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Influencerism and Its Impact on the Development of Digital Skills Among Upper Elementary School Students

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Abstract

The phenomenon of influencers has emerged from the dynamic development of social media, and their influence on society is continuously growing. These platforms provide a space for sharing personal attitudes, life experiences, and audiovisual content with a global audience. Certain demographic groups are particularly susceptible to influence, especially young people, older citizens, and people with limited ability to critically evaluate information. Our research initiative focused on analyzing the impact on upper elementary school students.

The primary aim of the research was to observe the growing influence of influencers in contemporary society and to deepen our understanding of this phenomenon. Our findings reveal the dual nature of this influence: on the one hand, influencers serve as a source of inspiration and a motivating force in shaping young people's personal identities, but on the other hand, they can create unrealistic standards and expectations that arise from the consumption of their often stylized content.

Keywords: social networks, influencers, impact, research survey

Introduction

Influence is a word borrowed from English, which means “impact” (Alboqami, 2023, etc.). The words “influence” and “impact” have been part of everyday communication since time immemorial, but these words began to take on their own meaning with the advent of social networks such as Facebook and Twitter (Hoang et al., 2023). Initially, users used these networks to communicate and share their lives without deliberately seeking fame or financial success (MacKenzie, Podsakoff, 2012). Over time, as social networks grew and gained more

users, a new opportunity arose to promote new products and services using the face of a user with a large reach and credibility (Zhou, Lei, 2024). In recent decades, these users have been associated with the words “influence,” “influencer,” and influencer marketing (McMullan, 2023).

According to Shaffer (2020), influencers can be defined as individuals who use their specific audience and followers to spread their messages, recommendations, or promote products and brands. They do this thanks to their ability to influence the opinions and decisions of others. They gain their popularity and audience through digital platforms, especially social networks, where they effectively build trust with their followers (Ki, Cuevas, Chong, Lim, 2020). According to him, the ability to gain trust is primarily based on pure human trust, because people trust those with whom they share their thoughts and attitudes and can easily identify with them. Gaining this trust between influencers and their audience is currently very easy thanks to social media, which has fundamentally changed communication between people (Franke, Groeppel-Klein, Müller, 2023). The internet and smartphones enable fast communication anywhere and anytime. Social media has significantly reduced the communication barrier between ordinary people, as it is very easy to share your life, create any content, and publish it (Cialdini, Goldstein, 2004). Thanks to this, almost anyone can become an influencer (Arsenyan, Mirowska, 2021). Influencer marketing is therefore about influencing others. This process involves influencers using various strategies to change the attitudes, opinions, and values of other people (Cheung, Leung, Aw, Koay, 2022).

Influencerism is not entirely new, as this phenomenon already appears in similar roles that focus on influence and popularity. Therefore, it is important to distinguish between very similar and closely related roles and not to confuse them directly with influencers (Ferraro, Sands, Zubcevic-Basic, Campbell, 2024). Celebrities, politicians, public figures, and experts have, to a certain extent, influence over the public and the ability to influence the opinions and behavior of others. Influencers are closest to celebrities and politicians. Not every influencer is a celebrity, and not every celebrity is necessarily an influencer. Celebrities gain more reputation by excelling in some area of the entertainment industry, and their fame depends on their success in sports, film, or music. Their audience is huge, but mainly diverse in terms of individuals, as they all have different backgrounds, interests, ages, and overall spending of time in their daily lives. Influencers try to engage and entertain their audience, share their everyday lives with them, and connect their experiences with certain products with the intention of selling them or gaining cooperation, all through social media. The difference between influencers and celebrities lies in their lifestyles and their impact on their audience. It is easier to connect with people with whom we have something in common

than with someone who, in most cases, lives a very comfortable life surrounded by luxury items (Ekşioğlu, 2021). Politicians and influencers have an impact on society, but the difference between these influences is their goal. Politicians focus on political processes and promoting change in an effort to benefit their political party, while influencers focus on their own brand or success (Jun, Yi, 2020).

Types of influencers

Influencers can be classified according to their audience size (Geysler, 2024), form (Kim, Park, 2023), and type of content (Leite, Baptista, 2021). According to the first of the above classification criteria, which is often cited as the most important and with the greatest potential impact (e.g., McMullan, 2023; Ozdemir, Kolfal, Messinger, Rizvi, 2022; O’Keefe, 2016), influencers can be divided into four groups based on their audience size.

1. Nano-influencers (1,000 to 10,000) – This type is specific to the beginnings of every influencer and focuses on small, specific groups. Compared to other groups, they can be a cheap solution for promoting a product to a specific and small group of people.

2. Micro-influencers (10,000 to 100,000) – The influence of these influencers lies mainly in their interaction with their followers. They are very selective when it comes to collaborations with different brands and products so as not to jeopardize their relationship with their audience. They are ordinary people who have made it big thanks to their personality, expertise, and content.

3. Macro-influencers (100,000 to 1 million) – These are highly successful individuals in their field of expertise. There are more of them than mega-influencers, so it is easier to seek their collaboration.

4. Mega-influencers (+1 million) – These influencers have a huge number of followers thanks to their work and established personalities. This massive number of followers allows them to reach a large audience. Collaboration with them is therefore sought after by large and well-known brands, which can increase sales and brand awareness through this promotion. The disadvantage of mega-influencers is their high financial costs.

There are many differences between these influencers. Each type is sought after by different brands and collaborations (Sánchez-Fernández, Jiménez-Castillo, 2021). Nano and micro-influencers have a relatively small reach, but collaborating with them is very affordable. Mega-influencers are sometimes labeled as expensive, commercial, and less trustworthy, but they have a huge reach. Macro-influencers are a more sought-after middle ground for collaboration than mega-influencers, thanks to their reach, credibility, and affordability (Shandrokha, 2023).

Identifying the influence of influencers on students

Influencers can, intentionally or unintentionally, use a large number of strategies to influence their followers (Thomas, Fowler, 2021). Social media makes it easy to influence a large number of users, as it is an effective means of disseminating content (Thorson, Rodgers, 2006). We all desire success or an amazing life, and when we see someone who is successful, it is quite common to strive for similar success. Influencers on social media can take advantage of these ideas and try to present themselves to others as ideal and successful versions of themselves that anyone can achieve by simply following in their footsteps. This psychology of identification and imitation is one of the key skills of influencers (Vinod, 2023).

Vinod also emphasizes the importance of parasocial relationships that influencers create with their followers through content viewing. This parasocial relationship represents a one-sided relationship between followers and influencers, in which followers, despite the lack of direct interaction, perceive the social connection with the influencers' content as sufficient and feel closeness and trust towards the influencers.

Students go through the development of identity, moral and social values, and the development of relationships with family and peers (Pugnerová, Kvintová, 2016). People are social beings with a need to fulfill their social needs. This need is fulfilled by students through normal interactions during the day and at school. According to Spitzer (2014), this social need can also be fulfilled through online activities. Bond (2016) mentions the possibility of replacing adolescents' social interactions with social media monitoring and the creation of parasocial relationships with media personalities, whereby such interactions can influence their attitudes and behavior. By following influencers' content, students can fulfill their social needs while being exposed to the influence of influencers. Considering the above-mentioned parasocial relationships and identification, we can conclude that influencers do indeed influence the development of students' identity, moral and social values, and behavior.

Psychological strategies used by influencers

Influencers use more strategies than just identification and parasocial relationships (e.g., Tsai, Bagozzi, 2014). These hidden psychological pressures on influencer followers can be classified into the following groups according to Kets de Vries (2023) and Leeba (2024).

1. The power of expertise and authority bias – In order for influencers to achieve a strong connection with their followers, they must demonstrate real knowledge. This expertise can distort the influencer's authority, and followers may automatically consider them experts.

2. Identification and social proof – The phenomenon of imitating others. When we see someone successful using a product, we tend to imagine that the product will help us achieve similar success to that of the influencer.

3. Trust through repeated exposure and familiarity – Regular and repeated posting of content on social media can attract followers. In this repetitive environment, trust and preference for information from influencers develops over preference for current information.

4. Information overload – A large amount of information and products can lead to confusion and clutter. Following influencers and their reviews can help us make decisions.

5. Social groups and the sheep effect – The phenomenon of following the crowd. Influencers exploit their followers' desire to belong to groups. Followers make better decisions based on how others decide, which is easier and more trustworthy for them.

6. Illusion of control – Traditional advertisements tend to be annoying and intrusive. Followers actively choose who they follow and, therefore, what advertisements they see. This phenomenon gives them a sense of control over the fact that viewing advertisements and promotions is their choice.

7. Attractiveness bias – This is a phenomenon where people tend to trust people who are physically attractive and automatically assume that they are also very intelligent.

8. Halo effect – This is the effect of generalizing characteristics as a whole. If an influencer has one positive characteristic, we can assume that they have other positive characteristics as well.

9. Scarcity illusion – This type of psychology and strategy is commonly used in everyday marketing. It involves creating a sense of scarcity of goods, which triggers the need for immediate purchase or use so that we do not miss out on this opportunity.

These hidden strategies and influences are very difficult to see and recognize. Research by the Faculty of Social Sciences at Charles University (2018) shows that out of a sample of 330 adolescents, only 11% can recognize embedded advertising or sponsored content. This was an embedded advertisement at the end of an influencer's video, where he promotes a drink by showing how to mix it correctly and flavor it with different flavors.

It is also important to take into account the level of critical thinking among students, as they encounter a large amount of information on the internet every day and do not consider its veracity. This is a problem where they automatically consider new information to be true. Developing critical thinking is a very good way to prevent the pitfalls of the internet and influencers (Woodroof, Howie, Syrdal, VanMeter, 2020). A related important skill for students is digital literacy,

which is the ability to use digital technologies effectively, search for information, and evaluate it critically. This literacy also includes privacy protection and safe behavior on the internet (Oliveira, Garcia, Vivacqua, 2021).

Research objectives and methodology

The main objective of this research was to analyze selected aspects of the influence of influencers on upper elementary school students, with an emphasis on their personal development. Specifically, they focused on questions related to what types of influencers these students follow, how influencer content affects them, and whether this influence has a positive or negative impact on upper elementary school students (Ragin, 2009).

Quantitative research (Chráska, 2016) was chosen as the research strategy and was conducted using a questionnaire. The reliability of the questionnaire was determined using Cronbach's alpha coefficient and was 0.91, which confirmed that the questionnaire was reliable. When designing the questionnaire, the basic requirements and characteristics specified by Chráska (2016, pp. 164–165) were taken into account. The questionnaire was distributed via email, which included an accompanying text message and a link that respondents could use to access the questionnaire. Completing the questionnaire was completely anonymous, but if respondents were interested in receiving the results, they could enter their email address at the end. Most of the questions in the questionnaire were set as mandatory, meaning that respondents had to answer them in order to continue filling out the questionnaire. Some of the questions had only one possible answer, but for others, it was possible to select multiple answers or enter your own answer. The questions were formulated in such a way as to be understandable to the target group of respondents, i.e., upper elementary school students.

A two-sample Student's t-test was chosen for the analyses described below. A two-sample Student's t-test is a statistical method used to compare the mean values of two independent data groups. Its purpose is to verify whether there is a statistically significant difference between the mean values of these two groups. The respondents' answers were quantified using a four-point scale, which we considered to be quasi-interval. Although the numerical values expressed order (ordinal character), the differences between the individual categories were interpreted as constant. A value of 1 represented the highest level of agreement (strong agreement) and a value of 4 represented the lowest level of agreement (strong disagreement). Subsequently, a null (H_0) and alternative (H_A) hypothesis were formulated for each question, and a series of two-sample t-tests were performed.

Although the scale is ordinal in nature, the t-test was applied due to its robustness to slight deviations from normality, especially with sufficient sample sizes. In the analyzed files, the size of each group was approximately 70 respondents,

which can be considered sufficient for the application of this test. However, it is necessary to take into account the limitations associated with the use of the t-test on quasi-interval data.

Description of the research sample

The questionnaire survey was conducted from January 2024 to March 2024, and during this period, a total of 145 respondents – primary school pupils in the Olomouc Region – took part. The schools included in the research sample (a total of three schools), or rather their pupils, were approached regardless of whether they tended to consume excessive amounts of influencer content or not. The structure of the research sample and its basic characteristics with regard to content consumption and attitudes towards influencers are presented in Table 1.

Table 1. Age and gender structure of the research sample, including the distribution of influencer following intensity

Gender and age distribution of respondents			
Gender	Frequency	Age category	Frequency
Boys	69 (48%)	6th and 7th grade	32 (22%)
		8th and 9th grade	37 (26%)
Girls	76 (52%)	6th and 7th grade	35 (24%)
		8th and 9th grade	41 (28%)
Distribution of intensity of influencer monitoring by respondents			
Viewing frequency	Frequency	scope of viewing	Frequency
Very often	54 (37%)	7 hours or more	5 (3%)
Often	40 (28%)	5–7 hours	8 (6%)
Sometimes	31 (21%)	3–5 hours	44 (30%)
Rarely	13 (9%)	1–3 hours	57 (39%)
Never	7 (5%)	0–1 hour	31 (21%)

As can be seen from the table above, the research sample did not show complete gender neutrality. However, both gender groups were represented by a representative number, which allowed for a reliable statistical evaluation, as influencers can influence the interests of different genders differently.

Furthermore, it can be inferred from the table that there are upper elementary school students who follow influencers for more than 7 hours a day, which can be considered a sign that these students may be suffering from addiction. Compared to some previous studies (e.g., Statista, 2020), the sample we analyzed, where 39% of upper elementary school students watch content for 1–3 hours, corresponds only to increased interest and not addiction. However, we can identify the sample of 30% of these students who watch influencers for more than 3 hours every day as a group with signs of addiction. Of this sample, 6% of upper elementary school students have a slightly increased addiction, and 3% of students can be said to be truly addicted, as they watch content for more than 7 hours a day. The research sample we used, in terms of the frequency of viewing influencer

content, corresponds to previously published results by other authors (e.g., Xie-Carson, Benckendorff, Hughes, 2023) and could therefore be used for further analysis.

Selected results of the research survey

The initial analysis focused on determining whether influencers can have a positive impact on the development of digital literacy among upper elementary school students – i.e., questionnaire item Q08. They usually do so directly or indirectly. Either they create content that focuses on the development of digital literacy, or it happens indirectly, when it is purely up to these students to think for themselves. They can assess whether the information from influencers is true or not. If an influencer recommends a product, it is important to consider whether they are recommending it from their own experience or whether they have been paid to promote it. Previous research has shown that following influencers, social networks, and their content can develop digital literacy and critical thinking in upper elementary school students (Oyolacarol, 2023; Modern Marketing, 2023). In accordance with the above methodology, the following research hypotheses were established:

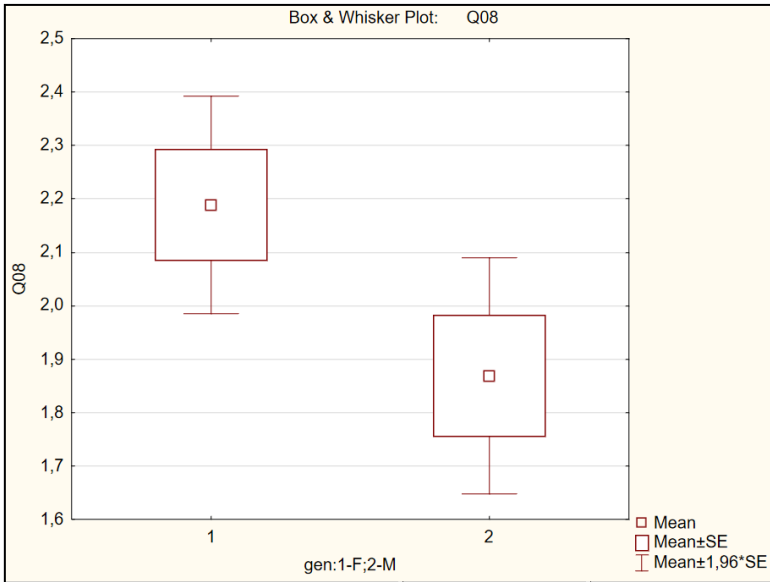
1. Null hypothesis (HQ08₀): There is no statistically significant difference between the average rating of influencers' motivation to develop digital literacy among girls and boys.
2. Alternative hypothesis (HQ08_A): There is a statistically significant difference between the average rating of influencers' motivation to develop digital literacy among girls and boys.

Table 2. Results of the t-test for digital literacy vs. gender

	t-test; grouped by gender, number of respondents – 145				
	Group 1 – girls	Group 2 – boys	t-value	p	F-ratio
Q08	2.188406	1.868421	2.072897	0.039977	1.303684

The results of the t-test ($t(143) = 2.073$, $p < 0.05$) show that boys exhibit a higher level of motivation than girls to develop digital literacy through influencers. For completeness, the results were also interpreted using the interquartile range (IQR) in the form of a box plot.

As shown in the graph, the average value of boys' responses ($M = 1.87$) is lower than that of girls ($M = 2.19$), which corresponds to a higher level of motivation among girls. The median, which is less sensitive to outliers, is also lower for boys, confirming the higher consistency of their responses. The interquartile range (IQR) for boys is slightly smaller than for girls, indicating lower variability in their responses. The range of typical values outside the IQR, represented by the length of the “whiskers” in the boxplot, is longer for girls, indicating a wider dispersion of responses in this group.



Graph 1. Interquartile range of digital literacy vs. gender

Based on the results of the t-test and visual analysis of graphical representations, it can be concluded that there is a statistically significant difference in the degree of motivation of influencers to develop digital literacy between boys and girls. With a p-value of 0.0399, at a significance level of 0.05 with 95% confidence, it can be said that there is a statistically significant difference between these groups, and it is therefore possible to accept the alternative hypothesis (HQ08_A): **there is a statistically significant difference between the average rating of influencers' motivation to develop digital literacy among girls and boys.**

Another area that was of interest to us was the acquisition of information for the further education of respondents – i.e., questionnaire item Q09. Education can be pursued in almost any field, so it is relatively easy to combine education with activities that are attractive to upper elementary school students. Influencers can create various types of content with educational potential and interesting execution. They can develop a topic and present it in an interesting way to appeal to upper elementary school students, such as financial literacy, English vocabulary, or programming. Therefore, influencers can be a valuable path to education and open up endless opportunities in life. In accordance with the above methodology, the following research hypotheses were established:

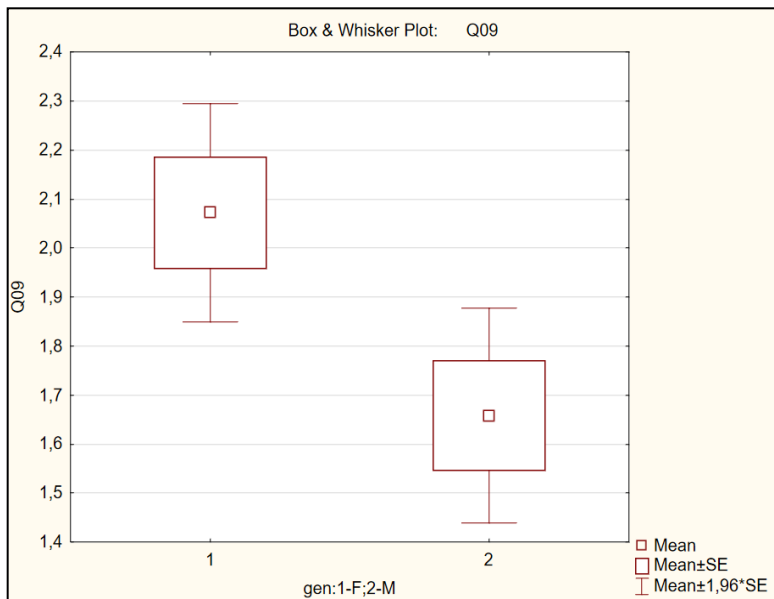
1. Null hypothesis (HQ09₀): There is no statistically significant difference between the average rating of the degree of acquisition of new knowledge and information by following influencers among girls and boys.

2. Alternative hypothesis (HQ09_A): There is a statistically significant difference between the average rating of the degree of acquiring new knowledge and information by following influencers among girls and boys.

Table 3. Results of the t-test for information gathering vs. gender

	t-test; grouped by gender, number of respondents – 145				
	Group 1 – girls	Group 2 – boys	t-value	p	F-ratio
Q09	2.072464	1.657895	2.597458	0.010374	1.063180

Based on the results of the t-test ($t(143) = 2.597$, $p = 0.010374$) and visual analysis of the Box & Whisker chart, it was found that there is a statistically significant difference between boys and girls in the extent to which they acquire new knowledge and information by following influencers.



Graph 2. Interquartile range of information acquisition vs. gender

The average value of boys' responses ($M = 1.66$) was lower than that of girls ($M = 2.07$), indicating a higher rate of acquiring new knowledge and information by following influencers among boys. The median values reflect a similar trend – the median for boys was lower than the median for girls. The interquartile range (IQR), representing the range between the 25th and 75th percentiles, was slightly narrower for boys than for girls, indicating greater consistency in responses among boys. The length of the “beards” in the graph revealed greater variability in responses among girls, indicating a wider range of individual

perceptions of the extent to which new knowledge and information is acquired by following influencers in this group. With a p-value of 0.01, we can therefore state with 95% confidence at a significance level of 0.05 that **boys show a higher degree of acquiring new knowledge and information by following influencers than girls**. We therefore accept the alternative hypothesis HQ09_A.

The last area presented here was research focused on whether influencers motivate respondents in the issue of validating acquired information – test item Q13. Education using only influencer content certainly does not replace schools, because the development of knowledge is only one step among many. It is still necessary to improve the development of thinking and skills that the school environment provides. In line with the above objectives and the chosen methodology, the following research hypotheses were established:

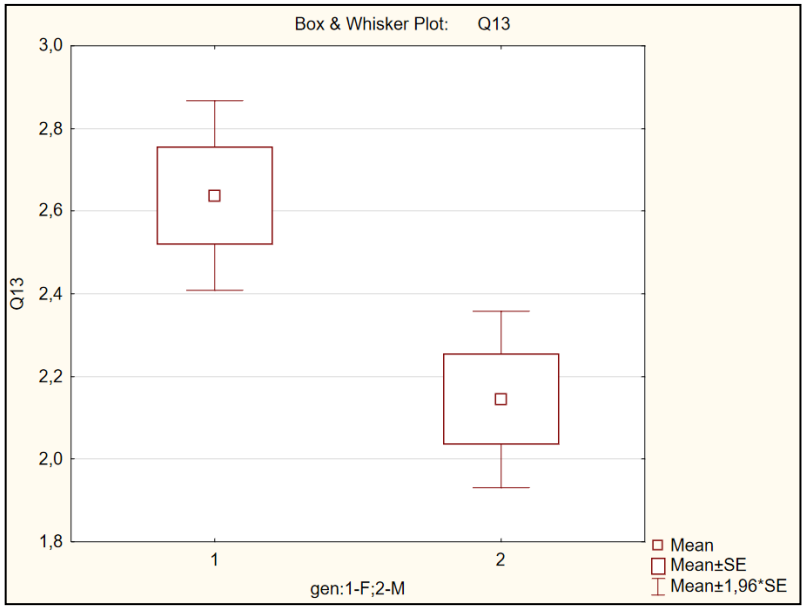
1. Null hypothesis (HQ13₀): There is no statistically significant difference between the average rating of the level of support from influencers for searching for and verifying information among girls and boys.
2. Alternative hypothesis (HQ13_A): There is a statistically significant difference between the average rating of the level of support from influencers for searching and verifying information among girls and boys.

Table 4. Results of the t-test for information gathering vs. gender

	t-test; grouped by gender, number of respondents – 145				
	Group 1 – girls	Group 2 – boys	t-value	p	F-ratio
Q13	2.637681	2.144737	3.093131	0.002382	1.046232

Based on the results of the t-test ($t(143) = 3.0931$ $p = 0.0023$) and visual analysis of the Box & Whisker chart, it was found that there is a statistically significant difference between boys and girls in the degree to which they perceive support from influencers in searching for and verifying information.

The average value of boys' responses ($M = 2.144$) was lower than that of girls ($M = 2.637$), indicating a higher level of perceived support among boys. The median values reflect a similar trend—the median for boys was lower than the median for girls. The interquartile range (IQR), representing the range between the 25th and 75th percentiles, was slightly narrower for boys than for girls, indicating greater consistency in responses among boys. The length of the “whiskers” in the graph revealed greater variability in responses among girls, indicating a wider range of individual perceptions of support in this group. With a p-value of 0.0023, we can state with 95% confidence at a significance level of 0.05 **that boys show a higher level of perception of support than girls**, thus accepting the alternative hypothesis HQ13_A.



Graph 3. Interquartile range of information gathering vs. gender

Discussion of results achieved

To compare our results, we selected previously conducted studies from the Czech environment, such as “Czech Children in Cyberspace” (2019), “EU Kids Online” (2020), and “Children and the Cult of Beauty in the Online World” (2022). Our results are current as of 2024, which allows us to evaluate changes in this area in the Czech Republic since 2019. According to previous studies conducted in 2019, 76% of adolescents in the Czech Republic used some form of social platform. In 2020, this number increased to 84%. According to our research, this figure reached 88%, showing a steadily increasing trend. The availability of the internet and mobile devices continues to grow, leading to an increase in communication via social networks. The social pressure that social media users exert on those who do not use it must also be taken into account. The most frequently used social media platforms are YouTube, Instagram, and TikTok. YouTube continues to be used by approximately 90% of Czech adolescents, and this figure remains stable, which also corresponds to our results. Instagram is used relatively steadily by 70% of adolescents. TikTok has seen the largest recent increase of all social platforms. In 2019, it was used by 29% of adolescents, and in 2022, this rose to 68%. However, in our 2024 research, this figure fell to just under 60%. Nevertheless, it can be concluded that TikTok's popularity remains significant and continues to grow.

The current negative influences of influencers are considered to be dangerous pranks and challenges. Comparing this with the research report “Dangerous Internet Challenges from the Perspective of Czech Children” (Kopecký, Szotkowski, Kubala, 2022), we find that in 2020, 86% of adolescents learned about these dangerous challenges, and 17% of them attempted to complete them. Based on our research on dangerous pranks, this figure reaches 29%. Therefore, we can conclude that there has been a significant increase in these dangerous challenges and pranks. Another negative aspect that emerges from the above studies is addiction and time spent on the internet. Most studies agree that Czech children are spending more and more time on the internet.

Unfortunately, there are no studies in the Czech Republic that directly focus on the positive effects of social media use. However, our research attempted to explore this area and found that influencers can have a positive impact on students' personal development. This is reflected, for example, in improved critical thinking, digital literacy, inspiration and motivation to develop hobbies, or acquiring knowledge, although these results often depend on the gender of the users.

Conclusion

Our research was conducted with the intention of contributing to the exploration and deeper understanding of the current trend of influencers, whose popularity is constantly growing, especially among upper elementary school students. These students are in an important developmental phase of adolescence, where they are forming their own identities. They are a sensitive group in terms of possible addiction to following influencers and their content. Based on the analyses carried out, which showed a clear gender difference in the perception of influencers among individual groups of respondents, we identified three basic categories that may explain the differences between the groups.

The first category is **a different relationship with influencers**, where boys may trust influencers more as a source of information, while girls may be more sceptical or prefer other information channels. It should be noted here that boys consider influencers to be trustworthy sources of information, while girls may perceive influencers more as inspiration in the areas of lifestyle, fashion, or cosmetics. Boys also more often follow influencers focused on technical fields, sports, or video games, where their influence may be more significant.

The second category is **different media habits**, where boys and girls may follow different types of influencers – boys may follow influencers focused on technology, science, or facts more, while girls may focus more on content focused on lifestyle or aesthetics. The fact that boys tend to prefer audiovisual learning through online videos, while girls may prefer other sources, such as text content or interpersonal interaction, may play a role here. Girls may also be more cautious

in admitting the influence of influencers on their interests for fear of social judgment or criticism.

The third and final category is **critical thinking and trust in information**, where girls may be more cautious in accepting information from influencers and rely more on traditional sources or personal experience. This fact can be supported by the opinion that boys are more influenced by peers who share an interest in influencers and their content, which can lead to greater acceptance of influencers as educational authorities. Boys may thus be more influenced by their peer group in terms of sharing interests and following the same type of content.

Here, we must point out that, given the total number of upper elementary school students, this is by no means a significantly representative research sample, but it does provide at least an indicative approximation of the issue under investigation. The subject of our further research efforts and activities is therefore to investigate addiction, dangerous imitation, unrealistic expectations, the spread of false information, restrictions on development, and the potential danger of pranks, which may pose a potential threat to students' personal development.

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