

The Impact of Habits for Using Internet Inside A University Campus: The University of Jordan Scientific Faculties Case Study

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Abstract: This paper investigates the internet usage habits for students at the University of Jordan. Data is collected through a questionnaire consisting of (Demographic, and other part that measures the students' perspectives and habits). The study also explored the relation between the average grade of the students and Internet usage. The dependent variable reflects the performance of the students by their GPAs, and the independent is the internet usage. The results show that the major purpose of using internet inside the campus is to reach the latest updates for the courses that the students are registered in through the e-learning portals and blackboard website, besides there is a significant statistic relationship between using internet and the academic performance of the students (GPAs). SPSS is used to analyze the obtained data.

Keywords: Internet Usage, Academic Performance, Students' Habits, University of Jordan.

I. INTRODUCTION

Recently, the internet has invaded most of our life actions and parts. The obstacles and limitations of using or having access to the internet most of the time has been reduced due to the rapid technological development [1]. Internet has become an integral part of human life in almost every detail and moment. Many studies have addressed the role of internet in human life, and the effect of such technology on our lives, especially young people who use the internet to gain awareness for their interests using social media websites. What makes the internet more significant than other media is the extremely high coverage rate, and the ability of connecting people regardless the borders and crossing the lines all over the world. It has become an essential need for people from business field, educators, researchers, students, and even civilians [2].

Many researches have been conducted on the attitudes to using computers and internet. It was found in the literature of more than 71 studies that regarding gender differences. These studies indicate that gender does not have major effects. However, males show more positive attitudes and frequent use [2]-[3].

Internet and communication technologies (ICT), has appeared officially in Jordan in 1990s, and started to be diffused used in the educational services [4]. The University of Jordan, the case of this study, has been offering its ICT services and adopting these technologies for the students. In addition, it has been integrating the technologies of ICT in the courses, in order to enhance the educational process.

This study aims at finding the trends and attitudes of the students' usage of the internet at the university, and to what extent does the gender or major has an effect on the attitudes of usage.

II. RELATED WORKS

Nowadays Internet has become an essential part of our daily life, the usage of the internet is varying according to the needs of the users, and it has widely spread in many fields, such as educational, medical, and academic and entertainment fields, and in almost all fields [5].

At first, internet availability has faced many obstacles and it was not convenient to have a connection. However, the increase in availability and affordability of the internet in almost everywhere has increased the role it plays in our life, and decreased the previous old limitations of usage [6]. The estimated number of Internet users according to the international telecommunication unions has increased to reach 3.2 billion in 2015.

In Jordanian society; the internet users has increased from 5.3 million in 2013, up to 5.7 million in 2015, as the internet world statistics reported [7]. The trends and attitudes behind the internet usage differs according to the age, needs, gender, and many other factors. In this study, the focus will be on the trends of the university students in scientific majors (Engineering, IT, other Sciences) at University of Jordan.

Reference [5] has studied the addiction of internet usage among adolescents in Jordanians schools. The sample age was between 12-18. The study found that the addiction main reason was chatting, due to severe depression and intense anxiety. The highest rate of addiction was among students from families that have income greater than 1400 \$; they had weak performance academically, and a statistical relationship was found between age, income of the family, and academic performance and internet addiction.

Another study was conducted to examine the knowledge of internet usage habits and applications preferred by students. 200 students at the University of Trakya in Turkey have filled the questionnaire constructed for the purpose of the study. The results showed that students spend at least 3 hours/ day browsing internet, the positive relation between age and time spent on internet, and most usage goes to social media websites such as facebook and twitter [8].

On the contrary of [8], researchers in [1] stated that using the internet by the students and young age persons will give them the opportunity to explore more information and add to their knowledge as well as helping them to participate in being creative and innovative in the technological fields. The paper also indicated the importance of internet in enabling information for all and varied purposes and fields that student's needs. On the other hand, [1] stated that there should be new awareness applications to increase the useful usage of the internet to the maximum.

In Saudi Arabia, the researchers of [2] have found that gender has no relation with the attitudes and habits of internet usage among the studied sample of three universities. Instead, the city location, the parents' encouragement, and English language skills have an effect on the attitudes of internet usage.

Reference [9], explain a study that was conducted to study the usage of facebook for educational purposes among universities students. The study found that facebook is mainly used for communication and courses materials sharing, which is commonly spread among students in all levels

and almost wherever that this social media application is available.

As the literature above shows, that most of studies seek the reasons behind using the internet, the prevalence of the internet, and its effect on the educational fields. In this study, the trends and purposes of using internet and the exact habits of Jordan university students were set to be the aims and goals of the study.

The following sections explain the methodology, and present the results of the study.

III. METHODOLOGY

The literature review demonstrated that, although there have been many studies in the area of internet usage in educational sectors, few published works relate directly to students habits and purposes of using internet especially in the university campus.

A questionnaire consisting of demographics, and perceptions questions to find the targeted students habits, is constructed to collect data. The dependent variable reflects the performance of the students by their GPAs, and the independent, which is the internet usage, is measured by operationalization of the variable into: Infrastructure offered by university for Internet services, Purpose of usage by the students, Usage rate, and types of files and documents. Furthermore, SPSS is used to investigate and find the results.

The University of Jordan has three groups of schools: the Medical, the scientific, and the humanities. The research field of this study is comprised of the scientific faculties in the University of Jordan (Computer Science, Computer information systems, Business information systems, Engineering, and sciences), the questionnaire was delivered to students and 289 questionnaires were collected.

A. Review Reliability of the questionnaire

In order to measure the inner consistency of the questions, and to insure reliability; Cronbach's alpha was used, and the following are the results:

Table 1: The Reliability statistics- Chronbach's alpha values

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.714	.722	13

As the values of Cronbach's alpha lies between 0-1, and (0.7) was set for the good consistency according to the common statistics [10], table 1 shows that the value for the items is 0.714, which is acceptable for study purposes and shows good consistency for the items studied.

IV. RESULTS AND DISCUSSIONS

b. Characteristics of the Study's Respondents.

Table 2: The respondents' percentage in the sample according to the gender

Category	Frequency	Percentage %
Male	100	34.6 %
Female	189	65.4 %
Total	289	100%

As table 2 shows that the majority of the sampling unit were females, and results also show that 7 of them are married, where the rest of 282 are single, with the percent of 2.4 % and 97.6 % respectively.

Moreover, majority of the respondents are aged between 17-22 with 93.8%, and 15 of the age between 23-27 with 5.2%, and the rest of 1% are from the age 28 or more.

Table 3: The respondents' distribution according to the academic year

Year	Frequency	Percentage %
First	43	14.9%
Second	165	57.1%
Third	63	21.8%
Fourth	14	4.8%
5 and More	4	1.4%
	289	100 %

Table 3 above shows that most of the respondents' are in their second year, then third year and the first, few of the fourth and fifth have filled the questionnaire.

Their GPAs range between good with 40.5%, very good with 34.6% and on border with 13.8%, excellent students with 8.3% and the rest with 2.8% didn't specify their grades level.

The respondents are selected from the scientific group of schools as mentioned earlier in the University of Jordan, and they were distributed as follows:

Table 4: The respondents' distribution according to the academic year

Major	Frequency	Percentage %
CS	116	40.1%
CIS	48	16.6 %

BIS	57	19.7 %
Science	9	3.1 %
Engineering	59	20.4 %
Total	289	100 %

The histogram of the majors shows the majority of respondents were from CS department with the mean of 2.47, as appears in Figure1:

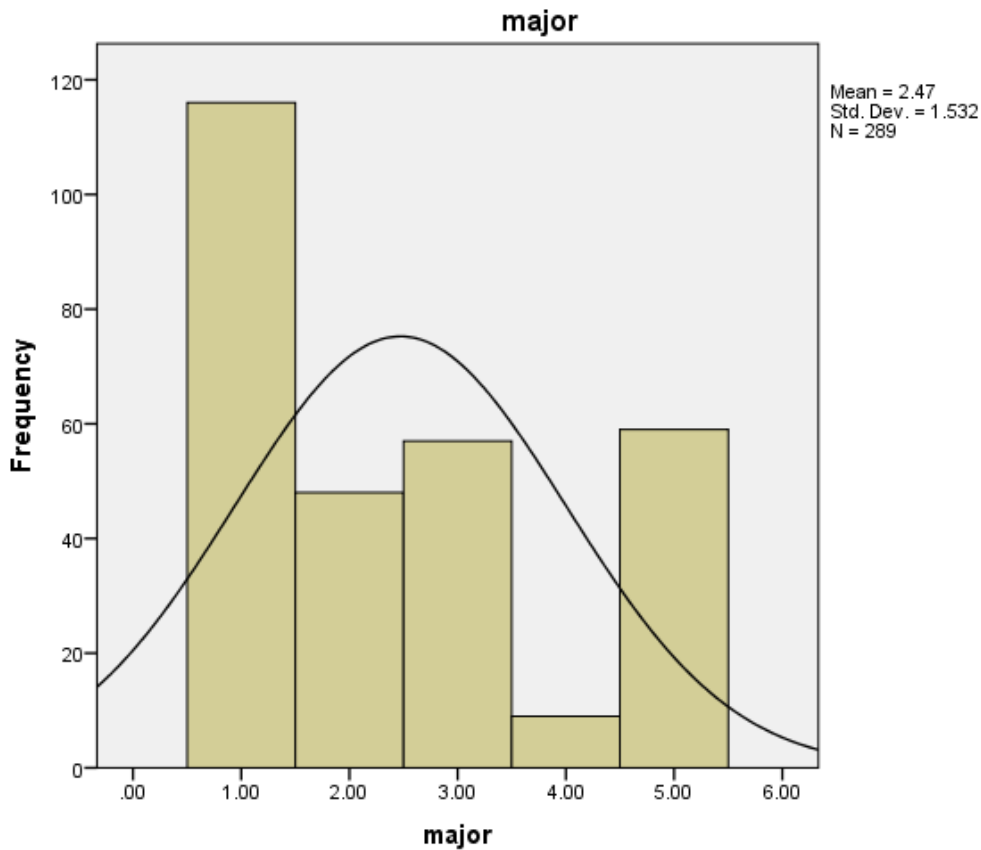


Figure1: Histogram of the respondents according to their majors.

V. RESULTS FOR STUDIED HABITS AND TRENDS

Table 5: The relative importance of the studied habits

Purpose of Internet Usage	Mean	Std. deviation
Browsing Only	1.8750	.954
For Downloading or uploading only	1.9410	.971
Social Media websites	2.0208	1.003

The daily rate of Internet usage	2.6806	1.110
The time spent in browsing	1.6424	.941
The size of the downloaded files	2.1354	1.084
Number of downloaded files	1.2326	.570
Type of machine used	1.6701	.883
Type of connection	1.5278	.500
Type of mostly downloaded files	1.6007	1.061
Usage rate of the blackboard website	2.1771	1.012
Usage rate for messenger or chatting websites	1.5069	.871
Using internet via the labs in JU campus	1.8160	.931

The results showed that the daily rate of usage got a high mean with 2.9, and that browsing social media websites, the downloaded files size, and using the blackboard for educational communication with the faculties got relatively high means above 2.

Comparing means according to gender as the figure 2 shows:

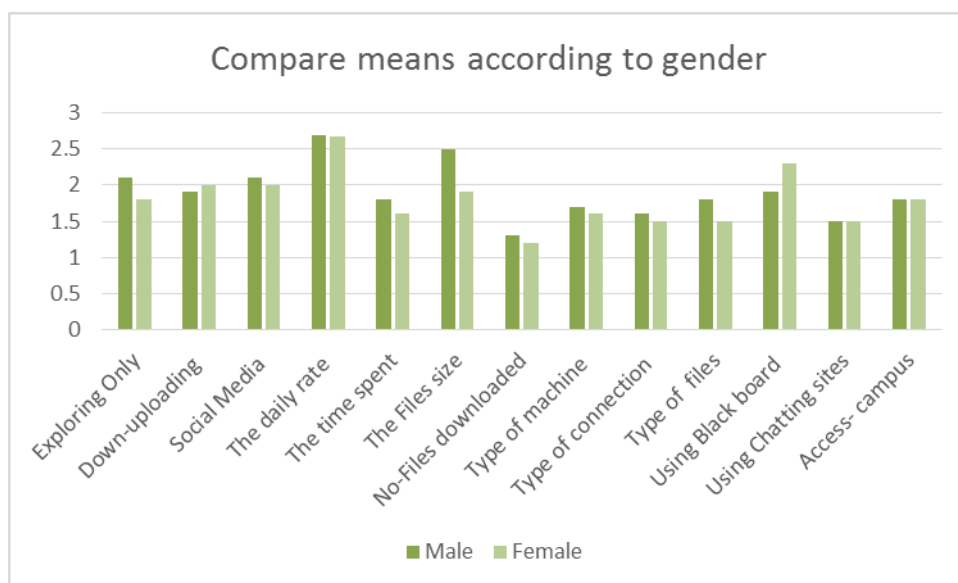


Figure 2: Comparing means of answers according to the gender

As the figure above shows, there is no difference between males and females of the studied samples, in the rate of the daily usage, and the access for internet from campus is nearly the same. The differences are clear in the size of the files downloaded where the files targeted by males are larger with mean of 2.5 compared to 1.9 for females.

On the other hand using the internet to access to the blackboard has scored a mean of 2.3 for females and 1.9 for males.

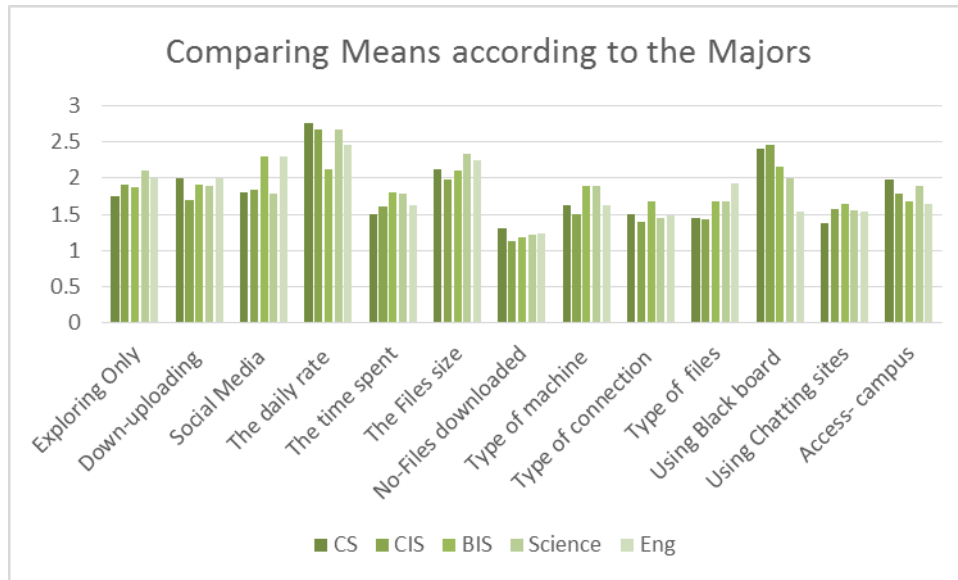


Figure 3: Comparing means of answers according to Majors

According to the chart above which was build according to following table

Table 6: Comparison of the means of the answers depending on the majors

Item	CS	CIS	BIS	Science	Eng
Browsing Only	1.75	1.9	1.87	2.1	2
Down-uploading	2	1.7	1.9	1.89	2
Social Media	1.8	1.83	2.3	1.78	2.3
The daily rate	2.76	2.66	2.12	2.66	2.45
The time spent	1.5	1.6	1.8	1.78	1.62
The Files size	2.12	1.97	2.1	2.33	2.24
No-Files downloaded	1.3	1.125	1.175	1.22	1.23
Type of machine	1.63	1.5	1.89	1.89	1.62
Type of connection	1.5	1.4	1.67	1.44	1.49
Type of files	1.44	1.43	1.68	1.67	1.93
Using Black board	2.41	2.46	2.16	2	1.54
Using Chatting sites	1.37	1.58	1.64	1.56	1.54

Access- campus	1.97	1.79	1.68	1.89	1.64
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As table 6 shows, the daily rate of internet usage has the highest values for all majors, where the maximum value for the CS students with mean 2.76, and the CIS as well as the school of Sciences got the same value of 2.66, then engineering, and the least was for the BIS.

As the figures 2 and 3 above show, the habits of the students, which is the core of this study, focused on daily use of the internet for blackboard and e-learning websites to follow the latest updates of the courses they are registered in, and take the most recent from the academic staff regarding these courses.

After the blackboard and e-learning, comes the social media websites, were this purpose of using the internet got the second higher mean of 2.02.

The other purposes or habits are ordered as follows: for downloading or uploading, for browsing only, then for messengers and chatting.

For the type of connection used, the results revealed that 47.4% are using the wire connection inside the campus, while 52.6 use the wireless connections, which makes the internet more accessible in many places regardless of the place and the existence of tangible connection infrastructure (Wires).

Table7: Type of connection used

	Frequency	Percent	Valid Percent
wire	137	47.4	47.4
Valid wireless	152	52.6	52.6
Total	289	100.0	100.0

Moreover, the way for accessing showed that 52.2 % prefers to use a computer at the labs spread around in the campus, or using their own laptops, only 9% use their mobiles for the purposes stated above.

C. Regression and Model Results

Table8: Analysis of variance for the study model (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.	Result
1 Regression	7.600	4	1.900	2.259	.048 ^b	Accept
Residual	237.980	283	.841			
Total	245.580	287				

a. Dependent Variable: Grade

b. Predictors: (Constant), file type, Infrastructure, rate, purpose

The (ANOVA) analysis shows that F-ratio = 2.259 which is significant at $p < .05$ (Alpha in this case is $\text{sig} = .048$). This result shows that there is less than a 0.05% chance that an F-ratio of this value would happen by chance alone. It follows, there is clear evidence that there is statistically significant effect of

using the Internet elements (At least one of the variables) on the Students' academic performance, and thus we reject the null hypothesis and accept the alternative hypothesis which states that there is a relation between using the Internet and the GPAs or the academic performance of the students. The other part of multiple regression analysis is concerned with testing the effect of each predictor included in the model on the dependent variable.

And the following is the table of coefficients:

Table9: Co-officiants

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	2.586	.244	10.591	.000
1 Infrastructure of Internet at JU	-.289-	.126	-2.295-	.022
Purpose	.107	.100	1.071	.285
Rate of usage	-.056-	.079	-.705-	.481
Files Type	.166	.092	1.797	.033

As table 9 shows, the significant relation and effect is clear between having a good infrastructure for internet services, and Files types that are downloaded by students and their academic performance represented by their GPAs. On the contrary, there were no statistical proof on relations between the purpose of internet usage and the rate of usage on the academic performance of the targeted students.

CI. CONCLUSIONS

This study aimed at finding the most common habits and trends for Jordan university students in using the internet inside the university campus.

The results revealed that most of students use the internet for reaching the blackboard and e-learning websites which is used by their faculties and instructors for the courses requirements, after that the social media came in the second place, while chatting or other purposes are the least, beside most of the studied sample showed an interest in using the wireless connections more that using the wired one that force them, to stay at the labs, although that the majority preferred to use a computer at labs of the university.

On the other hand, the study found that there is a relation between having a good infrastructure for internet use and the files they download or upload on their academic performance. In which the university should pay more attention for the infrastructure.

More studies are recommended for further or other purposes, or a comparative one will be done by having the same data collected from the social and humanities faculties' students, and more studies should focus on the effect of internet usage on the academic performance in terms of other variables than those studies in this paper.

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