

INTRINSIC AND EXTRINSIC MOTIVATIONS OF SOCIAL MEDIA USE: COLLEGE STUDENTS PERSPECTIVE

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ABSTRACT

Based on uses and gratifications theory and motivation theory, this study examined how college students' intrinsic and extrinsic motivations of social media use are associated with their social media addiction levels. An online survey was conducted with 220 undergraduate students enrolled in a large, public university in Turkey. The results showed that both extrinsic and intrinsic motivation factors are correlated with college students' social media addiction levels. Specifically, better connecting with others and facilitating interactions with family and friends were the extrinsic motivation factors significantly associated with social media addiction levels. Significant intrinsic motivation factors included killing idle time, finding entertainment, getting away from pressures or responsibilities, and relaxing. The results further indicated that the intrinsic motivation factors are more strongly correlated with college students' social media addiction than the extrinsic motivation factors. The present study contributes to enhancing our understandings of social media use and addiction among college students. Theoretical and practical implications of the findings are discussed.

Keywords: Motivation, Social Media Use, College Student

INTRODUCTION

Social network sites (SNSs) are networked communication platforms in which participants publicly articulate connections and/or interact with streams of user-generated content provided by their connections (Ellison & Boyd, 2013). Nowadays, fast-evolving SNSs have dominated most people's lives, allowing users, especially college students to develop personal communication, find entertainment, seek self-status, and achieve information exchange. Along with these major uses and gratifications factors, these platforms have an addictive potential and can have negative psychological impacts – such as social media addiction, which is regarded as a subtype of the Internet addiction. An individual can be seen as being addicted to social media when his/her psychological state, which includes both mental and emotional states as well as his/her scholastic, occupational and social interactions, is impaired by the overuse of social media (Turel et al., 2014).

Most studies before 2010 focused on problematic Internet use (Tokunaga & Rains, 2016). Recently, a growing number of researchers have turned their attention to problematic social media use (Hormes, Kearns, & Timko, 2014; Khumsri, Yingyeun, Manwong, Hanprathet, & Phanasathit, 2015; Ryan, Chester, Reece, & Xenos, 2014; Sriwilai & Charoensukmongkol, 2015). To fill the gap in the literature, this study analyzes what intrinsic and extrinsic motivation factors are associated with college students' level of social media use and addiction based on social media platform as whole.

This research is significant for several reasons. Firstly, Internet addiction along with its subtypes, such as social media addiction, is becoming a major problem as the number of social network sites increases. Secondly, social media addiction hasn't been studied enough to receive its own clinical definition or treatment recommendation. Thirdly, prior research suggested that college students are exposed to a higher risk of Internet addiction because of their vulnerability (Arnett, 2000).

Literature Review

Social media is a group of Internet-based applications that build on the technological foundations of Web 2.0, which allows the creation and exchange of user-generated content (O'Reilly, 2007). It first appeared in late 1990s, and became popular at the year of 2003 with the birth of MySpace, which led to the launch of numerous social media websites such as Facebook, Twitter. Social network sites (SNSs) are a subset of social media that

allows users to create a public profile and interact with other users on the website. Kaplan and Haenlein once classified social media platforms based on their different levels of social presence/media richness (amount of information that is allowed to be transmitted in a given time period) and self-presentation/self-disclosure (the conscious or unconscious revelation of personal information) (Kaplan & Haenlein, 2010). According to their classification, social network sites (e.g., Facebook) are one kind of social media with high self-presentation and medium social presence.

When people think about addiction, they often think of it as involving substances, such as drugs or alcohol. Broadly speaking, addiction is defined as a “compulsive, uncontrollable dependence on a substance, habit, or practice to such a degree that cessation causes severe emotional, mental, or physiological reactions” (Harris, Nagy & Vardaxis, 2014). Nowadays, more and more attention has been paid to behavioral addictions such as gambling, sex, Internet, shopping, video game, plastic surgery, and risky behavior (Grant et al., 2010; Griffiths & Demetrovics, 2012). Among all behavioral addictive traits, the Internet stands out for its relevance in the digital media age and its potential of delivering harmful results to millions as access to the Internet has risen globally (“World Internet Users Statistics,” 2015). Problematic Internet use (PIU), an uncontrolled Internet consumption pattern, has been widely studied by communication scholars. A recent meta-analysis reported that over 350 studies have examined PIU (Tokunaga & Rains, 2016). Tokunaga and Rains (2016) identified three conceptual and operational definitions of PIU, they viewed it as substance dependence, an impulse control disorder, and an artifact of relational and relationship-building resources deficits (Tokunaga & Rains, 2016).

With the rapid development of the Internet, more research has discussed other subtypes of Internet addiction. Young (2009) differentiated between three subtypes of Internet addicts: excessive online gaming, online sexual pre-occupation, and e-mailing/texting (K. Young, 2009). Social networks can be viewed as one type of online activity based on emailing/texting. In one study, students classified as Internet-addicted used the Internet more for social functions than students considered non-addicted (Kesici & Şahin, 2009).

Beard once pointed out that an individual is addicted when an individual’s psychological state, which includes both mental and emotional states, as well as their scholastic, occupational and social interactions, is impaired by the overuse of the medium”(Beard, 2005). Such a definition can also be used to define social media addiction. Turel’s research provided some similar insight into this issue; he suggested that while there is no set criteria for what constitutes excessive or addictive use of social media platforms, use that severely interferes with other important priorities, such as school or work, is a warning sign of addiction (Turel, He, Xue, Xiao, & Bechara, 2014). This indicator can be used as one criterion, yet how to exactly define “social media addiction” is an open question.

One of the biggest challenges in studying social media addiction is that there is currently no accepted set of criteria to measure it. Previous studies tend to use inconsistent criteria, which leave it hard to make comparisons across studies (Alabi, 2013; Andreassen, Torsheim, Brunborg, & Pallesen, 2012; Hormes et al., 2014). Most of the criteria were first used to measure other behavioral addiction such as pathological gambling, then were modified to measure Internet addiction, and finally were adapted to measure social media addiction.

Young (1998) developed the Internet Addiction Diagnostic Questionnaire (IADQ), an eight-item questionnaire that was modified from pathological gambling criteria to provide a screening instrument for addictive Internet use (K. S. Young, 1998). Following Young, Brenner developed the Internet-Related Addictive Behavior Inventory (IRABI) with 32 true-or-false questions (Brenner, 1997), and Morahan-Martin and Schumacher constructed the Pathological Internet Use (PIU) scale with 13 yes/no questions (Morahan-Martin & Schumacher, 2000).

When it comes to measuring social media addiction, Alabi (2013) used the Facebook Addiction Symptoms Scale (FASS) to investigate the Facebook addiction level among undergraduates in a selected university (Alabi, 2013). FASS is a 15-item, three-section scale based on Young’s Internet Addiction Scale. Items were developed under several categories including preference for social network site, loss of control, preoccupation, negative life consequences, and withdrawal. Hormes et al. (2014) modified a set of measures of alcohol craving and problem

drinking to capture symptoms related to behavioral addiction to online social networking. In addition to these modified instruments, this study also applied some widely used and well-validated measures including Young Internet Addiction Test (YIAT), and Acceptance and Action Questionnaire—II (AAQ-II) (Hormes et al., 2014). Wilson et al. (2010) developed the Addictive Tendencies Scale, which has three items reflecting salience, loss of control, and withdrawal (Wilson et al., 2010). Based on the Addictive Tendencies Scale, Andreassen and colleagues (2012) developed and employed an instrument to test Facebook addiction in both epidemiological studies and clinical trials – the Bergen Facebook Addiction Scale (BFAS). BFAS is a self-report questionnaire, comprised of 18 items, three for each of the six core features of addiction: salience, mood modification, tolerance, withdrawal, conflict, and relapse. Participants scored on a five-point frequency scale, ranging from 1 (very rarely) to 5 (very often). In their study, BFAS was constructed together with several other standardized self-report scales (Addictive Tendencies Scale, Online Sociability Scale, Facebook Attitude Scale, NEO–FFI, BIS/BAS scales, and Sleep questions) (Andreassen et al., 2012). Also, BFAS was developed with a college student sample and then commonly applied in recent studies that investigate students’ social media addiction (Khumsri et al., 2015; Akter, 2014). Thus, this study modified BFAS to measure college students’ social media addiction level.

Theoretical Framework

Uses and Gratifications Theory

This research is based on the uses and gratifications theory (U&G) and motivation theory. Uses and gratifications theory (U&G) is a theoretical framework that is used to study how media, including social media, are utilized to fulfill the needs of individual users with different goals. Individuals distinguish between different functions of media based on the needs they expect to satisfy through media use (Katz, Haas, & Gurevitch, 1973). The U&G approach allows technology and media researchers to explore users’ various goals when engaging with media, allowing for a better understanding of differing behaviors, outcomes, and perceptions. Most researchers who study social media use applied this theory to discover the reasons why individuals use social media and what gratifications they receive as a result (Whiting & Williams, 2013; Harridge-March, Dunne, Lawlor, & Rowley, 2010; H.-T. Chen & Kim, 2013).

There are several important assumptions of U&G. Firstly, people are active participants who purposively select their media content, influenced by their motivations and past media gratifications. Secondly, social and psychological characteristics, societal structure, social groups and relationships, and personal involvement can mediate communication behavior and its effects. Finally, people are more influential than the media in the media effects process (Bondad-Brown, Rice, & Pearce, 2012). Based on the assumptions underlying U&G, Rubin (2002) pointed out that the two core elements of U&G are motivations and audience activity (Rubin, 2002). Motivations affect not only the selective and active manner in which we seek and use media, but also the subsequent gratifications and possible media effects as people anticipate as well as form expectations about media content (Bondad-Brown et al., 2012). As for audience activity, it refers to the utility, intentionality, selectivity, and involvement of the audience with the media (Levy & Windahl, 1985), which can be understood as sharing, recommending, and discussing content with others. Among all different forms of media, social network sites provide users with a high level of audience activity.

Urista et al. (2009) studied different forms of MySpace and Facebook gratifications including social gratifications (being in contact with friends and family; meeting people with the same interests; establishing social relationships; keeping in touch with old friends; and popularity) and communicational gratifications (the capacity of individuals to manage their communication; the possibility of getting in contact with new profiles) (Urista, Dong, & Day, 2009). Results indicated that social media generates a high degree of satisfaction that leads to a continuous manner and makes people keep returning to these social network sites. Wan (2009) examined the relationship between SNSs addiction and uses and gratifications. Results revealed that Xiaonei.com (a campus-based SNS in China) addiction was significantly associated with the motives of socialization and relationship building (Wan, 2009). Exploring the relationship between gratifications sought from SNSs and problematic SNS use, Chen and Kim found that three types of gratifications (diversion, self-presentation, and relationship building) were positively related to problematic SNS use (H.-T. Chen & Kim, 2013). Also, Papacharissi and Mendelson (2011) referred the gratification of passing time which involved checking of the News Feed for new updates or playing games as

“ritualized,” and indicated that it reflected “the addictive nature of the genre” (p.226). Ryan (2014) also mentioned that the gratification of passing time may be related to Facebook addiction, but further research is required to prove that. In addition, previous research has shown that Facebook use was positively associated with motivations for social capital, access to resources, and peer support (Ellison, Steinfield, & Lampe, 2007; Oh, Ozkaya, & LaRose, 2014; Tazghini & Siedlecki, 2013; Warren, Sulaiman, & Jaafar, 2015).

In addition to the traditional uses and gratifications research in mass communication studies, in 2015, Atkin et al. integrated U&G with diffusion and technology adoption model within the new media environment (Atkin, Hunt, & Lin, 2015). Specifically, they examined how uses and gratifications that attract individuals to particular technologies affect the diffusion process of such technologies. Research on the diffusion of technological innovation first appeared in the 1970s. Rogers once explained the five stages in the innovation-decision process model: 1) obtaining knowledge of an innovation; 2) forming an attitude towards an innovation; 3) deciding whether to adopt or reject an innovation; 4) implementing the new innovation, and 5) confirmation of the decision (Rogers, 2003). In Atkin et al. (2015)’s paper, the process was explicated with younger audiences’ social media use – “people develop an interest in an innovation that has particular ‘uses’ conveyed to them in a medium or over a channel access for similar ‘uses’ (or gratifications).” (p.627) Uses and gratifications theory has been widely used to study new technology diffusion because of its emphasis on audience activity and its ability to explain motives for media behavior (Charney & Greenberg, 2002; Ruggiero, 2000). However, Krishnan and Hunt once pointed out that uses and gratifications research failed to analyze the motives in regard to antecedents or consequences (Krishnan & Hunt, 2015). In addition, in prior research, the difference between “needs” and “motives” was not clarified sufficiently enough. With the integration of uses and gratifications theory and adoption theories, some of these issues can be resolved (Atkin et al., 2015).

Despite the criticism of theoretical simplicity and methodological limitations attributed to uses and gratifications theory, there is a general agreement that typologies of this theory provide researchers with an initial reference on which to conduct empirical studies to examine the uses and reasons for use of social media (García-Jiménez, López- Ayala-López, & Gaona-Pisionero, 2012). According to de Moragas Spa, taking uses and gratifications into consideration will help us frame and understand the meanings and objectives of use of the media, as well as introduce a series of variables that must be taken into consideration (de Moragas Spa, 1994).

Motivational Theory

Motivation is the force that initiates, guides, and maintains goal-orientated behaviors, and it involves the internal processes that give behavior its energy and direction. Energy refers to the strength, intensity and persistence of the behavior concerned. Direction gives the behavior a specific purpose (Lee, Cheung, & Chen, 2005). Generally, researchers have distinguished between different types of motivation based on the different reasons or goals that have given rise to an action. The most basic distinction is between intrinsic motivation (e.g., perceived enjoyment and fun), which refers to doing something because it is inherently satisfying rather than for some separable consequences that may be anticipated. In comparison, extrinsic motivation (e.g., perceived usefulness) refers to doing something because of its instrumental value that a person believes would enhance his or her performance (Davis, 1989; Deci & Ryan, 1985). Intrinsic and extrinsic types of motivation have been widely used in previous research to explain individuals’ behaviors (Lee et al., 2005; Lin & Lu, 2011; Teo, Lim, & Lai, 1999). In addition to the individual’s perceptions and beliefs, social influences may also affect behavior (Ajzen & Fishbein, 1980). The Technology Acceptance Model (TAM) developed by Davis first posited two external variables that are primarily related to people’s computer acceptance behaviors, perceived usefulness and perceived ease of use (Teo et al., 1999). Deci and Ryan once clarified the distinction between extrinsic and intrinsic motivators of behavior. They suggested that when it comes to microcomputer use, individuals may be motivated because of the intrinsic rewards derived (enjoyment and fun), the perceived benefits (usefulness), or external pressures (social pressure) (Deci & Ryan, 1975). Igbaria’s study extended prior research by integrating these three reasons underlying the use of microcomputers and examining simultaneously the relative influence of these three motivators (Igbaria, Parasuraman, & Baroudi, 1996). Results showed that perceived usefulness is the principal motivator (Igbaria et al., 1996). Davis found that both extrinsic (usefulness) and intrinsic (enjoyment) factors influence the motivation to use information technology system (Davis et al., 1992). Teo et al. modified Igbaria et al.’s study by examining intrinsic and extrinsic motivations in the context of the Internet instead of

microcomputer. They found that while perceived usefulness had consistently strong effects on all usage dimensions (frequency of Internet usage, daily Internet usage and diversity of the Internet usage), perceived ease of use and perceived enjoyment affected each specific usage dimension differently (Teo et al., 1999). Recently, Lin and Lu's study demonstrated that extrinsic benefit and intrinsic benefit are components of individuals' perceived benefit in social network sites.

Specifically, the results showed that enjoyment (intrinsic motivation) is the most influential factor in motivating people's continued use of SNS, followed by number of peers and usefulness (extrinsic motivation) (Lin & Lu, 2011).

In addition to the perceived usefulness and perceived enjoyment, when it comes to studies that examine the factors that motivate individuals' behaviors, perceived complexity and perceived ease of use were frequently examined as important variables. Webster and Martocchio suggest that enjoyment in using computers depends strongly on perceived complexity or ease of use (Webster & Martocchio, 1992). Davis (1989) defined the perceived ease of use as "the degree to which a person believes that using a particular system would be free of efforts" (p. 320).

By combining U&G and motivation theory, this research investigates the uses and gratifications factors that attract college students to use social media, and the specific intrinsic and extrinsic factors that college students have in using social media, and how these factors lead to potential social media addiction.

METHOD

Many previous studies on Internet addiction or social media have mostly used an online survey approach (Andreassen et al., 2012; Hormes et al., 2014; Lin & Lu, 2011; Sriwilai & Charoensukmongkol, 2015). Although online surveys have been found to have some weaknesses (such as bias and errors due to self-report), they offer the advantage of reaching people who regularly use the Internet, a population vital to this research topic (G. M. Chen, 2011). Couper concluded that if a survey targets Internet users only, it is a good decision to employ the Internet survey mode (Couper, 2000).

Empirical data for this study come from an online survey with 220 college students who enrolled in a large, public university in Turkey. The questionnaire used in this research contained two main parts. The first part was designed to examine participants' social media use and gratifications, informed by the results of Lin & Lu's study (Lin & Lu, 2011) and Whiting and Williams' research (Whiting & Williams, 2013). The second part aimed to measure participants' social media addiction level. This part was modified from the Bergen Facebook Addiction Scale (BFAS), which was originally developed to assess Facebook addiction. Undergraduate students ages 18-24 were chosen as a sample not only because they are the largest group on social media but also because of college students' excessive dependence on social network sites (Perrin, 2015).

FINDINGS

Demographics of Participants

A total of 220 undergraduate students aged from 18 to 27 ($M = 19.72$, $SD = 1.481$) completed the questionnaire. Most of the participants were freshman (44.7%, $n = 98$), followed by sophomore (29.7%, $n = 65$), junior (16.8%, $n = 37$), and senior (8.6%, $n = 19$). About 93.6% ($n = 206$) of the survey respondents were Turkish students and 6.4% ($n = 14$) were international students. The proportion of female participants (61.4%, $n = 135$) was higher than that of male participants (38.6%, $n = 85$).

Table 1. Demographics of Participants

	Frequency	Percentage
Gender		
Female	135	38.6%
Male	85	61.4%
Total (N)	220	100.0%
Year in college		
Freshman	98	44.7%
Sophomore	65	29.7%
Junior	37	16.9%
Senior	19	8.7%
Total (N)	219	100.0%
Age		
18	40	18.2%
19	76	34.5%
20	55	25%
21	27	12.3%
22	9	4.1%
23	6	2.7%
24	6	2.7%
27	1	.5%
Total (N)	220	100.0%
International/not international		
International	14	6.4%
Domestic	206	93.6%
Total (N)	220	100.0%

College Students' Online Activity and Social Media Usage

As shown in Table 2, most survey respondents (74.4%, n = 162) reported spending 1-4 hours on social media (Facebook, Twitter, Instagram, etc.) during a typical day. About 15.2% (n = 33) of the participants said they spent 5-8 hours on social media on a typical day, followed by 6.4% (n = 14) spending less than 1 hour, and 4.2% (n = 9) more than 9 hours. When it comes to the amount of time spent on their overall online activities (using social media, Google search, online shopping, etc.), 56.7% (n = 123) students reported spending 1-4 hours, 33.2% (n = 72) 5-8 hours, 6.5% (n = 14) more than 9 hours, and 3.7% (n = 8) less than one hour. These results suggest that the survey participants spend a significant amount time a day online in general and on different social mediasites.

Table 2. Time Spent on Social Media and Internet on a Typical Day

	Frequency	Percentage
Average time spent on social media		
Less than 1 hour	14	6.4%
1 hour	30	13.8%
2 hours	53	24.3%
3 hours	44	20.2%
4 hours	35	16.1%
5 hours	16	7.3%
6 hours	8	3.7%
7 hours	3	1.4%
8 hours	6	2.8%
9 hours	1	.5%

10 hours	6	2.8%
12 hours	2	.9%
Total (N)	218	100.0%
Average time spent online		
Less than 1 hour	8	3.7%
1 hour	25	11.5%
2 hours	37	17.1%
3 hours	29	13.4%
4 hours	32	14.7%
5 hours	39	18.0%
6 hours	15	6.9%
7 hours	8	3.7%
8 hours	10	4.6%
9 hours	1	.5%
10 hours	7	3.2%
12 hours	5	2.3%
14 hours	1	.5%
Total (N)	217	100.0%

Table 3 shows how frequently the survey respondents use different social media sites. This was measured on a seven-point Likert-type scale, and the higher mean score indicates being more frequently used by the participants. The findings suggest that the most popular social media site among the survey respondents is Snapchat ($M = 6.18$, $SD = 1.82$). Indeed, Snapchat has quickly emerged as one of the most popular social media sites among college students (Mediakix, 2016). Snapchat was followed by Facebook ($M = 6.06$, $SD = 1.61$), Instagram ($M = 5.81$, $SD = 2.07$), YouTube ($M = 4.91$, $SD = 1.88$), Twitter ($M = 4.73$, $SD = 2.56$), Pinterest ($M = 2.70$, $SD = 2.07$), LinkedIn ($M = 1.82$, $SD = 1.39$), WhatsApp ($M = 1.58$, $SD = 1.57$), Skype ($M = 1.56$, $SD = 1.12$), Yik Yak ($M = 1.51$, $SD = 1.24$), WeChat ($M = 1.31$, $SD = 1.24$), and Sina Weibo ($M = 1.13$, $SD = .78$). The results are largely in alignment with other reports that show the sustained popularity of Facebook and Instagram among young adults (Lenhart, 2015).

Table 3. Use of Different Social Media Platforms

	Mean (M)	Std. Deviation (SD)
Snapchat	6.18	1.82
Facebook	6.06	1.61
Instagram	5.81	2.07
YouTube	4.91	1.84
Twitter	4.73	2.56
Pinterest	2.70	2.07
LinkedIn	1.81	1.39
WhatsApp	1.58	1.57
Skype	1.56	1.12
Yik Yak	1.51	1.24
WeChat	1.31	1.24
Sina Weibo	1.13	.78

Note: All items are scored on the following scale: 1: *Never*, 2: *Less often*, 3: *Every few weeks*, 4: *1-2 days a week*, 5: *3-5 days a week*, 6: *About once a day*, 7: *Several times a day*.

Social Media Uses and Gratifications

Social media uses and gratifications were measured on a seven-point Likert-type scale, and higher scores indicated more important reasons for participants to use social media (Table 4). This research found that the most important

reasons for college students to use social media was to kill idle time ($M = 6.36$, $SD = 1.06$).

Table 4. Social Media Uses and Gratifications

I use social media...	Mean (<i>M</i>)	Std. Deviation (<i>SD</i>)
To kill idle time	6.36	1.062
For entertainment	6.26	1.128
Because its accessibility	5.98	.970
To connect with others	5.93	1.370
To acquire information	5.92	1.297
To interact with friends	5.86	1.369
To keep up with others	5.85	1.204
To learn new things	5.63	1.291
To get away from pressures	5.06	1.596
To make comments	5.03	1.576
To relax myself	4.90	1.462
To interact with family	4.69	1.687
To express my opinions	4.65	1.550

Note: The scale used ranged from 1 (strongly disagree) to 7 (strongly agree).

Social Media Addiction

For this research, an instrument revised from the Bergen Facebook Addiction Scale was used to measure social media addiction. The revised instrument included 19 items that reflected six core elements of addiction: salience, mood modification, tolerance, relapse, withdrawal, and conflict. Each survey participant was asked to respond to all the items on a seven-point Likert-type scale. Higher scores indicated higher social media addiction levels (Table 5). To assess the reliability of the instrument, Cronbach's alpha test was used (Tabachnick & Fidell, 2012). Cronbach's alpha test indicated a good level of reliability and stability for the measurement items ($\alpha = .916$).

Among all items, the three highest scores appeared at the first two dimensions: salience and tolerance: "I have spent more time on social media than I initially intended" ($M = 5.65$, $SD = 1.40$); "I have though a lot about what has happened on social media recently" ($M = 4.53$, $SD = 1.60$), and "I have felt an urge to use social media more and more" ($M = 4.40$, $SD = 1.75$). The three lowest scores appeared at salience and conflict: "I have ignored my family because of social media" ($M = 2.99$, $SD = 1.89$); "I have ignored my friends because of social media" ($M = 2.84$, $SD = 1.79$); and "I have thought about how to spend more time on social media" ($M = 2.73$, $SD = 1.48$).

The Intrinsic and Extrinsic Motivation Factors in College Students' Social Media Use

We investigated the specific intrinsic and extrinsic motivation factors which college students have in using social media. For this five extrinsic motivation factors and four intrinsic motivation factors were identified from the prior uses and gratifications items. The extrinsic motivation factors are: to acquire information, to better connect with others, to facilitate interactions with family, to facilitate interactions with friends, and to learn new things. The intrinsic motivation factors include to find entertainment, to kill idle time, to get away from pressures or responsibilities, and to relax.

In Table 5, items with higher mean scores suggested more important factors in motivating college students using social media. The most important extrinsic motivation factor is to better connect with others ($M = 5.92$, $SD = 1.37$).

Table 5. The Intrinsic and Extrinsic Motivation Factors in College Students' Social Media Use

Extrinsic motivation factors	Mean (M)	Std. Deviation (SD)
To better connect with others	5.92	1.373
To acquire more information	5.90	1.312
To facilitate interaction with friends	5.86	1.362
To learn new things	5.64	1.286
To facilitate interaction with family	4.70	1.684
Intrinsic motivation factors		
To kill idle time	6.37	1.057
To find entertainment	6.25	1.131
To get away from pressures or responsibilities	5.06	1.604
To relax	4.91	1.464

Note: The scale used ranged from 1 (strongly disagree) to 7 (strongly agree).

Correlations between Intrinsic/Extrinsic Motivation Factors and Social Media Addiction

A social media addiction index was computed by adding every score of social media addiction items and dividing it by item number ($n = 19$). As shown in Table 6, the results supported this hypothesis. Of the five different extrinsic motivation factors, three showed statistically significant correlations with the social media addiction index. They are: better connect with others ($r = .16, p < .05$); facilitate interactions with family ($r = .20, p < .01$); and facilitate interactions with friends ($r = .17, p < .01$). All the intrinsic motivation factors were significantly related to social media addiction: entertainment ($r = .21, p < .01$); kill idle time ($r = .20, p < .01$); get away from pressures or responsibilities ($r = .54, p < .01$); and relax ($r = .47, p < .01$).

Table 6. Correlations between Different Motivation Factors and Social Media Addiction Level

	Addiction Index	
	Pearson Correlation (r)	Sig. (2-tailed)
Extrinsic motivation factors		
Acquire more information	.098	.153
Better connect with others	.160*	.019
Facilitate interactions with family	.195**	.004
Facilitate interactions with friends	.171*	.012
Learn new things	.130	.057
Intrinsic motivation factors		
Entertainment	.211**	.002
Kill idle time	.196**	.004
Get away from pressures or responsibilities	.541**	.000
Relax	.473**	.000

Note: * $p < .05$; ** $p < .01$.

We further examined correlations between the social media addiction index and the extrinsic/intrinsic motivation index. The extrinsic index was computed by adding every score of extrinsic motivation factor items and dividing it by the number of the items ($n = 5$); the same method was used to create the intrinsic motivation index. Reliability tests were conducted for the two indexes. The reliability score (α) for the extrinsic motivation index and the intrinsic motivation index was .80 and .64, respectively. These values are acceptable for an exploratory research study like this one. The intrinsic index score ($M = 5.67, SD = .91$) was higher than the extrinsic index score ($M = 5.60, SD = 1.058$). A correlation test showed that the intrinsic motivation index ($r = .56, p < .001$) is more strongly correlated with the social media addiction index than the extrinsic motivation index ($r = .21, p < .001$).

CONCLUSIONS

Nowadays, rapidly developing social media has gained substantial pervasiveness and become an integral part of people's lives, especially for young adults. The development of smartphones and prevalence of free social media smartphone applications leave social media even more accessible and available to users. The multiformity of social media – for example, micro-blogging sites like Sina Weibo, video-sharing sites like YouTube and social network sites like Facebook and Twitter – provides users with various gratifications. With social media, people can easily build and maintain social connections including both personal and professional networks, have more access to information than ever before, and achieve information exchange and sharing in an easier manner. In addition, they find different forms of entertainment via various social media sites. For young adults like college students, in addition to potential benefits mentioned above, use of social media can, to some extent, build up their self-confidence and self-esteem, and help them with the identity exploration during their adolescence.

The main objective of this research was to explore specific intrinsic and extrinsic motivation factors that college students have in their social media use and to analyze how these intrinsic and extrinsic factors are associated with college students' levels of social media addiction. . Uses and gratifications theory and motivation theory (Katz, Haas, & Gurevitch, 1973; Bondad-Brown, Rice, & Pearce, 2012; Lee, Cheung, & Chen, 2005; Davis, 1989; Deci & Ryan, 1985) provided theoretical frameworks for this study. Empirical data come from an online survey of 220 college students enrolled in a large, public university in Turkey.

We first examined the uses and gratifications in college students' social media use. The results showed that diversionary gratifications (kill idle time; entertainment), social gratifications (connect with others; facilitate interaction with friends; keep up with what others are doing), and instrumental gratifications (information seeking, learning new things) are the most important uses and gratifications in college students' social media use. Among all these use and gratification themes, diversionary gratifications stand out with the highest score. This reflects college students' strong incentives to pursue self-reactive, which can be seen as goal-orientated efforts to adjust one's own internal psychological states (Song et al., 2004). The diversion college students obtained is a deciding factor of their intention and continuous intention of using social media, which is consistent with Kuss and Griffiths (2011)'s recognition of the relationship between uses and gratifications and social media addiction. In addition, the uses and gratifications found in this study also indicate the intrinsic and extrinsic motivations in college students' social media use.

This study found that both intrinsic and extrinsic motivators are associated with college students' social media addiction levels. Specifically, three extrinsic motivation factors (to better connect with others; to facilitate interactions with family; and to facilitate interactions with friends) showed statistically significant correlations with the social media addiction index. The other two extrinsic motivation factors (to acquire information and to learn new things) were not statistically significantly related with the social media addiction index. This finding indicated that even though information seeking and learning new things can, in a way, stimulate college students using social media, the specific extrinsic motivation factor that stimulates college students becoming addicted to social media is SNS's social interaction function. In addition, results showed that all the intrinsic motivation factors (entertainment, kill idle time, get away from pressures or responsibilities, and relax) were correlated with social media addiction. The findings on intrinsic and extrinsic motivation factors supported Song et al. (2004)'s proposition that whether the pleasurable outcomes are obtained completely "inside" the media system in fulfillment of a process gratification like diversion (intrinsic motivations) or instrumentally "through" the media system such as connecting with others or learning new things (extrinsic motivations) both motivations can lead to media addiction.

The present study confirmed the popularity of social media among college students. Most college students use more than one social media site on a daily basis. The majority of the undergraduate participants in this study reported that they spent two to five hours every day on social media, which accounts for a considerable amount of the total time they spend online on a typical day. Snapchat, Facebook, and Instagram have been identified as the most frequently used social network sites among college students, who indicated that they logged on Snapchat

and Facebook at least once a day, and checked Facebook about three or five days a week.

Furthermore, we identified the specific intrinsic and extrinsic motivation factors that college students have in using social media, and confirmed the positive relationship between these motivators and social media addiction levels. It is shown that the benefits individuals obtain from social media such as better connecting with others, interacting with family and friends, and finding entertainment actually have the potential to lead people to become addicted to social media. Thus, while enjoying all the benefits that social media brings to our lives, users should always keep in mind it is the same thing that might make it difficult to control their excessive uses of social media.

Moreover, this study found that compared with extrinsic motivators, intrinsic motivators have stronger influence on college students' development of social media addiction. In addition to having fun, significant intrinsic motivation factors in effecting people's social media addiction levels also included getting away from social responsibilities and realities.

In conclusion, this research is expected to provide both theoretical and practical implications to the area of social media addiction. Theoretically, the study puts forward how motivation theory can be applied to study social media addiction. Furthermore, this research provides an example of how to combine motivation theory with uses and gratifications theory when examining the factors that stimulate college students using social media, and explains the associations between social media uses and gratifications and social media addiction. Practically, the findings provide insight on how and why nowadays social media is being more and more abused by college students. In addition, the results bring up practical suggestions on how to effectively prevent college students from becoming addicted to social media, such as offering appropriate guidance for college students to deal with social responsibility and reality pressures.

REFERENCES

- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour.
- Akter, T. (2014). Social media addiction, resistance, and influence of awareness: Measurement of psychology students' resistance to Facebook addiction. *Mediterranean Journal of Social Sciences*, 5(8), 456.
- Alabi, O. F. (2013). A survey of Facebook addiction level among selected Nigerian University undergraduates. *New Media and Mass Communication*, 10, 70-80.
- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale 1, 2. *Psychological reports*, 110(2), 501-517.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American psychologist*, 55(5), 469.
- Atkin, D. J., Hunt, D. S., & Lin, C. A. (2015). Diffusion Theory in the New Media Environment: Toward an Integrated Technology Adoption Model. *Mass Communication and Society*, 18(5), 623-650.
- Beard, K. W. (2005). Internet addiction: a review of current assessment techniques and potential assessment questions. *CyberPsychology & Behavior*, 8(1), 7-14.
- Bondad-Brown, B. A., Rice, R. E., & Pearce, K. E. (2012). Influences on TV viewing and online user-shared video use: Demographics, generations, contextual age, media use, motivations, and audience activity. *Journal of Broadcasting & Electronic Media*, 56(4), 471-493.
- Brenner, V. (1997). Psychology of computer use: XLVII. Parameters of Internet use, abuse and addiction: the first 90 days of the Internet Usage Survey. *Psychological reports*, 80(3), 879-882.
- Brunborg, G. S., Mentzoni, R. A., Molde, H., Myrseth, H., SkouverØE, K. J. M., Bjorvatn, B., & Pallesen, S. (2011). The relationship between media use in the bedroom, sleep habits and symptoms of insomnia. *Journal of sleep research*, 20(4), 569-575.
- Charney, T., & Greenberg, B. S. (2002). Uses and gratifications of the Internet Communication technology and society: Audience adoption and uses, 379-407.
- Chen, H.-T., & Kim, Y. (2013). Problematic use of social network sites: The interactive relationship between gratifications sought and privacy concerns. *Cyberpsychology, Behavior, and Social Networking*, 16(11), 806-812.
- Couper, M. P. (2000). Review: Web surveys: A review of issues and approaches. *Public opinion quarterly*, 464-494.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology.

- MIS quarterly, 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of applied social psychology*, 22(14), 1111-1132.
- de Moragas Spa, M. (1994). *Sociología de la comunicación de masas II: estructura, funciones y efectos: México*. Deci, E. L., & Ryan, R. M. (1975). *Intrinsic motivation: Wiley Online Library*.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior: Springer Science & Business Media*.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.
- García-Jiménez, A., López-Ayala-López, M. C., & Gaona-Pisionero, C. (2012). A vision of uses and gratifications applied to the study of Internet use by adolescents.
- Grant, J. E., Potenza, M. N., Weinstein, A., & Gorelick, D. A. (2010). Introduction to behavioral addictions. *The American journal of drug and alcohol abuse*, 36(5), 233-241.
- Griffiths, M. D., & Demetrovics, Z. (2012). Behavioral addictions: Past, present and future. *Journal of Behavioral Addictions*, 1-2.
- Harridge-March, S., Dunne, Á., Lawlor, M.-A., & Rowley, J. (2010). Young people's use of online social networking sites-a uses and gratifications perspective. *Journal of Research in Interactive Marketing*, 4(1), 46-58.
- Harris, P., Nagy, S., & Vardaxis, N. (2014). *Mosby's Dictionary of Medicine, Nursing and Health Professions-Australian & New Zealand Edition*. Elsevier Health Sciences.
- Hormes, J. M., Kearns, B., & Timko, C. A. (2014). Craving Facebook? Behavioral addiction to online social networking and its association with emotion regulation deficits. *Addiction*, 109(12), 2079-2088.
- Igbaria, M., Parasuraman, S., & Baroudi, J. J. (1996). A motivational model of microcomputer usage. *Journal of management information systems*, 127-143.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
- Katz, E., Haas, H., & Gurevitch, M. (1973). On the use of the mass media for important things. *American sociological review*, 164-181.
- Kesici, Ş., & Şahin, İ. (2009). A Comparative Study Of Uses Of The Internet Among College Students With And Without Internet Addiction 1. *Psychological reports*, 105(3), 1103-1112.
- Khumsri, J., Yingyeun, R., Manwong, M., Hanprathet, N., & Phanasathit, M. (2015). Prevalence of Facebook Addiction and Related Factors Among Thai High School Students. *Journal of the medical association of thailand*, 98(4), 51.
- Krishnan, A., & Hunt, D. S. (2015). Influence of a multidimensional measure of attitudes on motives to use social networking sites. *Cyberpsychology, Behavior, and Social Networking*, 18(3), 165-172.
- Kuss, D. J., & Griffiths, M. D. (2011). Addiction to social networks on the internet: A literature review of empirical research. *International Journal of Environmental and Public Health*, 8, 3528-3552.
- Lee, M. K. O., Cheung, C. M. K., & Chen, Z. (2005). Acceptance of Internet-based learning medium: the role of extrinsic and intrinsic motivation. *Information & management*, 42(8), 1095-1104.
- Lenhart, A. (2015, April 09). *Teens, Social Media & Technology Overview 2015*. Retrieved April 05, 2017, from <http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/>
- Levy, M. R., & Windahl, S. (1985). The concept of audience activity. *Media gratifications research: Current perspectives*, 109-122.
- Lin, K.-Y., & Lu, H.-P. (2011). Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in Human Behavior*, 27(3), 1152-1161.
- Morahan-Martin, J., & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in Human Behavior*, 16(1), 13- 29.
- O'Reilly, T. (2007). *What is Web 2.0: Design patterns and business models for the next generation of software. Communications & strategies*(1), 17.
- Oh, H. J., Ozkaya, E., & LaRose, R. (2014). How does online social networking enhance life satisfaction? The relationships among online supportive interaction, affect, perceived social support, sense of community, and life satisfaction. *Computers in Human Behavior*, 30, 69-78.
- Papacharissi, Z., & Mendelson, A. (2010). 12 Toward a new (er) sociability: uses, gratifications and social capital on Facebook. *Media perspectives for the 21st century*, 212.
- Perrin, A. (2015, October 08). *Social Media Usage: 2005-2015*. Retrieved April 04, 2017, from <http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/>
- Rogers, E. M. (2003). *Diffusion of innovation* 5th ed: New York: Free Press.
- Rubin, A. M. (2002). *The uses-and-gratifications perspective of media effects: Lawrence Erlbaum Associates*

- Publishers. Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass communication & society*, 3(1), 3-37. Ryan, T., Chester, A., Reece, J., & Xenos, S. (2014). The uses and abuses of Facebook: A review of Facebook addiction. *Journal of behavioral addictions*, 3(3), 133-148.
- Sriwilai, K., & Charoensukmongkol, P. (2015). Face it, don't Facebook it: Impacts of Social Media Addiction on Mindfulness, Coping Strategies and the Consequence on Emotional Exhaustion. *Stress and Health*.
- Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics*. Boston: Pearson Education.
- Tazghini, S., & Siedlecki, K. L. (2013). A mixed method approach to examining Facebook use and its relationship to self-esteem. *Computers in Human Behavior*, 29(3), 827-832.
- Teo, T. S. H., Lim, V. K. G., & Lai, R. Y. C. (1999). Intrinsic and extrinsic motivation in Internet usage. *Omega*, 27(1), 25-37.
- Tokunaga, R. S., & Rains, S. A. (2016). A Review and Meta-Analysis Examining Conceptual and Operational Definitions of Problematic Internet Use. *Human Communication Research*, 42(2), 165-199.
- Turel, O., He, Q., Xue, G., Xiao, L., & Bechara, A. (2014). EXAMINATION OF NEURAL SYSTEMS SUBSERVING FACEBOOK "ADDICTION" 1, 2. *Psychological reports*, 115(3), 675-695.
- Urista, M. A., Dong, Q., & Day, K. D. (2009). Explaining why young adults use MySpace and Facebook through uses and gratifications theory. *Human Communication*, 12(2), 215-229.
- Wan, C. (2009). Gratifications & loneliness as predictors of campus-SNS websites addiction & usage pattern among Chinese college students. Hong Kong: Chinese University of Hong Kong, China.
- Warren, A. M., Sulaiman, A., & Jaafar, N. I. (2015). Understanding civic engagement behaviour on Facebook from a social capital theory perspective. *Behaviour & Information Technology*, 34(2), 163-175.
- Webster, J., & Martocchio, J. J. (1992). Microcomputer playfulness: development of a measure with workplace implications. *MIS quarterly*, 201-226.
- Whiting, A., & Williams, D. (2013). Why people use social media: a uses and gratifications approach. *Qualitative Market Research: An International Journal*, 16(4), 362-369.
- Wilson, K., Fornasier, S., & White, K. M. (2010). Psychological predictors of young adults' use of social networking sites. *Cyberpsychology, Behavior, and Social Networking*, 13(2), 173-177.
- World Internet Users Statistics and 2015 World Population Stats. (n.d.). Retrieved March 27, 2017, from <http://www.internetworldstats.com/stats.htm>
- Young, K. (2009). Internet addiction: diagnosis and treatment considerations. *Journal of Contemporary Psychotherapy*, 39(4), 241-246.
- Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1(3), 237-244.