

Changes in Student Behavior on Social Networks

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Abstract

Social networks are an everyday part of university students' lives. They use them for various activities related to school, but mainly for personal life. On social networks, it is possible to share your feelings, your hopes, your life wins, and losses, as well as opinions and beliefs. This is done with the help of posts, comments, photos, videos, and other functionalities of various types of social networks. In our preliminary research, we focused on sharing photos and videos from everyday life. It was attended by 114 respondents from the Faculty of Education, Palacký University in Olomouc in the Czech Republic. The findings show that Facebook is the most used social network. The most common activity for students is sharing photos. None of the monitored activities showed a statistically significant difference in the frequency of activities between the period before and during the Covid-19 pandemic.

Keywords: education; intimate photography; location sharing; pandemic; video sharing

1. Introduction

Social networks (SN) are undoubtedly the main communication channel of the younger generation. This young generation (referred to as the "Z" generation) members were born in the digital age and are considered "digital natives", while the "X" and "Y" generation members born before 1995 are considered "digital immigrants" (Flynn, 2021). Students from the "Z" generation are specific by living their lives largely in the online space. They search for all the information on the Internet, where they also share their feelings, moods, or fears. They establish new friendships and relationships, deal with break-ups. To a large extent, they also have a demand for education using digital technologies (Kuznetsova & Sos, 2020). However, it should be added that Internet security and digital literacy, in general, are also related to this. The increasing risks of social networks are creating pressure to create courses on this topic for students, in order to deepen their knowledge (Soroya et al., 2021). There are different views on job opportunities. Some studies state that there is a difference in the employment of digital natives and immigrants, while others state that digital immigrants can adapt well to the circumstances, so there is no difference in who the company employs (Nevin & Schieman, 2021). In any case, today's university students are already digital natives and the online world is a common part of their lives.

1.1 Sleep duration

The online world surrounds students everywhere and they use it day and night. There is often a reduction in the number of hours of sleep, which can have a negative impact on various areas of their lives. One such area is mental health which (Cunningham et al., 2021) focused on. There were 1,518 respondents aged 18-90 involved in their US research. They found that up to 40% of respondents suffered from sleep disorders during the period of severe restrictions, which had a negative effect on their mental well-being. (Benham, 2021) reached similar findings. The sample of respondents in his research included 1222 US university students. Data collection took place over two periods, in the spring of 2020 and in the summer of 2020. Research has shown a link between increased stress and poor sleep quality. During the Covid-19 pandemic, students used to go to bed later and their average sleep duration decreased. As for the quality of sleep, it was comparable to the period before the Covid-19 pandemic. (Shrestha et al., 2021) also reached similar findings among medical students in Nepal. In their research, they focused on the link between quality and duration of sleep and mental well-being.

Another problem related to the area of length and quality of sleep is the use of various sleeping pills. An extensive study was conducted in China, which included primary, secondary, and university students. A total of almost 9,400 respondents participated on the research (Liu et al., 2020). 6.4% of university students reported using sleeping pills. On the European continent, a study was conducted in several countries to examine the perception of university students about the use of over-the-

counter sleep medications by classmates and by themselves (Lehne et al., 2018). Of the total number of respondents, 9.1% reported the use of sleeping pills. Social norms perceived by students can also be a problem. If students have a positive perception of the use of sleeping pills by their classmates, then they tend to use them themselves and consider it to some extent a social norm.

The following area that is affected by the length and quality of sleep is obesity. (Pham et al.) addressed this topic in their study. The research focused on Mississippi State University students. Students with shorter sleep duration or poorer sleep quality were found to have a higher BMI (body mass index), which negatively affects their overall health.

1.2 Social networks

Today, social interaction takes place to a large extent with the help of various digital technologies. This trend presupposes certain knowledge and skills. The aim of educational institutions is to prepare pupils and students to survive in this rapidly changing environment. It was assumed that primary school pupils already have the digital competencies needed, research (Cabezas – Gonzalez et al., 2021) however found out that even though primary school pupils communicate via social networks and the Internet in general very often, their knowledge is relatively much limited to this activity only. Other attributes of digital competencies are no longer controlled or only to a very limited extent. Many of them cannot even set their own profile on social networks (SN) or maintain their digital identity.

The types of social networks used may vary from country to country. According to statistics as of January 2021, a total of 7.83 billion people lived on the earth. Of this total, 4.2 (53.6%) billion use social networks. From January 2020 to January 2021, the number of SN users increased by 490 million (13.2%). As of January 2021, the most used SN was Facebook with 2.74 million users. It was followed by YouTube with 2.291 million users, followed by WhatsApp with 2.0 million users. However, it should be taken into account that most users use multiple SNs at once (Kemp, 2021). The same is true in India, where (Raja & Ganesan, 2019) found that Facebook is the most widely used social platform. It is used by 95.23% of respondents, followed by WhatsApp (90.57%) and YouTube (80.95%).

Sharing photos, videos, emotions, and other aspects of life can also bring negative aspects. One of them is an addiction to social networks and smartphones. (Liu & Ma, 2020) have researched this issue. The fear of missing important messages from other SN users and the inability to respond to them can result only in addiction on the SN and possibly on the smartphone, which is widely used for the purpose of visiting SN accounts.

The Covid-19 pandemic brought with it an increase in time spent on social networks, an increase in dependence on SN, and also social distance. Loneliness, emotional discomfort, and the need for social interaction with peers have contributed to increased addiction (Tuck & Thompson, 2021).

1.3 Sharing photographs on the internet

The study of (Bacaksiz et al., 2020) focused on students of nursing. The researchers found out which information the respondents share on the social network Facebook. The findings show that students most often (61% of them) share photos from the places they visited. The second most numerous group was sharing photos where the respondents were pictured with friends (51%). They shared fewer photos with their family (36%) though. The easiest information to access freely was about the places where the person in question lived (88%).

Scoats (2017) studied photographs of young students at a university in the United Kingdom. His findings show that respondents most often shared photos from parties and bars where alcohol was consumed. Such behavior supports the opinion of students drinking alcoholic beverages frequently. Male respondents who were in a relationship with their partner appeared more often in the photos with people of the opposite sex (but not necessarily with their partner), whereas the individuals themselves (without a partner) appeared more often in the photos from the parties with individuals of the same sex. Taken men no longer needed to take pictures with friends in fun positions.

Students of Ph.D. study programs share not only their private lives' posts but to a large extent also the ones from their studies. These are, for example, posts from the trip to school, from business trips, from research, but also from their study achievements. They try to show a balance of their study, work, and private life (Salzmann-Eriksson & Eriksson, 2018).

1.4 Sharing videos on the Internet

Like photography, sharing videos from life is quite a common activity for college students. Frequent video sharing also affects the ads that are offered to them. Plentiful advertising can affect students' entire lives. For example, advertisements for the perfect body may lead to eating disorders (Aparicio-Martínez et al., 2017).

Social networks are an indispensable part of university students' lives. They have a constant need to share live broadcasts of their lives in order to gain as many likes and accolades as possible. SN users may feel obligated to respond or comment on the status of another user in any way. This feeling can force the user to spend more and more time on SN, which can lead to addiction. Increased comparisons with other users can lead to social anxiety (Foroughi et al., 2021).

Video sharing on SNs is related to the chosen social network, according to its specific focus, as well as to the actual motivation of the user. Instagram is a popular social network among college students and is more preferred by female respondents (Shane-Simpson et al., 2018).

1.5 Sharing intimate photos on the Internet

Sending and receiving intimate photos is very easy due to the proliferation of social networks. University students (65.5%) said they had received an intimate photo and 50.1% said they had sent an intimate photo and 47.3% had sent it when they were under 18 years old. This behavior in SN has both positive and negative aspects. It can for example be a welcome addition in a relationship. The problem can, however, occur if someone uses such a photo, for example, for blackmail. Such photographs may also be resent to someone else for amusement or in anticipation of a positive review (Graham Holmes et al., 2021). (Kistler & Drouin, 2020) also reached similar results while researching university students. Sending intimate photos is considered common by students, some have already sent as much as 41 of such photos to their partners. (Beckmeyer et al., 2021) reached similar conclusions. Respondents from the ranks of university students also consider sexting to be rather positive and supportive in long-term relationships.

2. Methods

The main research method was a questionnaire survey, which was preceded by pilot research conducted through a structured interview with six probands. Following the interviews, a research tool was divided into two parts. The first part of the questionnaire was related to the period before the Covid-19 pandemic and the second part was aimed at the period during the Covid-19 pandemic. In both periods, the probands were asked about the average number of hours they spent sleeping. The research also focused on the way how the use of listed internet platforms had changed, attention was paid to sharing photos and videos as well.

The pilot study was attended by 114 randomly selected students of the Faculty of Education, Palacký University in Olomouc. Of the total number of respondents, 94 (82.46%) were women and 20 (17.54%) were men. The age distribution of students was 19-58 years due to the fact that both full-time and part-time students took part in the research.

The data obtained from the questionnaire were analyzed using basic statistical methods, given that they were nominal data. The Chi-square independence test was used. The program STATISTIKA 14 was used for statistical calculations.

3. Results

The key research question was how students' behavior in sharing photos and videos before and during the Covid-19 pandemic changed. We were also interested in whether they shared their intimate photos in relation to age categories. Another issue was the changes in the use of communication platforms in connection with the Covid-19 pandemic.

3.1 Average length of sleep before and during the Covid-19 pandemic

Regarding the length of sleep, respondents classified their average length of sleep into 4 categories. These categories were: 4-6 hours, 6-8 hours, 8-10 hours, and 10 hours or more. However, even after merging the categories, no statistically significant difference was found at the significance level $p = 0.05$. This result can be attributed to the low number of respondents, who were not easy to find during the Covid-19 pandemic. Table 1 presents a contingency table that lists the frequencies in the various categories of average sleep duration and their sums on the rows and columns. There are clear differences before and during the Covid-19 pandemic. The most common category was 6-8 hours of sleep, although during the pandemic, the frequency decreased slightly in favor of the other two categories.

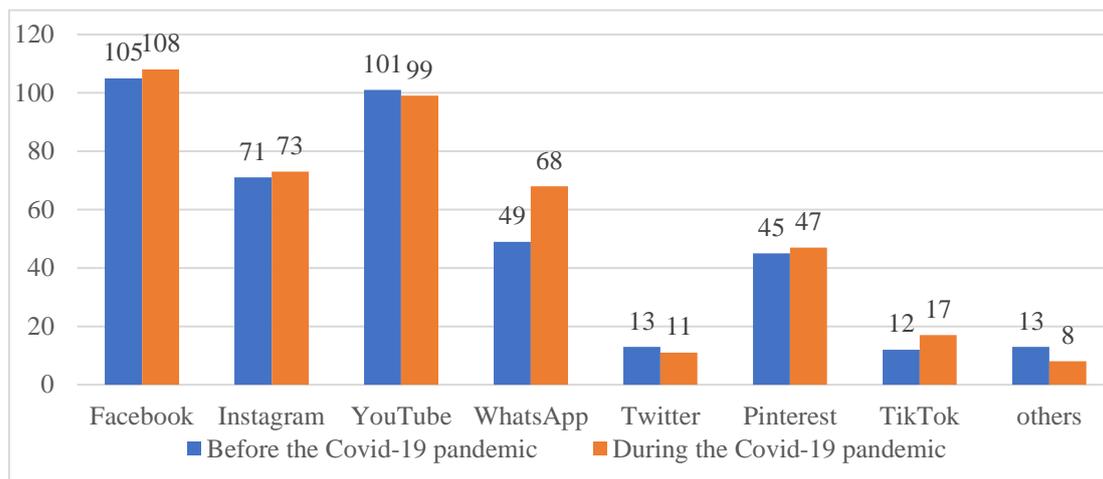
Table 1: Categories of the average length of sleep before and during the Covid-19 pandemic

Period	Sleep duration 4-6 hours	Sleep duration 6-8 hours	Sleep duration 8 and more hours	Row
Before the Covid-19 pandemic	14	73	27	114
During the Covid-19 pandemic	17	66	31	114
Both	31	139	58	228

3.2 Use of the listed social networks before and during the Covid-19 pandemic

Within the social networks used, the preferences of university students before and during the Covid-19 pandemic did not change significantly, as shown in Table 1. Respondents reported an increase in the use of only one social network, and that was WhatsApp. During the Covid-19 pandemic, the number of users increased by 19 probands.

Figure 1: Frequencies of social networks use before and during the Covid-19 pandemic



3.3 Sharing photos online before and during the Covid-19 pandemic

As for sharing photos from respondents' daily lives before and during the Covid-19 pandemic, no statistically significant difference was found at the significance level of $p = 0.05$. However, Table 2 shows that respondents cut the sharing of such photos during the Covid-19 pandemic.

Table 2: Frequencies of sharing photos from respondents' daily lives

Period	Never	Almost never	Once a month	Once a week	More times a week
Before the Covid-19 pandemic	14	44	41	11	4
During the Covid-19 pandemic	18	59	30	5	2

Table 3 presents the differences in the sharing of photos from respondents' daily lives before and during the Covid-19 pandemic according to age category. Table 3 shows that photos from daily life are most often shared by the age category up to 22 years. With the beginning of the Covid-19 pandemic, sharing of photos of daily life on social networks has decreased significantly.

Table 3: Sharing photos from respondents' daily lives according to age categories

		22 years or younger	23-30 years old	31 years old or above
Before the Covid-19 pandemic	No	7	3	8
Before the Covid-19 pandemic	Yes	53	30	13
During the Covid-19 pandemic	No	11	9	12
During the Covid-19 pandemic	Yes	49	24	9

3.4 Sharing videos on the Internet before and during the Covid-19 pandemic

In the area of sharing photos from respondents' daily lives before and during the Covid-19 pandemic, no statistically significant differences were found at the significance level of $p = 0.05$, as presented in Table 4.

Table 4: Frequencies of sharing videos from respondents' daily lives

How often do you share videos?	Never	Almost never	Once a month	Once a week	More times a week
Before the Covid-19 pandemic	79	23	10	2	0
During the Covid-19 pandemic	80	24	7	2	1

Table 5 shows how respondents share videos of their lives according to age categories. Video sharing habits before and during the Covid-19 pandemic changed only in the 23-30 age group. For the other categories, the rate of shareholders did not change.

Table 5: Sharing videos from respondents' lives according to age categories

		22 years or younger	23-30 years old	31 years old or above
Before the Covid-19 pandemic	No	45	22	19
Before the Covid-19 pandemic	Yes	15	11	2
During the Covid-19 pandemic	No	45	28	19
During the Covid-19 pandemic	Yes	15	5	2

3.5 Sharing intimate photos on the Internet before and during the Covid-19 pandemic

Prior to the Covid-19 pandemic, 23 respondents reported sharing intimate photos, including 21 (22.34%) women and 2 (10%) men. During the Covid-19 pandemic, 14 respondents shared intimate photographs, as Table 6 shows. Of them were 12 (1.77%) women and 2 (10%) men. The results show that the number of respondents who shared their intimate photos during the Covid-19 pandemic decreased in the category of women.

Table 6: Sharing intimate photos

Do you share intimate photos?	NO	YES	Row
Before the Covid-19 pandemic	91	23	114
During the Covid-19 pandemic	100	14	114
Both	191	37	228

In terms of age categories, a total of 13 (11.4%) respondents out of 114 participants shared their intimate photos before the Covid-19 pandemic. Table 7 shows the numbers of respondents who shared their intimate photos before and during the Covid-19 pandemic according to age categories. There is a significant decrease in sharing across all age groups.

Table 7: Sharing intimate photos according to age categories

Do you share intimate photos?	Age categories		
	22 years or under	23-30 years	31 years and above
Before the Covid-19 pandemic	13	8	2
During the Covid-19 pandemic	8	5	1

4. Discussion

In the area of sleep duration, according to the findings of the questionnaire survey, there was no significant difference between the period before the Covid-19 pandemic and during the Covid-19 pandemic. In the monitored category of 6-8 hours of sleep per day, there was a smaller decrease, however, some respondents moved to the category of 8 or more hours. These findings suggest that for some respondents, their sleep duration has increased and for some, it has decreased, which cannot be attributed to the Covid-19 pandemic.

There has also been no significant change in correlation with the Covid-19 pandemic proven regarding the use of social networks. Only the social network WhatsApp recorded a slight increase. The most popular social network of university students is currently Facebook, which is followed by the YouTube platform. Of the respondents surveyed, only one answered that he does not use any social network.

Regarding photo sharing, a slight rundown was registered during the Covid-19 pandemic. The theoretical part implies that students most often share photos from places they visited, which unfortunately they could not implement during strict government restrictions. The findings suggest a decline in photo sharing in all age groups.

Sharing videos shows the same tendencies as photo sharing, which is again related to longer-lasting strict government restrictions. A decrease in sharing was also found in this category.

Sharing intimate photos was also on the decline. The frequency of sharing intimate photos decreased in all age categories. However, the results show a contradiction with theoretical findings, according to which 50.1% of respondents stated that they sent an intimate photograph. In our study, it was only about 20% of respondents.

5. Conclusion

The purpose of the study was to determine whether and, if so, how the behavior on social networks of students of the Faculty of Education changed during the pandemic. There were no statistically significant differences marked between the periods before and during the Covid-19 pandemic in any of the individual areas assessed.

The limitation of the study was the Covid-19 pandemic itself, which made it difficult to meet the students, so the form of an online questionnaire survey was chosen. Out of the total number of 320 addressed respondents, only 115 submitted a completed questionnaire. One respondent had to be excluded due to his completely inadequate answers. In the end, it was possible to work with data from 114 respondents. Another limitation is the insufficient representation of the male population in the sample of respondents, which is related to the type of university. The Faculty of Education has a larger proportion of female students than male students.

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