

TEKNOLOJİ BAĞIMLILIĞI VE SANAL YAŞAM**Mustafa Çağrı ENGİN**

Psikolojik Danışman, Dr. Erzurum İl Milli Eğitim Müdürlüğü, Erzurum, Türkiye. ORCID: [0000-0002-4825-2675](https://orcid.org/0000-0002-4825-2675)

Başaran GENÇDOĞAN

Profesör Doktor, Atatürk Üniversitesi, Kazım Karabekir Eğitim Fakültesi, Eğitim Bilimleri Bölümü, Erzurum, Türkiye. ORCID: [0000-0001-9647-438X](https://orcid.org/0000-0001-9647-438X)

İbrahim AKSAKAL

Doçent Doktor, Atatürk Üniversitesi, Edebiyat Fakültesi, Sosyoloji Bölümü, Erzurum, Türkiye. ORCID: [0000-0002-3367-3194](https://orcid.org/0000-0002-3367-3194)

ÖZET

Amaç: Bu çalışmanın amacı; sosyal yaşamı derinden etkileyen teknoloji bağımlılığını incelemek ve üniversite öğrencilerinin teknoloji bağımlılıklarının tespit edilmesi ve çeşitli değişkenler boyutuyla değerlendirilmesidir.

Yöntem: Ülkemizde lisans öğrencilerinin teknoloji bağımlılığı ve sanal yaşam düzeylerini betimlemeyi amaçlayan bu çalışma nitel ve betimsel modeldedir. Bu tür araştırmalar; konuşmalardan, görüşlerden, izlenimlerden ve fikirlerden oluşan bir araştırma yöntemi olarak tanımlanır. Bu tür araştırmalarda anketler daha az yapılandırılmıştır. Nitel araştırma bilgi edinmek için araştırılan konunun derinlemesine incelenmesini amaçlayan bir araştırma yöntemi olarak kabul edilir. Dolayısıyla bu tür araştırmalar ilgilenilen ve araştırılmak istenilen problemin mevcut ve var olan durumunu ortaya koymaya yöneliktir. Bu yöntemin en belirgin özelliği, mevcut durumu kendi koşulları içerisinde ve var olduğu gibi çalışmaktır. Bu araştırmada lisans öğrencilerinin teknoloji bağımlılığı ve sanal yaşam düzeylerinin tespit edilmesi ve elde edilen verilerin belirlenen değişkenler boyutuyla değerlendirilmesini amaç edinilmiştir. Çalışma grubu olarak “Teknoloji Bağımlılığı Ölçeği” uygulanan 130 lisans öğrencisi belirlenmiştir. Katılımcılara geliştirilen bilgi formu ve veri toplama aracı (Teknoloji Bağımlılığı Ölçeği) uygulanmıştır. Veri toplama aracı, derecelendirmeli ve çoktan seçmelidir.

Bulgular: Yapılan çalışmada kullanılan veri toplama aracıyla elde edilen bulgulara göre teknoloji bağımlılığı ölçeği puan ortalaması 47.81 ± 14.77 ’dir. Ölçeğin tümüne ait aritmetik ortalamalar 0-24 puan aralığı “Bağımlı değil”, 25-48 puan aralığı “Düşük düzeyde bağımlı”, 49-72 puan aralığı “Orta düzeyde bağımlı”, 73-96 puan aralığı “Oldukça Bağımlı”, 97-120 puan aralığı ise “Tam Bağımlı” olarak kabul edilir. Buna göre araştırmaya katılanların Teknoloji Bağımlılığı “Düşük düzeyde bağımlı” olduğu söylenebilir. Araştırmaya katılanların % 57.9’unun teknoloji bağımlılığı düşük düzeyde, % 36.8’inin teknoloji bağımlılığı orta düzeyde, % 4.5’inin teknoloji bağımlılığı oldukça bağımlı düzeyde, % 0.8’inin teknoloji bağımlılığı tam bağımlı düzeyde olduğu ortaya çıkmıştır. Katılımcıların bölümlerine, sınıflarına, cinsiyetlerine ve yaşlarına göre, Teknoloji Bağımlılığı Ölçeği puanları açısından aralarındaki farkların hepsi $p > 0.05$ önem düzeyinde anlamsız bulunmuştur. Aynı zamanda öğrencilerin sosyal ağlarda geçirdiği süreye göre ve İnternet sitelerinde günde ortalama ne kadar süre bulunduğuna göre **Teknoloji Bağımlılığı Ölçeği** puanları açısından aralarındaki farklar $p < 0.05$ önem düzeyinde anlamlı iken, kendine ait akıllı telefonun olma durumuna, masaüstü bilgisayar ya da dizüstü bilgisayarının olma durumuna, ailenin ekonomik durumuna, anlık mesajlaşma programlarını günde ortalama kullanma sürelerine, çevrimiçi oyunları günde ortalama ne kadar süre

oynadığına, internet sitesi türlerinden hangilerini kullandığına göre **Teknoloji Bağımlılığı Ölçeği** puanları açısından aralarındaki farklar $p>0.05$ önem düzeyinde anlamsız bulunmuştur. Bu bulgular, araştırmaya katılan öğrencilerin Sosyal ağlarda geçirdiği süreye göre ve İnternet sitelerinde günde ortalama ne kadar süre bulunduğuna göre, **Teknoloji Bağımlılığı Ölçeği** puanları açısından aralarında fark olduğunu göstermektedir. Sosyal ağlarda geçirilen süre ne kadar olanlarda **Teknoloji Bağımlılığı Ölçeği** puanları açısından fark olduğunu anlamak amacıyla Dunnet T3 Post Hoc testi uygulanmış ve geçirilen süre arttıkça Teknoloji Bağımlılığının arttığı görülmüştür. İnternet sitelerinde günde ortalama ne kadar süre geçirenlerde **Teknoloji Bağımlılığı Ölçeği** puanları açısından fark olduğunu anlamak amacıyla Dunnet T3 Post Hoc testi uygulanmış ve internet sitelerinde geçirilen süre arttıkça Teknoloji Bağımlılığının arttığı görülmüştür.

Sonuçlar: Yapılan çalışma da teknoloji bağımlılığı düzeyinin artması internet sitelerinde geçirdiğimiz sürelerin artması ile ve sosyal ağlarda geçirdiği süreyle doğru orantıda olduğunu göstermektedir ve aralarında anlamlı bir ilişki olduğu da anlaşılmıştır. Teknoloji bağımlılığı düzeyinin bölüme, yaşa ve sınıf dağılımına göre artıp azalmadığı belirlenmiştir.

Anahtar Kelimeler: Teknoloji bağımlılığı, Sanal yaşam, Sosyalleşme.

TECHNOLOGY ADDICTION AND VIRTUAL LIFE

Mustafa Çağrı ENGİN

Psychological Counsellor, Dr. Erzurum Provincial Directorate of National Education,
Erzurum, Türkiye. ORCID: [0000-0002-4825-2675](https://orcid.org/0000-0002-4825-2675)

Başaran GENÇDOĞAN

Professor Doctor, Atatürk University, Kazım Karabekir Faculty of Education, Department of
Education Sciences, Erzurum, Türkiye. ORCID: [0000-0001-9647-438X](https://orcid.org/0000-0001-9647-438X)

İbrahim AKSAKAL

Assoc Professor Doctor, Atatürk University, Faculty of Letters, Department of Sociology, Erzurum,
Türkiye. ORCID: [0000-0002-3367-3194](https://orcid.org/0000-0002-3367-3194)

ABSTRACT

Purpose: The aim of this study; is to examine technology addiction, which deeply affects social life, and to identify university students' technology addictions and to evaluate them in terms of various variables.

Method: This study, which aims to describe the technology addiction and virtual life levels of undergraduate students in our country, is in a qualitative and descriptive model. This type of research; It is defined as a research method consisting of conversations, opinions, impressions and ideas. In this type of research, questionnaires are less structured. Qualitative research is considered as a research method that aims to examine the researched subject in depth in order to gain knowledge. Therefore, this type of research is aimed at revealing the current and existing situation of the problem that is interested and wanted to be researched. The most distinctive feature of this method is to study the current situation in its own conditions and as it exists. In this study, it was aimed to determine the technology addiction and virtual life levels of undergraduate students and to evaluate the obtained data in terms of the determined variables. 130 undergraduate students who were applied the "Technology Addiction Scale" were determined as the study group. The developed information form and data collection tool

(Technology Addiction Scale) were applied to the participants. The data collection tool is rated and multiple choice.

Findings: According to the findings obtained with the data collection tool used in the study, the mean score of the technology addiction scale was 47.81 ± 14.77 . The arithmetic mean of the whole scale is “Not dependent” between 0-24 points, “Low dependent” between 25-48 points, “Moderately dependent” between 49-72 points, “Highly Dependent” between 73-96 points, 97-120 score range is accepted as “Full Dependent”. According to this, it can be said that the participants in the research have a "low level of addiction" to Technology Addiction. It was found that 57.9% of the participants had a low level of technology addiction, 36.8% had a medium level of technology addiction, 4.5% had a highly dependent level of technology addiction, and 0.8% had a fully dependent level of technology addiction. and age, in terms of Technology Addiction Scale scores, all the differences between them were found to be insignificant at the $p > 0.05$ significance level. At the same time, according to the time spent by the students on social networks and the average amount of time they are on the Internet, the differences between them in terms of the Technology Addiction Scale scores are significant at $p < 0.05$ importance level, while the status of having their own smart phone, having a desktop computer or laptop computer, the status of the family The differences between them in terms of Technology Addiction Scale scores were found to be insignificant at $p > 0.05$ significance level, depending on their economic status, average daily use of instant messaging programs, how long they play online games on average, and which types of websites they use. These findings show that there is a difference between the students participating in the research in terms of the Technology Addiction Scale scores according to the time they spend on social networks and how long they are on the Internet on average per day. Dunnet T3 Post Hoc test was applied to understand how much time spent in social networks differed in terms of Technology Addiction Scale scores and it was observed that Technology Addiction increased as the time spent increased. Dunnet T3 Post Hoc test was applied in order to understand the difference in terms of the Technology Addiction Scale scores of those who spend an average of time on the websites, and it was observed that the Technology Addiction increased as the time spent on the websites increased.

Results: The study shows that the increase in the level of technology addiction is directly proportional to the increase in the time we spent on websites and the time spent on social networks, and it has been understood that there is a significant relationship between them. It was determined whether the level of technology addiction increased or not according to the department, age and class distribution.

Keywords: Technology addiction, Virtual life, Socialization. Findings

Introduction

In today's world, where information technologies are developing at a dizzying pace, the reality is that; it's impossible to live without technology is being experienced moment by moment. Living alongside technology, which advances and directly impacts human life, should not turn into an addiction that negatively impacts social life. Because the addiction experienced and observed has long since surpassed the limits of learning and has pushed natural and social life into a seemingly inextricable state. As is known, our age is the information age, and its most valuable asset is knowledge. In short, if you know, you're different, you're superior, and you can't live without it. If you don't, you're ordinary, ordinary, and tacky, and you can afford not to be. Lack of knowledge leads people to an inferiority complex. The only way to overcome this complex is the consciousness of knowledge. In fact, this age can also be called the communication age. Because with near-perfect mass media, the far is now near, and even the near is behind the far. The relationship between near and far has begun to be established between these fundamental dimensions, based on the fact that humans are biopsychic and sociocultural beings whose existence precedes their essence and who then strive to achieve their essence of being human by utilizing all available means and opportunities. While a holistic approach to humans should be adopted, ensuring their development as a whole by preserving the balance between these dimensions that constitute them, unfortunately, the balance between these dimensions has been disrupted, and we are experiencing a situation where the near becomes distant, and the far becomes near. In other words, the most fundamental dimension of humanity, the affective domain values that manage and guide the learning acquired in other dimensions through the cultural dimension, have begun to proliferate in response to distant and perhaps even daily bodily pleasure-inducing stimuli, creating, as Vygotsky put it, a more proximal environment.

Although humanity has not yet attained knowledge of the immutable absolute truth of yesterday, today, and tomorrow in the name of positive sciences, we cannot yet say that the technologies produced in connection with these developments have consistently engendered desired behaviors in their users. Just as there is no knowledge of absolute truth, we cannot speak of the absolute benefit of technologies developed based on that knowledge. While they may offer significant benefits, they should also be expected to have some drawbacks. As new characteristics of beings, objects, and living beings emerge in parallel with scientific advancements, the same perspective can be applied to technologies developed at that center. In some cases, there is always the possibility that what is considered good can become bad, and what is considered bad can become good. In essence, we are talking about the lining changing the surface and the ground changing the shape. This is precisely where technology dependency manifests itself.

One of the most significant social and individual problems of the 21st century is addiction, which deprives personal will of the ability to make healthy decisions. Whatever the addictive substance or situation, it puts the organism under the thrall of sanctions and activates short-term, almost enslaving, pleasure mechanisms, either for a winter or a morning. The short-term pleasure and physical satisfaction that emerge in this situation is a state of exhaustion that paralyzes healthy decision-making mechanisms. The inability to translate the affective values that form the key systems of our attitudes and behaviors into attitudes and behaviors is the source of all these undesirable situations. Ultimately, this addiction manifests itself in all stages of social life. While addiction can be internal or external in origin, it can have a highly effective and consequential influence and guiding power over individual/personal will, and therefore is called a disease that takes control of the mind and will. Within the framework of a holistic approach to education, addiction stems from the individual's inability to meet their demands and expectations by maintaining the balance between the dimensions that constitute them

unable to provide these needs themselves, they now seek relief through this and similar addictions. Indeed, addiction is the result of a person losing their sense of self-efficacy and losing faith in themselves. Addiction is not a status role associated with any social class, such as children's positive attachment to their parents. Rather, it is the internal and external reflection of an inner decay. In fact, addiction is an escape and a mask. It disguises a number of failures in an individual's life skills, problems with adaptation and adjustment, a lack of freedom, and ultimately, their abandonment of social life. It is a highly chronic and persistent behavioral disorder. While it is not easy for people to overcome the addiction that has dominated them, it is possible with appropriate scientific and therapy-based methods and techniques. Treatment services also primarily focus on how to manage addictions.

According to research data from the PEW research center, more than 87% of US citizens are internet users; 90% own a mobile phone, and 58% own a smartphone (PEW, 2014). According to 2016 data from the UK Office for National Statistics (ONS): While 99.2% of adults aged 16-24 are internet users, 82% of adults access the internet daily and 70% of those who access the internet use a mobile phone or smartphone (ONS, 2016).

Purpose of the Study

The purpose of this study is to examine technology addiction, which profoundly affects social life, and to identify and evaluate the technology addictions of university students across various variables.

Significance and Rationale of the Study

This study aims to evaluate technology addiction, one of the fundamental problems of our age, according to predetermined variables and to understand whether significant differences occur among participants based on these variables. Based on this rationale, the significance of this study can be considered. The significance of the study undoubtedly stems from its rationale.

Limitations and Assumptions of the Study

This study is limited to the participating students and the researchers. It is assumed that the participants responded to the scale items presented to the study/sample group members of the study of their own free will and from an objective perspective.

Research Problem and Sub-Problems

*Problem Statement: What are the Technology Addiction Levels of University Students?

*Sub-problems: Is there a difference between the participants' technology addiction levels in terms of the determined variables?

Theoretical Framework and Related Research

The second section of this study focuses on operational concepts related to the field of study. While defining the selected concepts, studies conducted on these topics are also cited, and brief evaluations are made of the results obtained. Because the subject of this study also has psychological depth through its attitudinal dimension, it touches upon almost every parameter of social life. A considerable enthusiasm for work in this field is evident among these and similar participants in the field.

Characteristic Characteristics of Addiction

Addiction is chronic and encompasses almost every aspect of life. Because it suppresses certain areas of life, all other areas focus on creating time and opportunities for that purpose, as if it were the goal of living. From this perspective, addiction has various dimensions and characteristic features related to its formation processes and areas of influence. Because addiction profoundly affects the body's technology, it is not an acute or easily overcome health problem. It is impossible to eliminate it immediately with any medication. When addiction becomes aware of itself and the individual accepts its acceptance, the pleasure it provides to the body reaches a point of satisfaction. There's nothing an individual under its domination wouldn't sacrifice. If psychological counseling and medical intervention aren't available, treatment can be very difficult. It has the ability to persist throughout life, as often as possible. When a certain point of satisfaction is reached, the organism begins to generate justifications for it. Addiction is primary within its own structure. In other words, it's essentially a primary disease.

Although it may have arisen as a result of/triggered by another psychological or other illness, recovery from addiction isn't always possible even if that illness is treated. Complete recovery from this illness requires uninterrupted treatment based on willpower, critical thinking, and ongoing treatment. Addiction always makes itself felt whenever and wherever it can. The need for it begins to grow. The body's ability to inhibit it gradually diminishes. The situation worsens. An individual who develops an addiction to one substance or situation may develop an addiction to another stimulant over time. This is called cross-addiction. When one becomes a slave to an addictive situation and stimulant, all available opportunities and possibilities are eroded, and when there is nothing left to overcome, all values begin to be defeated. Ultimately, undesirable and very grave events and traumas begin to occur.

Technology Addiction

This is the inability to control the urge to use technology in an uncontrolled and intense manner, consciously or unconsciously. It is a prevailing perception that life is meaningless without technology. In this situation, when a person distances themselves from technology, they experience anxiety about losing their purpose in existence. It is a type of behavioral and action addiction that sabotages and disrupts family and social life. A person addicted to technology often perceives that this is the only way they can make themselves known and be noticed. Social relationships are also organized accordingly. They no longer plan for the future and At the heart of the designs lies the desire to access and satisfy substances and technological products that create addiction and provide physical and emotional pleasure. Those addicted lack the self-confidence, willpower, and logic—the science of reason—to overcome this condition, and therefore, it is essential to seek outside professional support.

A sense of addiction can develop based on technology use that begins to meet individual needs and is not fully literate. Within this framework, the contributions of technology to daily living skills and the provision of diverse communication solutions lead to its intensive use. The expansion of social networks and the faster-than-anticipated developments in these technologies have revealed problems related to excessive use. Online games, easy access to sexual abuse sites, and the ability to meet new people through social networks can all lead to the repetition and reinforcement of behaviors, ultimately leading to addiction (Nalwa & Anand, 2003). According to Peele and Brodsky (2012) (as cited in Tari Cömert, 2010), addiction offers individuals sensations and satisfying physical pleasures they cannot experience through other means.

One of the fundamental factors contributing to technology addiction is the disruption of normal family relationships, particularly the resulting introversion and socialization problems. When this condition becomes chronic, every addictive device becomes a tool, and to some extent, the individual identifies with it, attempting to adapt to the environment. Gradually, this very tool, which has become a part of one's personality, transforms itself into a much more active and influential device. While the concept of addiction used to be limited to the use of chemical substances such as alcohol, cigarettes, and marijuana, the rapid advancement of technology, which has become increasingly prevalent in daily life, has led to questions about whether some of the problems arising are psychiatric and psychological.

The occurrence of certain problems during technology use and the identification of these problems are crucial. These situations are extensively covered in Griffiths' (1995) study. This study asserts that technological addictions can have stimulating or reinforcing properties that contribute to the promotion of addictive tendencies, and can be passive, such as watching television, or active, such as playing games. Griffiths (1999) argued that technology addiction is a social tool addiction, not a chemical addiction, and should be examined in terms of behavioral addictions. Griffiths (2005) defined technology addiction using six addiction criteria. These are: Salience, Withdrawal, Conflict, Relapse, Tolerance, and Mood Modification.

In the information age we live in, the rapid proliferation of computer use can lead to various technology addictions in users, such as addictions to the internet, computers, social networks, videos, computer games, smartphones, online shopping, and mobile instant messaging. The increase in computer use in our age has also led to a significant increase in the use of the internet and social networking sites. While technology addiction is fundamentally discussed, various types of technology addiction have emerged, such as addiction to the internet, computers, social networks, videos, computer games, smartphones, online shopping, and mobile instant messaging. A review of the literature reveals that, according to the results of some studies, internet addiction: Internet addiction (Young, 1998b), Problematic Internet use (Morahan-Martin and Schumacher, 2000), Internet addiction disorder (Goldberg, 1999). The concept of Internet addiction first came to the fore in 1996 and has been the basis for many studies. The American Psychiatric Association has published some of these studies. Based on these studies, it has been evaluated that internet addiction can be a clinically significant behavioral disorder. In this sense, Goldberg (1999) attempted to explain this behavioral disorder as involving attention seeking, emotional state changes, time dilation, withdrawal, conflict, and relapse. Furthermore, Block (2008), in his article on Internet addiction in the DSM-V, stated: This type of addiction has been recognized as a "compulsive-impulsive spectrum disorder" consisting of features such as online and offline computer use, excessive gaming, frequent sexual preoccupation, and email messaging.

These features include: Overuse: Frequently associated feelings; Withdrawal: Depression or anger or tension when a computer or addictive technology is unavailable; Tolerance: Need for better computer equipment, more time, and software; and Negative reactions: Arguing, lying, failure, social isolation, and burnout. The increased functionality of social media platforms like the internet, along with their related technologies, in almost every field has led to people experiencing overuse problems.

Because this issue poses a threat to all of humanity, numerous studies have been conducted and are being conducted to identify the problem and take preventative measures.

Addictive states, generally referred to as technology addiction, are primarily related to psychosocial factors. This state, which pervades all aspects of social life, negatively impacts work, school, health, and family life (Tsai and Lin, 2007). 2003). For example, a student who uses the internet extensively prefers online activities to normal activities and initially begins to experience sleep disorders (Anderson, 2001).

Therefore, significant problems arise in almost every aspect of life (Çakır, Balta, & Horzum, 2008). In an online study, 50% of 308 internet users stated that they use the internet primarily to postpone the normal flow of life and spend 47% of their time pretending to be... preoccupied with this process. Some also stated that they see the internet as an alternative way to cope with stress (Davis, Flett, & Besser, 2002).

Ektiricioğlu et al. (2017) also stated in their research that computers, the internet, and smartphones play a significant role in our daily lives. Furthermore, according to the "We Are Social" 2017 "Internet and Social Media User Statistics" report, the world's population A review of studies reveals that 50% are internet users, 37% are active social media users, and 66% are smartphone users. It's fair to say that these figures are similar in our country.

The rate of social media use is also quite high within this data. Almost every individual has their own social media account. In fact, many people, not content with a personal account, open multiple accounts to gain likes and followers. This, when considered, highlights the impact of technology addiction, considering that these activities are often motivated by the desire to gain likes and increase followers, rather than the longevity of the shared image.

METHODOLOGY

Research Method

This study, which aims to describe the levels of technology addiction and virtual life among undergraduate students in our country, employs a qualitative and descriptive model. This type of research is defined as a research method consisting of conversations, opinions, impressions, and ideas. Surveys in this type of research are less structured. Qualitative research is considered a research method that aims to examine the research topic in depth to obtain information. Therefore, this type of research aims to reveal the current and existing status of the problem of interest and research. The most distinctive feature of this method is to study the current situation within its own context and as it exists. This study aims to determine the levels of technology addiction and virtual life among undergraduate students and to evaluate the obtained data in terms of the specified variables.

Population and Sample

The population of this study consists of undergraduate students studying at university. The study group consisted of 130 undergraduate students studying in the departments of Guidance and Counseling, Preschool, Turkish Language Teaching, and Special Education.

Data Collection Tool

The data collection tool was: The second section of the participants' personal information included a "Personal Information Form," which included items and questions regarding participants' technology use preferences. The "Technology Addiction Scale" (TAS) was used to measure their technology addiction levels. An 18-item personal information form was designed to descriptively examine the research study group members' personal information, their usage habits within technology usage environments, and their frequency of technology use, and to obtain the desired data within this framework. The prepared personal information form includes questions/options at the beginning of the form that identify demographic characteristics such as participants' university, department, class, gender, and age. The aim was to obtain information regarding whether participants owned a smartphone, desktop computer, or laptop, as well as their socioeconomic status. Users were asked questions regarding the internet connection, the device used to connect, whether they are members of social networking sites, which social networking sites they are members of, the time spent on social networking sites, which instant messaging programs they use, the duration of instant messaging programs, the types of online games played, the duration of online games played, the types of websites browsed, the duration of browsing on each website, and the total time spent on technology applications throughout the day.

The "Technology Addiction Scale," developed by Fatih AYDIN and Prof. Dr. Nurettin ŞİMŞEK, was used to determine students' technology addiction levels after receiving approval. The five-point Likert-type scale was ready for use after the necessary steps, and validity and reliability studies were conducted. Exploratory factor analysis (EFA) was applied to examine the factorial validity of the Social Network Addiction Scale (SAS). Whether the data obtained from the study group are suitable for exploratory factor analysis can be explained by the Kaiser-Meyer-16 Olkin (KMO) and Bartlett tests (Çokluk, Şekercioğlu, Büyüköztürk, 2012). According to Table 8, in the EFA results; the Kaiser Meyer Olkin (KMO) value of 0.827 was accepted as the basis, and it was evaluated that the sample size would be usable for principal components analysis. In addition, when the Bartlett sphericity results were examined, it was seen that the chi-square (X^2 : 463.197, $p=0.000$) value was significant. The rating and multiple choice scale ("Technology Addiction Scale" given above and the developed information form were used (Aydın & Şimşek, 2017).

Process/Application

The Technology Addiction Scale was administered to undergraduate students online by submitting the scale via Google Forms.

Data Analysis

Four different statistical analyses were used in data analysis, conducted on a computer using the SPSS 22.00 statistical package. These analyses are as follows:

1. Frequency
2. Percentage
3. Kruskal Wallis H test

4. Mann Whitney U test

Validity and Reliability

The scale used as the data collection tool in this study was developed by Fatih AYDIN and Nurettin ŞİMŞEK, and its validity and reliability studies were conducted before its use in similar studies.

Findings

The distribution of students included in the study according to their descriptive characteristics is presented in Table 1.

Table 1. Findings regarding the descriptive characteristics of the students included in the study (n=263)

		S	%
Department	Guidance Counseling	18	13,5
	Special Education	35	26,3
	Preschool	55	41,4
	Turkish Language Teaching	25	18,8
Class	2	115	86,5
	3	18	13,5
Sex	Female	111	83,5
	Female	22	16,5
Age	18-20	51	38,3
	21-23	64	48,1
	24-26	6	4,5
	27 and over	12	9,0
Your own smartphone, desktop computer or laptop	Yes	127	95,5
	No	6	4,5
Family's economic situation	Low	28	21,1
	Medium	100	75,2
	High	5	3,8
Internet Connection Places *	Home or dormitory	46	34,8
	Mobile	35	26,5
	Home or dormitory + Faculty	1	,8
	Home or dormitory + Mobile	38	28,8
	Home or dormitory + Faculty + Mobile	10	7,6
	Home or dormitory + Faculty + Mobile + Internet cafe	2	1,5
Which device do you use to connect to the internet? *	Desktop PC	2	1,23
	Smartphone	78	47,85
	Laptop PC	2	1,23
	Desktop PC + Smartphone	5	3,07
	Smartphone + Laptop PC	23	14,11
	Many options	23	14,11

Which social networking sites do you use? *	Twitter	1	0,75
	Instagram	10	7,52
	Youtube	19	14,29
	Google Plus	2	1,50
	Instagram + Youtube	36	27,07
	Twitter +Instagram + Youtube	35	26,32
	Many options	30	22,56
Time spent on social networks	Less than 1 hour	14	10,5
	1-2 hours	35	26,3
	3-4 hours	52	39,1
	5-6 hours	24	18,0
	7 hours and above	8	6,0
Which instant messaging programs does he/she use? *	Whatsapp	94	70,7
	Whatsapp + Snapchat	33	24,8
	Whatsapp + Facebook	1	,8
	Whatsapp + Messenger	3	2,3
	Whatsapp + Snapchat + Facetime	1	,8
	Whatsapp + Snapchat + Skype + Facetime	1	,8
How much time do people use instant messaging programs on average per day?	Less than 1 hour	38	28,6
	1-2 hours	57	42,9
	3-4 hours	27	20,3
	5-6 hours	9	6,8
	7 hours and above	2	1,5
What types of online games do you play? *	None	18	16,98
	Puzzle	37	34,91
	Racing	7	6,60
	Sports	5	4,72
	War	1	0,94
	Strategy	6	5,66
	Virtual Life	1	0,94
	Multiple options	31	29,25
How much time do you spend playing online games on average per day?	Less than 1 hour	93	80,2
	1-2 hours	17	14,7
	3-4 hours	3	2,6
	5-6 hours	3	2,6
What types of websites do you use?	Shopping	5	3,79
	Travel	1	0,76
	Online Movies and TV Series	5	3,79
	Search Engines	9	6,82
	Online Music and Video	2	1,52
	Multiple options	110	83,33
How much time do you spend playing online games on average per day?	Less than 1 hour	46	35,1
	1-2 hours	56	42,7
	3-4 hours	19	14,5
	5-6 hours	9	6,9
	7 hours and above	1	,8

* More than one option is selected.

When the table is examined, it is seen that 41.4% of those included in the research are studying in Pre-School, 26.3% are studying in Special Education, 18.8% are studying in Turkish Language Teaching, 13.5% are studying in Guidance and Counseling Department, 86.5% are in 2nd grade, 13.5% are in 3rd grade, 83.5% are female, 16.5% are male, 48.1% are between the ages of 21-23, 38.3% are between the ages of 18-20, 95.5% have their own smart phone, desktop computer or laptop, 75.2% have a medium economic status of their family, 21.1% have a low economic status of their family, 34.8% connect to the internet at home or at a dormitory, 28.8% connect to the internet at home or at a dormitory and via mobile phone, 26.5% connect via mobile phone, 58.6% of them use smartphones to connect to the internet, 17.3% use smartphones and laptops to connect to the internet, 27.1% use Instagram + YouTube, 26.3% use Twitter + Instagram + YouTube, 14.3% use YouTube, 39.1% spend 3-4 hours on social networks, 26.3% spend 1-2 hours on social networks, 18% spend 5-6 hours on social networks, 10.5% spend less than 1 hour on social networks, 6% spend 7 hours or more on social networks, 70.7% use WhatsApp as an instant messaging program, 24.8% use WhatsApp + Snapchat as an instant messaging program, 42.9% spend an average of 1-2 hours a day on instant messaging programs, 28.6% spend an average of less than 1 hour a day on instant messaging programs, 20% spend an average of 3-4 hours a day on instant messaging programs, 34.91% play online puzzles, 29.3% play more than one type of online game, 16.9% do not play online games, 80.2% play online games for less than 1 hour a day on average, 14.7% play online games for 1-2 hours a day on average, 6.8% use the Internet for search engines, 3.8% use the Internet for shopping, 3.8% use the Internet for online movies and TV series, 83.3% use the Internet for more than one purpose, 42.7% spend an average of 1-2 hours a day on websites, 35.1% spend an average of less than 1 hour a day on websites, 14.5% spend an average of 3-4 hours a day on websites.

The arithmetic mean and standard deviation values for the Technology Addiction Scale scores of the study participants are shown in Table 2.

Table 2. Arithmetic mean and standard deviation values for the students' Technology Addiction Scale scores

	Arithmetic mean	S.s.
Technology Addiction Scale	47,81	14,77

When the table is examined, it is seen that the Technology Addiction Scale mean score is 47.81 ± 14.77 . When interpreting the arithmetic means for the entire scale, a score range of 0-24 is considered "Not Dependent," a score range of 25-48 is considered "Low Dependent," a score range of 49-72 is considered "Moderate Dependent," a score range of 73-96 is considered "Highly Dependent," and a score range of 97-120 is considered "Fully Dependent." Accordingly, the study participants' Technology Addiction can be said to be "Low Dependent."

The addiction levels of the study participants based on their Technology Addiction Scale scores are presented in Table 3.

Table 3. Addiction levels of the study participants based on their Technology Addiction Scale scores

Dependence Level	f	%
Low Dependent	77	57,9

Moderate Dependent	49	36,8
Highly Dependent	6	4,5
Fully Dependent	1	,8

57.9% of the study participants were found to have a low level of technology addiction, 36.8% were found to have a moderate level of technology addiction, 4.5% were found to have a very high level of technology addiction, and 0.8% were found to have a full level of technology addiction.

Table 4 shows the differences in Technology Addiction Scale scores of the participating students based on their departments, grades, gender, and age.

Table 4. Differences in Technology Addiction Scale scores of the participating students based on their departments, grades, gender, and age.

		N	X	S.s	Test	p
Department	PDR	18	53,94	13,454	KW=5,371	,147
	Special Education	35	44,97	14,174		
	Preschool	55	47,62	15,912		
	Turkish Language Teaching	25	47,80	13,323		
Class	2.	115	48,25	15,281	U=,939	,528
	3.	18	45,00	10,890		
Sex	Female	111	47,86	14,827	U=1211,500	,954
	Male	22	47,59	14,831		
Age	18-20	51	48,00	12,660	KW=4,373	,224
	21-23	64	49,33	17,089		
	24-26	6	46,67	4,844		
	27 and over	12	39,50	10,817		

An examination of the table reveals that all differences between the participants' Technology Addiction Scale scores based on their departments, grades, gender, and ages were found to be insignificant at a significance level of $p > 0.05$. These findings indicate that there was no difference between the participants' Technology Addiction Scale scores based on their departments, grades, gender, and age.

The differences in Technology Addiction Scale scores based on the social media, internet, and communication tool use of the participants are presented in Table 5.

Table 5. Differences in Technology Addiction Scale scores based on the social media, internet, and communication tool use of the participating students

		N	X	S.s	Test	p
Your own smartphone, desktop computer or laptop	Yes	127	48,01	14,616	U=292,000	,334
	No	6	43,67	18,854		
Family's economic situation	Low	28	48,50	14,567	KW=,187	,911
	Medium	100	47,33	13,954		

	High	5	53,60	29,972	
Time spent on social networks	Less than 1 hour	14	38,50	9,796	
	1-2 Hours	35	40,54	10,738	
	3-4 Hours	52	47,65	12,805	KW=33,704 ,000
	5-6 Hours	24	59,00	15,056	
	7-Hours and over	8	63,38	17,121	
How much time do people use instant messaging programs on average per day?	Less than 1 hour	38	44,87	13,708	
	1-2 Hours	57	45,96	13,819	
	3-4 Hours	27	52,56	16,121	KW=7,387 ,117
	5-6 Hours	9	56,00	16,302	
	7-Hours and over	2	55,50	20,506	
How much time do you play online games on average per day?	Less than 1 hour	93	46,68	14,708	
	1-2 Hours	17	54,18	13,524	
	3-4 Hours	3	60,33	23,629	KW=7,727 ,052
	5-6 Hours	3	58,00	13,077	
Which types of websites do you use?	Shopping	5	37,60	13,240	
	Travel	1	47,00	0.000	
	Online Movies and TV Series	5	42,00	10,700	
	Search Engines	9	40,44	15,804	KW=10,353 ,066
	Online Music and Video	2	64,50	9,192	
	Multiple Options	110	48,99	14,658	
How much time do you spend on websites on average per day?	Less than 1 hour	46	45,20	15,356	
	1-2 Hours	56	47,95	14,474	
	3-4 Hours	19	48,37	11,092	KW=11,288 ,024
	5-6 Hours	9	58,56	11,126	
	7-Hours and over	1	87,00	0.000	

When the table is examined, the differences between students' Technology Addiction Scale scores based on the time they spend on social networks and the average time they spend on websites per day are significant at the $p < 0.05$ level. However, the differences between students' Technology Addiction Scale scores based on their own smartphone, desktop computer, or laptop, family economic status, average daily use of instant messaging programs, average daily time spent playing online games, and website types they use are found to be insignificant at the $p > 0.05$ level.

These findings indicate that there are differences between the participating students' Technology Addiction Scale scores based on the time they spend on social networks and the average daily time they spend on websites.

To determine whether there are differences in Technology Addiction Scale scores among participants, a Dunnett T3 Post Hoc test was applied, and it was found that as time spent on social networks increases, Technology Addiction increases. In order to understand the difference in Technology Addiction Scale scores among those who spend an average of time on websites per day, Dunnett T3 Post Hoc test was applied and it was observed that Technology Addiction increased as the time spent on websites increased.

Discussion, Conclusion, and Recommendations

According to the results of the technology addiction scale, more than 90 percent of participants use their own phones. While not every phone owner is directly considered a technology addict, there is a possibility that the level of addiction may increase. In other words, every phone user can be considered a potential technology addict without even realizing it. Our study demonstrates a parallel relationship between the time spent on social networks and websites and technological addiction. Using technology is, of course, inevitable today. Its benefits are undeniable, beyond dispute. However, when used beyond its intended purpose, addiction increases. This addiction is not solely due to a single factor. Marketers and large corporations have as much influence as individuals' misuse.

Technology has become an indispensable part of our lives. This indispensable situation has led to companies' desire to work with professional teams to influence consumers and encourage them to spend more time. Professional teams, working in accordance with our interests and orientations, create content tailored to these areas to influence us, thus encouraging us to spend more time and money. As this interaction becomes a part of our lives, our addiction level increases significantly. Social media posts and the drive to make money negatively impact this level. Younger generations, in particular, are unlikely to be harmed by this interaction. The high amounts of money earned through influencers also influence individuals to become addicted to technology. Unfortunately, despite the potential for quick money, all sorts of tactics are often used. In this context, it's crucial to control our addiction. It shouldn't become a life philosophy. The saying "if you don't live as you believe, you'll be forced to believe as you live" serves as a compelling example.

REFERENCES

- Anderson, K. J. (2001). Internet use among college students: An exploratory study. *Journal of American College Health*, 50(1), 21-26.
- Aydın, Ş., Şimşek, N. (2017). "Teknoloji Bağımlılığının Sınıf Ortamında Yarattığı Sorunlara İlişkin Öğrenci Görüşleri" Ankara Üniversitesi Eğitim Bilimleri Enstitüsü, Bilgisayar ve Öğretim Teknolojileri Eğitimi Anabilim Dalı Eğitim Teknolojisi Programı, Doktora Tezi: [file:///C:/Users/Dell/AppData/Local/Temp/Rar\\$Dla3464.17072/teknoloji-bagimlilik-olcegi-tbo-toad.pdf](file:///C:/Users/Dell/AppData/Local/Temp/Rar$Dla3464.17072/teknoloji-bagimlilik-olcegi-tbo-toad.pdf).
- Block, J. J. (2008). Issues for DSM-V: Internet addiction.
- Çakır-Balta, Ö., & Horzum, M. B. (2008). İnternet bağımlılığı testi. *Eğitim Bilimleri ve Uygulama Dergisi*, 7, 87-102.
- Davis, R. A., Flett, G. L., & Besser, A. (2002). Validation of a new scale for measuring problematic Internet use: Implications for pre-employment screening. *Cyberpsychology & behavior*, 5(4), 331-345.
- Ektiricioğlu, C., Arslantaş, H., & Yüksel., R. (2017). Ergenlerde çağın hastalığı: Teknoloji

bağımlılığı. *Arşiv kaynak tarama dergisi*, 29(1), 51-64.

Griffiths, M. (1995). Technological addictions. In *Clinical Psychology Forum* 14- 14.

Griffiths, M. (1999). Internet addiction: fact or fiction?. *The Psychologist*.

Griffiths, M. (2005). A ‘components’ model of addiction within a biopsychosocial framework. *Journal of Substance Use*, 10(4), 191-197.

Griffiths, M. D. (2000). Internet addiction – time to be taken seriously? *Addiction Research*, 8, 413–418.

Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. *Personality psychology in Europe*, 7(1), 7-28.

Morahan-Martin, J., & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in human behavior*, 16(1), 13-29.

Nalwa, K., ve Anand, A. P. (2003). Internet addiction in students: A cause of concern. *CyberPsychology & Behavior*, 6(6), 653-656.

Peele, S., Brodsky, A., & Arnold, M. (1992). *Truth about addiction and recovery*. Simon and Schuster.

Tarı Cömert, I. (2010). Diğer bağımlılıklar: Bilgisayar ve İnternet bağımlılığı. Ed: Ögel K. Sigara, Alkol ve Madde Kullanım bozuklukları: Tanı, Tedavi ve Önleme. İstanbul:YenidenYayınları.15-27.
http://www.ogelk.net/Dosyadeppo/diger_bagimliliklar.pdf/ adresinden 12.01.2016 tarihinde erişilmiştir.

Young, K. S. (1998b). Internet addiction: The emergence of a new clinical disorder. *Cyberpsychology & behavior*, 1(3), 237-244.