Social Media may be used by students for various reasons. It was found that highest percent of students (23%) are using social media for communication purposes. Second highest of them are using them for viewing news (22%). For networking with others, about 15 percent are depending on social media. 12 percent of them are availing the social media services to be competitive in their field of interest. Only 10 percent are using it for job search. Among other reasons mentioned for using social media include 'to have general awareness on current developments, to develop new contacts and to maintain contacts with people in their hometown.

Frequency of Use of Internet for Various Purposes by Students

The analysis of responses reveals interesting findings. Highest percent of daily users of Internet are depending on Internet for required information. The second highest of daily users use it for chatting, e-mail or instant messaging purposes. Among those who are using Internet weekly, majority are using it for downloading articles (60) followed by those using Internet for downloading E-Books (58). Surprisingly, among those students who never used these services, majority are not using Internet for reading e-journals (26).

Time Spent for Various Activities through Mobile Phone

There were 10 activities related to use of smart phones and the time spent on these activities—Messaging, Browsing for Education Purpose, To Play Game, Download Lecture, Download E-Book, Visiting Social Network site. Also, multi-tasking like using mobile phones while eating, shopping, playing sports, while preparing for class work, while preparing for examination, while using computer. Creating content on smart phone and consuming news on a smart phone.

In order to find out extent of time spent on mobile phone for various activities, students were asked to indicate the hours of time spent on various activities. Among those who are spending 1 hour, highest percent are using mobile for messaging (33%) and visiting social Network sites. With regard to those spending 2 hours, majority are using mobile phone for browsing internet for educational purpose. Majority of students are spending 3 hours time for visiting social network sites.

Frequency of Consuming Different Types of Information through Mobile Phone

Frequency of consuming different types of information using mobile phone also reveals the nature of dependency of students on mobile technology. Among those facilities used often, talking over mobile phone stands first in the list with 50 percent of the students opting for it. Second highest percent of them are often using phone for listening to music (49%). For watching video highest percent of students (36%) are using mobile phone sometimes. Among those used mobile phone seldom, majority are those who wants to know about weather forecasts and news. Highest percent of students (35%) found to be never used the mobile phone for reading e-books.

Preference of Consuming News on Mobile Phone

To keep up once general knowledge News is one of the best sources of information. Students were asked to give their preference of consuming various news forms on their mobile phones. The survey respondent students like to consume the news in the form of photos 47 percent the highest. The student's favorite form of news is Text format 38 percent. The video form of news is favorite among 34 percent of students who watch news on their mobile phones. The audio form of news on mobile phone is disliked by 19 percent of students.

Frequency of Visits Made to the University Library

Among various frequencies majority of the students are found to be visiting library almost every day (45%) and once or twice a week (45%). Only 2 percent of the students found to be never visited the library

Time Spent in the University Library

The amount of time spent has been shown on five point scale. It is observed that highest percent of students (47%) spent 1 to 3 hours of time on an average per day in the University Library. About 29 percent are staying in the library for one hour.

VII. NEW SERVICE

After the analyses of the results, we have created a facebook account called "Atheneum-IMUV library" and we regularly post news related to forthcoming seminars, conferences and library related circulars. Using way2sms, sms were sent to students to remind them of the overdue books. Also reminders were sent to their emails ids. We also intend to send interesting articles and video clips through MMS.

VIII. CONCLUSION

The more we know about effective uses of technologies for teaching and learning, the faster we can adopt these new practices, facilitate their proliferation across higher education and increase student success.

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