

# DIGITALES ARCHIV

ZBW – Leibniz-Informationszentrum Wirtschaft  
ZBW – Leibniz Information Centre for Economics

Supekova, Sona Chovanova; Keklak, Richard; Masarova, Tatiana et al.

## Article

# Social media, networks, and students in the context of the educational process

*Reference:* Supekova, Sona Chovanova/Keklak, Richard et. al. (2023). Social media, networks, and students in the context of the educational process. In: Marketing i menedžment inovacij 14 (3), S. 142 - 152.

[https://mmi.sumdu.edu.ua/wp-content/uploads/2023/09/13\\_A746-2023\\_Supekova-et-al.pdf](https://mmi.sumdu.edu.ua/wp-content/uploads/2023/09/13_A746-2023_Supekova-et-al.pdf)

doi:10.21272/mmi.2023.3-013.

This Version is available at:

<http://hdl.handle.net/11159/631433>

## Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics

Düsternbrooker Weg 120

24105 Kiel (Germany)

E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)

<https://www.zbw.eu/econis-archiv/>

## Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte.

<https://zbw.eu/econis-archiv/termsfuse>

## Terms of use:

*This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence.*

## SOCIAL MEDIA, NETWORKS, AND STUDENTS IN THE CONTEXT OF THE EDUCATIONAL PROCESS

**Sona Chovanova Supekova,**  <https://orcid.org/0000-0002-3817-3594>

Pan-European-University in Bratislava, the Slovak Republic

**Richard Keklak,**  <https://orcid.org/0000-0003-3937-3261>

Pan-European-University in Bratislava, the Slovak Republic

**Tatiana Masarova,**  <https://orcid.org/0000-0003-4753-3309>

Faculty of Social and Economic Relations, Alexander Dubcek University of Trencin, the Slovak Republic

**Patricia Jakesova,**  <https://orcid.org/0009-0007-7117-3290>

Pan-European University in Bratislava, the Slovak Republic

**Corresponding author:** Sona Chovanova Supekova, [sona.supekova@paneurouni.com](mailto:sona.supekova@paneurouni.com)

**Type of manuscript:** research paper

**Abstract:** *Social media and networks have opened new opportunities for individuals to learn and grow, regardless of their educational or professional background. The implications and challenges of technology in educational settings are not well understood, despite its widespread use and impact on students. The study aims to investigate students' social networking behaviour in the form of the use of social networking sites during class in relation to their gender, age group, education, and place of residence and focuses on three age groups of students who are representatives of Generation Y and Generation Z because both generations are growing up and coming of age in the 21st century and have been exposed to digitization and digital transformation since early childhood. The research sample consisted of 278 students from public and private universities and high school graduates who expressed interest in studying at the university. The results show that all examined variables, except place of residence, have a significant but small effect on what students do on social networking sites during classes and the reasons why they use them. However, according to the results, the fact that students connect to social networks during class does not imply that they have a reduced interest in the subject matter being taught or the knowledge being acquired, which means that there is a significant opportunity to adapt the learning approach on these platforms.*

**Keywords:** social media and networks; educational process; university; students.

**Received:** 10 April 2023

**Revised:** 25 August 2023

**Accepted:** 12 September 2023

**Funding:** There was no funding for this research.

**Publisher and Founder:** Sumy State University

**Cite as:** Chovanova Supekova, S., Keklak, R., Masarova, T., & Jakesova, P. (2023). Social Media, Networks, and Students in the Context of the Educational Process. *Marketing and Management of Innovations*, 14(3), 142–152. <https://doi.org/10.21272/mmi.2023.3-13>

**1. Introduction.** Since the second decade of the 21st century, the world and its direction have been characterized by a boom in digitization and digital transformation (Ivanova et al., 2021; Vasanicova et al., 2022). Social media and networks have not only become the digital phenomenon of the last decades but also represent a digital space of unexpected future possibilities. They are becoming an inimitable tool and medium for marketing businesses, especially a means of promoting and advertising them. However, at the same time, they are also important in many other areas, not only as sources of information but also as a means of contemporary interpersonal communication.

Social media and networks have also had a profound impact on the teaching process (Dennen et al., 2020; Parmar et al. 2022). They can help to strengthen relationships between students by providing a platform for communication and collaboration. On the other hand, their use during classes can have negative impacts on course outcomes (Zimmer, 2022), such as decreased attention, decreased engagement, and increased distractions. Increasing evidence that social media and networks can provide a space for learning and collaboration leads to educators using social media and virtual social networks in both formal and informal settings to enhance their courses (Ralph et al., 2022). Formal settings include classrooms, where educators may use social media to facilitate discussion, share resources, or provide feedback to students. Informal settings include online communities, where educators can connect with other educators and exchange ideas about teaching and learning. Therefore, social media and networks provide educators with exhilarating opportunities to guide learners in authentic problem-solving environments.

However, these tools can also pose challenges, whereas until now, there has been scarce research on how they can directly aid in the growth of learners' problem-solving skills (Koehler & Vilarinho-Pereira, 2021). Moreover, the existing evidence on the impact of social media and networks on student engagement is mixed. Some studies have shown that social media and networks can have positive impacts (Nochumson, 2020; Park et al., 2022), while others have shown that they can have negative impacts (Sun et al., 2021; Zimmer, 2022; Zulkanain et al., 2020). It is important for educators to be aware of both the potential benefits and risks of social media and networks and to use them in a way that is beneficial to students (Rodriguez-Triana et al., 2020; Gavurova et al. 2021).

The study responds to the above research gap and aims to investigate students' social networking behavior in the classroom, specifically their use of social media and networking sites (SNSs), in relation to their gender, age group, education level, and place of residence. It also examines the amount of time students spend using SNSs during class because there is a correlation between the frequency of social media use in classes and poorer academic outcomes (Rozgonjuk et al., 2018).

The structure of the article is as follows. Theoretical background refers to the body of knowledge that exists in the domain of social media and networks and their impacts on education. The following methodology section provides a detailed account of the research methods, data sources, and analytical techniques employed in this study. The Results and Discussion section showcases the primary outcomes of the study and elaborates on their significance. The final part of the article delivers a recap of the study's discoveries, along with its constraints and potential impact on forthcoming research and practice.

**2. Literature Review.** Social networks are identified as online platforms that allow individuals to establish a public or semiprivate profile within a bound system, gain access to a roster of other users with whom they can engage, and peruse their list of connections as well as those made by others. Concurrently, they also serve as communal spaces for those intrigued by a specific topic or those with shared interests (Boyd & Ellison, 2007). Liccardi et al. (2007) refer to the concept of trust when using social networks, taking into account that these kinds of platforms are social frameworks composed of nodes symbolizing individuals, and they are founded on the trust among members and the robustness of the relationship (Liccardi et al., 2007). One other perspective on social networks is that they can also be perceived as collections of digital portrayals of individuals, referring to registered users who are interconnected based on data regarding their shared activities, preferences, or common means of communication (Musial & Kazienko, 2013).

Over time, social networks started to be seen as synonymous with social media, although there are some differences between them. Burke (2013) states that social media can be viewed as content uploaded by individuals for one-to-many communication, while social networking emphasizes interaction and the cultivation of relationships (Burke, 2013). Social networking platforms establish digital linkages among individuals who may or may not be familiar with each other, primarily utilized for socializing, amusement, updates about their connections, or information search (Perez & Gomez, 2011; Mishchuk et al. 2023). Social media is typically referred to as the collaborative creation and distribution of media on a broad scale, encompassing social networking sites and other forms of media such as news blogs (Collin et al., 2011). Social media can be perceived as a platform for disseminating information, while social networking sites are

platforms where communication is bidirectional (Froehlich, 2020). However, in the context of this study, it is not important which of the terms we use to refer to the phenomenon in question.

Social media and networks have not eluded education either. Even educational institutions and universities utilize social networks, directly incorporating them into the teaching process and for educational objectives to enhance the efficiency of the learning process, for example, by increasing course accessibility. For example, in the United States, in 2016, two-thirds (67%) of the students formed a group that had taken at least one online course (Allen et al., 2016). Already in the same year, 42.17% of students in Croatia said that they valued the use of social networks for educational purposes as a good option (Skendzic & Devcic, 2017). Whether based on students' academic experiences or surveys conducted, online communication through social networks can be a factor that helps students to adapt more easily to university life and help them to form relationships between students, their peers, and teachers. According to Ng and Latif (2011), in contrast to the traditional education system, social networking has a more significant influence on both educators and learners, as it provides the chance to link up and cooperate in a simpler manner. (Ng & Latif, 2011; Belas et al. 2019). Students are no longer just using social media to connect and engage with friends or family. Now, it is also being embraced by educators, as teaching and learning without the use of technology can often seem monotonous (Salarzadeh et al., 2017; Kubak et al. 2021).

According to Kebritchi et al. (2017), there are also challenges that teachers face in connection with social media and networks. These include finding techniques to increase students' interest and using the online environment along with the methods used in the traditional teaching process. With the proliferation of the use of online environments for learning, it is important to understand the methods by which students learn and the way they think in an online environment when learning, which in many ways differs from the methods and ways in traditional courses (Kebritchi et al., 2017). Jaggars (2014) suggests that educators need to consider the fact that students possess different learning strategies and abilities, and negative experiences either from technical issues or problem-solving difficulties in an online setting can deter them from online learning or maintaining a positive outlook towards this form of education (Jaggars, 2014).

It is important to note that, specifically for university students, engaging in social networking, unfortunately also during the classroom, is a way to build social capital and obtain a suitable job (Rozsa et al., 2022a; Rozsa et al., 2022b; Stefko et al., 2014); therefore, the path of social media or network restriction or even prohibition during classes is not entirely viable in the university environment. Engaging with trusted social media should thus be appropriate for online learning today but also attractive from the perspective of teachers (Tkacova et al., 2022; Gavurova et al. 2018).

As mentioned earlier, research on the impact of social media and networks in education settings has been conducted in various directions. Dennen et al. (2020) investigated the role of six popular social networking sites (SNSs) and engaging students, teachers, and administrators in interviews. The study explored how SNSs are used to support a myriad of functions within the school, such as professional development, classroom learning, self-guided education, and social interaction. The research additionally investigated the participants' more general use of SNSs and the intersections between personal and academic applications. The results revealed that while the instructional application of SNSs is minimal, SNSs still have a ubiquitous presence within the academic environment and can be used for both positive and negative purposes. For example, SNSs can be used to connect with friends and family, share information, and learn new things. However, SNSs can also be used to spread misinformation, cyberbullying, and other harmful behaviors (Dennen et al., 2020).

Differences in the use of social networking sites during lectures in relation to gender, age group, education, and place of residence were inconsistently stated by many research studies. Kay et al. (2017) found that 80% of students use mobile devices to complete assignments in class, but they also engage in distracting activities such as writing emails (64%), surfing the internet (65%), using social networking sites (52%), sending instant messages (32%), and playing games (30%). Female students use social media more than male students, while male students play games more than female students (Kay et al., 2017). Colas-Bravo & Quintero-Rodriguez (2023) also investigated differences in the use of YouTube platforms in educational contexts according to the age, gender, and education level of the subjects. Substantial significant differences were observed for the age variable but not for the variables of gender or level of education (Colas-Bravo & Quintero-Rodriguez, 2023).

In regard to the frequency of social media use in lectures, Rozgonjuk et al. (2018) investigated how the use of social media in lectures influences learning approaches in a sample of 405 Estonian university students. They confirmed that excessive social media use was associated with poorer academic outcomes in terms of nondeep and superficial approaches to learning (Rozgonjuk et al., 2018). The findings also suggest that students who were more distracted digitally had lower final course grades, while those who placed greater emphasis on peer learning achieved higher final course grades (Liao & Wu, 2022). On the other hand,

employing social media or networks for academic tasks during class time can effectively address boredom and disengagement, especially when dealing with content-heavy subjects (Nadeem & Blumenstein, 2021).

**3. Methodology and research methods.** The study aims to investigate students' social networking behavior in the form of the use of social networking sites during class in relation to their gender, age group, education, and place of residence. The subobjectives of the research also include verifying the time students spend using social network applications during classes and the dependence of activities on the application used. The following hypotheses were stated:

- Hypothesis 1 (H1): There is a significant difference in the use of social networking sites by students during classes depending on gender.
- Hypothesis 2 (H2): Students' age group has a significant effect on the reasons why students use social networking sites during classes.
- Hypothesis 3 (H3): Education has a significant effect on the reasons why students do not use social networking sites during classes.
- Hypothesis 4 (H4): Place of residence has a significant effect on the reasons why students do not use social networking sites during classes.

The authors conducted this research using a structured questionnaire distributed electronically during the last three weeks of the summer semester of 2022. The included questions were oriented to three areas: 1. general questions about the use of social networking applications, 2. social networking behavior in relation to advertising on social networks and in the online space, and 3. the area of students' use of social media during the teaching process, whether privately, regardless of the teacher's attitude, or with the teacher's participation, as part of the teaching process. The questionnaire contained 17 questions, of which 12 were merit questions and 5 were identification questions.

The research sample consisted of 278 (complete questionnaires with no errors, 85% return rate) students from public and private universities and high school graduates who expressed interest in studying at university. The sample profile is presented in Table 1.

**Table 1.** Sample profile

<b>Gender</b>		<b>Female</b>	<b>Male</b>			<b>Total</b>
	<i>n</i>	182	96			278
	Share	65.00%	35.00%			100
<b>Age group</b>		<b>18-21</b>	<b>22-25</b>	<b>26-30</b>		<b>Total</b>
	<i>n</i>	140	106	32		278
	Share	50.00%	38.00%	12.00%		100
<b>Education</b>		<b>Basic</b>	<b>Middle</b>	<b>High School</b>	<b>University</b>	<b>Total</b>
	<i>n</i>	19	156	90	13	278
	Share	7.00%	56.00%	32.00%	5.00%	100
<b>Place of residence</b>		<b>Urban</b>	<b>Rural</b>			<b>Total</b>
	<i>n</i>	199	79			278
	Share	72.00%	28.00%			100

Sources: developed by the authors.

The variable time spent by respondents on social networks is measured by the number of hours spent on individual social networks, and the answer is based on respondents' mobile phone extracts in a week span. The reasons why students connect to social networking sites during classes were measured by six possible answers (I'm bored with the subject, Lecturer did not interest, I missed the notes, Addicted, I cannot get, I'm dealing with personal problems, I do not even truly know why) in the intensity of never, sometimes, always.

Students' reasons for not connecting to social networking sites during classes were measured with five possible answers (I want to concentrate on the lecture, I cannot do both activities, It is rude to the teacher, I just do not do it) also in the intensity of never, sometimes, always). To evaluate the results of the research, we looked for correlations between the response options to the merit questions and the relationship of variables such as gender, age group, education, and place of residence. A chi-square test was used to validate respondents' answers to each question (Chovanova, 2019). Criterion analysis was used to identify specific factors of students' use of social networks during the teaching process. The Kruskal–Wallis test was used as a nonparametric method, which is the nonparametric equivalent of the one-factor analysis of variance, i.e., it allows testing the hypothesis H0 that k ( $k \geq 3$ ) independent sets come from the same distribution. It is

a direct generalization of the Wilcoxon two-sample test for independent samples ( $k \geq 3$ ) (Stehlikova et al., 2009). The statistical program R was used to process the data.

**4. Results.** In Table 2, we report those responses that are significantly dependent on the individual variables, namely, gender, age group, education, and place of residence. In the first column, there are questions from three groups: group A represents the questions related to the use of each social network, group S represents the questions related to the use of social networks during classes, and group B represents the identification questions of the respondents, namely, gender, age, education, form of study and residence.

**Table 2.** Significant dependencies of responses in relation to the variables gender, age group, education, and place of residence

Question/question	X-squared	df*	p value	Cramer V	Effect size
S23B1	6.6229	1	0.03646	0,1078	small
S16B1	9.2433	1	0.00983	0,1273	small
S18B2	9.4907	2	0.04994	0,1054	small
S29B2	14.738	2	0.00527	0,1313	small
S16B2	13.059	2	0.01099	0,1236	small
S4B2	11.633	2	0.02032	0,1166	small
S3B2	10.095	2	0.03886	0,1087	small
S8B3	14.267	2	0.02679	0,1292	small
S21B3	13.620	2	0.03418	0,1262	small
S1B3	22.760	2	0.00088	0,1632	small
S6B3	18.746	2	0.00461	0,1481	small
S21B5	10.195	1	0.00611	0,1337	small

Sources: developed by the authors.

We confirm hypothesis 1 (H1). Thus, gender has a significant but small effect on what students do on social networking sites during class and, in this case, specifically on reading newspaper news ( $V=0.1078$ ), while at the same time, gender has a significant although small effect on the fact that a student is not connected to the internet at all during class and therefore not connected to social networking sites ( $V=0.1273$ ).

We also confirm hypothesis 2 (H2). Age group has a significant, although small, effect on the reasons why students are on a social network during class, namely, because he/she is bored with the lecture ( $V=0.1087$ ) and because the lecturer has not interested the student ( $V=0.1166$ ). Age also has a significant although small effect on the response of what the student does on the social network, namely, reading news ( $V=0.1236$ ) and browsing goods on e-stores ( $V=0.1054$ ), as well as whether the student would welcome the use of social networking sites to support the learning process; hence, age has a significant although small effect on the response of "it would be annoying" ( $V=0.1313$ ). We confirm hypothesis 3 (H3). Education has a significant although small effect in all the following responses, namely, whether the students use social networking at all during class ( $V=0.1632$ ), and in the explanation of the reasons, namely, that the student cannot even justify why he/she is online and follows social networking ( $V=0.1292$ ) and that he/she thinks it is already an addiction and cannot help it ( $V=0.1481$ ). Similarly, education has a significant, although small, effect on the answer of what he/she does while connected to social networking sites, namely, messenger messaging ( $V=0.1262$ ). Respondents' residence has a significant effect on whether the student writes messages through social networking sites during class ( $V=0.1337$ ). We could not confirm Hypothesis 4, as the place of residence does not have a significant effect on students' responses on the reasons for which they use social networking sites during class.

Table 3 shows significant, albeit small and insignificant, correlations between each respondent's answers and which social network they use and which communication application they use. Students' responses on the area of interest in communicating with the teacher through social networking ( $V=0.1256$ ) and whether the student would be interested in incorporating social networking into the teaching process ( $V=0.1302$ ) are significantly correlated, although it is a small correlation, with whether the student is an active user of Facebook. At the same time, the Facebook user and the answer to the question of how beneficial the student would consider the teacher's use of social networking sites in the teaching process, therefore, also shows a significant, although insignificant, dependence ( $V=0.132$ ).

Whether a student is an active user of Instagram has a significant, although small, effect on the reasons why a student spends time on social networking sites during class. Namely, because he/she is bored

( $V=0.1607$ ), because he/she is not interested in the teacher ( $V=0.1544$ ), because he/she cannot help himself/herself and evaluates joining social networks as his/her addiction ( $V=0.1152$ ), and because he/she cannot actually explain the reasons for his/her joining social networks during class, he/she does not even know why ( $V=0.1139$ ). We can further state that if he is an active Instagram user, then this has a significant, although small, effect on the answers of what exactly the student does on social networks during class: he writes messages ( $V=0.1513$ ), other reasons ( $V=0.1241$ ) but also the fact that the student answers that he is never on social networks during class ( $V=0.1241$ ). At the same time, being active on Instagram significantly influences the user's answer regarding whether he/she would be interested in incorporating social networking into the teaching process ( $V=0.1349$ ). There is also a significant, albeit small, correlation between the fact that a student is an active Instagram user and the reasons given for why he/she would welcome the involvement of social networking sites in the teaching process, namely, being beneficial ( $V=0.1195$ ), fun ( $V=0.1223$ ) and motivating ( $V=0.1172$ ). The fact that a student is an active Twitter user has a significant, albeit small, effect on the only response and that a student will only join a social network during class if a notification has been received ( $V=0.1089$ ).

**Table 3.** Significant interdependencies of responses in relation to social media and network use during classes

Q/Q	X-squared	df*	p value	Cramer V	Effect size	Q/Q	X-squared	df*	p value	Cramer V	Effect size
S25A1	13,482	2	0,0359	0,1256	small	S22A6	19,973	2	0,0005	0,1528	small
S29A1	14,483	2	0,0059	0,0132	negligible	S25A6	14,422	2	0,2526	0,1299	small
S4A2	20,393	2	0,0004	0,1544	small	S3A11	10,499	2	0,0328	0,1108	small
S3A2	22,078	2	0,00019	0,1607	small	S8A11	11,103	2	0,0254	0,1140	small
S24A1	14,483	2	0,0059	0,1302	small	S4A11	10,627	2	0,031	0,1115	small
S6A2	11,343	2	0,0229	0,1152	small	S5A11	21,716	2	0,0002	0,1594	small
S8A2	11,1	1	0,02546	0,1139	small	S6A11	19,585	2	0,0006	0,1513	small
S21A2	19,569	2	0,0006	0,1513	small	S29A6	10,836	2	0,0284	0,1126	small
S23A2	13,158	2	0,0105	0,1241	small	S10A7	11,609	2	0,0205	0,1165	small
S5A3	10,14	2	0,0381	0,1089	small	S12A7	12,331	2	0,015	0,1201	small
S1A4	9,53	2	0,0491	0,1056	small	S21A8	21,996	2	0,0002	0,1604	small
S24A2	15,567	2	0,01628	0,1349	small	S24A8	14,492	2	0,0246	0,1302	small
S5A4	11,542	2	0,0211	0,1162	small	S29A8	11,793	2	0,0189	0,1174	small
S27A2	12,79	2	0,0123	0,1223	small	S27A8	10,147	2	0,038	0,1089	small
S1A5	14,983	2	0,0047	0,1324	small	S25A9	14,136	2	0,0281	0,1286	small
S28A2	13,898	2	0,0076	0,1275	small	S24A10	13,944	2	0,0302	0,1277	small
S29A2	12,214	2	0,01583	0,1195	small	S24A11	18,263	2	0,0056	0,1461	small
S13A5	10,561	2	0,0319	0,1111	small	S1A11	20,507	2	0,0003	0,1549	small
S28A5	11,734	2	0,0194	0,1172	small	S18A11	11,302	2	0,0233	0,1150	small
S4A5	13,78	2	0,008	0,127	small	S19A11	14,619	2	0,0089	0,1259	small
S6A5	10,618	2	0,0312	0,1114	small	S27A11	18,619	2	0,0009	0,1476	small
S12A5	13,214	2	0,0102	0,1243	small	S28A11	15,452	2	0,0038	0,1344	small

Sources: developed by the authors.

Similarly, being an active user of LinkedIn has a significant, albeit small, effect on whether a student uses social networking at all during class ( $V=0.1056$ ) and being connected to a social network at the time a notification arrives ( $V=0.1223$ ). Additionally, the fact that a student is an active Snapchat user has a significant, although small, effect on the responses of whether he/she uses social networking at all during class ( $V=0.1324$ ), the reasons why he/she uses social networking during class, i.e., because the lecturer did not engage ( $V=0.127$ ), because he/she feels addicted to social networking ( $V=0.114$ ), but on the other hand, the reasons why he does not use social networks during class are also significant, namely, because he wants to concentrate on the lecture ( $V=0.1243$ ) and because he considers it rude to the teacher ( $V=0.1111$ ), but at the same time he would consider it fun to involve social networks in the teaching process ( $V=0.1172$ ). That the student is an active user of other social networking sites as we listed in the questionnaire is significantly dependent, although it shows a small dependence with the answers of what the student does on the social networking site during class and these are other activities than those listed ( $V=0.1528$ ) and there is also a significance, although with a small intensity with the answer that the student would welcome working with social networking sites during class ( $V=0.1299$ ) and would consider it beneficial ( $V=0.1126$ ). A significant,

although small, intensity of dependence exists between actively using Viber for communication and would welcome using a social network to communicate with a teacher ( $V=0.1286$ ). Other significant dependencies, although with small intensity, were found between WhatsApp users and the answers to the question of why the student does not connect to social networking sites during class; one of the reasons is because the student enjoys the lecture ( $V=0.1165$ ) and because the student wants to concentrate on the lecture ( $V=0.1201$ ). If the student is an active user of the Telegram communication network, a significant dependence with a small intensity is found when answering the question of whether the student would welcome communication with the teacher via social networks ( $V=0.1277$ ).

The most significant dependencies, with low intensity, were found for those respondents who are active users of Direct Instagram (sending direct messages via Instagram) and whether they connect to social media at all during class ( $V=0.1549$ ), as well as the reasons students connect to social media during class, namely, because they are bored with the lecture ( $V=0.1108$ ). Another significant dependence with low intensity was found for the reason that the lecturer did not interest the student ( $V=0.1115$ ), furthermore because he received a notification ( $V=0.1594$ ), because he feels connecting to social networks as an addiction ( $V=0.1513$ ) and for the possibility that he himself does not know why he is constantly connected to social networks ( $V=0.1140$ ). The fact that a student is an active user of Direct Instagram has a significant, albeit low-intensity, effect on the activities that the student performs on social networks during class, namely, browsing goods on e-shops ( $V=0.1150$ ) or searching for information ( $V=0.1259$ ). Furthermore, the respondent being a direct Instagram user has a significant effect with a small intensity on the answer whether he or she would welcome communication with the teacher through social networks, namely, the possibility that he or she finds it beneficial ( $V=0.1476$ ) and the possibility that he or she would find it entertaining ( $V=0.1344$ ).

Research also verified the time students spend using social networking applications during classes and the dependence of activities on the social networking application used (Table 4). Despite common assumptions that Facebook is "dead", this is not quite the case. Instagram is used regularly by 69% of respondents, confirming its growing popularity among the young generation, but 84% of respondents absolutely and never use Twitter, as well as the professional social network LinkedIn. Snapchat is losing popularity, which is in line with the global trend (Social media report, 2022). In our survey, 77% of respondents do not use it, and the other social networks are used regularly by only 11% of respondents. Sixty-nine percent of respondents spend up to 7 hours per week on WhatsApp, 52% of respondents spend up to 7 hours per week on Facebook MSN, 62% of respondents spend up to 7 hours per week on Facebook MSN, 48% of respondents spend up to 7 hours per week on Instagram, 48% of respondents spend up to 15 hours per week on Instagram, 23% of respondents spend up to 15 hours per week on Facebook MSN, 22% of respondents spend up to 15 hours per week on Instagram, 8% of respondents spend up to 15 hours per week on Instagram, 22% of respondents spend up to 23 hours per week on Instagram, 8% of respondents spend up to 15 hours per week on Instagram, and 22% of respondents spend up to 15 hours per week on Facebook. Respondents spend more than 24 hours (3.6%), more than 32 hours (2.88%), and more than 40 hours (4%) on Facebook MSNs.

**Table 4.** Time that students spend on social media and networks per week

Hours spend weekly	Facebook	Instagram	FB MSN	Whatsap	Telegram	Others
0-7 hours	61,87%	47,48%	51,44%	69,06%	48,56%	55,76%
8-15 hours	23,02%	27,70%	22,66%	5,76%	0,72%	2,88%
16-23 hours	7,91%	8,27%	12,23%	3,24%	2,16%	3,60%
24-31 hours	2,52%	3,24%	3,60%	0,72%	0,72%	0,72%
32-39 hours	1,08%	0,72%	2,88%	0,00%	0,00%	0,36%
40 hours and more	2,16%	1,08%	3,96%	1,08%	1,08%	1,44%
I do not use SN	1,44%	11,51%	3,24%	20,14%	46,76%	35,25%
Total sum	100%	100%	100%	100%	100%	100%

Sources: developed by the authors.

Although the question was asked to determine how much time per week in hours respondents actively spend on each social networking site, we can conclude that this is a subjective, unqualified estimate by the respondent. In terms of absolute nonuse of a particular social network, most respondents (130) do not use Telegram, followed by (56) not using WhatsApp and 32 using Instagram. Since we did not list all social media, 98 respondents do not use social media other than those listed. However, if students are already using social networks and media, on average, regardless of gender, we see minimal differences.



**5. Conclusions.** Currently, social media and networks are becoming increasingly popular, even in educational environments (Lytvynova & Burov, 2018; Tekin & Turhan, 2021), for personal and professional use (Bracinikova & Matusinska, 2018). Therefore, they have become a space that is changing the way of communication, not only in marketing but also in social communication (Chovanova Supekova, 2021; Krchova, 2018), and it is evident that they have influenced the way we think, speak, and even our social lives (Troise & Camilleri, 2021). Social media and networks thus show promise as innovative learning tools (Nastisin et al., 2021; Sleeman et al., 2020), which can facilitate not only education but also social interactions between students and teachers (Sanchez-Casado et al., 2016).

The study investigated the use of social networking sites during school among Generation Y and Generation Z depending on their gender, age group, education, and place of residence. The results show that gender, generation, and education all have a significant but small effect on what students do on social networking sites during class and the reasons why they use them. Moreover, simply because students connect to social networking sites during class does not mean that they have a diminished interest in the material being taught or the knowledge being acquired. This research demonstrates the benefits and challenges of using social media and networks for teaching and learning. It also shows how they can be used to improve communication and collaboration between instructors and students, which can help to create a more engaging and interactive learning environment. The wide use of social media and networks suggests that there is a significant opportunity to adapt the learning approach on these platforms. By doing so, educators can leverage their familiarity and convenience to reach a wider audience and improve student outcomes. However, to increase their use, the involved parties and stakeholders should work together (Civelek et al., 2020; Grmanova & Ivanova, 2021). Digital transformation is a powerful tool for creating a more prosperous and equitable future for all (Kliuchnikava, 2022; Krchova & Hoesova, 2021).

This research holds numerous implications for both theoretical understanding and practical application, but it is important to note some limitations. The data were collected from students, which may limit the ability to generalize to other populations. However, this demographic bias is justified, as students represent the largest group of social media and network users, which makes them the most effective group for understanding online habits. Future studies could examine how students' behaviour, institutional policies, and teachers' pedagogical frameworks interact, especially when they conflict.

**Author Contributions:** conceptualization, S. C. S and R. K.; methodology, T. M.; software, P. J.; validation, R. K., T. M. and P. J.; formal analysis, S. C. S.; investigation, T. M.; resources, R. K.; data curation, P. J.; writing-original draft preparation, T. M.; writing-review and editing, S. C. S.; visualization, R. K.; supervision, P. J.; project administration, S. C. S.; funding acquisition, R. K.

**Conflicts of Interest:** The authors declare no conflicts of interest.

**Data Availability Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

## References:

- Allen, I. E., Seaman, J., Poulin, R., & Straut, T. T. (2016). *Online Report Card. Tracking Online Education In The United States*. Babson Survey Research Group and Quahog Research Group, LLC. [\[Link\]](#)
- Belas, J., Gavurova, B., Korony, S., & Cepel, M. (2019). Attitude of University Students toward entrepreneurship environment and toward entrepreneurship propensity in Czech Republic and Slovak Republic–International Comparison. *Economic research-Ekonomska istraživanja*, 32(1), 2500-2514. [\[Google Scholar\]](#) [\[CrossRef\]](#)
- Boyd, D. M., & Ellison, N. B. (2007). Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230. [\[Google Scholar\]](#) [\[CrossRef\]](#)
- Bracinikova, V., & Matusinska, K. (2018). Millennials as digital media users in Marketing Identity. *Conference Proceedings from the Annual International Scientific Conference Marketing Identity: Digital Mirrors*. Smolenice, Slovak Republic.
- Burke, F. (2013). *Social Media versus Social Networking*. [\[Link\]](#)
- Chovanova Supekova, S. (2021). Innovative Approaches To Marketing Under The Pressure Of Digitalization. *Sustainable Development: Modern Theories and Best Practices : Materials of the Monthly International Scientific and Practical Conference (August 29-30, 2021)/Gen. Edit. Lyazzat Sembiyeva, Tallinn: Teadmus OÜ*, 8–13. [\[Link\]](#)

Chovanova, S. S. (2019). Advertising on social networks from the perspective of y and z generation students. In *6th SWS International Scientific Conferences on social sciences 2019* (pp. 357-364). [\[Google Scholar\]](#)

Civelek, M., Gajdka, K., Světlik, J., & Vavrečka, V. (2020). Differences in the usage of online marketing and social media tools: evidence from Czech, Slovakian and Hungarian SMEs. *Equilibrium. Quarterly Journal of Economics and Economic Policy* 15 (3), 537–563. [\[Google Scholar\]](#)

Colas-Bravo, P., & Quintero-Rodriguez, I. (2023). YouTube as a Digital Resource for Sustainable Education. *Sustainability*, 15(7), 5687. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Collin, P., Rahilly, K., Richardson, I., & Third, A. (2011). *The Benefits of Social Networking Services: A literature review*. Cooperative Research Centre for Young People, Technology and Wellbeing. [\[Google Scholar\]](#)

Dennen, V. P., Rutledge, S. A., & Bagdy, L. M. (2020). (Dis) connected: The Role of Social Networking Sites in the High School Setting. *American Journal of Education*, 127(1), 107–136. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Froehlich, A. (2020). *What's the difference between social media and social networking?* [\[Link\]](#)

Gavurova, B., Belas, J., Cepel, M., & Kmecova, I. (2021). Perception of the Quality of Educational System for Entrepreneurship—Comparative Analysis. *Acta Polytechnica Hungarica*, 18(3), 65–86. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Gavurova, B., Belas, J., Kotaskova, A., & Cepel, M. (2018). Management of education concepts in the field of entrepreneurship of university students in the Czech Republic. *Polish Journal of Management Studies*, 17(2), 52–62. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Grmanova, E., & Ivanova, E. (2021). Selected Aspects Of Working Conditions Differences In Eu Countries. *Transformations in Business & Economics*, 20(3), 151–167. [\[Google Scholar\]](#)

Ivanova, E., Žarska, V., & Masarova, J. (2021). Digitalization and human capital development. *Entrepreneurship and Sustainability Issues*, 9(2), 402. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Jaggars, S. S. (2014). Choosing between online and face-to-face courses: Community college student voices. *American Journal of Distance Education*, 28(1), 27–38. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Kay, R., Benzimra, D., & Li, J. (2017). Exploring factors that influence technology-based distractions in bring your own device classrooms. *Journal of Educational Computing Research*, 55(7), 974–995. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Kebritchi, M., Lipschuetz, A., & Santiago, L. (2017). Issues and challenges for teaching successful online courses in higher education: A literature review. *Journal of Educational Technology Systems*, 46(1), 4–29. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Kliuchnikava, Y. (2022). The Impact Of The Pandemic On Attitude Towards Innovation Among Smes In The Czech Republic And Poland. *International Journal of Entrepreneurial Knowledge*, 10(1), 34–45. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Koehler, A. A., & Vilarinho-Pereira, D. R. (2023). Using social media affordances to support Ill-structured problem-solving skills: considering possibilities and challenges. *Educational technology research and development*, 71(2), 199–235. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Krchova, H. (2018). Study comparing the level of competencies achieved within one university course. In *5th International Multidisciplinary Scientific Conference on social sciences and arts SGEM 2018* (pp. 955–962). [\[Google Scholar\]](#)

Krchova, H., & Höesova, K. Š. (2021). Selected determinants of digital transformation and their influence on the number of women in the ICT sector. *Entrepreneurship and Sustainability Issues*, 8(4), 524–535. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Kubak, M., Gavurova, B., Majcherova, N., & Nemeč, J. (2021). Gender Differences in Rationality and Financial Literacy. *Transformation in Business & Economics*, 20, 558–571. [\[Google Scholar\]](#)

Liao, C. H., & Wu, J. Y. (2022). Deploying multimodal learning analytics models to explore the impact of digital distraction and peer learning on student performance. *Computers & Education*, 190, 104599. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Liccardi, I., Ounnas, A., Pau, R., Massey, E., Kinnunen, P., Lewthwaite, S., ... & Sarkar, C. (2007). The role of social networks in students' learning experiences. *ACM Sigcse Bulletin*, 39(4), 224–237. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Lytvynova, S., & Burov, O. (2018). Methods, forms and safety of learning in corporate social networks. *arXiv preprint arXiv:1807.06035*. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Mishchuk, H., Bilan, Y., Androniceanu, A. & Krol, V. (2023). Social capital: Evaluating its roles in competitiveness and ensuring human development. *Journal of Competitiveness*, 15(2), 1–17. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Musial, K., & Kazienko, P. (2013). Social networks on the Internet. *Worldwide Web*, 16(1), 31–72. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Nadeem, M., & Blumenstein, M. (2021). Embedding Online Activities during Lecture Time: Roll Call or Enhancement of Student Participation?. *Journal of University Teaching and Learning Practice*, 18(8), 11. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Nastisin, L., Gavurova, B., Bacik, R., Svetozarovova, N., & Fedorko, R. (2021). Sustainable performance of players in the global aviation industry in the light of multifactor analysis of online reputation. *International Journal of Entrepreneurial Knowledge*, 9(1), 1–9. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Ng, R., & Latif, L. A. (2011). *Social Media And The Teaching Of Mathematics In A Lifelong Learning Environment* The International Lifelong Learning Conference. [\[Google Scholar\]](#)

Nochumson, T. C. (2020). Elementary schoolteachers' use of Twitter: Exploring the implications of learning through online social media. *Professional development in education*, 46(2), 306–323. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Park, E., Song, H. D., & Hong, A. J. (2022). The use of social networking services for classroom engagement? The effects of Facebook usage and the moderating role of user motivation. *Active Learning in Higher Education*, 23(3), 157–171. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Parmar, V., Ahmed, R. R., Streimikiene, D., & Streimikis, J. (2022). The mediating role of competitiveness between entrepreneurial challenges and willingness of female business graduates. *Journal of competitiveness*, 14(2), 60–78. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Perez, M., & Gomez, J. M. (2011). Why do people use social networks?. *Communications of the IIMA*, 11(2), 4. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Ralph, M. C., Schneider, B., Benson, D. R., & Ward, D. (2022). Separated by spaces: Undergraduate students resort along attitude divides when choosing whether to learn in spaces designed for active learning. *Active Learning in Higher Education*, 14697874221118866. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Rodriguez-Triana, M. J., Prieto, L. P., Holzer, A., & Gillet, D. (2020). Instruction, student engagement, and learning outcomes: a case study using anonymous social media in a face-to-face classroom. *IEEE Transactions on Learning Technologies*, 13(4), 718–733. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Rozgonjuk, D., Saal, K., & Täht, K. (2018). Problematic smartphone use, deep and surface approaches to learning, and social media use in lectures. *International journal of environmental research and public health*, 15(1), 92. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Rozsa, Z., Holubek, J., Vesela, Z., & Soboleva, O. (2022a). Antecedents and barriers which drive SMEs in relation to corporate social responsibility? Literature review. *International Journal of Entrepreneurial Knowledge*, 10(2), 107–122. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Rozsa, Z., Minčič, V., Krajčik, V., & Vranova, H. (2022b). Social Capital and Job Search Behavior in the Services Industry: Online Social Networks Perspective. *Journal of Tourism and Services*, 13(25), 267–278. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Salarzadeh Jenatabadi, H., Moghavvemi, S., Wan Mohamed Radzi, C. W. J. B., Babashamsi, P., & Arashi, M. (2017). Testing students' e-learning via Facebook through Bayesian structural equation modelling. *PLoS One*, 12(9), e0182311. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Sanchez-Casado, N., Cegarra Navarro, J. G., Wensley, A., & Tomaseti-Solano, E. (2016). Social networking sites as a learning tool. *The Learning Organization*, 23(1), 23–42. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Skendžić, A., & Devčić, K. (2017). The use of social networks for educational purposes-case study: polytechnic Nikola Tesla in Gospić. *TEM Journal*, 6(3), 607. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Sleeman, J., Lang, C., & Dakich, E. (2020). Social media, learning and connections for international students: The disconnect between what students use and the tools learning management systems offer. *Australasian Journal of Educational Technology*, 36(4), 44–56. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Štefko, R., Fedorko, R., & Bačik, R. (2020). The Significance of Internet Marketing Tools in Terms of Building a Positive Image of an Higher Education Institution, [in:] KS Soliman. *Crafting Global competitive economies*. [\[Google Scholar\]](#)

Stehlikova, B., Tirpakova, A., Poměnkova, J., & Markechova, D. (2009). *Metodologie výzkumu a statistická inference*. Mendelova Zemědělska a Lesnicka Univerzita.

Sun, X., Duan, C., Yao, L., Zhang, Y., Chinyani, T., & Niu, G. (2021). Socioeconomic status and social networking site addiction among children and adolescents: Examining the roles of parents' active mediation and ICT attitudes. *Computers & Education*, 173, 104292. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Tekin, O. A., & Turhan, A. A. (2021). Does social media addiction differ by personality traits? A study on undergraduate tourism students. *Journal of Tourism and Services*, 12(22), 23–41. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Tkacova, H., Kralik, R., Tvrdon, M., Jenisova, Z., & Martin, J. G. (2022). Credibility and Involvement of social media in education—recommendations for mitigating the negative effects of the pandemic among high school students. *International Journal of Environmental Research and Public Health*, 19(5), 2767. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Troise, C., & Camilleri, M. A. (2021). The use of digital media for marketing, CSR communication and stakeholder engagement. In *Strategic corporate communication in the digital age* (pp. 161–174). Emerald Publishing Limited. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Vasanicova, P., Jencova, S., Gavurova, B., & Bacik, R. (2022). Coopetition of European Union countries within destination management. *Journal of Tourism and Services*, 13(24), 71–89. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Zimmer, J. C. (2022). Problematic social network use: Its antecedents and impact upon classroom performance. *Computers & Education*, 177, 104368. [\[Google Scholar\]](#) [\[CrossRef\]](#)

Zulkanain, N. A., Miskon, S., & Syed Abdullah, N. (2020). An adapted pedagogical framework in utilizing WhatsApp for learning purpose. *Education and Information Technologies*, 25, 2811–2822. [\[Google Scholar\]](#) [\[CrossRef\]](#)

**Сона Чованова Супекова**, Пан-Європейський університет у Братиславі, Словачька Республіка

**Річард Кеклак**, Пан-Європейський університет у Братиславі, Словачька Республіка

**Тетяна Масарова**, факультет соціальних та економічних відносин, Тренчинський університет Олександра Дубчека, Словачька Республіка

**Патриція Якесова**, Пан-Європейський університет у Братиславі, Словачька Республіка

#### **Соціальні медіа, мережі та студенти в контексті освітнього процесу**

Соціальні медіа та мережі відкрили нові можливості для особистого росту, розвитку компетентностей та навчання, незалежно від їх освітнього чи професійного досвіду. Попри широке використання технологій та їх вплив на студентів, наслідки та виклики використання технологій в освітньому середовищі поки що не зовсім зрозумілі. Дослідження спрямоване на вивчення поведінки студентів у соціальних мережах, включаючи їх використання під час занять, в залежності від їх статі, вікової групи, рівня освіти та місця проживання. Дослідження акцентує увагу на трьох вікових групах студентів, які представляють покоління Y та Z, оскільки обидва ці покоління виростають та стають дорослими у 21 столітті і стикаються із цифровою трансформацією з дитинства. Вихідну базу дослідження сформовано на основі опитування 278 студентів з державних та приватних університетів, а також абітурієнтів – випускники середніх шкіл, які виявили інтерес до навчання в університеті. Емпіричні результати засвідчили, що всі досліджувані змінні, за винятком місця проживання, мають статистично значущий, але відносно невеликий вплив на активність та дії студентів у соціальних мережах під час занять та мотиви, які їх до цього спонукають. При цьому встановлено, що те, що студенти підключаються до соціальних мереж під час занять, не означає, що вони менше цікавляться предметом навчання або здобутими знаннями. Це свідчить про доцільність та актуальність адаптації наявних підходів до навчання з урахуванням специфіки процесів діджиталізації та поширення соціальних мереж серед осіб, що навчаються.

**Ключові слова:** соціальні медіа та мережі; освітній процес; університет; студенти.