

## **A STUDY OF SOCIAL MEDIA SITES USED BY UNDERGRADUATE ENGINEERING STUDENTS OF NAGPUR CITY, INDIA**

Reshma Pais

Assistant Professor, Priyadarshini Indira Gandhi College of Engineering, Nagpur, India

### **ABSTRACT**

Today, social media is not just limited to social networking but it provides information, knowledge, entertainment etc. There are numerous social media sites and platforms available on the internet that provide various services such as social & professional networking, photo & video sharing, question & answer forums, and information & knowledge sharing etc. This paper presents a study of the undergraduate engineering students of Nagpur City, India, regarding their use of social media sites.

**Keywords:** Social media, social media usage, undergraduate, engineering students

### **1. INTRODUCTION**

Social Media has grown tremendously in the past few years. Social media is used by almost all ages of people right from teenagers to old people. With the diminishing cost of technology and internet services, social media is being used by all masses of people and students are no exception.

Today Social media is playing a pivotal role in a student's life. Students are using social media for various purposes like interacting with friends & family, for making new friends, for sharing information, for sharing their photos & videos, and for gaining knowledge and information etc. There are various social media sites catering to the different needs and purpose of different age groups. Are undergraduate engineering students using these sites? Which sites are being used mostly by these students? Whether male and female undergraduate engineering students are using the same social media? These are some of the questions the researcher tried to find out through this research.

### **2. LITERATURE REVIEW**

Social media, as defined by Bryer and Zavatarro (2011) [1], "are technologies that facilitate social interaction, make possible collaboration, and enable deliberation across stakeholders".

Apart from social interaction, today, social media provides a web-based platform for learning, seeking knowledge and information. Due to decreased cost of internet, computers, and mobile handsets, the social media has reached to the masses. And students are not an exception to it. Today, almost all students from tier 1 and tier 2 cities have smartphones and data connection. They are online most of the time and are using one or the other social media sites.

Social media sites such as Facebook, LinkedIn, Twitter and YouTube etc. are changing the way students learn, promote, and communicate with others (Porterfield 2010) [2]. Usage of social networking sites among college students has increased tremendously across the world. (Gemmill and Peterson 2006) [3]. Youth are more attracted towards the new technology and are more inclined towards the social networking sites (Boyd, 2007) [4] that help them to increase social network.

### **3. SOCIAL MEDIA SITES**

There are various social media sites having different functions and utilities. The Social Networking sites are primarily meant to connect virtually to all the users. Through these sites, the users can share messages, photos, and videos. Facebook, Google+ and LinkedIn are some of the prominent social networking sites. Microblogging sites enable the user to send short messages. These sites also allow the users to share photos and short duration videos. One of the most popular microblog sites is Twitter.

Videos sharing sites allow users to create and upload their videos on these sites. These uploaded videos can be watched freely by visitors of the site. Viewers can comment, like or share these videos. YouTube is one of the most popular video sharing sites. Other sites include Dailymotion and Vimeo. Similar to video sharing, photo sharing sites allow users to share photos. Viewers can comment, like, and share it further with other viewers. Instagram is one of the most popular sites in this category.

Presentation sharing sites allow users to share their presentations. Visitors can search for various presentations, bookmark, and comment. Sometimes downloads are restricted by the uploaders. Slideshare and Authorstream, are the popular sites in this category. Q&A forums are the online communities where a user can ask a question or query and other users respond to these queries. Quora is one of the most popular Q&A forums.

### **4. RESEARCH QUESTIONS**

This researcher desired to find out the answers to the following questions:

R1. Which social media sites are used by the undergraduate engineering students?

- R2. Is there any difference amongst male and female undergraduate engineering students with respect to usage?
- R3. Is there any difference amongst junior and senior undergraduate engineering students with respect to usage?

## **5. METHODOLOGY**

This study is a descriptive research where an attempt is made to understand the use of social media sites by the undergraduate engineering students. The primary data was collected through a survey with the help of a structured questionnaire. The questionnaires were filled by the undergraduate students of various engineering colleges of Nagpur City, State of Maharashtra, India. The equal number of male and female students were selected at random. Total 300 students filled the questionnaire. The missing data, if any, was collected and clarified on the spot by the researcher. The data analysis of the questionnaire was done using spreadsheet software and SPSS software.

## **6. RESULTS AND DISCUSSION**

### **6.1 Demographic Profile of Respondents**

As mentioned earlier there is an equal number of male and female respondents. The respondents' age varies from 18 years to 25 years. All the survey participants are above 18yrs of age and this assures that respondents are matured enough to answer the survey questions. Table 2 and 3 shows the percentage of respondents grouped on the basis of age slabs and year of their degree course.

**Table 1: Distribution of respondents on the basis of gender**

<b>Gender</b>	<b>No. of respondents</b>	<b>% of respondents</b>
Male	150	50%
Female	150	50%

**Table 2: Distribution of respondents on the basis of age groups**

<b>Age Group</b>	<b>% Male Respondents</b>	<b>% Female Respondents</b>	<b>Total Respondents</b>
18-19	23%	39%	31.33%
20-21	53%	43%	48.33%
22-23	19%	15%	17.33%
24-25	4%	2%	3.00%

Total	100%	100%	100%
-------	------	------	------

**Table 3: Distribution of respondents on the basis of a year of degree course**

Year	% Male Respondents	% Female Respondents	Total Respondents
I Year	17%	27%	22%
II Year	12%	39%	26%
III Year	35%	15%	25%
IV Year	37%	19%	28%
Total	100%	100%	100%

### 6.2 Use of Social Media Sites

Facebook, Google+ and LinkedIn are the leading networking sites. Out of these Facebook is the most popular amongst the students. Ninety-two percent of the students are using Facebook. Among the video sharing sites, YouTube is most popular amongst students as 92% of them are using it regularly. Instagram, a photo sharing site, is another popular site amongst the students. 69% of the students are using it to share photographs. In comparison to photo sharing sites, videos sharing site, i.e. YouTube is more popular amongst the students.

In the case of microblogs, only 30% of the students have reported that they are using Twitter. While in the case of blogs, data shows that students have a low level of awareness regarding blogs. Barely 12% of the students are expressing their views through blogs. Bookmarking and content sharing sites such as Flipboard and Pocket, which provides the wealth of knowledge and information are alarmingly less familiar to the students. Further, data reveals that only 30 percent of the students are using Slideshare site for gaining knowledge and information. Amongst the various question-answer forums, Quora is used by 27% of students. Table 4 presents the data on social media sites that are used by undergraduate engineering students.

**Table 4: Percentage of respondents using various social media sites**

SN	Social Media Sites	Primary Classification	No. of Respondents	% of Respondents
1	Facebook	Social networking	275	92%
2	YouTube	Content sharing (Video)	275	92%
3	Instagram	Content sharing (Photo/Video)	206	69%
4	Google+	Social networking	117	39%
5	SlideShare	Content sharing (Presentations)	93	31%

6	Yahoo Answers	Q&A forum	91	30%
7	Twitter	Microblogging	89	30%
8	Quora	Q&A forum	82	27%
9	LinkedIn	Professional networking	46	15%
10	Google Photo	Content sharing (Photo)	44	15%
11	Blogger	Blogging	32	11%
12	Flipboard	Content sharing	27	9%
13	Pinterest	Content sharing	24	8%
14	Word Press	Blogging	25	8%
15	Reddit	Content sharing	12	4%
16	DailyMotion	Content sharing (Video)	12	4%
17	Scribd	Content sharing (Presentations)	9	3%
18	Flickr	Content sharing (Photo)	6	2%
19	Stack Exchange	Q&A forum	7	2%
20	Vimeo	Content sharing (Video)	7	2%
21	Tumblr	Blogging	5	2%
22	AuthorSTREAM	Content sharing (Presentations)	3	1%
23	Stack Overflow	Q&A forum	3	1%
24	MySpace	Social networking	3	1%
25	SlideServe	Content sharing (Presentations)	1	0.33%

Further, the data of first fourteen social media sites was analysed to check whether the use of social media sites is similar or different amongst male and female students. For this following hypothesis is set:

H<sub>0</sub>: There is no significant difference between the use of social media by male and female students.

H<sub>1</sub>: There is a difference between the use of social media by male and female students.

For hypothesis testing, the chi-square test was carried out using SPSS software and is presented in table 5. In cases of Facebook, Google+, Twitter, WordPress, Blogger, Flipboard, Google Photos, Slideshare, and Quora the p-values are smaller than the significance value (0.05). Hence, for these cases, the hypothesis is rejected. In other words, it is accepted that there is a significant difference between male and female students with respect to their use of these social media sites. Form the descriptive statistics it can be observed that more male students are using Facebook than female but in the case of Google+ more female students are using it. Twitter, WordPress,

Blogger, Flipboard, Google Photos, Slideshare, and Quora are more used by male students than female students.

Similarly, in the cases of LinkedIn, YouTube, Instagram, Pinterest, and Yahoo Answers the p-values are greater than the significance value (0.05). Hence, for these cases, the hypothesis is accepted. In other words, it is accepted that there is no significant difference in male and female students with respect to their use of these respective social media sites.

**Table 5: Use of social media sites by male and female respondents**

Sr. No.	Social Media Site	Male		Female		Pearson Chi Sq. Value	Asymp. Sig. (2-sided)	Hypothesis accepted/ rejected
		Count	%	Count	%			
1	Facebook	144	96%	131	87%	7.375	0.002	Rejected
2	Google+	47	31%	70	47%	7.412	0.006	Rejected
3	LinkedIn	26	17%	20	13%	0.924	0.336	Accepted
4	Twitter	56	37%	33	22%	8.451	0.004	Rejected
5	Word Press	18	12%	7	5%	5.280	0.022	Rejected
6	Blogger	22	15%	10	7%	5.037	0.025	Rejected
7	Flipboard	20	13%	7	5%	6.878	0.009	Rejected
8	YouTube	137	91%	138	92%	0.044	0.835	Accepted
9	Instagram	104	69%	102	68%	0.062	0.803	Accepted
10	Pintrest	13	9%	11	7%	0.181	0.670	Accepted
11	Google Photo	32	21%	12	8%	10.653	0.001	Rejected
12	SlideShare	56	37%	37	25%	5.626	0.018	Rejected
13	Yahoo Ans.	53	35%	38	25%	3.549	0.060	Accepted
14	Quora	54	36%	28	19%	11.345	0.001	Rejected

As mentioned earlier the respondents are the undergraduate students of four-year engineering degree program. The researcher wanted to know whether the use of various social media sites increases with the progression of their degree course. For this, following hypothesis was set and it was checked through SPSS software using Chi-square test.

H<sub>0</sub>: There is no significant difference between the use of social media by the first year, second year, third year and fourth year students.

H<sub>1</sub>: There is a difference between the use of social media by the first year, second year, third year and fourth year students.

The results of the test are presented in table 6. In cases of Facebook, LinkedIn, Twitter, WordPress, Blogger, Instagram, Google Photos, Slideshare, Yahoo Answers, and Quora the p-values are smaller than the significance value (0.05). Hence, for these cases the hypothesis is rejected i.e. it is accepted that there is a significant difference in first, second, third and fourth year students with respect to their use of these social media sites. In other words, the usage of social media sites amongst the students from first to fourth year is not the same. From the table 6, it can be observed that the use of Facebook, LinkedIn, Wordpress, Blogger, Yahoo Answers, Quora is increasing from the first year to fourth year students. Further, test data shows that there is no significant difference in the usages of Flipboard, YouTube, and Pinterest.

**Table 6: Use of social media sites by male and female respondents**

SN	Site	Year of Graduation				Pearson Chi Sq. Value	Asymp. Sig. (2-sided)	Hypothesis is accepted/rejected
		I	II	III	IV			
		%	%	%	%			
1	Facebook	83%	91%	96%	95%	9.522	0.023	Rejected
2	Google+	37%	43%	40%	36%	0.915	0.822	Accepted
3	LinkedIn	0%	6%	12%	39%	51.522	0.000	Rejected
4	Twitter	17%	22%	41%	36%	13.746	0.003	Rejected
5	Word Press	5%	3%	11%	14%	9.103	0.028	Rejected
6	Blogger	5%	6%	13%	17%	7.814	0.050	Rejected
7	Flipboard	8%	3%	11%	14%	7.263	0.064	Accepted
8	YouTube	91%	91%	92%	93%	0.270	0.966	Accepted
9	Instagram	54%	65%	80%	73%	12.510	0.006	Rejected
10	Pinterest	9%	5%	11%	7%	1.749	0.626	Accepted
11	Google Photo	9%	3%	20%	25%	19.701	0.000	Rejected
12	SlideShare	6%	17%	36%	59%	57.310	0.000	Rejected
13	Yahoo Answers	12%	19%	36%	49%	29.700	0.000	Rejected
14	Quora	14%	14%	24%	53%	40.527	0.000	Rejected

## 7. CONCLUSION

Students are using social media sites for various purposes. But this study reveals that the usage of social media amongst the students is more for the purpose of social networking i.e. to get connected with friends and family. Another aspect which can be seen in the study is that the students are using social media for photo sharing and video sharing. Blogging sites which help a person to express one's views are not being used by students to a much extent. It can be seen that

Q&A Forums are also less used by students. The sites such as Slideshare, Authorstream which provides great help to learners are less used by the students. Furthermore, it can be seen that LinkedIn, YouTube, Google Photo, Yahoo Answers are some of the sites more popular among boys than girls. Otherwise, there is no major difference in the usage of social media sites by male and female students.

Also from the study, it can be concluded that the usage of social media amongst the students of first to the fourth year is not the same. The usage is increasing with the growing years. The first-year students are using less social media sites as compared to the fourth-year students. This may be because of lack of exposure, lesser opportunity or lack of resources such as smartphones or computers.

## **REFERENCES**

1. Bryer, T. and Zavattaro, S. (2011). Social media and public administration: Theoretical dimensions and introduction to symposium. *Administrative Theory & Praxis*, 33(3), pp.325-340.
2. Porterfield, Amy (2010), "3 New Studies Prove Social Media Marketing Growth," *Social Media Examiner*, March 29
3. Gemmill, E. and Peterson, M. 2006. "Technology Use Among College Students: Implications for Student Affairs Professionals". *NASPA Journal*, 43(2), 280–300.
4. Boyd, D. M, Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), article 11.
5. Bicen, Huseyin and Cavus, Nadire. 2010 "The Most Preferred Social Network Sites by Students" *Procedia Social and Behavioural Sciences*, 2, 5864-5869.