

### **Original Papers**

Polish Psychological Bulletin 2021, vol. 52(2) 172–178 DOI 10.24425/ppb.2021.137260

Robert Modrzyński\*

# Problematic use of social media: the phenomenon of popularity, consequences and risk factors

Abstract: Social media has revolutionized the way people communicate with each other, the whole world is now available on the screen of a smartphone. People who seemed too distant until yesterday are now available in seconds via a network connection. Smartphone and social media overcome the limitations of remoteness by introducing relationships between people into a completely different dimension. They were supposed to serve mainly as facilitating communication with loved ones, but with time they started to create the surrounding reality. The aim of the article is to present the issues related to the problematic use of social media. The most popular social network sites (SNS) will be presented first, along with their functions, number of users and the reasons why people use them so often. Then, issues related to problematic use of social media will be presented, such as: symptoms, questionnaire methods and consequences. Finally, the author discusses the risk factors of excessive of social media.

Keywords: problematic use of social media, social media addiction, SNS use disorder, Social Network Sites

### INTRODUCTION

Social media has revolutionized the way people communicate with each other. They have become an integral part of life. Many young people do not know the world without instant access to the Internet. Social media has changed the way the young generation build their relationships with one another. While these platforms offer great opportunities to innovate, learn and stimulate creativity, there is evidence of negative consequences for the mental health of users.

The evolution of the Internet and its applications has led to a significant increase in interest in social networks. They are popular all over the world, and their frequent use, mainly by young people, raises more and more concern and opens up a discussion on "social media addiction".

### SOCIAL NETWORK SITES

Social Network Sites (SNS) are websites and applications that enable communication between their users. They allow for the exchange of information as well as the placement of graphic materials in the form of photos or videos. Using games and other applications is also popular on these websites (Habrat, 2016).

### \* Uniwersytet Marii Curie – Skłodowskiej w Lublinie

### THE MOST POPULAR SOCIAL NETWORKS

One of the most popular social networking sites in the world is **Facebook**. Its users can create networks, groups, exchange messages, photos, videos, and use many applications (Messenger, WhatsApp, Instagram). Over 22 million users in Poland, wanting to send a message to a friend, make contact, seek opinions about a product, comment on an important matter, post an advertisement, find friends or meet new people, they log on to Facebook first (Kemp, 2018, 2020). Each business owner, wanting to reach more customers, promotes his profile by paying for selected content. The functionality of Facebook also includes creating your own fan pages, conducting live video coverage or publishing job offers or sales products (Chabrzyk, Kałużyńska, Rosa, Suchov, Turek, 2019)

You Tube is a social networking site that allows you to upload, rate and comment on videos for free. You can use the platform in two ways: the first is to view the content, the second is to actively participate in creating videos added on the platform. The main goal of YouTube users' activity is the consumption of broadly understood video content. Watch-oriented users also use the site's features, such as rating video content, commenting on movies, or discussing with creators. Today YouTube in Poland has 20 million receivers monthly, 5 million every

day. If one person wanted to watch all the films published on the website in Poland, it would need about 50,000 years. It is most popular in the group of people aged 18–49. The largest number of views in 2018 on YouTube in Poland was obtained by media and music channels (Grabowski, Kręgielewski, Wodzyńska, 2019).

Twitter is advertised as the fastest source of information exchange in the world. It has different rules than Facebook. When creating an account on Facebook, you are looking for friends, colleagues from work, a friend from a school bench, etc. Twitter is a social networking site that allows microblogging. The user can send and read so-called tweets, i.e. short text messages. They are displayed on the author's profile and shown to users who follow the profile. Twitter allows tagging (# sign in front of a word), i.e. marking keywords, making it easier to find messages that are interesting for a given person. In Poland, it is most popular among journalists, lawyers, sports and media industries.

Instagram, an app for sharing photos and short videos, is one of the most popular social media channels. Users can observe friends and bloggers as well as brands and hashtags that are placed by users next to photos. Instagram offers users filters to enhance the content they share. Each Instagram user creates a profile where his photos are visible, and also observes the latest photos, posts by friends or famous people. Among the essential functions of Instagram it is worth pointing out: photo and video editing, creating collages and stories, the so-called InstaStories (Chabrzyk Drapała, Roszkowska, Suchov, Wodzińska, 2019). In Poland, Instagram is used by nearly 7 million users, of which 59.1% are women. Every fifth person using this application in Poland is a woman aged 18–24 (Górska, 2019).

**TikTok** is a platform dedicated to mobile devices that enables the publication of a 15-second video material. Users can add music, filters, special effects and funny stickers, etc. in a simple and intuitive way (Racławska, Szycht, 2019).

**Snapchat** is an application created for entertainment and communication and with the closest friends via direct messages, the so-called snaps in the form of text, photo or video. There are no public comments or likes on Snapchat – as a result, it's a hate-free app. The opening screen of Snapchat is a camera, because the main idea of the application is to share life moments in the most real time (Szycht, 2019).

**Pinterest** is a website that combines a social media, catalog and content search engine. Pinterest can be compared to a virtual cork board on which various materials (usually photos) are "pinned". The name is derived from two words: "pin" and "interest". The user can copy the selected element to his profile or mark it with a special "pin". The main idea of the platform is to publish visual content (Drapała, Roszkowska, 2019).

### SOCIAL MEDIA – THE PREVALENCE OF THE PHENOMENON

According to the latest data, 3.8 billion users are actively using social networks, or 49% of the world's population. The most used platform is Facebook. It has

already gathered 2.4 billion users. It was followed by the most popular video site, YouTube with 2 billion users. The third place on the podium went to WhatsApp messenger, which has 1.6 billion users. The following positions are taken by: Messenger (1.3 billion), WeChat (1.1 billion), Instagram (800 million) and TikTok (800 million) (Kemp, 2020; Kuchta-Nykiel, 2020).

In January 2020, already 19 million Poles used social media, spending an average of 2 hours a day in them (Kemp, 2020). Age is the main factor determining online presence. Two groups of people, aged 18–24 and 25–34, commonly use it. People in the latter age group are online an average of 16 hours a week (CBOS, 2019). The average Pole spends around 13 hours a week on the Internet. The youngest users spend the most time online. In the 18–24 age group, it is 21.3 hours.

A study conducted in high schools in 2017 revealed that 99.1% of students already have a Facebook account, and over 90% use other popular social networks at the same time, such as: Snapchat (83.1%), Instagram (75%) and Twitter (18%). the number of friends is significant. Almost 32% of the respondents defined it at the level of 250–499, another 30% indicated the range of 500–749, and every fourth stated a value of 750 or more. Young people use social media via smartphones. Almost 85% of the respondents declared that they logged in to the abovementioned websites several times a day, with 56.5% doing it 5 times or more during the day (Rębisz, Sikora, 2018).

### **REASONS FOR USING SNS**

For most young people, being active in the virtual world is an integral part of their lives, which undoubtedly has its positive sides. The main reasons for using social networks are presented below (Carbonell, Panova, 2017; Hwang, 2017; Charzyńska, Góźdź, 2014; Jankowski, 2019; Makaruk, 2013; Rębisz, Sikora, 2018).

- Communication. The attractiveness of social media is primarily related to the ability to quickly communicate with others. It is easy to send a message to a person living in another city or on another continent without any difficulties. Thanks to dedicated Facebook groups, keeping in touch with classmates or college mates is very easy. Multiperson chats, video calls even with several people at the same time greatly facilitate the process of communication and maintaining relationships.
- Meeting new people. Similar interests, observing specific groups create conditions for establishing new relationships, regardless of the distance. Young people admit that writing to someone on a social networking site is much easier for them than establishing a live relationship, even if they know each other by sight.
- Source of information. Thanks to the ability to follow other people, social media users keep track of the content and photos posted by their friends. The

portals also collect materials from many fields, including science. Many websites advertise their content through social media. User feedback is valued to help form opinions about products, events and even other people.

- Participation in social life. The websites make it possible to receive information about current social and cultural events. Being enrolled in a specific group, you can find out more quickly about various kinds of planned events, from a friend's birthday to concerts of your favorite band.
- Sharing your life with friends. Social media enables young people to meet the needs of belonging and self-presentation in a special way. On the one hand, they enable informing family and friends about various events, and on the other hand, they open the way to creating an idealized image of oneself.
- Spending free time. Some people use portals for entertainment. They play games, view photos, websites of famous people, watch movies killing free time.

### PROBLEMATIC USE OF SOCIAL MEDIA

In the United States, more than 40 million people show symptoms of compulsive behavior related to technology (Clements, Boyle, 2018). In the United Kingdom, 5% of adolescents suffer from social media disorders which are described as more addictive than cigarettes or alcohol (RSPH, 2017). According to a report by the Spanish Ministry of Health, 18% of young people under the age of 24 make excessive use of social media. In Iceland, the proportion is 7.9% (Aparicio-Martinez et al., 2020). Polish studies using the Facebook Addiction Scale (The Bergen Facebook Addiction Scale) indicated addiction in 21.3% of respondents with the "liberal" approach, while in the "conservative" approach - in 3.3% of the surveyed youth (Rębisz, Sikora, 2018). In another study of Polish youth, using the same scale, 10.2% and 2.1% of people obtained analogous results (Charzyńska, Góźdź, 2014).

The most frequently asked questions by parents concern behaviors that may indicate the emerging problem of addiction to social media. Intuitively, this may be indicated by the number of hours spent on the Internet. While time is an important criterion, it is not in itself a reliable indicator of a problem. Consider the fact that many people use social media at work (journalists, marketers) or in their spare time with no negative consequences. People have different habits, so it is important to identify the subjective experiences of online behavior and the consequences for the person himself or for others. Another issue is what the person does on the social network. For example, Facebook has many features and applications, so it is important to understand a person's motivation to use media. A person can text friends, arrange a meeting, view photos, play or even place bets. Each time,

she/he uses different tools that tell about her/his different needs and motivations (Carbonell, Panova, 2017).

Formally, the term "social media addiction" has not (yet) been included in the classifications of mental disorders. In the literature, you can find terms such as: addiction to Facebook / social media (SNS), problematic use of Facebook / SNS. All these names refer to the canon of behavioral addictions. Rowicka (2018), as suggested by DSM-5, proposes to use the term "SNS use disorder". Scientists and practitioners describe this addiction most often to the concept of Mark Griffiths, who proposes the following criteria for disturbing the use of social media:

- mood modification a change in mood resulting from the use of SNS, involvement in the use of SNS leading to a change in emotional state;
- domination behavioral, cognitive and emotional preoccupation with the use of the SNS;
- tolerance increasing commitment to using SNS;
- withdrawal symptoms experiencing unpleasant somatic and emotional symptoms when using the SNS is impossible;
- conflict an interpersonal and intrapsychic problem resulting from the use of SNS;
- relapse a person with addiction returns to excessive use of SNS after a period of abstinence (Andersen et al., 2016; Griffiths, 2013; Habrat, 2016).

The essence of the transition from regular to problematic use of social media is the way of using it to regulate mood, i.e. to alleviate e.g. stress, loneliness or depression (Xu, Tan, 2012).

### **QUESTIONNAIRE METHODS**

Few methods have been published to measure addiction to social networking. The following scales can be distinguished: Bergen Facebook Addiction Scale, The Facebook Addiction Scale, The Facebook Intrusion Questionnaire, Facebook Addiction Symptom Scale, Social Network Addiction Scale, Chinese Social Media Addiction Scale, Social Network Excessive Use Scale (Bankoglu, Cerkez, 2019; Charzyńska, Góźdź, 2014; Czerski, Gonciarz, 2017; Habrat, 2016; Izdebski, Michalak, Andryszak, Kotyśko, 2014; Liu, Ma, 2018).

The Bergen Facebook Addiction Scale (Charzyńska, Góźdź, 2014) was adapted to Polish conditions. A small number of questions and the ease of interpretation allow for a quick initial assessment of a given behavior. According to the authors of the original version of the scale, according to the "liberal" approach, the occurrence of addiction would be indicated by selecting "3" ("sometimes") as answers to at least four out of six questions, while in accordance with the "conservative" approach, selecting "3" (sometimes) or more "often" and "very often" would be chosen for all questions.

Another tool in Polish conditions for the assessment of compulsive behaviors related to social media is the Scale for Assessing Excessive Use of Social Networks (Skala Oceny Nadmiernego Korzystania z Sieci Społecznościowych – SONKSS). It consists of statements which the person responds to on a scale from 1 ("strongly disagree") to 5 ("strongly agree").

### PROBLEM BEHAVIOR IN SOCIAL MEDIA

A common image of contemporary reality are young people who, sitting at a common table, are more occupied with what is happening on the screens of their smartphones than with the presence of others. They cannot imagine a day without Facebook or Instagram. When caught up in scrolling social media, they lose their balance between their online and offline lives. Ignoring people you are with by using a phone or tablet in their presence is phubbing (Kavcic, Levpuscek, Zupancic, Poredos, Bjornsen, 2019). The term was coined as a combination of the words phone and snubbing. Research on the phenomenon of phubbing shows that it is associated with reduced satisfaction in intimate relationships (Wang, Xi, Wang, Wang, Lei, 2017). Despite the fact that socially phubbing may mean a manifestation of disrespect, it is becoming more and more accepted in social perception (Chotpitayasunondh & Douglas, 2016).

The widespread availability of dating sites and social media means that more and more people meet their partner online. However, not all stories have a happy ending. Communication via social media carries the dangers of **catfishing**. It involves impersonating someone else on the internet, creating an online personality to attract and deceive another person. Social networks give us the opportunity to promote our person on the Internet and create a selected image. Catfishing can range from making your appearance more attractive to deliberately manipulating for personal gain. Presenting a false self-image on social media is associated with low self-esteem and insecure attachment (Gil-Or, Levi-Belz, & Turel, 2015).

Creeping refers to keeping track of what's going on in someone's life by going through their photos, comments, or posts without trying to make contact. This type of passive browsing of someone else's accounts can be considered a common behavior of social media users. They carry a risk of consequences such as: lack of sleep, depression, decreased self-esteem and well-being caused by frequent comparisons (Kavcic et al., 2019).

## CONSEQUENCES OF EXCESSIVE USE OF SOCIAL MEDIA

According to the latest research, people who spend more than two hours a day using SNS such as Facebook, Twitter and Instagram are at risk of developing mental health problems (RSPH, 2017). The first reports on the addictive threat of social media emphasized their negative impact on the involvement of a person in real social life, as well as on declining academic performance (Kuss, Griffiths, 2011). Over time, other negative aspects of using these media began to emerge.

### Anxiety and depression

People who use social media applications excessively are characterized by high levels of dissatisfaction with

their own lives, depression and anxiety (Lin et al., 2016; Ryan, Chester, Reece, & Xenos, 2014). Constantly reviewing the accounts of friends having fun while on vacation can lead to frustration. Often converted in Photoshop photos only reinforce the attitude that in social psychology has been called "comparing upwards". Scientific research proves that social media fuels inner anxiety and increases the feeling of inadequacy (RSPH, 2017, Tandoc, Ferrucci, Duffy, 2015). Unrealistic expectations for young people by social media can lower their self--esteem and result in anxiety disorders. It has been proven that maintaining more than one social account is associated with symptoms of social anxiety (Becker, Alzahabi, and Hopwood, 2013). The American Academy of Pediatrics, emphasizing the importance of the risk, used the term "Facebook depression". The problem was defined as "depression" that develops when children and teens spend a lot of time on social media sites such as Facebook and then begin to show the classic symptoms of depression. The number of hours spent on Facebook is positively correlated with depression. The more time a person spends on this, the greater the risk of developing a mood disorder. Pressure from idealized reality may be responsible for triggering or exacerbating already existing symptoms of depression (Lin et al., 2016; RSPH, 2017).

### • Sleeping disturbance

Sleep is essential for proper functioning during the day, and adolescents need 1-2 hours more than adults. Bad sleep is linked to many adult physical and mental health conditions, including high blood pressure, diabetes, obesity, heart attack, stroke, and depression. Numerous studies have shown that increased use of social media, especially before bedtime, is associated with poor sleep quality in young people. The screens of smartphones and tablets emit harmful blue light. Nightly exposure of blue light to the human brain causes a fake image of reality perception, mistaking day for night, thereby putting the brain in a state of constant activity. This leads to a disturbance in the secretion of melatonin – a hormone that facilitates falling asleep and regeneration. It also turns out that one in five young people say they wake up at night to check the news on social media, making them three times more likely to suffer constant fatigue at school than their classmates who don't use social media at night (Power, Taylor, Horton; 2017).

### · Distorted body image

Body image is a problem for many young people, both men and women. Every hour about 10 million new photos are posted on Facebook alone, giving young people almost endless possibilities of being drawn into the trap of comparisons. In experimental studies, young girls who browsed Facebook for a short period of time showed greater concern about their body image compared to those who did not (Tiggeman & Slater, 2013). One study also found that girls after spending time on Facebook expressed an increased desire to change their appearance, such as their face, hair or skin. It has even been suggested that social media is behind the increase in the number of young people opting for plastic surgery or other invasive

beauty treatments (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015).

### Cyberbullying

The growing popularity of instant messaging services such as Snapchat and WhatsApp can also become a problem as they act as tools to quickly spread content, including nuisance. Cyber-victimization can take many forms, including posting negative comments under photos, publicizing private messages, spreading false content about someone, sending offensive, aggressive messages, and excluding people from a group of mutual friends. It is estimated that in Europe between 20% and 40% of teenagers, especially girls, have experienced some form of cyberbullying (Longobardi, Settanni, Fabris, & Marengo, 2020). Although all social networking sites declare a clear stance against violence, a nationwide UK survey found that 91% of its reports had triggered no action (RSPH, 2017).

### • FoMO

Fear of Missing Out is the fear that social events or other enjoyable activities may take place without the person being present. FoMO is characterized by the need to be in constant contact with what others are doing so as not to miss it. It is associated with a higher sensitivity to stress related to the feeling of neglect in social media. For teens, especially those with high FoMO, the experience of being excluded by being ignored leads to depressed mood and life satisfaction. It is strongly associated with a higher level of involvement in social media, which means that the more a person uses them, the more likely they are to experience FoMO (Dalvi-Esfahani, Niknafs, Kuss, Nilashi, Afrough, 2019; Fabris, Marengo, Settanni, 2020).

### • Disturbance in interpersonal relations

Excessive use of social media can be detrimental to personal life. Social networks offer features that make it easy to renew an old acquaintance or meet someone new. It is very easy to share personal experiences, which intensifies the feeling of closeness. People after a few days of acquaintance feel as if they have known each other for a long time. These types of relationships lead to emotional romance and, consequently, to betrayal. It has been observed that maladaptive use of Facebook is associated with jealousy and a loss of trust. Suspicious partners engage in controlling and even retaliatory behavior (Abbasi, 2018, 2019).

### RISK FACTORS OF SNS USE DISORDER

Factors that can influence the development of addiction are becoming the area of interest of researchers more and more often. The results of research on the role of personality consistently indicate the dimension of **extraversion** in the problematic use of SNS. The need for contact and ease of interaction with other people predispose a person to spend a lot of time browsing social media. On the other hand, people with a high level of **neuroticism** are more prone to experiencing anxiety, anger, jealousy, sadness or guilt. They react more acutely to daily stress and cope with it less well, often use social media due to

gratifying feedback and no need to communicate face to face (Blackwell, Leaman, Tramposh, Osborne, Liss, 2017; Kavcic et al., 2019).

Interesting conclusions can be drawn from the research by Marengo and colleagues (2020). Assuming that social media allows a person to fulfill two basic **needs: self-presentation and affiliation**, they collected data from 1,094 Facebook users aged 18-35 over a period of 12 months. Their activity was assessed through objective information such as the number of status updates and the number of likes received. In line with previous studies, higher neuroticism and extraversion were associated with an increased risk of "social media addiction". Other authors also point to the need for self-presentation as one of the main predictors of addiction (Foroughi, Iranmanesh, Nikbin, Hyun, 2019).

Social media is usually used to maintain relationships. An **anxious attachment style** influences the intensity of their use. Relationship anxiety and fear of exclusion are closely related to increased use of social applications (Blackwell et al., 2017).

Self-regulation is a person's ability to balance and regulate the arousal experienced on a daily basis, or when something stressful happens, and to return to a state of calm and relaxation. Jeong et al. (2016) emphasize that the lack of self-regulatory skills can be considered one of the main causes of social media addiction. Proper self-regulation processes allow for self-control of one's behavior and maintaining motivation to achieve goals. A person with well-developed self-regulatory processes can effectively resist the instant gratifications offered by social networking applications and focus attention on the current task. Impulsive people tend to check messages on social media frequently, which can develop into compulsive behavior patterns.

The intensive development of social applications makes it clear that it is necessary to counteract their negative effects. The literature review revealed the factors that predispose people to addiction to social media. They include such variables as: **loneliness, self-esteem, narcissism, life satisfaction, empathy** and **depression** (Delaney, Stein, Gruber, 2018; Ghosh, Dasgupta, Basu, 2019; Hormes, Kerns, Timko, 2014; Wood, Center, Parenteau, 2016; Zsila, Urban, McCutcheon, Demetrovics, 2020).

### **CONCLUSION**

Friends, family, information, the weekly agenda, books, movies or music, everything is now on your smartphone, the screen of which has become the first thing you watch when you wake up and the last thing before going to sleep. For many, social media has become an area of creating their image both in private and professional life. Their users share important moments, achievements, travels, but also trivial topics, such as their morning meal.

Social media offers a huge range of possibilities, and participation in them keeps people actively involved in building relationships with others. These media changed the way of consuming various content, spending free time, using the Internet, shopping, watching movies. Thanks to social media, new ways of communication and building relationships have emerged. They were supposed to serve mainly as facilitating communication with loved ones, but with time they started to create the surrounding reality.

### **REFERENCES**

- Abbasi, I., S., (2018). The Link Between Romantic Disengagement and Facebook Addiction: Where Does Relationship Commitment Fit In?, *The American Journal Of Family Therapy*, 46(4), 375-389.
- Abbasi, I., S., (2019). Social media addiction in romantic relationships: Does user's age influence vulnerability to social media infidelity? Personality and Individual Differences. 139, 277-280.
- Andersen, C., S., Billieux, J., Griffiths, M.,D., Kuss, D., J., Demetrovics, Z., Mazzoni, E., Pallesen, S., (2016). The Relationship Between Addictive Use of Social Media and Video Games and Symptoms of Psychiatric Disorders: A Large-Scale Cross-Sectional Study. *Psychology of Addictive Behaviors*, 30(2), 252-262.
- Aparicio-Martinez, P., Ruiz-Rubio, M., Perea-Moreno, A., J., Martinez-Jimenez, M., P., Pagliari, C., Redel-Macias, M., D., Vaquero-Abellan, M., (2020). Gender differences in the addiction to social networks in the Sauthern Spanish University students. *Telematics and Informatics*, 46. https://doi.org/10.1016/j.tele.2019.101304
- Bankoglu, T., Cerkez, Y., (2019). The Social Network Addiction Scale: A Scale Development Study. Revista De Cercetare Si Interventie Sociala, 66, 378-388.
- Becker, M., Alzahabi, R., Hopwood, C., (2013). Cyberpsychology. Behavior, and Social Networking, 16(2), 132-135.
- Blackwell, D., Leaman, C., Tramposh, R., Osborne, C., Liss, M., (2017).
  Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction. *Personality and Individual Differences*, 116, 69-72.
- Carbonell, X., Panova, T., (2017). A critical consideration of social networking sites' addiction potential. Addiction Research & Theory, 25(1), 48-57.
- CBOS, (2019). Korzystanie z internetu. Komunikat z badań. https://www.cbos.pl/SPISKOM.POL/2019/K 095 19.PDF
- Chabrzyk, A., Drapała, B., Roszkowska, P., Suchov, A., Wodzińska, P., (2019). *Instagram*. https://iab.org.pl/wp-content/uploads/2020/01/ IAB-Przewodnik-po-Social-Media-w-Polsce-2019-2020.pdf
- Chabrzyk, A., Kałużyńska, J., Rosa, P., Suchov, A., Turek, M., (2019). Facebook. https://iab.org.pl/wp-content/uploads/2020/01/IAB-Przewodnik-po-Social-Media-w-Polsce-2019-2020.pdf
- Charzyńska, E., Góźdź, J., (2014). W sieci uzależneinia. Polska adaptacja Skali Uzależnienia od Facebooka (the Bergen Facebook Addiction Scale) C.S. Andreassen, T. Torsheima, G.S. Brunborga i S. Pallesena. http://bazhum.muzhp.pl/media/files/Chowanna/Chowanna-r2014-t1/Chowanna-r2014-t1-s163-185/Chowanna-r2014-t1-s163-185.pdf; data dostępu: 12.08.2020.
- Chotpitayasunondh, V., Douglas, K., M., (2016). How "phubbing" becomes the norm: The antecedents and consequences of snubbing via smartphone. *Computers in Human Behavior*, 63, 9–18.
- Clements, J., A., Boyle, R., (2018). Compulsive technology use: compulsive use of mobile applications. Computers in Human Behavior, 87, 34–48.
- Czerski, W., Gonciarz, E., (2017). Ryzyko uzależnienia studentów od mediów społecznościowych na przykładzie Facebooka. *Lubelski Rocznik Pedagogiczny*, XXXVI(4), 133-152.
- Dalvi-Esfahani, M., Niknafs, A., Kuss, D.J., Nilashi, M., Afrough, S. (2019). Social media addiction: Applying the DEMATEL approach. Telematics and Informatics, 43, https://doi.org/10.1016/j.tele.2019.101250
- Delaney, D., Stein, L., A., R., Gruber, R., (2018). Facebook addiction and impulsive decision-making. Addiction Research & Theory, 26(6), 478-486.
- Drapała, B., Roszkowska, P., (2019). *Pinterest*. https://iab.org.pl/wpcontent/uploads/2020/01/IAB-Przewodnik-po-Social-Media-w-Polsce-2019-2020.pdf

- Fabris, M., A., Marengo, D., Settanni, M., (2020). Investigating the links between fear of missing out, social media addiction and emotional symptoms in adolescence: The role of stress associated with neglect and negative reactions on social media. *Addictive Behaviors*, 106, https://doi.org/10.1016/j.addbeh.2020.106364
- Fardouly, J., Diedrichs, P., C., Vartanian, L., Halliwell, E., (2015). Social comparisons on social media: The impact of Facebook on young womens body image concerns and mood. *Body Image*, 13, 38-45.
- Foroughi, B., Iranmanesh, M., Nikbin, D., Hyun, S., S., (2019). Are depression and social anxiety the missing link between Facebook addiction and life satisfaction? The interactive effect of needs and self-regulation. *Telematics and Informatics*, 43, https://doi.org/ 10.1016/j.tele.2019.101247
- Ghosh, A., Dasgupta, S., Basu, J., (2019). Role of social interaction anxiety and sensation seeking in facebook addiction among male and female college students. *International Journal of Social Sciences*, 7(6), 1810-1814.
- Gil-Or, O., Levi-Belz, Y., Turel, O., (2015). The "Facebook-self": Characteristics and psychological predictors of false self-presentation on Facebook. Frontiers in Psychology, 6(99), https://doi.org/ 10.3389/fpsyg.2015.00099
- Górska, Z., (2019). Czy 2019 będzie rokiem Instagrama? https://napoleoncat.com/pl/blog/czy-2019-bedzie-rokiem-instagrama/
- Grabowski, P., Kręgielewski, A., Wodzyńska, P., (2019). YouTube. https://iab.org.pl/wpcontent/uploads/2020/01/IAB-Przewodnik-po--Social-Media-w-Polsce-2019-2020.pdf
- Griffiths, M., D., (2013). Social networking addiction: Emerging themes and issues. *Journal of Addiction Research and Therapy*, 4, e118. https://doi.org/10.4172/2155-6105.1000e118
- Habrat, B., (2016). Zaburzenia uprawiania hazardu i inne tak zwane nalogi behawioralne. Warszawa: IPiN.
- Hormes, J., M., Kerns, B., Timko, C., A., (2014). Craving Facebook? Behavioral addiction to online social networking and its association with emotion regulation deficits. *Addiction*, 109, 2079-2088.
- Hwang, H., S., (2017). The Influence of Personality Traits on the Facebook Addiction. KSII Transactions on Internet and Information Systems, 11 (2), 1032–1042.
- Izdebski, P., Michalak, M., Andryszak, P., Kotyśko, M., (2014). Osobowościowe uwarunkowania nadmiernego korzystania z sieci społecznościowych wśród adolescentów. https://www.kbpn.gov.pl/ portal?id=15&res id=6362340
- Jankowski, J., (2019). Wpływ mediów społecznościowych na kulturę i subkultury. Zeszyty Naukowe Państwowej Wyższej Szkoły Zawodowej im. Witelona w Legnicy, 31(2), 267-275.
- Jeong, S., H., Kim, H., Yum, J., Y., Hwang, Y., (2016). What type of content are smartphone users addicted to? SNS vs. games. Computers in Human Behavior, 54, 10–17.
- Kavcic, T., Levpuscek, M., P., Zupancic, M., Poredos, M., Bjornsen, C., (2019). Personal correlates of problematic types od social media and mobile phone use in emerging adults. *Human Technology*, 15(2), 256-278.
- Kemp, S., (2020). Digital 2020: Poland. https://datareportal.com/reports/ digital-2020-poland
- Kemp, S., (2018). Digital in 2018: World's Internet Users Pass the 4 Billion Mark: Special Report. https://wearesocial.com/blog/2018/ 01/global-digital-report-2018
- Kuchta-Nykiel, M., (2020). Social media w Polsce i na świecie najnowsze dane. https://socialpress.pl/2020/02/social-media-wpolsce--na-swiecie-najnowsze-dane
- Kuss, D., J., Griffiths, M., D., (2011). Online social networking and addiction – a review of the psychological literature. *International Journal of Environmental Research and Public Health*, 8, 3528-3552.
- Lin, L., Sidani, J., E., Shensa, A., Radovic, A., Miller, E., Colditz, J., B., Hoffamn, B., L., Giles, L., M., Primack, B., A., (2016). Association between social media use and depression among U.S. young adults. *Depress Anxiety*, 33, 323–331.
- Liu, C., Ma, J., (2018). Development and validation of Chinese social media addiction scale. *Personality and Individual Differences*, 134, 55-59.

- Longobardi, C., Settanni, M., Fabris, M., A., Marengo, D., (2020).
  Follow or be followed: Exploring the links between Instagram popularity, social media addiction, cyber victimization, and subjective happiness in Italian adolescents. *Children and Youth Services Review*, 113, https://doi.org/10.1016/j.childyouth.2020.104955
- Makaruk, K., (2013). Korzystanie z portali społecznościowych przez młodzież. Wyniki badania EU NET ADB. Dziecko krzywdzone. Teoria, badania, praktyka, 12(1), 69-79.
- Marengo, D., Poletti, I., Settanni, M., (2020). The interplay between neurocism, extraversion, and social media addiction in young adult Facebook users: Testing the mediating role of online activity using objective data. *Addictive Behaviors*, 102, https://doi.org/10.1016/j. addbeh.2019.106150; data dostępu: 11.08.2020
- Power, S., Taylor, C., Horton, K., (2017). Sleepless in school? The social dimensions of young people's bedtime rest and routines. *Journal of Youth Studies*, http://www.tandfonline.com/doi/full/10.1080/ 13676261.2016.1273522
- Racławska, A., Szycht, O., (2019). TikTok. https://iab.org.pl/wp-content/uploads/2020/01/IAB-Przewodnik-po-Social-Media-w-Polsce-2019-2020.pdf
- Rębisz, S., Sikora, I., (2018). Skala uzależnienia od Facebooka wśród uczniów szkół ponadgimnazjalnych województwa podkarpackiego. Edukacja – Technika – Informatyka, 3(25), 251-259.
- Rowicka, M., (2018). E-Uzależnienia. Warszawa: Fundacja Praesterno. RSPH, (2017). #StatusOfMind. Social media and young people's mental health and wellbeing. https://www.rsph.org.uk/static/uploaded/ d125b27c-0b62-41c5-a2c0155a8887cd01.pdf
- Runcan, R., (2015). Facebookmania The Psychical Addiction to Facebook and Its Incidence on the Z Generation. Revista de Asistenta Sociala, XIV(3), 127-136.

- Ryan, T., Chester, A., Reece, J., Xenos, S., (2014). The uses and abuses of Facebook: a review of Facebook addiction. *Journal of Behavioral Addictions*, 3, 133–148.
- Szycht, O., (2019). Snapchat. https://iab.org.pl/wp-content/uploads/2020/ 01/IAB-Przewodnik-po-Social-Media-w-Polsce-2019-2020.pdf; data dostępu: 30.08.2020.
- Tandoc, E., C., Ferrucci, P., Duffy, M., (2015). Facebook use, envy, and depression among college students: Is facebooking depressing? Computers in Human Behavior, 43, 139–146.
- Tiggeman, M., Slater, A., (2013). The internet and body image concerns in preteenage girls. *The journal of early adolescents*, 34(5), 606-620.
- Wang, X., Xi, X., Wang, Y., Wang, P., Lei, L., (2017). Partner phubbing and depression among married Chinese adults: The roles of relationship satisfaction and relationship length. *Personality and Individual Differences*, 110, 12–17.
- Wood, M., Center, H., Parenteau, S., C., (2016). Social media addiction and psychological adjustment: religiosity and spirituality in the age of social media. *Mental Health, Religion & Culture*, 19(9), 972-983.
- Xu, H., Tan, B., C., Y., (2012). Why do i keep checking Facebook: Effects of message characteristics on the formation of social network services addiction. https://pdfs.semanticscholar.org/447a/ 7e658f27eab41279352ecac71b97f42abfc3.pdf
- Zsila, A., Urban, R., McCutcheon, L., E., Demetrovics, Z., (2020). A New Avenue to Reach Out for the Stars: The Association of Celebrity Worship With Problematic and Nonproblematic Social Media Use. *Psychology of Popular Media*. http://dx.doi.org/10.1037/ ppm0000275