

Facebook use for academic purposes

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Abstract: Social networks are one of the essential factors that impact the creation of an individual's social environment. Facebook is especially popular among young people, and they use it, not only for entertainment, but for education purposes as well. It offers a new learning environment and it can be used for online academic discussions between students. The aim of this paper is to present the application of Facebook for education purposes among students at the Technical Faculty in Bor. The determinants analysed in this research are academic purpose, communication, cooperation, and resource/material sharing on Facebook. Each determinant comprises a set of indicators which are used for the analysis of the overall situation. The results indicate that the students have positive attitude about the use of Facebook for educational purposes, and they actively use it as an addition to the traditional learning process.

Keywords: Facebook, Education, Students.

1. Introduction

Communication has been integral part of human society since its beginning. The worldwide occurrence of computers and the Internet has offered online mediums where people can communicate. With the advancement of technology, communication became easier (Kaya & Bicen, 2016). The phenomenon of social media introduced significant changes in the ways of communication and interaction as well as in learning methods. The use of social media in the university classroom is growing in popularity and it is transforming learning and teaching in significant ways (Foster et al., 2016). Social networks offer students more possibilities to communicate, learn, discuss, exchange information, reflect, judge and rate downloaded study materials, give feedback, and acquire new knowledge through the Internet (Đurica et al., 2018).

Today, students observe social media not only as a means of networking, but for educational purposes as well. The aim of this paper is to investigate students' perception of Facebook use for academic purposes. The determinants analysed in this research are academic purpose, communication, cooperation, and resource/material sharing on Facebook. These determinants have proved to be dominant when Facebook is used as an additional tool to traditional way of teaching and learning. This research aims to show the extent to which students actually use Facebook as additional learning tool, as well as the statistical significance of these determinants.

2. Theoretical Framework

2.1. Social networking sites use in education

Social networking sites (SNSs) are well-known today, not only among the younger population, but among adult Internet users as well (Junco, 2012a; Junco 2015). SNSs enable students to ask questions, share their knowledge and ask for help (Ooi & Loh, 2010; Rambe, 2012; Lambić, 2016). They can also be useful to teachers because they offer them the opportunity to reach their students more easily even when they are outside of school (Mazer et al., 2007). Teachers can use SNSs as a blog where they can share content of the courses, or a discussion forum where they can discuss various topics with their students, with options which offer easy communication with students (Barczyk & Duncan, 2013; Lambić, 2016).

Greenhow (2011) suggested that SNSs like Facebook can be used to support learning, but also as places where younger users can be civically and academically engaged. The motivation is also very important for the use of SNSs in education. Its use directly depends on its purpose, and indirectly on its adoption. Social networking sites can improve students' involvement in a course and it can make them feel more connected with their colleagues. SNSs can enhance and make easier knowledge sharing, interaction and collaboration between students, thus providing the opportunity for students to be in contact with course materials more often (Barczyk & Duncan, 2013; Lambić, 2016). Ziegler (2007) found that SNSs offer better motivation for students, making them become more engaged in the process of learning, as opposed to being passive observers of the same process.

2.2. Facebook use in education

Facebook (FB) is, without a doubt, the most popular SNS in both Europe and the United States (Junco, 2015). It has changed the way people interact as it provides its 2.32 billion monthly active users on Facebook as of December 31, 2018 (Facebook, 2019) with a personal profile where they are able to add friends, upload photos and communicate through personal messages, comments on the photos, status updates, wall posts and other applications (Bicen & Cavus, 2011). Kaya and Bicen (2016) found that FB can be used as a communication tool between students and their classmates, as well as their teachers. It could be used for consulting students after school hours or for creating groups where they can exchange opinions about their homework or projects (Kaya & Bicen, 2016). Some studies also showed that FB provides a higher level of interaction, and facilitates communication, not only among students, but between students and teachers as well (Mazer et al., 2007; Lambić 2016).

Manca and Ranieri (2013) noted that FB was the most researched platform for learning and teaching. They discovered more than 20 empirical studies of using FB for learning and identified 5 main educational uses of Facebook (Manca & Ranieri, 2013; Junco, 2015): 1) Support of class discussions and help for students' engagement in collaborative learning; 2) Content development; 3) Sharing educational resources; 4) Delivering content to offer students extra-curricular resources; and 5) Support for self-managed learning.

Some studies were carried out in order to assess the use of FB for personal use and for teaching purposes between faculty members. Moran, Seamen and Kane (2011) carried out a study which indicated that 77% of respondents at the faculty had social media engagement and 60% of them stated they used it in the classroom.

And reported that 57% of faculty members visited Facebook monthly, which shows that FB is used by higher education faculty members for personal purposes. Only 8.4% reported using FB for teaching purposes, which was more than Twitter, but less than LinkedIn or blogs. Junco (2012a, 2015) reported that some scholars indicated that using FB for teaching and learning can be beneficial for active learning and student engagement, and it can also be used as a tool for communication.

2.3. Facebook use and educational outcomes

The research on the relation between Facebook use and educational outcomes has offered mixed results. Kirschner and Karpinski (2010) found that non-users of FB had higher grades and studied more hours per week than users. Junco (2012b) reported that sharing links and checking up on friends was positively related to the grades, but a relation between spending time on FB and preparing for classes was negative. Junco (2015) reported that bad results were predicted only for freshmen students. On the other hand, Pasek et al., (2009) found there was no connection between grades and FB use, and Kolek and Saunders (2008) observed that there were no differences between users and non-users' grades. Ainin et al., (2015) reported that there was no significant difference in educational outcomes between students who spent different number of hours daily on FB.

However, Manca and Ranieri (2013) observed that 4 studies examined how FB related to the outcomes of learning and found positive impact on the outcomes such as vocabulary, writing skills and acquired knowledge. Kaya and Bicen (2016) also noted that students, who spent more time on Facebook, participated more in academic activities. Nevertheless, they also noticed that students' use of FB could decrease their concentration, depending on their interest and mood. Lambić (2016) found a positive correlation between the students' academic performance and frequency at which they used FB as an educational tool. He also noticed that FB use had positive effect on students' knowledge and their performance at the end of the course.

3. Methodological Framework

In order to investigate the impact of demographic factors on students' perception of Facebook use for academic purposes, the data was collected by a questionnaire. The questionnaire was created based on the available relevant literature and numerous researchers' attempts to create an appropriate instrument for the

analysis and evaluation of respondent's demographic factors impact on the perception of Facebook use. It consists of two parts. In the first part of the questionnaire, respondents provide answers to questions related to demographic data. The second part of the questionnaire consists of 44 questions related to different aspects of using Facebook. The survey was anonymous and it was conducted among students at the Technical Faculty in Bor, University of Belgrade. Likert-type scale with selections ranging from "strongly agree" (5) to "strongly disagree" (1) was used in the questionnaire.

A total of 115 students participated in the survey. The results show that out of the total number of respondents, 108 students completed the questionnaire correctly, that is, the response rate was 93.91%, which represents an excellent result. The obtained data was analysed using the IBM SPSS Statistics 18 software package.

3.1. Demographic characteristics of the sample

For the purpose of a comprehensive analysis, it is important to present the respondents' demographic data in order to investigate their impact on students' perception of Facebook use for academic purposes. The demographic characteristics of the respondents are shown in Table 1.

Table 1 Demographic characteristics of the respondents

Demographic parameter	Category	Frequency	Percentage %
<i>Gender</i>	Male	37	34.3
	Female	71	65.7
<i>Age</i>	18 – 20	65	60.2
	21 -23	36	33.3
	24 – 26	4	3.7
	Over 26	3	2.8
<i>Frequency of using Facebook</i>	Once a day	38	35.2
	2-5 times a day	40	37.0
	6-10 times a day	14	13.0
	11-15 times a day	5	4.6
	16-20 times a day	5	4.6
	Over 20 times a day	6	5.6
<i>Purpose of using Facebook</i>	To be in contact with my friends	69	63.9
	To communicate with my colleagues about the Faculty	20	18.5
	To let others know about my life	2	1.9
	To communicate with people I haven't seen in a while	10	9.3
	To establish professional relationships	4	3.7
	To flirt Other	30	2.8

<i>Number of friends on Facebook</i>	1-100	8	7.4
	101-300	14	13.0
	301-500	26	24.1
	501-1,000	26	24.1
	Over 1,000 friends	34	31.5
<i>Opinion on using Facebook for academic purposes</i>	Facebook is suitable for academic purposes	27	25
	Facebook can be suitable for connecting with colleagues	63	58.3
	Facebook should be used only for personal purposes, not academic	5	4.6
	My privacy can be disturbed	2	1.9
	I do not have an opinion	11	10.2
	Other	0	0
<i>Way of using Facebook</i>	I log in to Facebook on my computer	10	9.3
	I log in to Facebook on my mobile phone	55	50.9
	Both	43	39.8

The results show that the majority of respondents were female (65.7%). Most of the students were 20 years old (60.2%). When it comes to the purpose of using Facebook, the highest percentage of respondents said they used this social networking site (SNS) to be in contact with their friends (63.9%). The interesting fact is that the second rated response was that Facebook was used to communicate with colleagues about the Faculty (18.5%). The popularity of this SNS is indicated in the fact that almost one third had over 1,000 friends on Facebook (31.5%), which is important for its wide application as well. Majority of students had positive attitude toward Facebook use for academic purposes, that is, 58.3% of them agreed with the statement that this SNS can be suitable for connecting with other students. Moreover, the use of smart phones increased the popularity of Facebook, therefore, most of the respondents stated that they logged in to Facebook on their computer and mobile phone (50.9%).

3.2. Discussion of results

3.2.1. Reliability Analysis

In order to perform a detailed and optimal data analysis, it is necessary to determine the reliability and validity of scales of measurement, or of the obtained results based on gathered and processed data. The internal consistency of the instrument was assessed by Cronbach's alpha test. Cronbach's alpha formula is used to calculate the average correlation values of the measuring instrument (α

coefficient) when the responses are estimated based on a scale (in this case the Likert-type scale). Based on this test, α coefficient is higher than 0.70, which represents a good possibility for modeling the survey's results in the considered population (Kupermintz & Lee, 2003). Table 2 shows the coefficients of internal consistency of groups of questions in the questionnaire.

Table 2 Coefficients of internal consistency of groups of questions in the questionnaire.

Variables	N of Items	Cronbach's Alpha
GP1 (Academic Purpose)	2	0.737
GP2 (Communication)	5	0.775
GP3 (Cooperation)	3	0.725
GP4 (Resource/Material Sharing)	2	0.757

Based on the obtained Cronbach's alpha coefficients of internal consistency of groups of questions in the questionnaire, it can be concluded that the possibility for modeling the survey's results is very good for all groups of questions (GP1, GP2, GP3, and GP4). Overall analysis of the Cronbach's alpha coefficient shows that reliable results can be expected in the analysis.

3.2.2. Descriptive Statistics

After calculating the Cronbach's alpha coefficients, the descriptive statistics of the sample was carried out. The descriptive statistics is very important as it describes in more detail the respondents' responses to the questions related to the analysed factors (academic purpose, communication, cooperation, and resource/material sharing). The obtained results are shown in Table 3.

Table 3 Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Academic Purpose				
WR_1	108	4.2037	0.87284	0.762
WR_2	108	3.6574	1.18528	1.405
Communication				
CM_1	108	3.4074	1.05933	1.122
CM_2	108	2.5463	1.31408	1.727
CM_3	108	3.1944	1.10613	1.224
CM_4	108	3.3333	1.26786	1.607
CM_5	108	3.2685	1.17295	1.376
Cooperation				
C_1	108	3.3981	1.02255	1.046
C_2	108	3.5833	1.00582	1.012

C_3	108	3.4630	1.01784	1.036
Resource/Material Sharing				
RMS_1	108	2.8981	1.02255	1.046
RMS_2	108	2.8611	1.02728	1.055

While carrying out the descriptive analysis, standard statistical parameters for all four groups of questions were calculated: mean value, standard deviation, and variance. For the first examined factor, *Academic purpose*, the greatest importance for students lies in the statement “I use Facebook to communicate with colleagues about the Faculty” (M=4.21; SD=0.87). For the other factor, *Communication*, the highest mean value is obtained for the variable “I use Facebook to improve communication with my colleagues at the Faculty” (M=3.41; SD=1.06). For the next analysed factor, *Cooperation*, variable “Facebook is suitable platform for exchanging information“ has the highest mean value (M=3.58; SD=1.00). All variables for the *Resource/Material Sharing* factor, “Facebook provides a wide range of learning materials” (M=2.90; SD=1.02), and “Facebook provides rich multimedia content and learning enhancement support” (M=2.86; SD=1.03), have low mean values, and they are the lowest in the entire model for Facebook use. These results show that the Facebook’s influence as a resource, that is, as a relevant material sharing database, is relatively low. All the statements related to this factor had rather low mean values (less than 3). The results indicate that students consider Facebook as an important tool for academic purposes since all the variables related to this factor (*Academic purpose*) have high score (the mean value is higher than 3.5).

4. Conclusion

The obtained results show that students mostly use Facebook for social purposes. Regarding the use for educational purposes, Facebook is the most respected platform for the exchange of materials and information related to lectures, communication with colleagues, and creating academic groups. There has been the growing popularity of social networks among students in the recent years, and they have the potential to become an important source of support for communication related to education, and cooperation with the Faculty as well. The results of numerous studies have shown the importance of using social networks in various fields, while the scope of the research is focused on higher education. Students in higher education institutions have seen a significant advantage from using social networks such as Facebook. The results show that students mainly use Facebook for social interactions, primarily to communicate with friends. Moreover, the obtained results also indicate that students at the

Technical Faculty in Bor have positive attitude toward Facebook use for academic purposes as an additional tool for studying, since this way of learning provides the opportunity to exchange multimedia content as addition to the traditional content. It is desirable to extend the research in the future to other higher education institutions in Serbia in order to obtain more reliable results and examine the attitude of greater number of students.

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