

Impact of Social Networking Sites in Scholarly Communication by State Universities of Uttarakhand

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ABSTRACT

This study finds out usage pattern of social networking sites (SNS) of academicians in scholarly communication in the Central Himalayan region of Uttarakhand state universities of India. The results revealed that 93 % faculty members of State universities of Uttarakhand were using SNS and sharing of information was the highest amongst them. 44 % were using SNS several times a day, 48 % faculty members thought that SNS information were reliable. 33 % faculty members believed that there was a possibility of fraud through SNS and 41.64 % faculty members believed that SNS had a little impact on their lives. 28.75% were using Facebook, which was highest in all SNS. The result indicated that the percentage usage by the faculty members in terms of the latest knowledge was 38.0%. Mostly faculty members were using the SNS from their homes. One very important factor responsible for this could be the lack of Wi-Fi facility available to them in all the campuses of the universities. Therefore the study recommends that Wi-Fi should be made available in all the universities, so that the faculties can use them in their academic pursuit, during their working hour in the campus, and this will further lead to an in depth use of SNS for academic excellence.

Keywords: Academics, social networking sites, India, university

1. INTRODUCTION

Human beings live in a community and are a part of social and private institutions which create a sense of belonging and group membership among the individuals. These institutions of community are an integral component of a society. The society plays a significant role in transforming an individual's personality and behavior since birth. The society has always been the key factor through which an individual learns to communicate. This unique invention has changed the world into a global village. It revolutionised the communication level and lifestyle of the people all over the world because of its extensive applications. It not only empowered an individual to instantly access the information from any corner of the world but also changed the working style by minimising the effort and time to complete a task.

The social networking is way of 21st century communication now. The popularity of social networking sites (SNS) is increasing amongst academicians, researchers, students and other civil society peoples. There are numerous advantages of using SNS especially in academic World. Earlier studies suggested that SNS can be applied in online open courses having different discipline in different module. In graduate and post graduate level it could enhance students' communication globally. India is the third largest higher education system in the world. In several institutions, the faculty members utilise SNS to contact their students regarding any project or assignment. This helps in enhancing their teaching-learning capabilities with minimal effort.

2. LITERATURE REVIEW

Worldwide different studies have been conducted in the usage pattern of SNS. Chen & Beaudoin¹ indicated in their study that controlling for photographic characteristics and other independent variables, photo favorites and photo comments were positively correlated with one another. Antón, García & Nistal² in their study examined the use of SNS in the academic society especially in higher education. Chikkamanju³ attempted to explore Mysore University post graduate students with reference to SNS. He also disclosed the association between about the usage pattern of Facebook, and the arrangement and preservation of societal assets. Ozer, Karpinski & Kirschner⁴ attempted to evaluate the use of SNS were developing, specifically Facebook, has remained a Contentious subject for many educators and media. The study indicated the division in perceptions between students in the US and Europe. Bicen & Uzunboyulu⁵ discovered the relationship between Web 2.0 and SNS. New technologies have given impetus to teaching learning in academic organisation. The result revealed that teachers of schools seem that Facebook provide positivity in their teaching learning activities. Kanthawongs⁶ disclosed the advancement of information and communication technologies (ICTs) and advanced students, parents and teachers to prepare themselves for new trends. Kumar & Kumar⁷ revealed about the activities and reasons for using SNS by the post graduate students and research scholars of MDU, Rohtak, India. Singh & Kumar⁸ discussed the use SNS by

the research scholars of Punjab University, Chandigarh. They explained the activities and purposes for using SNS by research scholars. Chakraborty⁹ explored the activities and causes for using SNS by the researchers of NEHU, Shilong, India. Rosmala¹⁰ explained in his study that social networking was a new tendency in mostly organisation now days. Stanciu & Aleca¹¹ analysed the effect of social networks on educational procedure in Romanian higher education. Hew¹² explored about the use of Facebook by students and teachers. Singh & Gill¹³ studied the usage of SNS between the researchers of GNDU, Amritsar through describing the basic idea of Web 2.0, outline of social networking, definition, etc. Roblyer,¹⁴ *et al.*, in their study revealed that Facebook is most popular SNS among students.

3. SIGNIFICANCE AND OBJECTIVES

Presently, SNS play a vital role in rapid dissemination of useful information to its users. SNS are accessible to the masses and used in virtual meetings, work places, where concerned members present and view information. These sites have developed as a medium of self-expression that not only allows them to interact but also share their expertise in their field of specialisation to promote commerce and change the society. These are important not only to socially interact but economically too and also beneficial for educational purposes. Other than traditional and restricted learning, online groups are in vogue among individuals who are self-managed, well-oriented, focused and active in creation of new ideas easily accessible to others. social networking sites like WhatsApp, Facebook, LinkedIn, Google Plus, MySpace, Research Gate, etc. are being used by faculty members, scientists, scholars and students for online education and information sharing outside the formal traditional systems. Hence the study focuses on the use of SNS in scholarly communication amongst teaching fraternity.

The SNS plays a predominant role in information sharing among individuals. Even though it operates on internet platform, it is reliable site with the privacy of its users as it blocks encroachment on the literatures by unregistered users. The faculty members of the universities related to this study makes the best possible use of SNS for academic purposes by exchanging information. It develops online networks, scholarly communities, locating online research resources, tracking references with social media tools. This study is confined to the use of SNS for information communication by faculty members in state universities of Uttarakhand, who are concerned with teaching and research work. The following universities were selected for the study:

- Kumaun University (KU), Nainital
- G.B. Pant University of Agriculture and Technology (GBPU), Pant Nagar
- Uttarakhand Technical University(UTU), Dehradun
- Doon University (DU), Dehradun

The objectives of the study are to:

- (a) Find out the use of SNS by the faculty members.
- (b) Explore the purpose of using social networking sites.
- (c) Find out the frequency and duration of using social networking sites.
- (d) Find out the information reliability of social networking sites.
- (e) Know the problems being faced by the faculty members while using SNS.
- (f) Find out the impact of SNS on the life of faculty members in State Universities of Uttarakhand.

3.1 Hypotheses

On the basis of the literature review and objectives of the proposed study following hypotheses were formulated:

- H1 The SNS are mostly used by faculty members of the state universities in Uttarakhand.
- H2 Facebook is the most widely used SNS for information communication by faculty members.
- H3 The SNS were used by faculty members primarily for the purpose of getting updated information and connecting with other professionals.
- H4 The SNS are helpful for educational advancement but some of the information available on SNS is not reliable.

4. METHODOLOGY

Questionnaires were distributed through stratified random sampling method amongst faculty members of state universities' of Uttarakhand, India. The study was conducted in descriptive and explorative manner during January-April, 2015. The size of each stratum was specified and thereafter samples were randomly selected as per size of strata. To have feedback for the questionnaires proportional allocation technique was used in this study.

The statistical analysis of the data for the present study was done by applying a simple percentage method and chi-square method that has been applied for stated objectives and hypotheses. The statistical analysis of the data of existing study was done by using MS-Excel with Windows 2007 operating system. Following Chi-Square formula is used

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

() parenthesis indicates row-wise percentage

5. DATA ANALYSIS AND INTREPRETATION

A sample of 341 faculty members was collected. The highest response rate was of the male faculty members of GBPU (84.29 %). It was followed by UTU (65.82 %), DU (59.25 %) and KU (57.89 %). The highest percent

response rate of the female faculty members was from KU (42.11 %), followed by DU (40.74 %); UTU (34.18 %); and GBPU (15.70 %).

5.1 Faculty Members using SNS

Table 1 shows the result drawn from university-wise distribution pattern regarding usage of SNS by the faculty members of state universities of Uttarakhand. It was found that out of 341 faculty members 317 were using SNS. It also showed that 95.61 % faculty members of KU were using SNS. It was followed by the GBPU (89.26 %), UTU (93.67 %) and DU (96.30 %).

Hypothesis Testing I

The data in Table 1 was analysed using Chi-Square test. The null hypothesis was accepted $\chi^2=4.284$ and $p=.232 \geq 0.05$, there is no significant difference in the number of respondents using and not using SNS among the universities of Uttarakhand.

Table 1. Number of faculty members using SNS

Name of university	Respondents	
	Yes	No
Kumaun University (KU)	109 (95.61)	5 (4.39)
G.B. Pant University (GBPU)	108 (89.26)	13 (10.74)
Uttarakhand Technical University (UTU)	74 (93.63)	5 (34.18)
Doon University (DU)	26 (96.30)	1 (3.07)
Total	317 (92.96)	24 (7.04)

$\chi^2=4.284$ and $p=.232 (\geq 0.05 \text{ non significant})$
() parenthesis indicates row-wise percentage

5.2 Use of Different SNS

Table 2 disclosed the result of university-wise distribution pattern about using different SNS by the faculty members of State Universities of Uttarakhand. It revealed that maximum percentage of the Facebook (FB) users were in the KU, which was 79.82 %. It was followed by Google+ (59.63 %), Whatsapp (55.05 %), YouTube (47.71 %), Twitter (20.18 %), any others (18.35 %) and My Space (4.59 %). The percentage usages of FB users were 89.81 % of GBPU. It was followed by YouTube (64.81 %), Whatsapp (41.37 %), Twitter (37.96 %), Google+ (37.04 %), My Space (12.96 %) and any others (6.48 %). The UTU percentage usage of FB was 93.24 %, Whatsapp (82.43 %), YouTube (75.68 %), Google+ (44.59 %), Twitter (22.97 %), Any others (14.86 %) and My Space (2.70 %). The DU percentage usage of the FB was 73.08 %, Whatsapp (73.08 %), YouTube (65.38 %), Google+ (38.46 %), Twitter (19.23 %), and My Space (7.69 %).

Hypothesis Testing II

The data in Table 2 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2=49.326$ and $p=0.000 \leq 0.05$, there is significant difference in the usage pattern of SNS by the respondents. The result tells us that the usage pattern of SNS does differ significantly.

5.3 Purpose of using SNS

Table 3 revealed that maximum purpose percentage of using SNS was in the KU, which was 88.07 %, communication of research output (66.97 %), creating

Table 2. Use of different SNS

Name of university	Facebook	Youtube	Twitter	Myspace	Google +	Whatsapp	Any others
Kumaun University	87 (79.82)	52 (47.71)	22 (20.18)	5 (4.59)	65 (59.63)	60 (55.05)	20 (18.35)
G.B. Pant University	97 (89.81)	70 (64.81)	41 (37.96)	14 (12.96)	40 (37.04)	45 (41.67)	7 (6.48)
Uttarakhand Technical University	69 (93.24)	56 (75.68)	17 (22.97)	2 (2.70)	33 (44.59)	61 (82.43)	11 (14.86)
Doon University	19 (73.08)	17 (65.38)	5 (19.23)	2 (7.69)	10 (38.46)	19 (73.08)	0 (0.00)
Total	272 (28.75)	195 (20.61)	85 (8.99)	23 (2.43)	148 (15.64)	185 (19.56)	38 (4.02)

$\chi^2 = 4.284$ and $p=.232 (\geq 0.05 \text{ non significant})$; () parenthesis indicates row-wise percentage

Table 3. Purposes of using SNS

Name of university	Sharing information	Communication	Creating awareness	Making friends	Entertainment	Published research
Kumaun University	96 (88.07)	73 (66.97)	43 (39.45)	36 (33.03)	44 (40.37)	63 (57.80)
G.B Pant University	82 (75.93)	50 (46.30)	42 (38.89)	42 (38.89)	31 (28.70)	21 (19.44)
Uttarakhand Technical University	69 (93.24)	38 (51.35)	51 (68.92)	43 (58.11)	49 (66.22)	24 (32.43)
Doon University	23 (88.46)	12 (46.15)	9 (34.62)	12 (46.15)	12 (46.15)	5 (19.23)
Total	270 (27.84)	173 (17.84)	145 (14.95)	133 (13.71)	136 (14.02)	113 (11.65)

$\chi^2 = 39.0969$ and $p=0.0006198 (\leq 0.05 \text{ significant})$; () parenthesis indicates row-wise percentage

awareness (39.45 %), making friends (33.03 %), entertainment (40.37 %) and published research work faster (57.80 %). In GBPU the sharing information or knowledge percentage was 75.93 %, communication research output (46.30 %), making friends (38.89 %), entertainment (28.70 %), and published research work faster (19.44 %). Similarly in UTU, the sharing percentage information was 93.24 %, communication (51.35 %), creating awareness (68.92 %), making friends (58.11 %), entertainment (66.22 %) and published research work faster (32.43 %). Lastly DU, the sharing of information percentage was 88.46 %, in communication research output (46.15 %), in making friends (46.15 %), in entertainment (46.15 %) and in published research work faster (19.23 %).

Hypothesis Testing III

The data in Table 3 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2=39.0969$ and $p=0.0006198 \leq 0.05$, which showed that there is significant difference in the purpose for which SNS are used by faculty members of the different universities.

5.4 Helpfulness of using SNS

Table 4 disclosed that the faculty members of KU in the percentage usage of latest knowledge was 36.77 %, research area (21.98 %), dissemination of information (19.28 %) and publish research work faster (21.97 %). Accordingly, GBPU the percentage usage of the latest knowledge was 33.73 %, in research area (32.54 %), dissemination of information (21.08 %), publish research work faster (12.65 %). Similarly, in UTU the percentage usage of the latest knowledge was 41.60 %, research area (21.60 %), dissemination of information (2.60 %), publish research work faster (11.20 %). Lastly in DU, the percentage of usage of latest knowledge was 45.0

%, dissemination of information (35.0 %) and 10.0 % in research area as well as publish research work faster.

Hypothesis Testing IV

The data in Table 4 was analysed using Chi-Square test. The alternative hypothesis was accepted $\chi^2=24.122$ and $p=0.004112 (\leq 0.05 \text{ significant})$ which showed there is a significant difference in the helpfulness of SNS. Therefore it is inferred that SNS are in fact helpful for educational advancement to faculty members.

5.5 Reliability of using SNS

Table 5 revealed that faculty members of KU using information of SNS had reliability percentage of 37.61 %, 'do not rely' (7.34 %), 'not sure' (49.54 %). Similarly the faculty members of GBPU, who relied on the information provided by the SNS, in terms of percentage basis were 54.63 %, 'do not rely' (14.81 %) and 'not sure' (47.30 %). The faculty members of the UTU, who relied on the information provided by the SNS, on percentage basis were 45.95 %, 'do not rely' (6.69 %) and 'not sure' (47.30 %). Lastly, the faculty members of the DU, who relied on the information provided by the SNS in percentage was 53.85 %, 'do not rely' (7.69 %) and 'not sure' (38.46 %).

Data in Table 5 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2=13.16126$ and $p=0.04054 \leq 0.05$, there is significant difference in the view of faculty members regarding the reliability of SNS. Therefore it explained that the information gathered through SNS is reliable.

5.6 Frequency of using SNS

Table 6 exhibited about frequency and duration of using SNS. 34.86 % faculty members of the KU used SNS

Table 4. Helpfulness of using SNS

Name of university	Latest knowledge	Research area	Dissemination of information	Published research work faster
Kumaun University	82 (36.77)	49 (21.98)	43 (19.28)	49 (21.97)
G.B. Pant University	56 (33.73)	54 (32.54)	35 (21.08)	21 (12.65)
Uttarakhand Technical University	52 (41.60)	27 (21.60)	32 (25.60)	14 (11.20)
Doon University	18 (45.0)	4 (10.0)	14 (35.0)	4 (10.0)
Total	208 (37.55)	134 (24.19)	124 (22.38)	88 (15.88)

$\chi^2 = 24.122$ and $p=0.004112 (\leq 0.05 \text{ significant})$; () parenthesis indicates row wise percentage

Table 5. Reliability of SNS

Name of university	Latest knowledge	Research area	Dissemination of information	Published research work faster
Kumaun University	82 (36.77)	49 (21.98)	43 (19.28)	49 (21.97)
G.B. Pant University	56 (33.73)	54 (32.54)	35 (21.08)	21 (12.65)
Uttarakhand Technical University	52 (41.60)	27 (21.60)	32 (25.60)	14 (11.20)
Doon University	18 (45.0)	4 (10.0)	14 (35.0)	4 (10.0)
Total	208 (37.55)	134 (24.19)	124 (22.38)	88 (15.88)

$\chi^2 = 13.16126$ and $p=0.04054 (\leq 0.05 \text{ significant})$; () parenthesis indicates row-wise percentage

Table 6. Frequency of using SNS

Name of university	Several times a day	Occasionally	Once a day	Once in a week	Once in a few days
Kumaun University	38 (34.86)	19 (17.43)	38 (34.86)	6 (5.50)	9 (8.26)
G.B. Pant University	48 (44.44)	20 (18.52)	29 (26.85)	5 (4.63)	7 (6.48)
Uttarakhand Technical University	46 (62.16)	6 (8.11)	16 (21.62)	3 (4.05)	6 (8.11)
Doon University	9 (34.62)	1 (3.85)	11 (42.31)	4 (15.38)	1 (3.85)
Total	141 (43.79)	46 (14.29)	94 (29.19)	18 (4.66)	23 (7.14)

$\chi^2 = 23.7967$ and $p = 0.021675$ (≤ 0.05 significant) () parenthesis indicates row wise percentage

several times a day as well as once a day, occasionally (17.43 %), once in a few days (8.26 %) and once in a week (5.50 %). In GBPU 44.44 % faculty members used SNS several times a day, once a day (26.85 %), occasionally (18.52 %), once in a few days (6.48 %) and used it once in a week (4.63 %). However, UTU 62.16 % faculty members used SNS several times a day. 21.62 % faculty members used it in once a day. 8.11 % faculty members used SNS once in a few days and 4.05 % used it once in a week. Lastly, DU 42.31 % faculty members used SNS once in a day, several times a day (34.62 %), once in a week (15.38 %) and once in a few days as well as occasionally (3.85 %). The data in Table 6 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2 = 23.7967$ and $p = 0.021675$ (≤ 0.05 significant), in the view of faculty members with regards to the frequency of login social networking sites. This leads to the acceptance of the alternative hypothesis, which revealed the different login pattern of social networking sites.

5.7 Duration of Login SNS

Table 7 explored about the duration of login SNS of KU. 40.37 % faculty members were login SNS 1-2 hours, less than 1 hour (39.45 %), more than 2 hours (15.60 %) and not given any response (6.42 %). In GBPU, 46.30 % faculty members were login SNS less than 1 hour, more than 2 hours (26.85 %), login 1-2 hours (17.59 %) and not given any response (9.26 %). Similarly, UTU 47.30 % faculty members login SNS less than 1 hour, 1-2

hours (28.38 %), more than 2 hours (18.92 %) and not given any response (6.76 %). Lastly, DU 42.31 % faculty members were login SNS less than 1 hour, more than 2 hours as well as 1-2 hours (26.92 %) and not given any response (3.85 %).

Data in Table 7 was analysed using Chi-Square test. The null hypothesis was accepted $\chi^2 = 15.65265$ and $p = 0.07449$ (≥ 0.05 non significant). There is no significant difference in the view of faculty members with regards to the duration of login social networking sites. This disclosed that the login pattern of duration of social networking sites is the same.

5.8 Year-wise Distribution using SNS

Table 8 explored about the year wise distribution using SNS of KU. 47.71 % faculty members were using SNS more than 4 years, 2-4 years (29.36 %), 1-2 years (18.35 %) and 1 year (6.42 %). In GBPU 31.48 % faculty members were using SNS less than 1 year, 2-4 years (27.78 %), more than 4 years (25.93 %) and 1-2 years (13.89 %). Similarly, UTU 54.05 % faculty members were using SNS more than 4 years, 2-4 years (22.97 %), 1-2 years (16.22 %) and than 1 year (6.76 %). Lastly, DU 61.54 % faculty members were using more than 4 years, 2-4 years (30.77 %) and 1 year (7.69 %).

Data in Table 8 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2 = 46.941$

Table 8. Year wise distribution pattern of using SNS

Name of university	Less than 1 Hour	More than 2 hours	1-2 hours	No response
Kumaun University	43 (39.45)	17 (15.60)	44 (40.37)	7 (6.42)
G.B. Pant University	50 (46.30)	29 (26.85)	19 (17.59)	10 (9.26)
Uttarakhand Technical University	35 (47.30)	14 (18.92)	21 (28.38)	5 (6.76)
Doon University	11 (42.31)	7 (26.92)	7 (26.92)	1 (3.85)
Total	139 (43.44)	67 (20.94)	91 (28.44)	23 (7.19)

() parenthesis indicates row-wise percentage

$\chi^2 = 46.941$ and $p = 0.000$ (≤ 0.05 significant)

Table 7. Duration of login SNS

Name of university	Less than 1 Hour	More than 2 hours	1-2 hours	No response
Kumaun University	43 (39.45)	17 (15.60)	44 (40.37)	7 (6.42)
G.B. Pant University	50 (46.30)	29 (26.85)	19 (17.59)	10 (9.26)
Uttarakhand Technical University	35 (47.30)	14 (18.92)	21 (28.38)	5 (6.76)
Doon University	11 (42.31)	7 (26.92)	7 (26.92)	1 (3.85)
Total	139 (43.44)	67 (20.94)	91 (28.44)	23 (7.19)

$\chi^2 = 15.65265$ and $p = 0.07449$ (≥ 0.05 non significant)

and $p=0.000$ (≤ 0.05 significant), There is a significant difference in the views of faculty members with regards to the year-wise distribution pattern of using SNS.

5.9 Disadvantages/Problems of SNS

Table 9 investigated that 58.72 % faculty members thought that there was a possibility of fraud through SNS of KU, waste of time (37.61 %), lack of privacy (3.67 %) and faculty mental stress (1.83 %). In GBPU, 41.67 % faculty members thought that SNS were very distracting, waste of time (38.89 %), possibility of fraud (31.48 %), lack of privacy (28.70 %) and mental stress (25.93 %). Similarly, UTU 56.76 % faculty members believed that there was a possibility of fraud through SNS, faculty members thought that there was a lack of privacy (43.24 %), waste of time (33.78 %), very distracting (25.68 %) and mental stress (17.57 %). Lastly, DU 57.69 % faculty members believed that there was possibility of fraud after using SNS, lack of privacy (38.46 %), waste of time (26.92 %), faculty members thought that SNS were very distracting (23.08 %) and mental stress (15.38 %). This data was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2 = 99.50197$ and $p=0.000$ (≤ 0.05 significant), there is significant difference in the view of faculty members with regards to disadvantages/problems of SNS.

5.10 Impact of SNS on Faculty Members' Life

Table 10 investigated that 58.72 % faculty members thought there were a possibility of fraud through SNS, waste of time (37.61 %), lack of privacy (3.67 %) and mental stress (1.83 %). In GBPU, 41.67 % faculty members thought that SNS were very distracting, waste of time (38.89 %), lack of privacy (31.48 %) and mental

stress (25.93 %). Similarly, in UTU, 56.76 % faculty members believed that there was a possibility of fraud through SNS; lack of privacy (43.24 %); waste of time (33.78 %); very distracting (25.68 %); and mental stress (17.57 %). Lastly, in DU, 57.69 % faculty members believed that there was possibility of fraud after using SNS, lack of privacy (38.46 %); waste of time (26.92 %); very distracting (23.08 %); and faculty members said that it gives mental stress (15.38 %). The data in Table 10 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2 = 99.50197$ and $p=0.000$ (≤ 0.05 significant), there is significant difference in the view of faculty members with regards to disadvantages/problems of social networking sites.

5.11 Awareness about SNS

Table 11 explained that 66.97 % faculty members said that they know about SNS through internet, friends (53.21 %), newspapers/ Magazines (44.94 %), colleagues (33.94 %) and other sources (4.59 %). In GBPU, 57.14 % faculty members said they were aware about SNS through internet, friends (44.44 %), colleagues (24.07 %), newspaper /magazines (23.15 %) and other sources (0.93 %). Similarly, UTU 78.38 % faculty members said that they were aware about SNS through internet as well as from friends, own colleagues (45.95 %) and newspapers/magazines (40.54 %). Lastly, DU 73.08 % faculty members explained that they were aware about SNS through internet, friends (69.23 %), news paper/magazines (34.62 %) and colleagues (30.77 %).

The data was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2 = 22.04035$ and $p=0.0088$ (≤ 0.05 significant), there is significant difference in the view of faculty members with regards to impact of SNS on faculty members' life.

Table 9. Disadvantages/problems of SNS

Name of university	Waste of time	Very distracting	Mental stress	Lack of privacy	Possibility of fraud
Kumaun University	41 (37.61)	0 (0.00)	2 (1.83)	4 (3.67)	64 (58.72)
G.B. Pant University	42 (38.89)	45 (41.67)	28 (25.93)	31 (28.70)	34 (31.48)
Uttarakhand Technical University	25 (33.78)	19 (25.68)	13 (17.57)	32 (43.24)	42 (56.76)
Doon University	7 (26.92)	6 (23.08)	4 (15.38)	10 (38.46)	15 (57.69)
Total	115 (24.78)	70 (15.09)	47 (10.13)	77 (16.59)	155 (33.41)

$\chi^2 = 99.50197$ and $p=0.000$ (≤ 0.05 significant); () parenthesis indicates row-wise percentage

Table 10. Impact of SNS on faculty members' life

Name of university	Vast	A Little	No impact	No response
Kumaun University	30 (27.52)	42 (38.53)	23 (21.10)	15 (13.76)
G.B. Pant University	37 (34.26)	46 (42.59)	13 (12.04)	12 (11.11)
Uttarakhand Technical University	35 (47.30)	29 (39.19)	9 (12.16)	2 (2.70)
Doon University	8 (30.77)	15 (57.69)	1 (3.85)	0 (0.00)
Total	110 (34.70)	132 (41.64)	46 (14.51)	29 (9.15)

$\chi^2 = 22.04035$ and $p=0.0088$ (≤ 0.05 significant)
() parenthesis indicates row wise percentage

5.12 Reasons for Joining Communication Group

Table 12 explored that 63.30 % faculty members of KU said that SNS were relevant, active and interest community, professionals got valuable ideas through research output (57.80 %), linking up with professionals (51.38 %) and stay up to date with community news (40.37 %). In GBPU, 67.59 % faculty members said that SNS were relevant, active and interesting community, stay up to date with community news (50 %), Linking up with professionals (37.96 %), professionals got valuable ideas from research output (20.37 %). Similarly, in

Table 11. Awareness about SNS

Name of university	Internet	Friends	Colleagues	Newspaper/magazines	Any others
Kumaun University	73 (66.97)	58 (53.21)	37 (33.94)	49 (44.95)	5 (4.59)
G.B. Pant University	62 (57.41)	48 (44.44)	26 (24.07)	25 (23.15)	1 (0.93)
Uttarakhand Technical University	58 (78.38)	58 (78.38)	34 (45.95)	30 (40.54)	0 (0.00)
Doon University	19 (73.08)	18 (69.23)	8 (30.77)	9 (34.62)	0 (0.00)
Total	212 (34.30)	182 (29.45)	105 (16.99)	113 (18.28)	6 (0.97)

$\chi^2 = 26.17423$ and $p = 0.41741$ (≤ 0.05 significant); () parenthesis indicates row-wise percentage

UTU 67.57 % faculty members said that SNS were relevant, active and interesting community, stay up to date with community news (59.46 %), linking up with professionals (58.11 %) and professionals got valuable ideas from research output (33.78 %). Lastly, DU 65.38 % faculty members believed that SNS stay up to date with community news, community (46.15 %), linking up with professionals (38.46 %) and professionals got valuable ideas from research output (34.62 %).

The data in Table 12 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2 = 26.11354$ and $p = 0.00195$ (≤ 0.05 significant), there is significant difference with regards to the reasons for joining social networking sites by the faculty members. Therefore researcher clarified that the different faculty members have different reasons for joining communication groups in SNS.

5.13 Advantages of SNS

Table 13 revealed that 68.81 % faculty members of KU believed that SNS provide communication of

research output, stay up to date with community news (64.22 %) and sharing videos (28.44 %). In GBPU, 68.52 % faculty members said that they stay up to date with community news, communication of research output (41.67 %), networking (37.96 %), sharing videos (31.48 %) and entertainment (29.63 %). Similarly, UTU 77.03 % faculty members said that they used SNS for staying up to date with community news, entertainment (68.92 %), networking (58.11 %), communication of research output (48.65 %) and sharing videos (39.19 %). Lastly, DU 79.62 % faculty members said that they used SNS for staying up to date with community news, communication of research output as well as networking (53.85 %), entertainment (46.15 %) and sharing videos (23.08 %).

Data in Table 13 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2 = 113.3252$ and $p = 0.000$ (≤ 0.05 significant), there is significant difference with regards to the advantages of social networking sites. This leads to the acceptance of the alternative hypothesis. Therefore researcher clarified that the SNS have different advantages.

Table 12. Reasons for joining communication group

Name of university	Relevant, active and interesting community	Stay up to date with community news	Linking up with professionals	Professionals got valuable ideas from research output
Kumaun University	69 (63.30)	44 (40.37)	56 (51.38)	63 (57.80)
G.B Pant University	73 (67.59)	54 (50.00)	41 (37.96)	22 (20.37)
Uttarakhand Technical University	50 (67.57)	44 (59.46)	43 (58.11)	25 (33.78)
Doon University	12 (46.15)	17 (65.38)	10 (38.46)	9 (34.62)
Total	204 (32.28)	159 (25.16)	150 (23.73)	119 (18.83)

$\chi^2 = 26.11354$ and $p = 0.00195$ (≤ 0.05 significant); () parenthesis indicates row-wise percentage

Table 13. Advantages of SNS

Name of university	Stay up to date with community news	Communication of research output	Sharing video	Entertainment	Networking
Kumaun University	70 (64.22)	75 (68.81)	31 (28.44)	0 (0.00)	0 (0.00)
G.B. Pant University	74 (68.52)	45 (41.67)	34 (31.48)	32 (29.63)	41 (37.96)
Uttarakhand Technical University	57 (77.03)	36 (48.65)	29 (39.19)	51 (68.92)	43 (58.11)
Doon University	20 (76.92)	14 (53.85)	6 (23.08)	12 (46.15)	14 (53.85)
Total	221 (32.31)	170 (24.85)	100 (14.62)	95 (13.89)	98 (14.33)

$\chi^2 = 113.3252$ and $p = 0.000$ (≤ 0.05 significant); () parenthesis indicates row-wise percentage

5.14 Satisfaction Level from SNS

Table 14 revealed about satisfaction level from SNS of KU. 63.3 % faculty members were satisfied from SNS, partially satisfied (25.69 %), highly satisfied (7.34 %) and not satisfied (3.67 %). In GBPU, 50 % faculty members were satisfied from SNS, highly satisfied (37.04 %), partially satisfied (9.26 %) and not satisfied (3.70 %). Similarly, UTU 66.22 % faculty members were satisfied with SNS, partially satisfied (22.97 %) and highly satisfied (10.81 %). Lastly, DU 57.69 % faculty members were satisfied with SNS, partially satisfied (30.77 %) and highly satisfied (11.54 %).

Table 14 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2=46.31982$ and $p=0.000$ (≤ 0.05 significant), there is significant difference with regards to the satisfaction level of faculty members of using SNS. This leads to the acceptance of the alternative hypothesis. Hence the different faculty members have different satisfaction level of using SNS.

Table 14. Satisfaction level from SNS

Name of university	Highly Satisfied	Satisfied	Partially satisfied	Not satisfied
Kumaun University	8 (7.34)	69 (63.30)	28 (25.69)	4 (3.67)
G.B. Pant University	40 (37.04)	54 (50.00)	10 (9.26)	4 (3.70)
Uttarakhand Technical University	8 (10.81)	49 (66.22)	17 (22.97)	0 (0.00)
Doon University	3 (11.54)	15 (57.69)	8 (30.77)	0 (0.00)
Total	59 (18.61)	187 (58.99)	63 (19.87)	8 (2.52)

$\chi^2 = 46.31982$ and $p = 0.000$ (≤ 0.05 significant)
() parenthesis indicates row wise percentage

5.15 Tools for Access SNS

Table 15 disclosed that 85.32 % faculty members of KU were accessing SNS through their laptop, mobile phone (65.14 %), I-Pad (32.11 %) and faculty members were using tablets (15.60 %). In GBPU, 59.26 % faculty members were accessing it through laptop. 56.48 % faculty members were accessing SNS from desktop. 31.48 % faculty members were accessing SNS from mobiles and 13.89 % were accessing it from I-Pad. Similarly, UTU 83.78 % faculty members were accessing SNS from laptop as well as mobiles, desktop (62.16 %),

Table 15. Tools for access SNS

Name of university	Desktop	Laptop	I-Pad	Mobile	Tablet
Kumaun University	64 (58.72)	93 (85.32)	35 (32.11)	71 (65.14)	17 (15.60)
G.B. Pant University	61 (56.48)	64 (59.26)	15 (13.89)	34 (31.48)	17 (15.74)
Uttarakhand Technical University	46 (62.16)	62 (83.78)	7 (9.46)	62 (83.78)	17 (22.97)
Doon University	22 (84.62)	19 (73.08)	3 (11.54)	16 (61.54)	3 (11.54)
Total	193 (26.51)	238 (32.69)	60 (8.24)	183 (25.14)	54 (7.42)

$\chi^2 = 28.18813$ and $p = 0.005$ (≤ 0.05 significant)

() parenthesis indicates row wise percentage

tablet (22.97 %) and I-Pad (9.46 %). Lastly, DU 84.62 % faculty members were accessing SNS from desktop, laptop (73.08 %), mobile phone (61.54 %), tablet as well as I-Pad (11.54 %).

The data of Table 15 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2=28.18813$ and $p=0.005$ (≤ 0.05 significant), there is significant difference in the view of faculty members with regards to the tools for access SNS. Hence researcher revealed that the different faculty members are using different tools for accessing SNS.

5.16 Place of Access

Table 16 disclosed that 92.66 % faculty members of KU were using SNS from their home, department (48.2 %), cyber café (6.42 %) and computer center (1.83 %). In GBPU, 59.26 % faculty members were accessing SNS from their departments, cyber café as well as home (37.96 %) and computer centre (10.19 %). Similarly, UTU 85.14 % faculty members were accessing SNS from their home. 60.81 % faculty members were accessing it through their department. Whereas, 17.57 % faculty members were accessing it from computer centre and 5.41 % faculty members were using it from cyber café. Lastly, 84.62 % faculty members were accessing SNS from their home, faculty members were accessing it through their department (53.85 %) and cyber café (11.54 %).

Data in Table 16 was analysed using Chi-Square test. The alternate hypothesis was accepted $\chi^2=83.92924$ and

Table 16. Place of access SNS

Name of university	Department	Cyber Café	Computer centre	Home	Any others
Kumaun University	53 (48.62)	7 (6.42)	2 (1.83)	101 (92.66)	0 (0.00)
G.B. Pant University	64 (59.26)	41 (37.96)	11 (10.19)	41 (37.96)	0 (0.00)
Uttarakhand Technical University	45 (60.81)	4 (5.41)	13 (17.57)	63 (85.14)	0 (0.00)
Doon University	14 (53.85)	3 (11.54)	0 (0.00)	22 (84.62)	0 (0.00)
Total	176 (36.36)	55 (11.36)	26 (5.37)	227 (46.90)	0 (0.00)

$\chi^2 = 83.92924$ and $p = 0.000$ (≤ 0.05 significant); () parenthesis indicates row wise percentage

$p=0.000$ (≤ 0.05 significant), there is significant difference in the view of faculty members with regards to the place of access SNS. Hence, different faculty members are using different tools for accessing SNS.

6. FINDINGS

6.1 Objectives-related Findings

- (a) To find out the use of social networking sites by the faculty members

About 93 % were using SNS and 7 % of the faculty members were not using SNS.

- (b) To explore the purpose of using SNS

Sharing of information was the highest in the state universities of Uttarakhand. Its percentage was 27.8 %, communication of research output was 18 %. However, the use of SNS in creating awareness was 15 %. While making friends and entertainment has the same sharing percentage of 14 % each and the use of SNS in published research work faster was 11 %. The SNS were used by the faculty members to derive the maximum exposure towards the latest knowledge. The SNS helps to gain more visibility in any area of research. It also helps in the decimation of information among the various groups. It promotes to publish research work faster.

- (c) To find out the frequency and duration of using SNS

The result revealed overall percentage wise pattern of frequency of SNS. The percentage usage of the faculty members in terms of several times a day was 44 %. Similarly, 30 % faculty members used SNS once in a day. 14 % faculty members used it occasionally. 7 % respondents used it once in a few days and 5 % faculty members used it once in a week.

- (d) To find out the information reliability of SNS

About 48 % faculty members thought that SNS information was reliable. 42 % faculty members were not sure about the reliability pertaining to information and only 10 % faculty members were not relied in the information of SNS.

- (e) To know the problems being faced by the faculty members while using SNS.

The result exhibited overall percentage patterns of disadvantages or problems facing by faculty members with SNS. 33 % faculty members believed that there was a possibility of fraud through SNS. 25 % faculty members said that using SNS were waste of time. 17 % faculty members thought that SNS gives lack of privacy. 15 % faculty members believed that SNS were very distracting and 10 % faculty members said that SNS were gives mental stress.

- (f) To find out the impact of SNS on faculty members life in state universities of Uttarakhand

The last objective explored that overall percentage pattern of impact of SNS on faculty members' life.

41.64 % faculty members believed that SNS had a little impact on their lives. 34.7 % faculty members said that they had a vast impact of SNS on their lives. However, 14.51 % faculty members said that they had no impact of SNS on their lives and 9.15 % faculty members had not given any answers to this question.

6.2 Hypothesis-related Findings

- H1: SNS are mostly used by faculty members of state universities in Uttarakhand

Table 1 indicate the hypothesis result about overall that SNS are mostly used by faculty members of state University, Uttarakhand with applying cross table formula of Chi-square. The result shows that 93 % were using SNS. However, 7 % of the faculty members were not using SNS, so the results of hypothesis testing indicate that there is no significant difference among faculty members with regards to the use of SNS.

- H2: Facebook is the most used SNS for information communication by faculty members

Table 2 which indicates that Facebook is the most used social Networking Sites for information communication by faculty members with applying formula of Chi-square. The result reveals that the maximum percentage usage was 28.75 % that of the Facebook amongst all the universities, the result of hypothesis testing indicate that there is significant difference in the usage pattern of SNS by the respondents. The result tells us that the usage pattern of SNS does differ significantly among the college. The alternate hypothesis was accepted.

- H3: Social Networking Sites used by faculty members mainly with the purpose to getting updated information and connecting with other professional members

Table 3 indicates that SNS used mainly for the purpose to getting update information and connecting with other professional member with applying formula of Chi-square. The result displayed that use of SNS in terms of sharing of information was the highest in the State Universities of Uttarakhand. Its percentage was 28 %. The use of SNS in terms of communication of research output was 18 %. However, the use of SNS in creating awareness was 15 %. While the use of SNS making friends and entertainment has the same sharing percentage of 14 % each and the use of SNS in published research work faster was 11 %. The result of hypothesis testing indicates that there is significant difference in the purpose for which SNS are used by faculty members of the different universities. The alternate hypothesis was accepted.

- H4: SNS are helpful for educational advancement but some information available on SNS is not reliable.

Table 4 indicates that SNS are helpful for educational advancement with applying formula of Chi-square. The result indicates that the percentage usage by the faculty members in terms of the latest knowledge was 38.0 %. Similarly the helpfulness of the SNS in the field of research

area was 24.0 %. Accordingly, the SNS helpfulness in dissemination of information was 22.0 %. Lastly, the SNS helpfulness to publish research work faster was 16.0 %. The result of hypothesis testing indicates that there is a significant difference in the helpfulness of SNS. Therefore it is inferred that SNS are in fact helpful for educational advancement to faculty members. The alternate hypothesis was accepted.

H4: Social networking sites are helpful for educational advancement but some of the information available on SNS is not reliable.

Table 5 some of the information available on SNS is not reliable with the help of formula Chi-square the result of hypothesis testing come out that 48 % faculty members thought that SNS information was reliable. 42 % faculty members were not sure about the reliability pertaining to information and only 10 % faculty members were not relied in the information of SNS.

7. CONCLUSIONS

The SNS plays a very significant role in the modern contest of the ever changing world and has become an indispensable part of the social structure. It has reduced the World wide barriers with the free transfer of the information, knowledge and mutual exchange of use. The SNS has helped in the mobilisation and the change of opinion of the world-wide community. The present Study enlightened the same issue, which showed that mostly the faculty members of the State University of Uttarakhand were using SNS for academic purpose and they were sharing their research work through this platform worldwide.

This shows that SNS has the possibility to cross the demographic barriers and the cultural hindrances. They have the potential to generate a uniform opinion and come to an amicable solution. Same changes have been found in the academic world. The result discloses that faculty members are using SNS for their scholarly communication and in return their circulation is ever increasing. Professionals from far and wide are connecting with them. Therefore, the study highlights the fact that due to the tremendous use of SNS, it has reduced the barrier of connecting them with the global teaching fraternity or scientist community. This has been possible because of the free flow of communication between them through SNS. The study also justifies that the sharing of information, ideas and mutual views has received a huge impetus in their teaching & learning abilities. The SNS had helped them to expose themselves to the latest knowledge and this was the reason they wanted to join a communication or a group for staying up to date with the community news.

As the result shows that Facebook and WhatsApp were most used SNS by these faculty members, this can be a motivating factor for the librarians working in these academic universities. They can create a Facebook

page and link it with the library website or create a group in WhatsApp for promoting their products and services amongst them. They can effectively interact in an online collaborative environment with their faculty members, students and other staff. On the other hand, the university authority should take it in the right spirit and make the use of social networking sites, popular and user friendly. Another more interesting finding of this study is that most faculty members have been using the SNS from their homes. One very important factor responsible for this could be the lack of Wi-Fi facility available to them in all the campuses of the universities. This is very shocking findings in the light of ever increasing dependence on technologies in all sphere of life.

Therefore the study recommends that Wi-Fi should be made available in all the universities, so that the faculties are not handicap in their academic pursuit, during their working hour in the campus. This will further lead to an in depth use of SNS for academic excellence.

8. SUGGESTIONS FOR FURTHER RESEARCH

The following points are suggested as outline for further researches:

- Further studies may be designed on guidelines and course contents of social networking to educate the masses about the use applications of social networking sites to promote the communication level between faculties and students for educational purposes.
- A study may be designed, to investigate the quality and standard of social networking sites and requirement of people including their views.
- Comparative studies may be planned to investigate the relationship in students with some other variables.
- A study may be designed to investigate the awareness of illiterate rural and urban people by interview method towards the use of social networking sites.
- A study may be designed to investigate living style of housewives and working women with the use of social networking sites.

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