

If It's Not on Facebook, It Did Not Happen: The Dynamics and Influence of Social Networks

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ABSTRACT The speed of technology development has greatly changed the way of life, and one of the most influential inventions that have arisen as a result of this development is social networks. Social networks have changed the way young people communicate, enabling the creation of online personas of their own lives, which young people then compare with other users around the world. Although things change almost daily with the invention of new and more interesting ways to use social networks, many experts agree that uncontrolled exposure to such technologies affects the development of young people. A survey was conducted among students in a Croatian elementary school, which showed that the habits of students in Croatia do not differ much from those in the USA. Although the majority of Croatian students have not noticed that social networks negatively affect their feelings and self-confidence, excessive consumption of media content available on social networks can easily turn into addiction or an unrealistic perception of life.

Key words: social media, technology, addiction, development, online, status.

1. Introduction

Social networks are Internet platforms that serve for interaction and communication between users. In general, a social network can be defined as a web-based service that allows individuals to create profiles within a limited system, create a list of other users with whom they share connections, and view and compare their contact list with those made by other users within the system (Boyd & Ellison, 2008).

Carr and Hayes (2015) along with Subrahmanyam and Michikyan (2022), provide insightful definitions and characteristics of social media within the broader context of digital media. Social media platforms primarily operate on the internet, providing users with online spaces to interact and share content. Furthermore, they allow users to engage in interactions opportunistically, meaning they can communicate and engage with others spontaneously and without pre-planned meetings or schedules. Also, users have the ability to control how they present themselves on social media, choosing what information to share and how to portray themselves to their audiences. These definitions highlight the dynamic and interactive nature of social media platforms, which play a significant role in shaping modern communication, social interactions, and self-expression in the digital age.

The year 1997 can be considered the beginning of the era of social media, when a site called SixDegrees was launched. SixDegrees was one of the earliest social networking websites, it allowed users to create profiles and list their friends, effectively creating a social network. In 2001, a similar site called Friendster was launched, while LinkedIn was launched a year later. A key factor in the explosion of the popularity of social networks occurred in 2003 with the appearance of Myspace. A year later, Facebook was founded, and its dominance as arguably the most popular social network of all time began in 2009. In 2009 Facebook already had more users than all its competitors combined (Kirkpatrick, 2011).

Reddit and YouTube appeared on the market in 2005, Twitter in 2006, Instagram and Pinterest in 2010, Snapchat in 2011, Discord in 2015, and TikTok started operating in 2016 (The Evolution of Social Media: How Did It Begin and Where Could It Go Next?, 2020). According to the latest research (Global Social Media Statistics Research Summary, 2022) more than half of the world population, 4.62 billion people, use social networks. By far the most popular network is still Facebook, while the fastest growing network is TikTok (Global Social Media Statistics Research Summary, 2022). The last major factor that contributed to the global increase in the number of users and time spent on social networks was Covid-19 (Pandya & Lodha, 2021). The COVID-19 pandemic significantly accelerated the already growing trend of social media usage worldwide. Social media platforms became essential sources of information and news updates related to the pandemic, with users sharing updates, guidelines, and personal experiences in real-time. Also, with limited options for entertainment

outside the home, people turned to social media for entertainment, including streaming live events, watching videos, and participating in online challenges and trends. Overall, the COVID-19 pandemic underscored the importance of social media as a vital communication and connection tool, leading to a significant increase in the number of users and time spent on social networks globally.

Figure 1.

Number of social networks users in 2022, source: <https://datareportal.com/reports/digital-2022-global-overview-report>

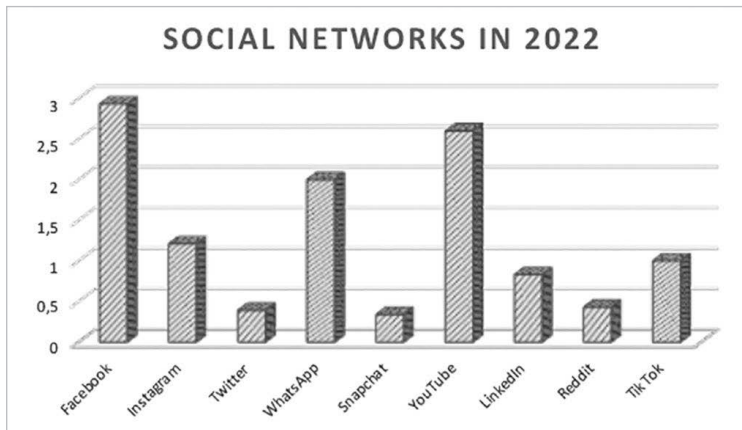


Figure 1 illustrates the number of social network users in 2022 with a significant outstanding of three major social media platforms: Facebook, YouTube and WhatsApp. The number of users in 2022 was over 4.59 billion worldwide with a projected increase to almost six billion in 2027 according to the Statista. The number of users in 2020 was estimated 3.6 billion, which makes a billion social media users in two years (Zachlod et. al. 2022). Our research will show that the number of social media users in Croatia is following the world trends, although the numbers are significantly different regarding the relatively small and constantly shrinking population rate (Rodin et. al., 2021).

2. Social networks and addiction engineering

Most processes that occur during the use of social networks are based on a similar principle, creation of an additional amount of dopamine in the human brain. Dopamine transmits signals between neurons in the brain and is often referred to as the “happy hormone” because it can contribute to feelings of pleasure and reward. It is considered one of the most important factors in the normal functioning of the human body and is the main reason for the successful survival of our species. Dopamine is associated with a range of positive emotions and experiences. When dopamine levels

are normal or elevated, it can contribute to feelings of joy, happiness, excitement, and energy. Additionally, dopamine is involved in the brain's reward system, so it plays a role in the pleasurable sensations associated with activities like eating, socializing, and engaging in enjoyable activities. (Dopamin Ili Hormon Sreće: Može Li Nam Njen Višak Zapravo - Štetiti? - N1, 03.2021). At the same time, low levels of dopamine in the system exemplify feelings of laziness and lack of motivation, and a generally poor mental and physical state.

Although a very simplified explanation of this highly important and complex part of human anatomy, it provides a better understanding of what part of our nature is manipulated when we spend time on social networks. Additionally, social networks also exploit our sense of community acceptance. Comparison with the environment has always been of vital importance. It provides feedback and creates a social hierarchy. Thus, we search for people we consider more successful than us in order to set them as life examples. Simultaneously, we also single out people whom we consider unsuccessful and try not to repeat their mistakes in order to maintain or improve our own position in such a hierarchy.

The development of information technologies that resulted in the emergence of services such as social networks almost overnight changed the principles of apparent social hierarchy, and the way people communicate. Social networks allow users to compare lives from the comfort of their own homes with people who are on the other side of the planet and are living in utterly different conditions and environments. The lack of transparency and genuineness on social networks leads to the loss of a realistic picture of the real success of other users. Perhaps an even bigger change than the extreme increase in people with whom we compare our lives is that social media has become one of the most important factors in determining a "popularity level", and has allowed for that apparent popularity to be measured in numbers. The number of "likes", comments, views and followers has become extremely important to younger generations, and they believe these numbers are closely related to their public perception and status in society. Similarly, the same numbers have become vitally important in business as well.

Social networks have enabled two-way communication between companies and customers. The rapid growth in the popularity of certain profiles and persons on social networks attracted the attention of marketing departments, who found a way to insert their message between influencers and their fans through social networks (de Veirman et al., 2019). Influencer marketing can be described as an online transaction between a company and a celebrity. Respectively, influencer receives free services or financial compensation for giving control over their content to the companies. While such marketing model proved to be extremely successful and revolutionary, in 2017 The Federal Trade Commission (FTC) called on companies and influencers to indicate their

cooperation more transparently by using clear messages in communication, informing the users that it is paid content. However, there is still much room for improvement in this regard. Influencers often do not want to risk losing the trust of their hard-earned fans and try to make sponsored content as similar as possible to their daily, so-called organic posts. Consequently, the biggest “victims” of such indiscretion are children and teenagers who do not yet have the ability to differentiate between the warm advice of a person they see as a role model and the cold reality of modern marketing (Audrezet & Charry, 2019).

Social networks generate their profits by advertising and massively collecting data about their users, which is also the reason why the goal of social networks is to “force” users to spend as much time as possible using them. Nowadays, numerous companies involved in the development of social networks have teams of employees whose position is broadly called “attention engineers”, and their task is to make their products as attractive as possible to keep the attention of users. “Attention engineers” use methods of manipulating the human psyche that are very similar to those used when designing gambling machines (Beware the Threat of Attention Engineering, 2021). The simplest example of this is the so-called “pull to refresh” feature that most mobile applications use to refresh content and load new news, a movement that can very easily be described as a digital version of the same idea that governs when pulling a lever on a gambling machine.

However, perhaps the most important task of “attention engineers” is the creation of an algorithm used to sort content for users. The exponential growth of social networks users generates vast amount of content that is published daily on these platforms. Thus, the companies have concluded that the chronological presentation of content to users is no longer a sustainable way of presenting information. Instead, control over content was transferred to locally developed algorithms. As one of the best examples of the influence of such algorithms is the rapid growth of the popularity of TikTok, which is attributed to the very fact that this social network has the most sophisticated and advanced algorithm for filtering user content. TikTok uses a very complex algorithm that monitors the exact content their users consume, how much time they spend with which category of content, what topics they are most engaged with, as well as what they share the most. Although the algorithm appears to be designed to show the user the most relevant content, its real task is to keep the user’s attention as long as possible (Technology Primer: Social Media Recommendation Algorithms | Belfer Center for Science and International Affairs, 2022). Similar can also be seen on Instagram, which does not send users notifications in real time, but at certain intervals to extend time spent on the application.

3. Psychological factors

The need to use social networks depends on factors such as age, gender, mental stability, social identity, family background, etc. Additionally, one of the most common reasons for using social networks is the global phenomenon called FoMO - the fear of missing out. The fear of missing out refers to missing out on our friends' and acquaintances' important moments, while we were not present or available online, most often referring to activity on social networks (Lee et al., 2021). For younger generations, social networks represent a platform where all seemingly important events in their lives are presented. This can be seen from sayings like "If it's not on Facebook, it didn't happen." Together with the previously mentioned need for a sense of belonging as well as the desire to make a good first impression, users unconsciously begin to create highly filtered and inconsistent versions of their lives, posting images and events only if they are in line with their ideal profiles and the current norm that reigns in that social network.

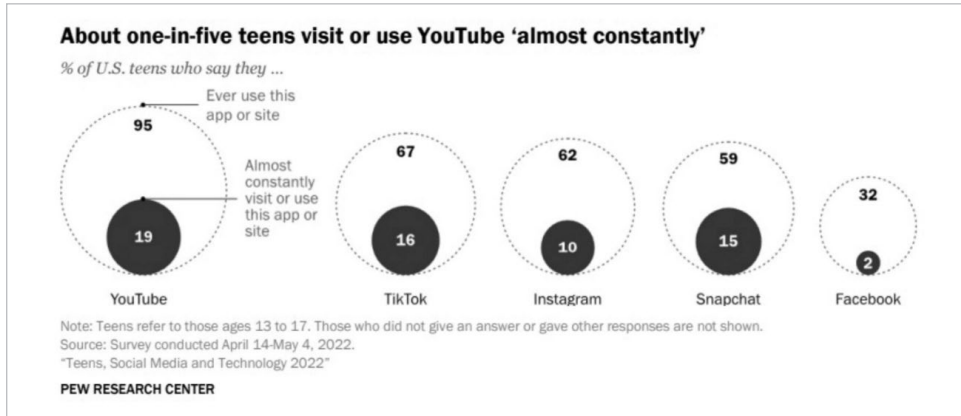
Furthermore, young generations also look up at influencers who are motivated by financial goals, thus always have to be presented in the best possible light or be "up to date" with the cultural and social trends currently prevailing. When using social networks, the human brain absorbs information and thus creates a reference point for comparison, but the problem with social networks is that the brain is not aware of how many filters the content it is analyzing has, or whether it is a realistic representation. On the other hand, publishing unrealistic content allows users a temporary escape from real life, rewarding them with brief feelings of purpose, belonging, and validation in the form of likes and comments from the community. The vicious circle that results from this process can turn into a type of addiction and indicates a connection between mental health disorders and the amount of time spent on such sites and applications (Griffiths et al., 2014).

4. Dangers of using social networks specific to children and teenagers

Since smart mobile devices and social networks became globally widespread only ten years ago, it is difficult to determine with certainty what the real and long-term consequences of living in a hyper-digitalized society are. However, it is evident that children and teenagers are among the most vulnerable groups in terms of undiscovered and unconfirmed consequences of excessive exposure to the Internet and social networks (Bozzola et al., 2022). Traditional methods of raising children have been challenged in every way under the influence of daily innovations and changes in the technological world. According to the latest research, in the last seven years in the USA, the number of children aged 13 to 17 who have access to mobile phones has increased by 22%. This means that 95% of children at that age already have access to a smart device, and 35% of respondents state that they are "almost constantly" online (Vogels et al., 2022).

Figure 2.

The percentage of American teenagers who claim to be constantly online, Source: <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/>



Furthermore, the amount of time children spend on social networks has increased by 17% during the pandemic, and the average “screen time” for children aged 8 to 12 is 5 hours and 33 minutes, or 8 hours and 39 minutes in respondents aged 13 to 18 (Ride-out & Robb, 2019). Such results impose questions. For instance, how will this affect their communication? Taking into account that during their childhood they mostly use online communication that does not contain some of the key elements of physical interpersonal communication, such as facial expressions and body language. The excessive use of modern technology by children is often associated with the fact that they struggle with the feeling of boredom because, while they are constantly under the influence of dopamine, their threshold for positive and fun feelings rises to overly high and unrealistic levels. This problem is closely related to the epidemic of lack of focus and attention among younger generations. For example, TikTok encourages content creators to create videos as short as possible, and at the same time encourages users to use the “explore page” as their main navigation tool, which provides an endless amount of content. Research conducted on teenagers in 2015 showed that even then there was a significant number of children who would wake up in the middle of the night to check the status of social networks (Taylor et. al 2015).

Young people tend to turn to social networks as a way of dealing with real life problems, not knowing that social networks often are the cause of these problems. It is important to point out that factors that can cause addiction can have an amplified effect when it comes to children and the younger population (Bozzola et al., 2022). For example, young people often look to influencers and famous people as inspiration and role models, and they often create a para-social relationship where they see them as close friends. Thus, they find it difficult to understand that they are often the victim of a carefully planned marketing campaign, so they understand the purchase of an ad-

vertised product as a way to identify with their idol or view this decision as accepting a warm recommendation from an acquaintance.

Younger users also have a harder time dealing with negative comparisons, a distorted view of life, lack of transparency, and an overload of information and feelings that come from seeing the seemingly perfect lives of successful people (Bozzola et al., 2022). It is important to emphasize that when observing the negative consequences of excessive use of social network services among children and teenagers, the results often show that the situation is more problematic for the female part of users (Fardouly & Vartanian, 2015). Research has shown that more time spent on Facebook is associated with greater body image concerns among pre-teen girls (Tiggemann & Slater, 2013), high school girls (Tiggemann & Miller, 2010; Tiggemann & Slater, 2013), and college girls (Fardouly & Vartanian, 2015). This primarily refers to the appearance of the face, hair, and skin. Furthermore, research has also shown that Facebook can cause negative emotions in women (Fardouly et.al, 2015). Positive or negative feedback about a young person's social networking affects their self-esteem (Richards et.al, 2015), and a greater amount of time spent on social media was associated with an increased risk of self-harm (adjusted OR per 30-minute increase in weekday use: 1.13, 95%CI 1.06 to 1.21) and depression (adjusted B =0.36, 95%CI 0.22 to 0.50) and lower levels of self-esteem (adjusted B = -0.12 , 95%CI -0.20 to -0.04) in women (Barthorpe et.al, 2020).

Social networks have become an extremely important source of appearance socialization during adolescence, the time when children begin to become more familiar with their bodies and notice differences compared to others (de Vries et al., 2016)we know little about the causal direction of this relationship, the mechanisms underlying this relationship, and whether this relationship also occurs among boys to the same extent. The present two-wave panel study (18 month time lag. Another reason for the increased risk of using social networks among the female population can be attributed to the rapid growth in the popularity of "beauty" and "fitness" communities - following and identifying with this type of content is closely related to the creation of an unrealistic image of human appearance standards, the main cause of which is a large amount of modified and filtered content that presents itself as natural and attainable. The goal of publishing this type of content is usually reduced to the sale and promotion of various products that claim to assist in achieving the appearance of the author of the publication.

Although the existence of such content is not in itself negative, the way in which consumption of such content alters one's body image among the vulnerable and sensitive population whose bodies are still developing can lead to decreased self-confidence, increased anxiety, and the creation of serious disorders (MSD Manual of Diagnostics and Therapy: Body Dysmorphic Disorder, n.d.). One such disorder is body dys-

morphic disorder, which is described as preoccupation with an imagined or minor aesthetic flaw that causes significant distress or interferes with social, professional, or other activities (MSD Manual of Diagnosis and Therapy: Body Dysmorphic Disorder, n.d.).

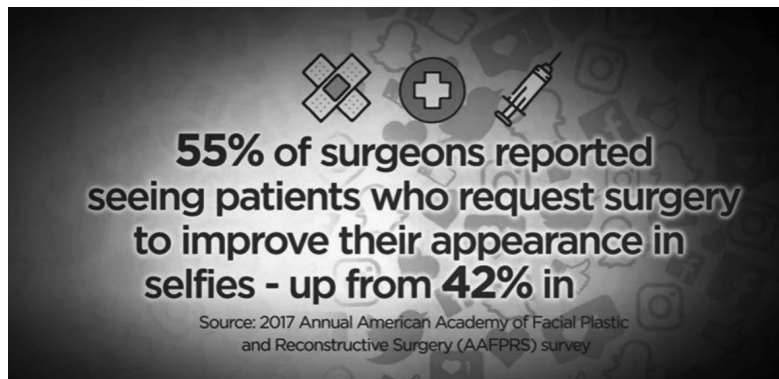
The acceptance of unrealistic body image standards displayed on social networks is another trigger that can cause cyber bullying among peers, so-called "fat shaming", or abuse of people because of their weight (Haddad, 2022). The excessive preoccupation of teenagers with the appearance of their own body leads to the creation of eating disorders such as anorexia, and there are communities on social networks who mistakenly believe that such a disorder is a good sign of approaching the appearance they see on social networks. Research has shown that 88% of girls between the ages of 14 and 17 compare the appearance of their body with those they see on social networks every day, and half of them claim that this has a negative impact on their self-esteem (Fardouly & Vartanian, 2015).

The problems of exposing young people to this type of content are not new or one caused by social networks, however social networks are the cause of another closely related phenomenon caused by the addition of so-called face filters. The social network most responsible for the popularization of such filters is Snapchat, where such filters are called "Lenses" and were presented as one of the main features during the launch in 2015. Such filters allow adding various effects to the user's face, and their main characteristic is to smooth the skin, give fuller lips or make the user's eyes look bigger, concepts that are in line with the current Eurocentric or Western standard of beauty. With the growth in popularity of Snapchat and its filters, they have become an integral part of all other competing social networks that have also implemented their own version, making the face-changing phenomenon even more emphasized. Filters change the appearance of the user's face implying that users' appearance is missing something, comparing their own filtered, fake face with the one they actually see in the mirror. While the increase in the number of people opting for cosmetic surgery could be correlated with the rise in popularity of visual social networks, there is one phenomenon that clearly links the two terms. In the last few years, plastic surgeons have noticed that younger patients are increasingly using their own filter-altered pictures to describe the look they would like to achieve after the procedure, and this phenomenon has been dubbed "Snapchat Dysmorphia" (Ramphul & Mejias, 2018).

Plastic surgeries aiming to improve the image inspired by what users see when looking at themselves through their own camera has become a more frequent motive for reaching for such a procedure than achieving the appearance of the face or a part of the body inspired by famous actors or persons that was relatively popular in the past (Ramphul & Mejias, 2018).

Figure 3.

The increase in the number of plastic surgeries inspired by the appearance in selfies; Source: <https://www.prnewswire.com/news-releases/aafprs-annual-survey-unveils-rising-trends-in-facial-plastic-surgery-300396391.html>



Studies (Barsova et.al 2022; Fardouly & Vartanian, 2015) have tried to find a link between the time spent on social networks and lack of self-confidence, social anxiety or even suicide attempts in children and young people. Furthermore, there was also internal research conducted by Meta Group, the results of which were published in The Wall Street Journal in 2021. The results of the two-year analysis clearly show that there are obvious problems caused by the fact that young people spend more and more time using one of their services: Instagram. They concluded that every third girl suffers from problems with her own body image as a direct cause of consuming content on Instagram. Furthermore, they also found that 10% of respondents directly linked their suicidal thoughts to the use of Instagram. Although Meta never publicly acknowledged conducting this research, their internal reports concluded that users who struggle with the psychological effects of using Instagram, such as teenagers, have a desire to reduce the amount of time they spend on the platform, but lack the self-control to do that. The findings also noted the awareness of the problem's existence, as well as the lack of a solution to find a compromise between reducing the damage and maintaining a successful business model. The main indicator that Meta is trying to find a solution to these issues is the fact they launched various projects such as "Project Daisy", whose goal was to add the ability to hide the number of "likes" on their platforms Instagram and Facebook. However, these changes are not drastic enough and do not have any real impact on improving the situation. The owner of Meta, Mark Zuckerberg, during his presentation before the Congress of the United States of America, defended himself by arguing that there is a lot of research that links the social aspects of social networks with a positive impact on the well-being of mental health. Regarding the research that was leaked to the public, Meta stated it was used exclusively for solving internal problems and brainstorming, and they did not show any interest in cooperating with the profession or the public regarding future research (Barsova et.al 2022).

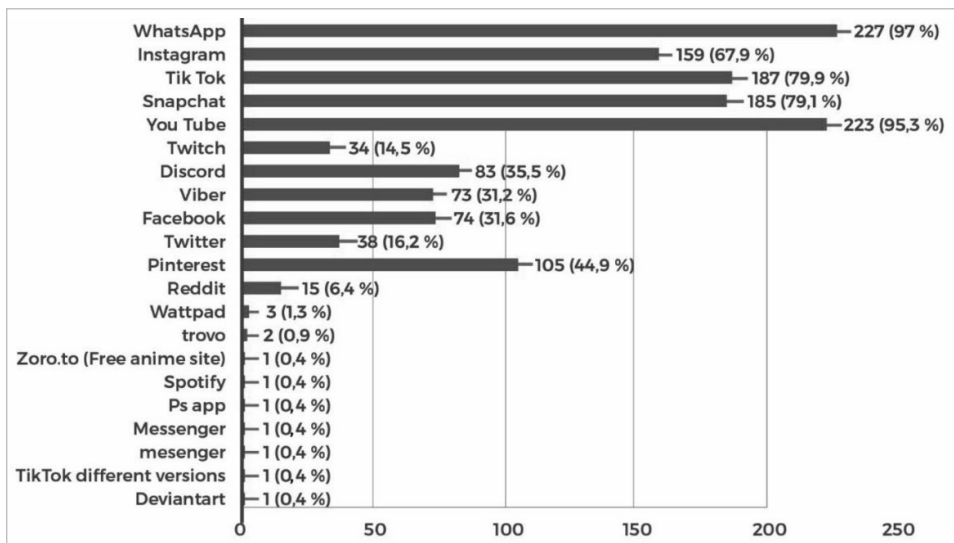
5. Survey: A case of Croatian elementary school

An anonymous survey regarding the use of social networks was conducted among students in a Croatian primary school. The aim of the survey was to compare the current situation in primary schools in Croatia with the global trends. The survey was conducted using a Google form and was completed by fifth, sixth, seventh and eighth grade students. A total of 234 results were collected, 48.7% were male and 51.3% were female. Additionally, out of the 234 students who filled out the survey 27.8% attended the fifth grade, 27.4% the sixth grade, 15% the seventh grade, and 29.9% the eighth grade.

According to the survey results, the most frequently used social network is WhatsApp with 97%, followed by YouTube (95.3%). This is followed by Snapchat and TikTok, which are used by 79.9% and 79.1% of respondents. The next in popularity is Instagram (67.9%).

Graph 1.

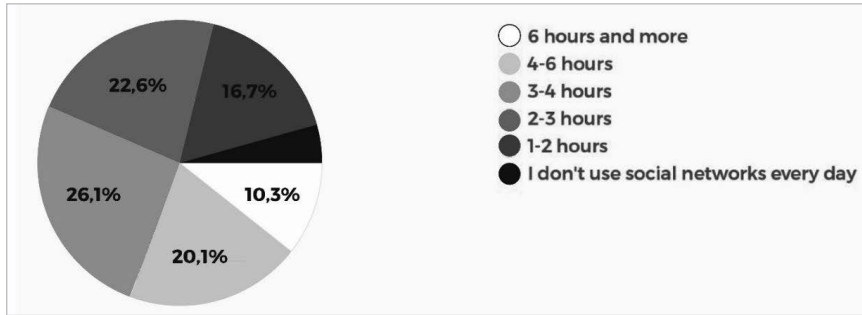
The result of the question "Which of the listed social networks do you use?"



The average age when creating the first online profile is nine and a half years, on the platforms WhatsApp (26%), Instagram (22%), Snapchat (14%) and Facebook (11%), while according to the students, the most popular social network is currently TikTok (57.8%). Tik Tok is also the students' favorite social network (30.6%), followed by Snapchat (24.4%), YouTube (22.6%) and Instagram (10.2%).

Graph 2.

The result of the question “How many hours a day do you spend on social networks?”



The data show that students most often spend time on social networks talking to friends (92.7%), watching pictures and videos (87.6%), and following celebrities (65.8%). Out of 234 respondents, 46.2% admit that checking for updates on social networks is an integral part of their morning routine. The same activity but before going to bed was marked as a “must” by 65.8%. Most of the students spend 3-4 hours a day using social networks.

Furthermore, 52.1% of students said that they never felt negative feelings after using social networks, while 36.8% of them believe that this happens to them sometimes, and 11.1% admit that they often notice a negative impact on their mood. The last question in the survey required an elaborate answer to the question of whether they think that social networks have a negative influence. 124 students answered. Some of the prominent answers are:

“I think that social networks have a good and a bad influence, but people emphasize the negative more”.

“Social networks can have a negative impact if we follow influencers who share content that is bad for us.”

“Yes, I think they have a bad influence because children don't know how to socialize like they used to.”

“I think people pretend to be happier through social networks, because they don't know how to express how they feel, they think they will be rejected by society because of it. It is simply better for them to pretend that they are great, but in fact they are not.”

As presented, the majority of students (92.7%) spend time on social networks talking to friends, which indicates that social media platforms are primarily used for the maintaining and nurturing of social connections. It is also evident that visual content is highly engaging and popular among users, contributing to the overall time spent on

these platforms. As it is evident that checking social media after waking up and before bedtime, as well as several hours during the day, we can assume that social media usage among students is substantial and consumes a significant portion of their daily time. Overall, the data illustrate the prominent role of social media in the lives of students, encompassing social interaction, entertainment, celebrity followings, and daily routines. These findings underscore the importance of understanding social media habits, and their implications for student well-being and academic performance.

6. Discussion

The research on elementary school students in Croatia aged 11 to 15 showed that students spend an average of 3 hours and 27 minutes a day using social networks. Compared to similar research (Rideout & Robb, 2019) conducted in the US that showed children aged 8 - 12 spend 5 hours and 33 minutes a day, Croatian students are still slightly below that average. Our results are in line with the global trends in the popularity of social networks, where WhatsApp and YouTube represent the most used social networks since most users use them for their primary, non-social function. These findings underscore the pervasive influence of social media in the lives of students and highlight the need for awareness of healthy digital habits and moderation in social media use. The encouragement of balance, mindfulness, and critical thinking skills can help students navigate social media in a way that promotes well-being and positive digital experiences.

The results also confirm the skyrocketing popularity of TikTok, a social network preferred by youth. TikTok has indeed seen a remarkable surge in popularity, particularly among younger demographics, due to its innovative approach and the changing preferences of younger users. Its format, which emphasizes short-form video content and encourages creativity and engagement, has resonated strongly with younger users. On the other hand, Facebook, once the dominant social network, has experienced a decline in popularity among younger generations. Factors such as the perception of Facebook as being more geared towards older users, privacy concerns, and the proliferation of other social media platforms offering more dynamic features have contributed to this shift.

The research showed that 43.6% of respondents use social networks most often in the evening, and 15.4% of them most often at night. Those findings suggest that a significant portion of respondents prefer to use social networks during the evening hours, with a notable percentage continuing their online activity into the night. There are several potential reasons why people might gravitate towards social media during these times. Evening hours often offer opportunities for relaxation and leisure, providing individuals with more free time to engage with social networks.

However, the fact that 65.8% of the respondents note checking for updates on social networks as the last activity they do before going to bed, it is certainly plausible that there could be a correlation between excessive social media usage, particularly before bedtime, and sleep-related issues among teenagers. While correlation does not imply causation, the findings suggest a potential relationship between social media usage before bedtime and sleep-related issues among teenagers. The addressing of this correlation may involve the promoting of healthy digital habits, such as establishing screen-free bedtime routines, limiting social media usage before bed, and creating a conducive sleep environment. The education of teenagers about the impact of excessive screen time on sleep quality and overall well-being is also important in mitigating potential negative effects.

According to the survey, respondents use social networks most often to communicate with friends, follow celebrities and consume multimedia content. While these activities can provide entertainment, connection, and information, they can also contribute to potential negative consequences, including addiction and distorted perceptions of reality. Recognizing the potential risks associated with these activities, it is important for individuals to cultivate awareness and moderation in their social media usage.

7. Conclusion

Social networks have proven to be one of the most influential technological discoveries of the digital revolution. Consequently, they have also had a vast impact on communication. While the ways in which social networks have changed everyday life have been evident for some time, the fact is that we are still in the early stages of their development and, as a society, we are not familiar with the long-term consequences of their use. Since the companies that own such services retain an unimaginable amount of power and responsibility that affects the lives of billions of people around the world, the world's governments have rightly decided that it is time for their activity to start harmonizing with international laws in order to prevent destruction of human rights. Meta, under the pressure of international institutions, began to introduce positive changes to its platforms, such as hiding certain ads from minor users and enabling the setting of limits on the amount of time spent on the application per day. As a community, we have accepted that there is a problem with the way social networks operate and manipulate users, and now the question is how to introduce some significant measures that will improve the experience and security of users, while not greatly reducing the financial income of the companies that develop this type of software.

While social media facilitates communication and helps maintain connections with friends, excessive reliance on these platforms for social interaction can lead to addiction-like behaviors. Furthermore, following celebrities on social media platforms can provide insight into their lives, interests, and activities. However, the curated and

often idealized portrayals of celebrity lifestyles on social media can contribute to unrealistic comparisons and feelings of inadequacy among users. While consuming this content can be entertaining and informative, it can also be highly addictive. Thus, it is crucial to promote media literacy and critical thinking skills that can empower users to navigate social media content more effectively and discern between reality and idealized representations.

Considering the rapid growth technology, it is becoming more and more likely that human lives will be gradually transformed into virtual reality by blockchain technologies, in which each person will be represented by their own avatar or a character that will represent their digital version. Once generations whose entire lives have been marked by the use of modern technologies such as social networks begin to enter the workforce and come into contact with older generations, it is very likely that there will be conflicts with older colleagues that will be based on this very different understanding of life. If we take into account the existing research and the results of the conducted survey, we can conclude that there are many problems associated with the use of social networks, and for now, delaying access to these services for children and young people seems to be the only preventive tactic if in the near future governments of the world do not start stricter monitoring over these technologies.

References

1. Barsova, T.; Cheong, Z.; Mak, A.; Liu, J. (2022). Predicting psychological symptoms when Facebook's digital well-being features are used: A cross-sectional survey (Preprint). *JMIR Formative Research*, 6. <https://doi.org/10.2196/39387>
2. Barthorpe, D.; Winstone, L.; Mars, D.; Moran, P. (2020). Is social media screen time really associated with poor adolescent mental health? A Time Use Diary Study. *Journal of Affective Disorders*, 274. <https://doi.org/10.1016/j.jad.2020.05.106>
3. Boyd, D. and Ellison, N. (2008). Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13, 210-230. <http://dx.doi.org/10.1111/j.1083-6101.2007.00393.x>
4. Bozzola, E.; Spina, G.; Agostiniani, R.; Barni, S.; Russo, R.; Scarpato, E.; Di Mauro, A.; Di Stefano, A. V.; Caruso, C.; Corsello, G.; Staiano, A. (2022). The Use of Social Media in Children and Adolescents: Scoping Review on the Potential Risks. *International Journal of Environmental Research and Public Health*, 19 (16). <https://doi.org/10.3390/ijerph19169960>
5. Carr, C. T. and Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic Journal of Communication*, 23(1): 46-65. <https://doi.org/10.1080/15456870.2015.972282>
6. Charry, K. and Audrezet, A. (2019). Do Influencers Need to Tell Audiences They're Getting Paid? <https://hbr.org/2019/08/do-influencers-need-to-tell-audiences-theyre-getting-paid>. *Harvard Business Review, Online*.

7. De Veirman, M.; Hudders, L., and Nelson, M. (2019). What Is Influencer Marketing and How Does It Target Children? A Review and Direction for Future Research. *Frontiers in Psychology*, 10: 2685. <https://doi.org/10.3389/fpsyg.2019.02685>
8. de Vries, D. A.; Peter, J.; de Graaf, H.; Nikken, P. (2016). Adolescents' Social Network Site Use, Peer Appearance-Related Feedback, and Body Dissatisfaction: Testing a Mediation Model. *Journal of Youth and Adolescence*, 45 (1): 211-224. <https://doi.org/10.1007/s10964-015-0266-4>
9. Dopamin ili hormon sreće: Može li nam njen višak zapravo - štetiti? - N1. (n.d.). <https://hr.n1info.com/zdravlje/dopamin-ili-hormon-srece-moze-li-nam-njen-visak-zapravo-stetiti/>. (Accessed 25.8.2022.)
10. Fardouly, J.; Diedrichs, P.; Vartanian, L.; Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. *Body Image*, 13. <https://doi.org/10.1016/j.bodyim.2014.12.002>
11. Fardouly, J. and Vartanian, L. (2015). Negative Comparisons About One's Appearance Mediate the Relationship Between Facebook Usage and Body Image Concerns. *Body Image*, 12C: 82-88. <https://doi.org/10.1016/j.bodyim.2014.10.004>
12. Global social media statistics research summary 2022 (June 2022). <https://www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research/>. (Accessed 20.8.2022.)
13. Griffiths, M. D.; Kuss, D. J. and Demetrovics, Z. (2014). Chapter 6 - Social Networking Addiction: An Overview of Preliminary Findings, in: Rosenberg, K. P. and Feder, L. C. (Eds.). *Behavioral Addictions* (pp. 119–141). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-0-12-407724-9.00006-9>
14. How Facebook (Meta), Twitter, Social Media Make Money From You. (n.d.). <https://www.investopedia.com/stock-analysis/032114/how-facebook-twitter-social-media-make-money-you-twtr-lnkd-fb-goog.aspx>. (Accessed August 2022)
15. Kirkpatrick, D. (2011). *The Facebook Effect*. Simon & Schuster.
16. Lee, J.; Bright, L. and Eastin, M. (2021). Fear of Missing Out and Consumer Happiness on Instagram: A Serial Mediation of Social Media Influencer-Related Activities. *Cyberpsychology, Behavior, and Social Networking*, 24. <https://doi.org/10.1089/cyber.2020.0431>
17. MSD priručnik dijagnostike i terapije: Tjelesni dismorfni poremećaj (n.d.). <http://www.msd-prirucnici.placebo.hr/msd-prirucnik/psihijatrija/somatoformni-i-umisljeni-poremećaji/tjelesni-dismorfni-poremećaj>. (Accessed December 2022)
18. Pandya, A. and Lodha, P. (2021). Social Connectedness, Excessive Screen Time During COVID-19 and Mental Health: A Review of Current Evidence. *Frontiers in Human Dynamics*, 3. <https://doi.org/10.3389/fhumd.2021.684137>

19. Power, S.; Taylor, C. and Horton, K. (2017). Sleepless in school? The social dimensions of young people's bedtime rest and routines. *Journal of Youth Studies*, 20, 1-14. <https://doi.org/10.1080/13676261.2016.1273522>
20. Ramphul, K. and Mejias, S. G. (2018). Is "Snapchat Dysmorphia" a Real Issue?. *Cureus*, 10 (3): p. e2263). <https://doi.org/10.7759/cureus.2263>
21. Richards, D.; Caldwell, P. and Go, H. (2015). Impact of social media on the health of children and young people. *Journal of Paediatrics and Child Health*, 51. <https://doi.org/10.1111/jpc.13023>
22. Rideout, V. and Robb, M. B. (2019). *The Common Sense census: Media use by tweens and teens, 2019*. San Francisco, CA: Common Sense Media.
23. Rodin, U.; Cerovečki, I. i Jezdić, D. (2022). *Prirodno kretanje u Hrvastkoj u 2021. godini*. Hrvatski zavod za javno zdravstvo. https://www.hzjz.hr/wp-content/uploads/2022/08/Prirodno_kretanje_2021_0822.pdf
24. Social media analytics best practices tempered by privacy laws. (n.d.). <https://www.techtarget.com/searchbusinessanalytics/feature/Social-media-analytics-best-practices-tempered-by-privacy-laws>. (Accessed August 2022)
25. Subrahmanyam, K. and Michikyan, M. (2022). Methodological and Conceptual Issues in Digital Media Research, in: Nesi, J.; Telzer, E. and Prinstein, M. (Eds.). *Handbook of Adolescent Digital Media Use and Mental Health* (pp. 9-38). Cambridge: Cambridge University Press. doi:10.1017/9781108976237.003
26. Technology Primer: Social Media Recommendation Algorithms | Belfer Center for Science and International Affairs. (n.d.). <https://www.belfercenter.org/publication/technology-primer-social-media-recommendation-algorithms>. (Accessed November 2022)
27. Tiggemann, M. and Miller, J. (2010). The Internet and Adolescent Girls' Weight Satisfaction and Drive for Thinness. *Sex Roles*, 63: 79-90. <https://doi.org/10.1007/s11199-010-9789-z>
28. Tiggemann, M. and Slater, A. (2013). NetGirls: The Internet, Facebook, and body image concern in adolescent girls. *The International Journal of Eating Disorders*, 46. <https://doi.org/10.1002/eat.22141>
29. Zachlod, C.; Samuel, O.; Ochsner, A.; Werthmüller, S. (2022). Analytics of social media data – State of characteristics and application. *Journal of Business Research*, 144 (2022): 1064-1076. <https://www.sciencedirect.com/journal/journal-of-business-research>

Prethodno priopćenje

Ako nije na Facebooku, nije se dogodilo: Dinamika i utjecaj društvenih mreža

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Sažetak

Brzina razvoja tehnologije uvelike je promijenila način života, a jedan od najutjecajnijih izuma koji je proistekao iz tog razvoja su društvene mreže. One su promijenile način na koji mladi komuniciraju, omogućujući stvaranje online osobnosti svojih vlastitih života, koje zatim mladi uspoređuju s ostalim korisnicima širom svijeta. Iako se stvari mijenjaju gotovo svakoga dana izmišljanjem novih i zanimljivijih načina korištenja društvenih mreža, mnogi stručnjaci slažu se da nekontrolirana izloženost takvim tehnologijama utječe na razvoj mladih ljudi. Istraživanje provedeno među učenicima u hrvatskoj osnovnoj školi pokazalo je da navike učenika u Hrvatskoj nisu mnogo drugačije od onih u SAD-u. Iako većina hrvatskih učenika nije primijetila da društvene mreže negativno utječu na njihove osjećaje i samopouzdanje, pretjerana upotreba medijskog sadržaja dostupnog na društvenim mrežama lako se može pretvoriti u ovisnost ili nerealističnu percepciju života.

Ključne riječi: društveni mediji, tehnologija, ovisnost, razvoj, online, status.