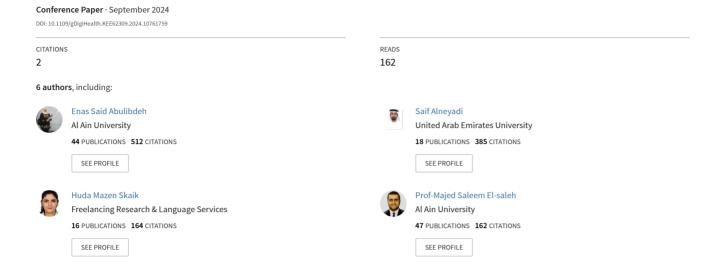
Short VideoAddiction and Its Relationship with Students' Academic Achievement and Well-Being: A Pilot Study



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Abstract—This pilot study aimed to investigate the extent of short video addiction among students; identify the most popular social media platforms used to watch them; and determine the relationship between short video addiction and students' academic achievement and physical and mental health. This quantitative cross-sectional study used a web-based survey employing a questionnaire to collect data from 54 university students in the Arab Gulf region. The findings revealed a low extent of addiction to watching short videos, and that Instagram Reels and YouTube Shorts are the most used platforms. The findings also revealed that short video addiction has no statistical relationship with students' academic achievement, while it has a statistically significant relationship with their physical and mental health. This study is one of the very few that address the risks of short video addiction in light of the excessive use of social media.

Keywords— Digital addiction, short videos, academic achievement, physical, mental, students

I. INTRODUCTION

With its diverse methods, modern technology has penetrated every area of our lives, and its many advantages touch every facet of our existence. Technology development has made it possible for us to communicate, exchange knowledge, and bring important concerns to the public's attention [1]. Technology has improved people's lives, and become an integral part of their daily lives. The extent of people's attachment to and usage of the different means of technology is remarkable [2], and that is not limited to a certain age group but can be noticed in children, teens, youth, and adults [3].

Living in the modern era is a complex amalgam of social media and quickly developing technology, where communication channels are transforming every aspect of our lives [4]. Through the removal of numerous barriers, social media applications provide people with the ability to facilitate communication and access information. Technology plays a vital role in the teaching-learning process, and it has transformed education into fun in many ways. The benefits of technology usage in education are numerous as it has contributed to the development of education and thus to students' academic achievement.

Like any medium, technology has both positive and negative effects, and how it is employed determines what happens [3]. Addiction, or the obsession with utilizing

technology, is one of the negative effects of technology [5]. In this regard, [6] indicated that more than three hours spent daily on social media can result in social media addiction, which can impact mental health and academic or professional performance. Furthermore, difficulties with anxiety, depression, insomnia, sleep deprivation, loneliness, and loss of concentration can arise from excessive use of social media [3, 7].

Short video applications and platforms are becoming increasingly popular worldwide [8] and they have elements that make them different from one another [9]. People have recently inclined towards watching short videos, known as Reels. This might be attributed to being of short length, discussing or talking about one certain point, and highlighting trendy issues. Indeed, these appealing clips that people use to spread knowledge, information, or entertainment have captured the interest of millions across the globe [10]. Some of the most popular short video platforms are TikTok, Instagram Reels, Facebook Reels, YouTube Shorts, and Snapchat [9, 11].

A. Problem Statement

A person is deemed to be addicted to technology if they use it for more than 40 hours a week [12], and it is thought that the COVID-19 pandemic movement restrictions and unpredictability contributed to the rise in social media addiction among students [13]. In the digital age, the advent of short videos has proven revolutionary and there has been an increase in the amount of time individuals spend watching these bite-sized videos [10]. With the help of social media platforms like TikTok, YouTube Shorts, Snapchat, Instagram, and Facebook, anyone can now create and share engaging video content. As a result, short videos have become widespread worldwide [8] and there is an increase in the number of people addicted to watching them [14].

Students love watching short movies, but because the software is immersive, there is a risk of addiction [8], negligence in their academic studies, and even health risks associated with excessive use of smartphones and staring at screens. Students are more susceptible to mental health issues, due to being affected easily by their electronic gadgets, which are now an integral part of their daily lives at home or school [3]. The negative effects of excessive use of technology and social media have been highlighted by researchers, educators, and psychologists. Indeed, research has shown that addiction

to social media and short videos affects students' performance and mental, cognitive, psychological, and physical health [3, 5, 6, 7, 8, 10].

The extensive usage or addiction to short videos has raised questions about how they may affect several facets of students' lives, most notably their ability to perform academically well. Therefore, this study aims to (i) investigate the extent of short video addiction among university students, (ii) identify the most popular social media platforms students use to watch short videos, and (iii) determine the relationship between short videos addiction and students' academic achievement and physical and mental health.

B. Research Questions

The study seeks to answer the following questions:

- RQ1: Do university students perceive themselves as addicts to watching short videos?
- RQ2: What is the extent of students' addiction to watching short videos?
- RQ3: Which popular platforms do students mostly use to watch short videos?
- RQ4: Is there any statistically significant relationship between short video addiction and students' academic achievement?
- RQ5: Is there any statistically significant relationship between short video addiction and students' physical and mental health?

C. Research Hypotheses

- RH1: There is a statistically significant relationship between short video addiction and students' academic achievement.
- RH2: There is a statistically significant relationship between short video addiction and students' physical health.
- RH3: There is a statistically significant relationship between short video addiction and students' mental health.

D. Significance of Study

This study is one of the first to investigate the addiction to social media short videos, known as reels, and their relationship with students' academic achievement and wellbeing. The study seeks to contribute theoretically to the available literature by addressing a new area, that is being neglected by authors and researchers. The study also aims to contribute practically by offering significant implications for educators, counselors, teachers, and parents, who should be aware that students of different age groups may use social media inappropriately and excessively. The findings of the study hope to draw the attention of educators and education policymakers to the necessity of creating intervention strategies to deal with the issue of the Internet and social media addiction.

II. LITERATURE REVIEW

According to [6], social media addiction is characterized as an addiction that impairs an individual's ability to function on a social, physical, and psychological level as a result of excessive and frequent use of social media over time. It is also

an inability to set limits on using the Internet even though it can lead to psychological dependency and other issues that interfere with day-to-day activities. Addiction-related circumstances, such as the inability to stop using a substance or regulate behavior, also apply to social media addiction [6]. People who spend more time on social media are more likely to update themselves frequently and stay connected to social media platforms to stay informed about changes in their environments [15].

Using social media can be done for a variety of reasons, including escaping from stress and problems in life, maintaining relationships with others, staying in touch with friends, chatting, sharing interesting things, gathering and sharing useful information, expanding one's network, creating groups, and selling or purchasing goods [6]. Social media addiction symptoms include poor self-control, disregard for one's personal life, cognitive obsession, mood change, intolerance, hiding addicted habits, and escape [7]. Salience, excessive thinking or planning to use social media, excessive time spent on social media, mood modification, emotional problems, relapse or failure in decreasing social media usage, withdrawing or feeling troubled when unable to use social media, and conflicts are some of the negative effects of social media addiction on an individual's life [14].

There is less stress, anxiety, and depression among infrequent social media users who use the platform less frequently, and they usually score highly on patience and tolerance criteria [6]. Users who are at risk are more likely to experience stress, anxiety, loneliness, fear, depression, and violence [3, 16], while problematic users are more likely to use social media in an unhealthy way and experience anxiety, sadness, and stress [14]. Higher levels of stress are associated with constantly checking emails, messages, and social media when connected to the Internet [4]. Due to low self-esteem stemming from the assumption that others are more successful, attractive, intelligent, and pleased than themselves, heavy Internet and social media users are 2.5 times more likely to experience depression [3].

People who have easy access to the internet and spend more time using it such as students tend to spend more time online without realizing that they may be using that time to complete activities with dedication and good intentions. Their moods and personality patterns alter as a result of prolonged usage of social media, and this has an impact on their academic achievement and learning process [7]. Reduced critical thinking as part of problem-solving skills, attention deficit, hyperactivity disorder, poor time management, reduction in the amount of time spent reading, and a drop in academic results are just a few of the issues that social media can cause to students [17]. Students with addiction to social media are more prone to experiencing depressive symptoms [18].

Thanks to the widespread use of smartphones and high-speed internet, students may now access a variety of short videos, which include viral trends and instructional tutorials [10]. Yet, several negative impacts on academic performance and results and potential health consequences may happen due to watching short videos. Ref. [10] reported a number of these impacts that students might have including difficulty in concentration ability generally or verbally, struggle to focus for extended periods without getting distracted, inability to retain information, unsatisfaction with longer content such as books or lectures, difficulty in remembering deadlines,

obligations, or appointments, procrastination tendencies by postponing tasks that need deep thought, distraction by surrounding noises or actions, maintaining focus on tasks for a certain period.

A. Previous Studies

Ref. [6] investigated the level of social media addiction, loneliness, depression, life satisfaction, and problem-solving skills. In addition to exploring their effect on academic self-efficacy and academic success. A total of 419 university students in Turkey participated in the survey. The study found a middle level of social media addiction, mild loneliness level, moderate depression level, slight dissatisfaction with life level, and good problem-solving skills among students. The study also found high academic self-efficacy and moderate academic success. Moreover, academic self-efficacy, problem-solving skills, and satisfaction with life had a positive effect on academic success, while problem-solving skills and satisfaction with life had a positive effect on academic self-efficacy.

Ref. [10] examined the relationship between the amount of time spent watching short videos and academic performance. More than 200 secondary school students answered a questionnaire on their usage of short videos and their exam results. In addition, interviews about the impact of watching short videos on attention span were conducted with ten heavy viewers (4+ hours per day) of short videos. Quantitative results showed a negative relationship between the number of hours spent watching short videos and exam results. Meanwhile, qualitative results showed that students' perceived attention deficiencies were partly caused by their frequent viewing of short videos.

Ref. [8] examined the relationship between behavioral engagement and short-video problematic use, the relationship between behavioral engagement and emotional and cognitive engagement, as well as the relationship between these factors and the perceived ineffectiveness of learning. In an online survey, 1089 Chinese vocational students took part. The results of the study indicated that short videos problematic use has a negative relationship with behavioral engagement, while behavioral engagement has positive relationships with emotional and cognitive engagement, and both of these factors have negative relationships with the perception of learning ineffectiveness.

Ref. [19] examined 27 journal articles to identify social media effects on the academic achievement of secondary school students. The findings revealed that the usage of social media is connected to students' academic achievement in both positive and negative ways. Few studies documented the beneficial effects on students' academic achievement. Conversely, many studies demonstrated that students' academic achievement was negatively impacted by the excessive and inappropriate use of social media as well as its use for other leisure activities rather than educational purposes. Students' academic achievement was impacted by many factors, including behavior, internet addiction, sleep time, learning environment, and time management skills.

Ref. [20] explored the relationship between time spent using technology, and both students' academic performance and life satisfaction. A total of 2,440 students aged 9 to 12 years from 13 schools in Chile participated in the study through an online survey. The study results revealed that the time spent using technology negatively affects academic

performance where low academic results were reported by students, while no effect was found on life satisfaction. Moreover, the study found that cyberbullying, sleep deprivation, being hacked, and exposure to violent content were among other negative impacts of prolonged use of technology.

Ref. [3] explored the extent of technology usage by children and examined the relationship between technology usage and individuals' ambition, unemployment, loneliness, and insomnia. A total of 256 citizens and residents in the Arab Gulf countries participated in an online questionnaire distributed via social media. The results showed that children use technology and electronic devices excessively, causing negative effects physically, mentally, psychologically, and socially. The results also showed that there was a significant negative relationship between using technology and individuals' ambition, unemployment, loneliness, and insomnia.

III. METHODOLOGY

The current study adopted a quantitative research approach using a cross-sectional survey design. This type of research usually consists of simple questions that give numerical results, which enables the researcher to give correct explanations by comparing those numbers [21]. The quantitative descriptive approach was the most suitable for this study due to the nature of the phenomenon under investigation, the research questions, the setting, and the sample [22]. A cross-sectional study describes the characteristics of the surveyed sample, that was drawn from the relevant population simultaneously in a short period of time [23]. Since conducting an online survey to gather data is one of the quickest methods available, the researchers chose to use a web-based questionnaire to do so [3].

A. Setting and Sample

This study was conducted in the Arab Gulf countries. The targeted population consisted of university students, enrolled in public and private universities. The respondents represented both genders, were enrolled in different bachelor master, and diploma programs, and were aged from 17 to more than 46 years old, which accounted for the differences in the population. Based on the recommendations of [24; 25] for determining the sample size for a pilot study, a number between 12 and 50 should be adequate. It is also cost-effective, time-efficient, and effort-efficient; hence, the sample size was determined to be 50 respondents. Using the simple random sampling technique, the study sample was composed of 54 students, who answered the questionnaire correctly and completely.

B. Research Instrument

To collect data from the participants, the researchers used a questionnaire that was adopted from questionnaires used in previous similar studies. The researchers adjusted the questionnaire items to suit the current research purpose, questions, and population. The questionnaire was designed using Google Forms and then was sent electronically via a link to the participants inviting them to participate. To verify the questionnaire's reliability, internal consistency was measured using Cronbach's alpha value ranging from 0 to 1 indicating no internal consistency to perfect internal consistency [21]. The Cronbach's Alpha value was 0.836 indicating a reliable and good internal consistency, which means that the questionnaire was acceptable/suitable for the study.

There were three sections on the questionnaire. The first section contained two parts; the first was about the personal information of the participants (gender, age, education, GPA), and the second part contained questions about the daily usage of a smartphone and the social media platforms used. The second section of the questionnaire detected the participants' degree of agreement on addiction to watching reels, the items were adopted from the Smartphone Addiction Scale (SAS). The SAS was developed and validated by [26] in a couple of studies, and it proved efficient for evaluating smartphone addiction, where the authors recommended using it in relevant research areas. The third section of the questionnaire detected the participants' degree of agreement on mental and physical health. A 5-point Likert scale was used (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree), in addition to yes/no and multiple-choice questions.

C. Data Collection and Analysis

The data collection phase was conducted during the short semester of the academic year 2023/2024. Once the participants submitted their answers, the data were recorded directly into a spreadsheet, which was transferred later into SPSS to carry out the required reliability test and statistical analysis [16]. With SPSS, descriptive statistics and correlation coefficients were used to analyze the data. The demographic data was computed using descriptive statistics including the number and percent. To answer the first, second, and third research questions, descriptive statistics were used by measuring frequencies, percentages, mean scores, and standard deviations. To answer the fourth and fifth research questions and hypotheses, the correlation coefficient test was used to detect the relationship significance between short video addiction and the students' academic achievement as well as their physical and mental health.

IV. RESULTS AND DISCUSSION

Table 1 below displays the personal information of the participants (n = 54). As seen, most of the respondents were females, the ages were mainly between 23 and 40, more than 66% were bachelor students, half of the respondents' GPA was very good, and their daily usage of smartphones ranged from 4 to 9 hours.

TABLE I.	PARTICIPANTS'	PERSONAL	INFORMATION (N	$\sqrt{1} = 54$
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Category	Item	No.	Percent
Gender	Male	11	20.4
	Female	43	79.6
Age	17-22	1	1.9
	23-28	20	37
	29-34	15	27.8
	35-40	13	24.1
	41-46	4	7.4
	More than 46	1	1.9
Education Level	Bachelor	36	66.7
	Master	11	20.4
	Diploma	7	13
GPA	Excellent	6	11.1
	Very Good	27	50
	Good	15	27.8
	Pass	6	11.1
Daily usage of	3 hours or less	8	14.8
smartphone	4-6 hours	22	40.7
	7-9 hours	16	29.6
	More than 9 hours	8	14.8

To answer RQ1 about university students' perceptions of whether they consider themselves addicted to watching short videos or not, the results of the data analysis revealed that 27 students (50%) do not see themselves as addicts answering no to the question, meanwhile, 17 answered yes (31.5%), and 10 answered that they do not know (18.5%) as seen in Figure 1. This result indicates that although students use their smartphones for long hours daily, it does not imply that they use them only to watch short videos (reels). Indeed, the students stated that they use their smartphones for several purposes such as messaging, checking emails, and studying or working.

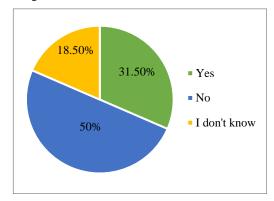


Fig. 1. Students' perceptions of short video addiction

To answer RQ2 about the extent of students' addiction to watching short videos, they were asked to specify their agreement degree to six sentences measuring addiction. The results seen in Table 2 show that the mean scores are relatively low for five sentences and moderate for only one, while the total mean score is 2.22 indicating that the extent is low. This result reveals that the students are not actually addicted to watching short videos and it indeed aligns with the result of the previous question, in which half the students mentioned that they are not addicted to watching short videos.

TABLE II. THE EXTENT OF STUDENTS' ADDICTION

Sentences	SD	D	N	A	SA	Mean	SD
I missed a lecture,	30	19	3	2	0	1.57	.767
meeting, or planned work							
due to watching short							
videos							
I find it difficult to stop	11	17	9	13	4	2.67	1.259
watching short videos							
once I start							
I have short videos in my	20	21	11	2	0	1.91	.853
mind even when I am not							
using my smartphone							
I will never stop watching	17	21	11	5	0	2.07	.949
short videos even when							
my daily life is already							
greatly affected by it							
I constantly check my	14	24	10	6	0	2.15	.940
smartphone so as not to							
miss watching short							
videos on different							
platforms							
I use my smartphone to	8	12	14	13	7	2.98	1.266
watch short videos longer							
than I intended							
Total						2.22	1.006

To answer RQ3 regarding the popular platforms that students mostly use to watch short videos, they were asked to

choose between different platforms popular for being used for publishing short videos. Table 3 displays the ranks of the platforms and their frequency of usage by the participants. The results show that the most used platform by students is Instagram followed by YouTube Shorts, and then TikTok. Although TikTok is known to be the most popular and used platform; however, in this study, Instagram was ranked as number one indicating that it is witnessing an increasing number of users.

TABLE III. POPULAR PLATFORMS USED

Platform	Frequency	Rank
Instagram	39	1
YouTube Shorts	17	2
TikTok	16	3
Others	13	4

To answer RQ4 about any statistically significant relationship between short video addiction and students' academic achievement, the Pearson correlation coefficient test was conducted. As seen in Table 4, short video addiction has no significant relationship with students' academic achievement (r=.185, p > .001), thus H1 is not supported. This result contradicts the results of previous research [10, 19, 20], which found a relationship between time spent on technology and social media usage and students' academic achievement or performance. The result of the current study could be attributed to that academic achievement was measured by GPA only, and that the students did not regard themselves as addicts to watching short videos as found in RQ1.

TABLE IV. ADDICTION CORRELATION WITH GPA

		Short Video Addiction
GPA	Pearson Correlation	.185
	Sig. (2-tailed)	.180
	N	54

To answer RQ5 about any statistically significant relationship between short video addiction and students' physical and mental health, the Pearson correlation coefficient test was conducted. As seen in Table 5, short video addiction has a statistically significant relationship with physical health (r=.385, p < .001) at the 0.01 level of significance. Also, short video addiction has a statistically significant relationship with mental health (r=.670, p < .001) at the 0.01 level of significance. Thus both H2 and H3 are supported. These results are similar to those of [3; 20] who found that excessive use of technology and electronic devices causes negative physical, mental, psychological, and social effects on children and adults.

TABLE V. ADDICTION CORRELATION WITH PHYSICAL & MENTAL HEALTH

		Short Video Addiction
Physical Health	Pearson Correlation	.385**
	Sig. (2-tailed)	<.001
	N	54
Mental Health	Pearson Correlation	.670**
	Sig. (2-tailed)	<.001
	N	54

^{**} Correlation is significant at the 0.01 level (2-tailed)

V. CONCLUSION

Social media provides an open environment for easily exchanging ideas, thoughts, pieces of advice, sights, information, and feelings, which causes students to use various media platforms and applications for the majority of their time and eventually develop an addiction. Therefore, the consequences of watching short videos excessively must be considered by educators, legislators, and parents as technology continues to influence students' daily activities and learning methods. Policies that strike a balance between the advantages of social media use and short video viewing on one hand, and the maintenance of academic achievement and success and overall well-being on the other hand, in today's students must be enforced and implemented.

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