

## *Facebook Addiction among University Students in Turkey: “Selcuk University Example”*

*Türkiye’de Üniversite Öğrencileri Arasında Facebook Bağımlılığı:  
“Selçuk Üniversitesi Örneği”*

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### ABSTRACT

*In the last five years Facebook has started to take an important part of people’s daily life as the result of developments in communication technologies. Nowadays so many scholars from communication studies accept Facebook as a mass communication media that provides people to reach so much kind information and also it provides people to communicate with their social contacts. Beside these additions, people have a great time and fun by using Facebook. However; beside its benefits to social and personal life of users, it is undeniably true that Facebook has some negative effects for its users because of heavy and aimless usage. Definitely the most important of these problems is Facebook Addiction. It is so common especially among teenagers. Facebook Addiction also makes teenagers experience problems and erosions in their social life and relations. This survey focuses on Facebook Addiction among university students. According to data taken by 903 students from Selcuk University; %5.1 of the students is addicts and %22.6 of the students is in the risky group. According to these results, it can be clearly said that %27.7 of participants is problematic Facebook users. It was revealed by this survey that there is a meaningful relation between Facebook operating time of participants and loneliness level of participants with Facebook Addiction level. Moreover, it was seen that Facebook Addictions of participants differentiate according to their Facebook usage purposes.*

### ANAHTAR KELİMELER

*Social networks, Facebook, addiction, university students.*

### ÖZET

*Son yıllarda iletişim alanında yaşanan teknolojik gelişmelerin bir sonucu olarak Facebook, bireylerin yaşamlarının önemli bir parçası olmaya başlamıştır. Bugün birçok iletişim uzmanına göre Facebook; insanların ihtiyaç duyduğu birçok bilgiye ulaşmalarına, eğlenceli ve hoşça*

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*vakit geçirmelerine ve sevdikleriyle eş zamanlı iletişimde bulunabilmelerine imkân tanıyan bir kitle iletişim aracıdır. Ancak Facebook'un kullanıcılarının sosyal ve bireysel hayatlarına yaptığı bu kolaylıkların yanında amaçsız ve aşırı kullanımdan kaynaklanan bir takım sorunlara da yol açtığı bir gerçektir. Söz konusu sorunların başında hiç kuşkusuz Facebook bağımlılığı gelmektedir. Facebook bağımlılığı özellikle gençler arasında oldukça yaygın bir sorundur. Facebook bağımlılığı, beraberinde gençlerin genellikle sosyal ilişkilerinde erozyonlar ve problemler yaşamasına neden olabilmektedir. İşte bu çalışmada üniversite öğrencilerinin Facebook bağımlılığı mercek altına alınmıştır. Selçuk Üniversitesi'nde öğrenimini sürdüren 903 öğrenciden elde edilen verilere göre; katılımcıların yüzde 5.1'i Facebook bağımlısı, yüzde 22.6'sı ise riskli kullanıcı konumundadır. Bu sonuçlara göre katılımcıların yüzde 27.7'sinin "problemlili Facebook kullanıcısı" olduğu söylenebilir. Katılımcıların günlük Facebook kullanım süresi ve yalnızlık düzeyleri ile Facebook bağımlılık düzeyi arasında pozitif anlamlı ilişkinin varlığı bu araştırma ile ortaya konmuştur. Ayrıca çalışma sonucunda, katılımcıların Facebook kullanım amaçlarına göre Facebook bağımlılıklarının da farklılaştığı sonucu elde edilmiştir.*

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**KEY WORDS**

*Sosyal paylaşım ağları, Facebook, bağımlılık, üniversite öğrencileri*



## Introduction

**Social** networking sites which are indispensable parts of social media have become one of the most important communication vehicles. It is estimated that today 900 million people use Facebook and this number makes Facebook the most popular social networking site. Facebook usage of huge masses in a short time has drawn academic attentions and so many qualified researches have been conducted so far in social sciences literature (Köseoğlu 2012: 76-77). With their special designs to develop virtual social interaction, social networking sites have drawn notices. According to this kind of communication style, a user can declare his/her interests on his/her personal page, share videos or photos with other users and he/she also presents personal information to others (Special & Li-Barber 2012: 624; Lee & Ma 2012: 332). Members can see their personal pages and communicate with each other by using some kinds of implementations like e-mail or instant messaging (Hughes et al. 2012: 561). Social networking sites like Facebook provide people to represent themselves to society and beside these they afford their members the opportunity of establishing and staying around social relations (Muscanell & Guadagno 2012: 107). These kinds of sites have also some functions for developing business relations, romantic relations and meeting people who have same social interest such as music, politics etc. Moreover, members use social networking site to contact new friends and old friends whom they have not contacted for a long time (Ellison et al., 2007: 1143). According to Murray (2008: 8) social networking sites cause some change on the methods which are used by people for communicating and sharing knowledge with each other. These kinds of interactions provide essential information to adolescents and young people to establish new relations and friendships (Pempek et al. 2009: 228).

One way or another when Facebook is used consciously, it is a beneficial social networking site for young people. In this context, Facebook has five main advantages: (1) Facebook is a social networking site which students use frequently when they are bored, (2) Facebook is a way of communication with others members, (3) Facebook is an environment in which students feel themselves relaxed, (4) Facebook provides students to support each other and learn their personal identities, (5) Facebook is a public sphere which can be observed by school administrations and other members (Faudree 2009: 4).

Although benefits and advantages of social networking sites like Facebook are noted, problems caused by heavy usage of social networking sites are not

forgotten. Especially results of some academic researches, adolescents using Facebook more than 3 hours for a day get this time from their social and physical activity times which are so important for their socialization (Baker & White 2010: 1591). According to İşbulan (2011: 182) today almost all of people prefer to communicate with their friends and social environment by using social networking sites instead of face to face communication. This process can turn into an addiction after a while and it makes user spend more and more time in social networking sites like Facebook.

At this point it can be seen that university students stay a crucial and dangerous position in terms of Facebook addiction. Because social networking sites took an indispensable part in daily life and they provide a lot of advantages to university students not only their social life but also for their career. Spending a huge amount of time in Facebook unconsciously decreases possibility of addiction in terms of Facebook usage. Information society requires students to increase ability of technology usage for implementing their works in a technological environment (Nalwa & Anand 2003: 653-654). However, increase of psychological and addiction problems caused heavy usage of Facebook leads to educationalists and psychiatrists to worry about negative effects of Facebook on public health. Facebook usage has been increasing steadily in Turkey. According to statistics, Istanbul is the second city which has biggest number of Facebook usage (Harzadın 2012).

When international literature is viewed, although there are a lot of studies about the internet addiction (such as; Kandell 1998; Chou & Hsiao 2000; Morahan-Martin & Schumacker 2000; Tsai & Lin 2003; Nalwa & Anand 2003; Chen et al. 2004; Simkova & Cincera 2004; Song et al. 2004; Young 2004; Johansson & Götestam 2004; Leung 2004; Chou et al. 2005; Niemz et al. 2005; Balta & Horzum 2008; Balcı & Gülnar 2009), it is seen that there are not a lot of empirical studies focusing on Facebook addiction.

This study conducted on the students of Selçuk University aims to determine students' Facebook usage patterns, Facebook addiction degrees, differences among Facebook addicts and normal users. In addition to this, the study also aims to show effects of operating time and loneliness on Facebook addiction and variants which are effective to become Facebook addict.

### **1. Facebook Addiction**

Some kinds of activities people are interested on internet cause potentially addiction. Instead of addicting directly to internet, people generally develop dependency or addiction to online activities in which they join. In this context, internet dependency or internet addiction has different aspects. As mentioned

Young, there are five different internet addiction types. First one is computer addiction which includes computer games, second one is searching addiction on internet, third one is shopping or betting on internet, fourth one is online pornography addiction and last one is friendship addiction on internet. Social networking sites addiction is featured in last addiction type because main usage purpose of social networking sites is to develop new relations or maintain old relations. From a clinical psychologist's perspective, it may be plausible to speak specifically of 'Facebook Addiction Disorder' (or more generally 'Social Networking Site (SNS) Addiction Disorder') because addiction criteria, such as neglect of personal life, mental preoccupation, escapism, mood modifying experiences, tolerance, and concealing the addictive behavior, appear to be present in some people who use SNSs excessively (Kuss & Griffiths 2011: 3529).

Today, most of the students and adults accept Facebook as a kind of addiction instead of social networking site. Psychologist and psychiatry started to make similar announcement about the topic. According to an academic survey result conducted in USA in May and June 2010 Facebook caused a huge damage on its member social and physical life. After all of the 1,605 adults surveyed on their social media habits, 39% are self-described "Facebook addicts." It gets worse. Fifty-seven percent of women in the 18 to 34 age range say they talk to people online more than they have face-to-face conversations. Another 21% admit to checking Facebook in the middle of the night (The Time, 2010). Similarly, Chicago University conducted a survey about Facebook addiction that focused on 18-35 years persons. According to survey results, this age group showed addiction behaviors like drug and cigarette addictions (The Telegraph, 2012). There are a lot of similar examples like this study and almost all of them accepted and declared that Facebook is so dangerous for turning into an addiction when it is used unconsciously and heavily by people.

Facebook addiction is a common problem among young people. It was observed that young people under 22 has strong addiction tendency to Facebook than older people. Beside this, addiction level shows differences according to period of membership and members' social environment (Chao Lin et al. 2012: 198). Addiction also causes social networking sites users to experience problems in their social relations and daily life. According to Harzadın (2012) Facebook addicts have problem with their families, friends, jobs and school environments. Addicts start spending less time with their friends, relatives and families and moreover they can start to remain at home almost all day. They can be too passive to the events which occur in their environment when they are in front of Facebook screen. In addition to this, they can prefer to meet their friends on

Facebook instead of face to face communication and also they arrange meetings on Facebook pages instead of meeting in a café or bar.

Actually these people do not know more than half of the people added in their Facebook pages. They give priority their friends' number on Facebook and this can turn race. They also follow other Facebook users for their friends' number. After a while they start to feel insufficient themselves and they have to feed their winner or being popular feelings constantly. In this period, these people feel themselves unprotected against the feelings of meaningless, burnout and marginality. When it is taken into account from psychological point of view, it is meaningful to say Facebook Addiction is a kind of addiction to social networking sites because ignoring personal life, interesting mentally with Facebook always, social escape, hiding addiction signs, distemper have been observed lately people who use Facebook heavily (Kuss & Griffiths 2011: 3530).

Facebook addiction causes people to experience social escape and estrangement against their own society. For example, Facebook addicts communicate with their family member living in the same house by using Facebook or they can embrace different behavior types by using social networking sites. Recently, according to result of the study conducted by psychiatrist Cecilie Schou Andreassen (2012: 519) and her friends from Norway Bergen University people who feel themselves insecure and have a worried state of mind to tend towards Facebook addiction. The study shows that people in these conditions think that face to face communication is insecure and therefore they prefer social networking sites like Facebook for communicating. Beside this, addicts start to become unsociable because of heavy Facebook usage. For example, according to results of a survey conducted in Turkey among university students about Social Networking Site Addiction it was found that % 46.4 of the students joining the survey prefer to spend time on Facebook instead of engaging in social activities. Another amazing results of this survey is that % 22.6 of the students prefer to spent huge part of their time in front of the Facebook screen instead of spending their friends (Hazar 2011: 32).

Side effects of these kinds of social networking sites will start to come into picture more and more in a short time. Heavy usage of Facebook can also cause young people to accept egocentric behavior patterns, vain or anti-social behaviors. Also heavy usage of Facebook can cause different negative and unacceptable behavior patterns in terms of socialization. Another important side effect of Facebook addiction is that Facebook affect members' personality. For example, rejection of friendship proposal creates stress for Facebook users. Some people who cannot transfer their ideas to society truly and communicate with their

families sufficiently find Facebook as a socialization place. Because of this they form friendship easily on internet but this causes some negativities and they start to forget and postpone their responsibilities against their families, jobs, schools or society. Although social networking sites like Facebook or Twitter seem to relax their members, they also seem as a source of stress and procrastinating (Harzadm 2012).

According to these theoretical perspectives, this study aims to answer the following research questions through survey analysis;

- ✓ What are the Facebook usage reasons of participants?
- ✓ What are the Facebook addiction levels of participants?
- ✓ What kind of relations are there between Facebook addiction levels and Facebook operating times of participants.
- ✓ What kind of relations are there between Facebook addiction level and liveness level of participants?
- ✓ What kind of profile do non-addicts have differently from addicts?
- ✓ What are the determination levels of demographic variables and Facebook usage behaviors to Facebook addiction?

## **2. Methods**

This study depends on a descriptive perspective which tries to define rationally Facebook addiction and Facebook addiction stereotype of Facebook users who are Selcuk University students. Beside this, the study aims to state the differences between Facebook addicts and normal users in terms of separating two groups for their usage habits.

### **2.1. Research Model**

The survey is general scanning model and among the survey's dependent and independent variables comparative relational scanning is done. At the time of new communication technologies in which heavy Facebook usage among teenagers who are university students are so popular, data were collected to define the Facebook addiction level of university students who form young population part of society.

### **2.2. Procedure and Sampling**

A survey was conducted within the context of Selcuk University in order to determine its students' Facebook addiction level. That is why, the students of Selcuk University forms general sampling of the study. Why Selcuk University was selected as general sampling of the study is that it is one of the biggest uni-

versities of Turkey about conditions and student population. Beside this it has a multi-cultural student stereotype which includes students from every part of Turkey. Moreover, the university draws attentions for candidates about its huge and important investments about internet and computer technologies for its students' education (Balcı & Gülnar 2009: 11). Special reason of why university students were selected as sampling is that they have always internet connection, internet usage ability and because of this they are potential internet and also Facebook users which is basic point of the survey. Determination of sampling depends on purposive sampling which is one of the non-probabilistic sampling (Aziz 2008: 55). Survey's poll was conducted by using face to face technique to students who get education in Konya downtown campuses which are Alaeddin and Meram. After advance canvass, 903 poll sheets were accepted as suitable for analyzing.

### 2.3. Measurements

In order to determine students' who joined the survey Facebook addiction levels, usage habitations, identifiers of their Facebook addictions; the poll sheet which consists of 58 questions was prepared. While preparing poll sheet former studies about the topic were used in order to simplify for participants' understanding. In the first part of poll sheet, 10 questions were asked in the form of five point Likert scale to call into question for Facebook usage reasons of participants. To prove credibility and validity of the scale *Cronbach's Alpha* coefficient was counted as 805. In the second part of the poll sheet; in order to determine university students' addiction level Facebook Addiction Scale was given place which consists of 20 questions in the form of five point Likert scale. Participants were requested to give point between 1 and 5 to the 20 questions in Facebook Addiction Scale. According to total score, participant who get point between 20 and 49 are not addict, participants getting point between 50-79 are under risk and participants getting point between 80-100 are defined as Facebook addicts ([http://www.bestlibrary.org/dr\\_charles\\_best\\_library/2008/06/facebook-addi-2.html](http://www.bestlibrary.org/dr_charles_best_library/2008/06/facebook-addi-2.html)). In order to prove scale's credibility and validity, *Cronbach's Alpha* coefficient which was taken is 904. Four questions in the third part of the scale were asked in order to determine participants' Facebook usage experiences, frequency of weekly Facebook usage, operating time of participants Facebook for one entrance and their connection situations. By using another scale consisting of 18 questions on the fourth part of the poll sheet, university students' activities realized on Facebook were called into question and in order to prove scale's credibility and validity, *Cronbach's Alpha* coefficient which was taken is 877. By using



6 questions in the last part of the poll sheet, it was aimed to determine demographic features of participants.

#### 2.4. Analytical Procedure

The survey was conducted between the dates of 1-15 January 2012 with using face to face meeting technique. Data was analyzed by using the SPSS 17.0 statistic program. In order to determine Facebook usage behaviors and demographic features of participants frequency analyze was used and to determine possible differences between different addict groups Chi-Square test was used in the context of the survey. The relation between Participants' Facebook addiction level and loneliness level and operating time of participants Facebook for one entrance was analyzed by using Correlation Analysis. To show how Facebook addicts differs from non-addicts Linear Discriminant Analysis was used.

### 3. Findings

#### 3.1. Some Distinctive Features of Participants

Table 1 shows participants' socio-demographic features and Facebook usage behaviors.

**Table 1:** Findings about the some features of participants

		Frequency	Percent (%)
Gender	Male	367	40.6
	Female	536	59.4
Place of Residence	At home	15	1.7
	At home with friends	278	30.8
	With family	112	12.4
	With relatives	9	1.0
	At dormitory	475	52.7
	Pension/ Hotel	13	1.4
Facebook Connection	Computer	490	54.4
	Mobile Phone	147	16.3
	Both of them	263	29.2
Facebook Usage Experience	Less than 1 year	69	7.7
	1-2 years	224	24.9
	3-4 years	446	49.5
	5 years and more	162	18.0
Facebook Usage Frequency	1 day in a week	124	13.8
	2-3 days in a week	235	26.1
	4-5 days in a week	249	27.6
	Everyday	293	32.5

	N	Min.	Max.	$\bar{X}$	SD
Age	900	17	54	21.1	2.33
Monthly Expenses	886	50 TL	3000 TL	445.7	265.3
Facebook operating time	880	1 min.	600 min.	55.1	57.8
Loneliness level	892	1	10	3.48	2.44

✓ 40.6 percent of participants were male, 59.4 percent of participants were female. Ratios are convenient for comparing in terms of participants' genders.

✓ In terms of place of residence, it was declared that 52.7 percent of participants stayed at dormitories, 30.8 percent stayed at home with friends, 12.4 percent stayed with their families, 1.7 percent stays at home lonely, 1.4 percent stayed at pension or hotel and 1 percent stayed with their relatives.

✓ When descriptive statistic of age dispersion is analyzed, it is seen that lowest age of participants is 17 and highest age of participants is 54. Average age of participants is 21.1 and standard deviation of dispersion is 2.33.

✓ When the results of descriptive statistic of monthly expenses participants declared are analyzed, it is seen that minimum expenses limit is 50 TL and maximum expenses limit is 3000 TL. Accordingly, average monthly expenses of participants were determined as 446 TL and standard deviation of dispersion is 265.3.

✓ A scale which recommends participants to give points among 1-10 (1= I am never alone, 10= I am really alone) was formed to determine loneliness level of participants. The results of statistic analysis including on 892 participants' answers shows that participants have loneliness in low level ( $\bar{X} = 3.48$ ).

✓ More than half of participants (%54.4) use computers for Facebook connection, %16.3 of participants use mobile phones for Facebook connection and %29.2 of participants use both vehicle for Facebook connection.

✓ %49.5 of university students joining the survey have used Facebook for 3-4 years, %24.9 of them have used Facebook for 1-2 years %18 of them have used Facebook for more than 5 years and %7.7 of them have used Facebook for less than 1 year. Accordingly, users using Facebook for 3-4 years form the majority among the whole participants.

✓ Answers given to the question about weekly Facebook usage frequency show that %13.8 of participants use Facebook one day in a week, %26.1 of them use Facebook 2-3 days in a week, %27.6 of them use Facebook 4-5 days in a week, %32.5 of them use Facebook every day in a week.

### 3.2. Facebook Usage Reasons of Participants

In order to designate why participants think the Facebook usage reasons of users so important, their standard deviations and arithmetic averages were counted. In order to prove scale's credibility and validity, *Cronbach's Alpha* coefficient which was taken is 805.

**Table 2:** Central Tendency Statistic about Facebook Usage Reasons.

Facebook Usage Reasons	N	$\bar{X}$	SD
To communicate with friends	902	4.11	0.92
To get information about people and events	902	3.58	1.10
To entertain and relax	901	3.46	1.17
To instant messaging	901	3.44	1.17
To loading photos and looking photos of acquaintances	901	3.40	1.13
To spent leisure times	902	3.13	1.24
To read writings on my wall and write others' wall.	903	3.09	1.23
To reach communication information of people	903	2.87	1.29
To share personal presentation and profile information	903	2.70	1.25
To be a keen judge of people.	900	2.55	1.27

**Note:** In the scale of Facebook Usage Reasons **1** is coded as *I never agree* and **5** is coded as *I completely agree*.

According to Table 2, University students joining the survey use Facebook more for communicating with their friends ( $\bar{X} = 4.11$ ). Participants also use Facebook because of different reasons such as getting information about people and events ( $\bar{X} = 3.58$ ), entertaining and relaxing ( $\bar{X} = 3.46$ ), instant messaging ( $\bar{X} = 3.44$ ). On the other side, participants give less priority to the Facebook usage reason of being a keen judge of people ( $\bar{X} = 2.55$ ) and sharing personal presentation and profile information ( $\bar{X} = 2.70$ ).

**Table 3:** Difference in Facebook Usage Reasons According to Gender

	Gender	N	$\bar{X}$	SD	T-value	Sig.
To communicate with friends	Male	367	4.03	1.01	-2.29	.022
	Female	535	4.17	0.85		
To load photos and look photos of acquaintances	Male	367	3.26	1.15	-3.06	.002
	Female	534	3.50	1.10		

To entertain and relax	Male	365	3.40	1.19	-1.29	.196
	Female	536	3.51	1.16		
To spent leisure times	Male	367	3.11	1.25	-0.42	.670
	Female	535	3.15	1.24		
To get information about people and events	Male	366	3.48	1.13	-2.43	.015
	Female	536	3.66	1.07		
To read writings on my wall and write others' wall.	Male	367	2.99	1.21	-2.00	.046
	Female	536	3.16	1.24		
To instant messaging	Male	367	3.40	1.20	-0.87	.384
	Female	534	3.47	1.15		
To be a keen judge of people	Male	366	2.59	1.26	0.76	.442
	Female	534	2.52	1.28		
To reach communication information of people	Male	367	2.82	1.30	-0.99	.322
	Female	536	2.90	1.27		
To share personal presentation and profile information	Male	367	2.73	1.24	0.74	.458
	Female	536	2.67	1.26		

There are meaningful differences among Facebook usage reasons in terms of relation between genders of participant and communicating with friends ( $t = -2.29$ ;  $df = 900$ ;  $p < .05$ ), loading photos and looking photos of acquaintances ( $t = -3.06$ ;  $df = 899$ ;  $p < .05$ ), getting information about people and events ( $t = -2.43$ ;  $df = 900$ ;  $p < .05$ ) and reading writings on my wall and write others' wall ( $t = -2.00$ ;  $df = 901$ ;  $p < .05$ ). When Table 3 is viewed, it is seen that women use Facebook more than men in terms of communicating with friends, loading photos and looking photos of acquaintances, getting information about people and events, reading writings on my wall and writing others' wall. However, other Facebook usage reasons do not show any meaningful difference in terms of men or women usage and arithmetic average values of two groups are almost similar.

### 3.3. Facebook Activities of Participants

In this part of the survey, standard deviations and arithmetic averages of threads were counted in order to determine in what frequency participants realized activities listed on the poll sheet and the results were listed in order in terms of importance. In order to prove scale's credibility and validity, *Cronbach's Alpha* coefficient which was taken is 877.

**Table 4:** Central tendency statistic of threads about Facebook activities

Facebook Activities	N	$\bar{X}$	SD
To follow breaking news	891	2.96	0.97
To read writings on your wall	896	2.95	1.01
To read private messages from others	894	2.50	1.11
To look others' photos	899	2.46	0.90
To look video links and others' profiles	891	2.46	0.91
To send message	889	2.37	0.91
To look others' profiles and get information about them	897	2.31	0.92
To update profile	888	2.28	0.95
To add as friend or delete	894	2.27	0.87
To get information about an event from others	896	2.25	0.92
To comment photos	897	2.24	0.90
To post or share links like YouTube etc.	900	2.21	1.04
To visit groups	896	2.15	0.93
To send answers or invitations to others	895	2.15	0.90
To tag or untag photos	894	2.10	0.92
To read messages on others' walls	893	1.89	0.88
To send photos to friends	894	1.77	0.89
To make groups	895	1.40	0.76

**Note:** In the scale of Facebook Activities numbers were coded as None= 1, Rarely= 2, Sometimes= 3 Commonly= 4

According to Table 4, following breaking news on Facebook ( $\bar{X} = 2.96$ ), reading writings on your wall ( $\bar{X} = 2.95$ ), reading private messages from others ( $\bar{X} = 2.50$ ), look others' photos ( $\bar{X} = 2.46$ ) and look video links and others' profiles ( $\bar{X} = 2.46$ ) are drawn attentions because of the most preferred activities by university students joining the survey. On the other hand, making groups ( $\bar{X} = 1.40$ ), sending photos to friends ( $\bar{X} = 1.77$ ), reading messages on others' walls ( $\bar{X} = 1.89$ ) or tagging photos or untagging photos ( $\bar{X} = 2,10$ ) are the less preferred activities by participants.

#### 3.4. Facebook Addiction of Participants

In order to determine addiction levels of participants, Facebook Addiction Scale's 20 threads' standard deviations and arithmetic averages were counted and the results were listed in order in terms of importance. In order to prove scale's credibility and validity, *Cronbach's Alpha* coefficient which was taken is 904.

**Table 5:** Central Tendency Statistic of the Threads of Facebook Addiction

Facebook Addiction Scale	$\bar{X}$	SD
I stay on Facebook more than I think.	3.01	1.11
I block someone on Facebook when she/he bores me	2.97	1.49
Before my responsibilities, I check my e-mail on Facebook.	2.52	1.14
I create new expectations when I reenter my Facebook count	2.45	1.18
By contacting Facebook, I think that I get out of my problems, stress, bothers and bans.	2.38	1.13
I make new attempts to reduce time I spent on Facebook	2.36	1.22
When I spent time on Facebook, I talk to myself that these are my last minutes.	2.30	1.26
I form new relations with Facebook members.	2.29	0.99
Usage of Facebook cause you to delay daily responsibilities	2.24	1.18
I prefer to entertain on Facebook instead of friends	2.09	1.10
I prefer to spent time on Facebook instead of spending time with my friends.	2.05	1.03
I think that without Facebook life is boring, meaningless, joyless, absent and moody	2.05	1.24
I think the events on Facebook, when I am offline	2.03	1.04
People warn you about spending too many times on Facebook	2.00	1.18
I embrace a protectionist and preservative personality when my friends warn me about dangers of Facebook.	1.99	1.10
My business performance is affected negatively because of Facebook	1.88	1.08
I have a sleep disorder because of Facebook	1.81	1.13
My grades and works at school are affected negatively because of time I spent on Facebook	1.80	1.09
I freeze my Facebook account because of disputes opposite to my ideas	1.75	1.09
I tell lies to hide my spending too much times on Facebook.	1.55	0.94

**Note:** In Facebook Addiction Scale; numbers are coded as *None= 1, Rarely= 2, Sometimes= 3, Commonly= 4* and *Always= 5*

According to Table 5 students joining the survey gave high scores to the five threads as most preferred items in the context of the survey. They are listed like this: 1- I stay on Facebook more than I think ( $\bar{X} = 3.01$ ), 2- I block someone on Facebook when she/he bores me ( $\bar{X} = 2.97$ ), 3- Before my responsibilities, I check my e-mail on Facebook ( $\bar{X} = 2.52$ ), 4- I create new expectations when I

reenter my Facebook count ( $\bar{X} = 2.45$ ) and 5- By contacting Facebook, I think that I get out of my problems, stress, bothers and bans ( $\bar{X} = 2.38$ ). Beside these threads, the students attached less importance to some threads such as I tell lies to hide for spending too much times on Facebook ( $\bar{X} = 1.55$ ), I freeze my Facebook account because of disputes opposite to my ideas ( $\bar{X} = 1.75$ ), My grades and works at school are affected negatively because of time I spent on Facebook ( $\bar{X} = 1.80$ ).

**Table 6:** Dispersion of Participants' Facebook Addiction Level

Facebook Addiction Level	Frequency	Percent (%)
Non-addict (20-49 Point)	653	72.6
Risky Groups (50-79 Point)	204	22.6
Addict (80-100 Point)	46	5.1
<b>TOTAL</b>	<b>903</b>	<b>100.0</b>

In order to determine Facebook addiction level of the university students, the scale of Facebook addiction which consists of 20 questions with five point Likert scale was used (see Table 5). Participants were requested to give points among 1-5 to these 20 questions on the poll sheet. According to total point, it was defined that the students getting points among 20-49 are non-addict, the students getting points among 50-79 are in risky groups and the students getting points among 80-100 are addicts. When it is looked to percentage dispersion of addiction categories, %72.6 of participants are non-addicts, %22.6 of participants are in risky groups and %5.1 of participants are addicts (see Table 6).

**Table 7:** Dispersion of Facebook Addiction According to Participants' Gender

Gender	Addiction Categories		
	Non-Addict (%)	Risky Groups (%)	Addict (%)
Male	73.6	19.3	7.1
Female	71.5	24.8	3.7
$\chi^2 = 7.82; df = 2; p < .05$			

It is clearly seen on Table 7 that Facebook addiction categories meaningfully differ according to gender ( $\chi^2 = 7.82; p < .05$ ). %7.1 of male participants show addiction signs and %3.7 of female participants show addiction signs. On the other hand, %19.3 of males and %24.8 of females are risky Facebook users. Finally, %73.6 of males and %71.5 of females do not show any Facebook addiction signs.

**Table 8:** Dispersion of Facebook Addiction According to Facebook Usage Experience.

Facebook Usage Experience	Addiction Categories		
	Non-Addict (%)	Risky Groups (%)	Addict (%)
Less than 1 year	79.7	18.8	1.4
1-2 years	74.6	22.3	3.1
3-4 years	71.7	22.4	5.8
5 years and more	67.9	24.7	7.4

$X^2= 7.82; df= 6; p> .05$

According to Table 8, %1.4 of participants use Facebook for less than 1 year, %3.1 of participants use Facebook for 1-2 years, %5.8 of participants who use Facebook for 3-4 years and %7.4 of participants who use Facebook for 5 years and more show more Facebook addictions than others. When these results are analyzed, participants who have used Facebook for more than 3 years show highly Facebook addictions when compared other users. On the other hand, %79.7 of participants using Facebook for less than 1 year, %74.6 of participants using Facebook for 1-2 years, %71.7 of participants using Facebook for 3-4 years and %67.9 of participants using Facebook for 5 years and more are not addicts. Chi-Square analysis results of the cross table in question was analyzed and it was seen that this difference is not meaningful ( $X^2= 7.82; p> .05$ ).

**Table 9:** Dispersion of Facebook Addiction According to Weekly Facebook Usage Frequency

Weekly Facebook Usage Frequency	Addiction Categories		
	Non-Addict (%)	Risky Groups (%)	Addicts (%)
1 day in a week	83.9	13.7	2.4
2-3 days in a week	80.0	16.6	3.4
4-5 days in a week	69.9	25.7	4.4
Everyday	63.5	28.3	8.2

$X^2= 29.78; df= 6; p< .001$

There is a meaningful relation between weekly Facebook usage frequency and addiction categories ( $X^2= 29.78; p< .05$ ). When cross table analysis are implemented, %2.4 of participants using Facebook for one day in a week, %3.4 of participants using Facebook for 2-3 days in a week, %3.4 of participants using Facebook for 4-5 days in a week and %8.2 of participants using Facebook for everyday in a week are addicts. In this context, it is clearly said that Facebook addiction percentage increase when Facebook usage frequency increases. On the other hand; %83.9 of users using Facebook for only one day in a week, %80



of users using Facebook for 2-3 days in a week, %69.9 of users using Facebook for 4-5 days and %63.5 of users using Facebook for every day in a week are not addicts of Facebook (see Table 9).

**Table 10:** Dispersion of Facebook Addiction According to Facebook Connection Tools

Facebook Tools	Connection	Addiction Categories		
		Non-Addict (%)	Risky Group (%)	Addict (%)
Computer		79.7	17.8	2.9
Mobile phone		68.0	27.9	4.1
Both of them		62.0	28.5	9.5

$X^2= 34.06$ ;  $df= 4$ ;  $p< .001$

According to Table 10, 2.9 of participants connecting to Facebook by using computer, %4.1 of participants connecting to Facebook by using mobile phone, %9.5 of participants connecting to Facebook by using both vehicles have developed addiction to Facebook. When the results are analyzed, addiction is more common and highly possible among the users using both vehicles for connecting to Facebook. These results were analyzed by using Chi-Square analysis and it was understood that there is a meaningful difference ( $X^2= 34.06$ ;  $p< .05$ ).

**Table 11:** The Relation between Facebook Operating Time and Facebook Addiction

Facebook	Operating	Addiction Level (Compute)
N		316**
		880

Note: \*\* $p< .01$

In order to determine the power and direction of relation between Facebook addiction and Facebook operating time; Facebook addiction scale consisting of 20 questions was computed and it was transformed to one variant. When the results of correlation analysis were looked, there is a weak relation between two variants to positive direction. According to this, when Facebook operating time increases, Facebook addiction level increases clearly ( $r= .316$ ,  $p< .01$ ).

**Table 12:** The Relation between Loneness Level of Participants and Facebook Addiction.

Loneness Level	Addiction Level (Compute)
N	349**
	892

Note: \*\* $p< .01$

It was ascertained that there is a weak and meaningful relation between loneness level of university students joining the survey and Facebook addiction to positive direction. When the results are analyzed, Facebook addiction levels

of participants increase when participants feel themselves as loneness ( $r = .349$ ,  $p < .01$ ).

### 3.5. The Differences between Facebook Addicts and Non-Addicts

In order to show how Facebook addict and non-addict differs each other, linear discriminant analysis was implemented. By using this analysis, it was aimed to display and determine importance of the effective variants used to discriminate addicts from non-addicts. Demographic variants, loneness level, Facebook usage behaviors and variants of Facebook usage reasons were given place in the set of independent variants. The main purpose is to test differentiation effects of variants and come into picture multi-faceted profile of Facebook addicts. According to analyze results, it is seen that the model is meaningful (see Table 13, Wilks' Lambda = 0.87;  $df = 19$ ;  $p < .001$ ). %82.8 of participants was grouped rightly. Beside this, grouping ratio of participants and Lambda value show and prove the power of differentiation ability of analysis.

As seen in Table 13, gender which is in demographic variants has a discriminative effect but monthly expenses have no effect on addiction. In terms of gender, men are more highly susceptible to Facebook addiction than women. The most powerful variable differing addicts from non-addicts in the set of independent variables is the loneness level of university students joining the students. According to this result, Facebook addicts feel themselves lonely. Facebook operating time for only one entrance is another most powerful variable differentiating addicts from non-addicts. It is clearly said that Facebook addicts spent more time than non-addicts on Facebook. In terms of Facebook connection, users connecting to Facebook by using both computers and mobile phones have more susceptibility to Facebook addiction than others connecting to Facebook by using only mobile phones. Beside this, users connecting to Facebook by using mobile phones have more susceptibility than others connecting To Facebook by using only computers.

**Table 13:** Linear Discriminant Analysis about Facebook Addiction, Variables of Facebook Usage Behaviors and Demographic Variables.

Independent Variable	Structure Coefficients
Gender <sup>a</sup>	-0.18*
Monthly Expenses	0.07
Loneness Level	0.68***
<b>Facebook Usage Behaviors</b>	
Facebook Operating Time	0.29***
Less Than 1 Year <sup>b</sup>	-0.06

3-4 Years <sup>b</sup>	0.05
5 Years or More <sup>b</sup>	0.06
Computer <sup>c</sup>	-0.07**
Both of Them <sup>c</sup>	0.18***
To communicate with friends	0.20**
To load photos and look photos of acquaintances	-0.01*
To entertain and relax	0.05**
To spent leisure times	0.12***
To get information about people and events	-0.01*
To read writings on my wall and write others' wall.	0.10**
To instant messaging	0.08**
To be a keen judge of people.	0.01**
To reach communication information of people	0.16***
To share personal presentation and profile information	-0.06**
<i>Eigenvalue</i>	0.14
<i>Canonical Correlation</i>	0.35
<i>Degree of Freedom</i>	19
<i>Wilks' Lambda</i>	0.87
<i>Significance</i>	p< .001
<b>Group Centroids</b>	
<i>Addicts</i>	1.62
<i>Non-Addicts</i>	-0.08
<b>Cases Correctly Classified</b>	82.8 %

Variables were transformed to Dummy Variable; <sup>a</sup>“female”, <sup>b</sup>“1-2 Years” and <sup>c</sup>“Mobile Phone” were taken up references.

\*\*\*p< .001, \*\*p< .01, \*p< .05

On the other hand, another variable in the set of independent variable is the variable of Facebook usage purposes. According to analysis results; communicating with friends, reaching communication information of people, spending leisure times, reading writings on my wall and write others' wall, instant messaging, entertaining and relaxing, to be a keen judge of people are most powerful differentiations variables of Facebook addiction disorder. In other words, Facebook addicts use Facebook for some specific purposes such as communicating with friends, reaching communication information of people, spending leisure times, reading writings on my wall and write others' wall, instant messaging, entertaining and relaxing, to be a keen judge of people. Contrary to this, university students using Facebook in order to get information about people

and events, to load photos and look photos of acquaintances and share personal presentation and profile information show less Facebook addiction signs.

### CONCLUSION and DISCUSSION

Today Facebook draws attentions as a biggest social networking site preferred by youth and with its almost one billion members. With its possibilities such as communicating with friends, socialization, getting information about people and events, entertaining and relaxing; it is the most preferred social networking site of the world. However, heavy and unconsciously usage of social networking sites like Facebook cause big problems to users and at the present most important of these problems is addiction. Although addiction was defined as an illness that patients cannot resist some psychical materials or drugs, today it has developed and extended its classical borders.

Nowadays, people started suffering to become addicts to computers, mobile phones and finally social networking sites. This survey possessing a descriptive design was implemented on the students of Selcuk University from different faculties and colleges. According to results of the study, %5.1 of the students joining the survey is addicts and %22.6 of them is in the risky groups. When these results are taken into account, it is clearly said that %27.7 of participants are *Problematic Facebook Users*. The survey showed that according to gender, men are more susceptible for Facebook addiction than women. This results have similarity with the results of the survey done by Çam and İşbulan (2012: 17-18) on the students of Sakarya University. When it is compared with other categories, user who use Facebook everyday regularly and use computer and mobile phone to connect Facebook are more susceptible to Facebook addiction.

The survey also showed a positive and meaningful relation between daily Facebook usage time of participants and loneliness level of participants with addiction level. In other words, when participants' Facebook usage time and their feeling of liveness in social life increase, their Facebook addiction level also increases at the same time. That is why, it can be clearly said that there is a direct proportional relation these two different variables. In reality, spending too much time on Facebook causes users to stay at home so long and also it cause users to spend little time with their friends or relatives in social life. Because of this, these kinds of users that is addicts become too passive to events and social life realizing their environment. As Harzadın emphasized (2012) that initially joining the imaginary life looks harmless, heavy Facebook usage can cause users to experience personal insensitivity, estrangement to social life and some psychological problems.

At the end of the survey, it is found that participants' Facebook addictions differentiate from each other according to their Facebook usage purposes. Addicts use social networking sites for some specific purposes such as communicating with friends, reaching communication information of people, spending leisure times, reading writings on their walls and write others' wall, instant messaging, entertaining and relaxing, to be a keen judge of people.

To sum up, although this survey made an important contribution to evaluation of an existing social problem, it is compulsory that different surveys should be conducted on the subject. For example next studies can take huge part of the society in their sampling and polls can be implemented to different socio-economic part of Turkish society. Data obtaining from the surveys like this provides possibilities to researchers in terms of analytical comparison with other surveys. Also there are some questions waiting answers that Does Facebook cause people to become loneness or experience social escaping? or Does loneness trigger heavy usage and addiction to Facebook? ©

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