

# Impact of Digital Literacy on Cyberloafing and Compulsive Social Media Use Post-Kahramanmaraş Earthquake

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**Abstract:** In recent years, mass disasters have begun to occur in the world and the business world has been greatly affected by these disasters. Especially during the COVID-19 pandemic period, many processes have shifted to digitalization and people have increased their technology usage levels. It can be said that a similar situation was experienced in the Kahramanmaraş earthquake. From this point of view, within the scope of the research, the effects of digital literacy on cyberloafing and compulsory social media use were tried to be examined. The research was carried out with 244 participants aged between 18-30 working in any business line, in a quantitative research design. The data were collected using the questionnaire technique. The obtained data were subjected to descriptive statistics, correlation analysis, reliability analysis and simple regression analysis. According to the research findings, the digital literacy scale and its sub-dimensions are in a moderately and highly significant positive relationship with the cyberloafing scale and its sub-dimensions. However, the scale of compulsive social media use has a low level of positive and significant relationship with the scale of digital literacy and cyberloafing. According to the results of the regression analysis, it was determined that digital literacy has a statistically significant and positive effect on cyberloafing. In addition, it has been determined that digital literacy has a statistically significant and positive effect on compulsive social media use.

**Keywords:** Digital Literacy, Cyberloafing, Compulsive Social Media Use, CSMU

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## 1. Introduction

Advances in technology continue to be rapidly integrated into almost every aspect of daily life. Although this integration is positive, in some cases, the misuse of software technologies brings with it a number of negativities. One of these negativities is the intensive use of internet technology. The COVID-19 pandemic in recent years has unexpectedly affected the education-teaching process around the world, forcing those concerned to switch to an online teaching and learning format (Li and Yu, 2022). This situation continued after the Kahramanmaraş earthquake. In the earthquake that took place on February 6, 2023, the epicenter of which was Turkey-Kahramanmaraş, more than 50 thousand people died and 13.5 million people were directly affected by this situation. In this process, life in 11 provinces has come to a standstill and education and training processes have passed to the online process, as in the pandemic. This situation has increased the tendency of young people who both work and study to be in the virtual environment. In other words, the education and training infrastructure used during the pandemic period was also used after the Kahramanmaraş earthquake. This situation has caused especially young people to spend more time in the virtual world. In this process, the level of technology use in the virtual world has increased, especially for people who want to communicate more with their relatives. Of course, not only the education sector, but almost all sectors were affected by this process (Peng and Yu, 2022).

Especially in times of crisis, misinformation with low credibility, unproven accuracy, and provocative misinformation can lead to misleading results for individuals and society (Hamutoğlu et al., 2017). New media, on the other hand, can trigger this situation by causing radical changes in the field of communication (Onursoy, 2018). In order to avoid these negative effects, the concept of digital literacy can be mentioned. Although the pioneer of the concept of digital literacy is Paul Gilster (1997), it can be said that digital literacy research has started to increase since 2013 (Tinmaz et al., 2022). Digital literacy refers to the competences related to the safe, legal and moral use of technologies that will contribute to personal development with these technologies, solve the problem in any context of life, and support social participation and production, while including the effective learning of information and communication technologies. In other words, digital literacy means effectively and seriously doing research on the internet, evaluating and collecting information by using various digital technologies (Özerbaş and Kuralbayeva, 2018). Digital literacy requires the right use of different technologies, as well as the ability to reach, produce and share the right information, and to have the skills to use technology in the learning-teaching processes (Hamutoğlu et al., 2017). Digital literacy, also called virtual learning, is a phenomenon that has the potential to improve lifelong learning (Khan et al., 2022). Digital literacy is also the ability to be aware of digital threats to one's own identity and to use digital tools to resist them and secure one's own identity (Martin et al., 2022). Digital literacy includes the complex cognitive, sociological and emotional skills required for users to work effectively in the digital environment (Karabacak and Sezgin, 2019). Williams et

al. (2022) found that digital literacy has a positive effect on people's online risk and self-control during the COVID-19 process.

Of course, heavy internet use can also pose a problem for the business world. Employees can use the internet for their personal business during working hours. At this point, the concept of cyberloafing emerges. Cyberloafing is the time employees spend for their personal needs through internet access during working hours (Lim, 2002). Cyberloafing means the use of computer and internet systems provided for business use for personal purposes (Örücü and Yıldız, 2014). Especially the addiction of the business world to the internet paved the way for cyberloafing (Mills et al., 2001). It is known that as internet addiction increases, cyberloafing tendency also increases (Lavoie, 2001). Organizations, on the other hand, are in an effort to restrict the use of the internet by their employees in various ways (Henle et al., 2009). The fact that not only in the business but also the mobile personnel use the internet for their personal purposes during working hours can be considered within the scope of cyberloafing (O'Neill et al., 2014). It is also reported that men engage in cyberloafing more than women (Baş, 2017). Candan and İnce (2016) found that there was no statistically significant relationship between employees' cyberloafing behaviours and their organizational commitment, and that there was a negative relationship between employees' service time and cyberloafing. Yıldırım (2018) determined that the level of burnout of employees will increase cyberloafing. According to Arslan Ayazlar et al. (2018), on the other hand, found that students frequently perform cyberloafing during their internship. Also, Arslantas et al. (2023) found that digital literacy has a positive effect on cyberloafing. According to Gönültaşlı et al. (2023) also found that gifted students have high levels of digital literacy and low levels of cyberloafing.

Finally, in line with these interactions, it can be said that people are faced with the use of compulsive social media. In addition to the positive results, especially regarding social networking sites, people may encounter negative consequences due to excessive use of social media (Fontes-Perryman and Spina, 2022). Compulsive social media use refers to the inability of the person to control himself/herself in social media use for fear of not receiving comments/likes or negative reactions in social media applications. The concept can sometimes be confused with problematic social media use. Problematic social media use is a form of use that occurs when a person spends a lot of time on social media together with developing technology (Keleş, 2020). This situation reduces face-to-face social sharing day by day and leads to the formation of a society in which compulsive behaviours are fed (Apaolaza et al., 2019). While social media applications are constantly evolving in terms of their features and functions, they have permeated many aspects of our lives. Compulsive social media use or social media addiction is becoming more common, especially among young people (Benson et al., 2019). Ali et al. (2021) tried to determine the relationships between social interaction anxiety, fear of negative evaluation, fear of rejection, and compulsive social media use. Aladwani and Almarzouq (2016), on the other hand, found that self-esteem had a negative effect on compulsive social media use, while interaction anxiety had a positive effect.

All three variables in the research are variables that develop due to digitalization. In this respect, it is expected that the variables may interact with each other. In addition, digital literacy can be considered a positive variable. However, the same cannot be said for other variables. Based on this, the problem of the research is to determine the effect of digital literacy on cyberloafing and compulsive social media use. The purpose of the research is to try to determine the possible effects of increased internet use, especially after crisis periods.

In line with all this information, the model of the research was determined as in Figure 1.

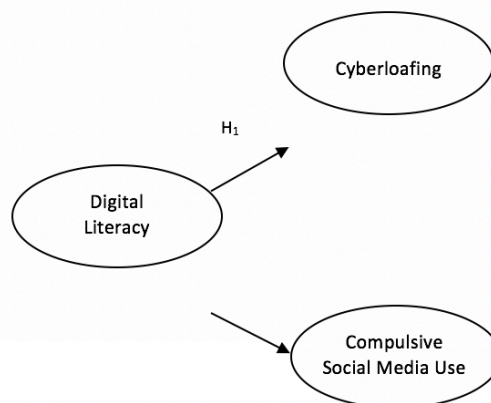


Figure 1: Model of the Study

The hypotheses put forward in line with the determined research model are as follows.

*H<sub>1</sub>: Digital literacy has an impact on cyberloafing.*

*H<sub>2</sub>: Digital literacy has an impact on compulsive social media use.*

## 2. Research Methods

The research was planned in a quantitative research design and cross-sectional type in order to determine the effect of digital literacy on cyberloafing and compulsive social media use. The research was carried out in March 2023 with 244 volunteer young people between the ages of 18-30 working in any business line. Data were obtained from the participants through the data collection form and online survey application. The data collection form consists of 4 parts. In the first part, there are 4 questions including demographic information, in the second part there is the digital literacy scale (17 items), in the third part there is the cyberloafing scale (14 items) and in the last part there is the compulsive social media use scale (8 items). The digital literacy scale was developed by Ng (2012). In the research, Hamutoğlu et al. (2017)'s Turkish validity and reliability scale was used. The scale consists of 4 sub-dimensions. For the cyberloafing scale, the scale developed by Örucü and Yıldız (2014) from various studies (Lim, 2002; Blanchard and Henle, 2008; Özkalp et al., 2012) was used. The scale consists of 2 sub-dimensions. For the scale of compulsive social media use, Okazaki et al. (2021) and the Turkish validity reliability of the scale was used by Çelik and Diker (2021). The scale consists of one dimension. The scales were used in a five-point Likert type between “strongly disagree” and “strongly agree”.

## 3. Findings

As a result of the frequency analysis performed first, the demographic characteristics of the participants were determined as in Table 1.

**Table 1: Demographic Characteristics of the Participants**

	Number	%		Number	%
<b>Age</b>			<b>Gender</b>		
18-23	185	75,8	Female	138	56,6
24-27	22	9,0	Male	106	43,4
28-30	37	15,2	<b>Work Experience</b>		
<b>Education Level</b>			Less than 1 year	118	48,4
High School	113	46,3	2-3 years	62	25,4
Bachelor	105	43,0	4-6 years	24	9,8
Graduate	26	10,7	7 years and above	40	16,4

As seen in Table 1, the majority of the participants (75.8%) were between the ages of 18-23, high school degree graduates (46.3%), female (56.6%), and their professional experience was less than 1 year (48.4%). has been done. After this stage, reliability analysis and correlation analysis were started. Table 2 shows the reliability and correlation coefficients of the scale and its sub-dimensions.

**Table 2: Correlations**

	1	2	3	4	5	6	7	8	9
<b>Digital Literacy Scale</b>	(,977)	,965**	,964**	,906**	,896**	,615**	,554**	,619**	,243**
<b>Attitude</b>		(,952)	,874**	,862**	,803**	,614**	,550**	,622**	,270**
<b>Technical</b>			(,955)	,837**	,883**	,573**	,520**	,571**	,205**
<b>Cognitive</b>				(,861)	,771**	,533**	,471**	,547**	,218**
<b>Social</b>					(,855)	,561**	,513**	,554**	,186**
<b>Cyberloafing</b>						(,934)	,957**	,940**	,339**
<b>Significant Cyberloafing Scale</b>							(,876)	,800**	,363**
<b>Insignificant Cyberloafing</b>								(,911)	,273**

	1	2	3	4	5	6	7	8	9
<b>Compulsive Social Media Use Scale</b>									(.861)

\*\* . Correlation is significant at the 0.01 level (2-tailed). Values in parentheses are Cronbach’s Alpha coefficients.

As can be seen in Table 2, the digital literacy scale and its sub-dimensions are in a moderately and highly significant positive relationship with the cyberloafing scale and its sub-dimensions. However, the scale of compulsive social media use has a low level of positive and significant relationship with the scale of digital literacy and cyberloafing. At the same time, it was observed that the scales had a high level of validity.

After this stage, regression analysis was used to test the research hypotheses. First, simple regression analysis was used to test the H<sub>1</sub> hypothesis. The findings are as in Table 3.

**Table 3: Regression Analysis Findings on the Effect of Digital Literacy on Cyberloafing**

Dependent Variable	Independent Variable	t	B	F	p	R <sup>2</sup>
Cyberloafing	Constant	7.892	.567	147.009	.000	.378
	Digital Literacy	12.125				

As seen in Table 3, it was determined that digital literacy had a statistically significant and positive effect on cyberloafing (R<sup>2</sup> = .378; p = .000). In this case, the H<sub>1</sub> hypothesis was accepted. In Table 4, the results of the regression analysis performed to test the H<sub>2</sub> hypothesis of the research are given.

**Table 4: Regression Analysis Findings on the Effect of Digital Literacy on Compulsive Social Media Use**

Dependent Variable	Independent Variable	t	B	F	p	R <sup>2</sup>
Compulsive Social Media Use	Constant	8.062	.218	15.237	.000	.059
	Digital Literacy	3.903				

As seen in Table 4, it has been determined that digital literacy has a statistically significant and positive effect on compulsory social media use (R<sup>2</sup> = .059; p = .000). However, it can be said that this effect is very low. In this case, the H<sub>2</sub> hypothesis was accepted.

#### 4. Conclusion

The research was conducted with 244 young people between the ages of 18-30 working in any business line in order to determine the effect of digital literacy on cyberloafing and compulsive social media use. The majority of the participants are between the ages of 18-23, high school degree graduates, women and have less than 1 year of professional experience. According to the results of the correlation analysis, the digital literacy scale and its sub-dimensions are in a moderately and highly positive relationship with the cyberloafing scale and its sub-dimensions. However, the scale of compulsive social media use has a low level of positive and significant relationship with the scale of digital literacy and cyberloafing. According to the results of the regression analysis, it was determined that digital literacy has a statistically significant and positive effect on cyberloafing. In other words, as the digital literacy levels of young people increase, their cyberloafing levels also increase. In this case, the H<sub>1</sub> hypothesis of the research was accepted. In addition, it has been determined that digital literacy has a statistically significant and positive effect on compulsive social media use. In other words, as the digital literacy levels of young people increase, their compulsive social media use levels also increase. However, it can be said that this effect is very low. In this case, the H<sub>2</sub> hypothesis was accepted.

After the earthquake in Kahramanmaraş, people increased their social media usage levels especially in order to get more news from the region. It can be said that the social media usage levels of especially young people have increased in order to be able to respond to the calls for help and participate in the campaigns. Considering this point, it is expected that as the digital literacy levels of young people increase, the level of cyberloafing will also increase. In addition, although it has been determined that digital literacy has a positive effect on compulsive social media use, the fact that this effect remains at a very low level can be interpreted as an indication that people do not expect likes/comments during the earthquake period. In this context, in order to generalize the results of the research, it can be suggested to obtain comparative results by repeating the research in different sample groups and in different regions.

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