

REVIEW ARTICLE

Psychopathic personality disorder and cybercriminality: an outline of the issue

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The rapid development of information and communication technologies has created a new dimension in interpersonal relationships, which is commonly called cyberspace. Structural features of cyberspace such as anonymity, the lack of non-verbal indicators of interaction, their asynchrony, a sense of impunity and the lack of specific norms of conduct cause that the behavior of some people online may differ significantly from their behavior in real life. Individuals with psychopathic personality disorder can use cyberspace for criminal activities such as cyberbullying, trolling, digital piracy, cybervandalism or data theft. This is a very

significant problem, as some researchers predict that as digital communication develops, 'cyberpsychopaths' will become the dominant form of criminals. Currently, there is a lack of research on the relationship between the structural features of cyberspace and the expression of psychopathic personality traits and their role in committing cybercrimes.

KEY WORDS

cyberspace; psychopathic personality disorder; criminal offences

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BACKGROUND

The spread of information and communication technologies (ICT) has led to the emergence of a new type of dimension in interpersonal relationships, which is popularly referred to as cyberspace. It would seem that cyberspace, especially the Internet, by increasing the access of people to various information sources and the ease of sharing them, will be used mainly for educational purposes and solving practical problems. Unfortunately, progress in this area has created new opportunities for socially unacceptable activities, including criminal behavior. Examples of computer crime include identity theft, data hacking, denial of service, attacks, password cracking, site deletion, and many other (Campbell et al., 2014). Escalating cyber threats and vulnerabilities is a serious problem both for small and large organizations, as well as the private sector and general public. For example, in 2014 Symantec reported an increase in the number of ‘trojanized’ software updates, malware, ransomware and social media fraud; in total, 317 million new forms of malware were created (Symantec, 2015). As of June 2020, over 59% of the world population had access to the Internet and this number is increasing (Internet World Stats, 2020). On this basis, we can predict that the problem discussed in this paper also will increase. Fortunately, not everyone who has Internet access is involved in crimes committed in cyberspace. Most of us communicate every day using a mobile phone and the Internet without thinking about the risks associated with it. We spend a lot of time in cyberspace doing such different activities as sending wishes to friends or tracking changes in financial markets. There are many indications that specific features of cyberspace, such as anonymity and lack of control over the social environment, are conducive to the manifestation of pathological personality traits and behaviors clearly differing from social norms. This also applies to criminal behaviors, the consequences of which may be negative not only for their victims, but also – after some time – for the perpetrators themselves (Goodboy & Martin, 2015).

Due to the topic of this work, we should be more interested in negative effects, which may include the participation of a certain category of users in socially unacceptable activity and the expression of pathological personality traits. While we know a lot about the short- and long-term effects of using various types of cyber-offenses on their victims, many unknowns relate to personality traits and motives of their perpetrators. That is why many researchers are trying to develop a theoretical personality model that would be useful to explain the mechanisms underlying antisocial behavior in cyberspace (Stalans & Donner, 2018). Their attention was drawn to the dimensions that make up the so-called Dark Triad,

which includes Machiavellianism, narcissism and psychopathy. The supposed connection between elements of this triad, especially psychopathy and crime occurring in cyberspace, is increasingly becoming the subject of research undertaken among Internet users (Gibb & Devereux, 2014; Pyżalski, 2012).

The purpose of this work is to explain how modern digital communication tools, especially the Internet, promote the emergence of psychopathic personality traits in interactions occurring in cyberspace, and how psychopaths use cyberspace to commit crimes. The related considerations are based on the concept, commonly known in psychology, according to which the expression of personality traits depends to a large extent on a specific situation or environmental conditions. Cyberspace has undoubtedly become an environment that can stimulate the appearance of disturbed personality traits of a given individual in a specific way. In the case of psychopaths, the structural and functional features of cyberspace can promote enhanced expression of deviant tendencies, which is evident in the use of the virtual environment for various forms of criminal activity, such as online theft, manipulation, harassment of others, etc. This is favored by the specific nature of interactions in cyberspace, which consists of less marked social norms, physical distance and anonymity. In the real world, the basic features of psychopaths, such as a tendency to manipulate and sense of superiority toward others, lack of remorse or an emotional defect can be difficult to notice because psychopathic individuals try to hide them under the influence of social pressure (Amichai-Hamburger, 2005; Pastwa-Wojciechowska, 2017). Due to the fact that research on how the Internet can reduce or intensify the expression of psychopathy has only recently begun, there are still limited empirical data on this subject. A closer explanation of the relationship between the variables involved here undoubtedly has not only great cognitive significance but is also important for preventive and therapeutic practice.

PSYCHOPATHIC PERSONALITY FEATURES FAVORABLE TO CRIMINALITY

In contemporary literature, psychopathy is seen as a personality disorder characterized by a specific constellation of interpersonal, affective and behavioral traits. Earlier concepts of psychopathy suggested that it was a one-dimensional disorder, but modern research suggests that it has a three-factor structure: 1) arrogant, lying interpersonal style involving dishonesty, manipulation, a sense of superiority and shallowness in relationships with others, 2) emotional defect expressed by a low level of empathy, lack of remorse, shallow emotions and lack

of responsibility for one's own actions, 3) behavioral manifestations of impulsiveness, irresponsibility and the search for sensations (Cooke & Michie, 2001). Even about three decades ago, relatively little attention was paid to the presence of psychopathic traits in children and adolescents. Most studies on the prevalence, etiology and symptoms of psychopathy have been conducted in adult populations. Psychopaths were described as emotionally soulless individuals, aware of their offenses, but showing lack of remorse or guilt. They were also seen as persons who do not accept responsibility for their actions, and at the same time are conceited and proud that they can avoid punishment. Some psychopaths have a superficial charm that they use to manipulate other people. In addition, they can lie with unusual conviction and are usually unreliable in interpersonal relationships. Their intelligence usually ranges from average to above average. Basic traits that comprise the psychopathic personality are closely intertwined with the basic characteristics of antisocial and criminal behavior (Pastwa-Wojciechowska, 2013; DeLisi, 2019).

Due to the fact that psychopaths do not show psychotic symptoms, i.e. they do not suffer from a distorted sense of reality and are rational and aware of their actions, mental health specialists usually classify them as mentally healthy (Hare, 2003). Over the past two decades, more and more studies on psychopathy have focused on children and adolescents. The goal of many of them was to understand the etiology and developmental factors underlying the constellation of psychopathic traits. Mental health researchers have tried to identify specific factors that influence the development of psychopathic traits in the early stages of life. Some were inclined to argue that psychopathy is associated with a distorted parental style and that children from pathological families are more prone to psychopathic disorders (Petrunik & Weisman, 2005). This assumption was to some extent true because the presence of factors such as parental alcoholism, antisocial lifestyle, inconsistent discipline and lack of supervision is often associated with psychopathy. However, it is also true that there are a large number of psychopaths previously raised in favorable family environment conditions (Hare, 2003). These observations lead to the conclusion that the development of psychopathy does not depend only on environmental factors, but other important conditions must also exist. Recent studies have confirmed that there are genetic factors clearly associated with the development of psychopathy. In addition, when people with certain genetic predispositions are placed in a harmful environment, genetic factors can play an important role in determining the likelihood that they will adopt an antisocial lifestyle (Blair, 2006). In other words, people with psychopathy differ in neurobiologi-

cal terms from non-psychopathic people, and these differences are responsible for the variable impact of the social environment. Research also suggests that psychopathy does not appear suddenly in early adulthood but develops gradually throughout childhood and adolescence. Analyses of individual life histories of adults with psychopathy usually point to the early onset of this disorder, often with severe and permanent dysfunction (Hare, 1998). Many psychopathic children and adolescents exhibit severe behavioral disorders, such as theft, aggression, drug abuse, truancy, lies and poor academic performance. However, not all psychopathic-like children, in later life, commit adult offenses, suggesting that only some psychopaths are potential criminals. In addition, some disturbed behaviors change over time, and some therapeutic interventions can help change unwanted behavior. Studies also suggest that the incidence of psychopathy in adolescents is higher than in adult populations, which sheds light on the issue of disorder stability over time (Seagrave & Grisso, 2002). For example, Forth and Burke (1998) found that 3.5% of young people covered by different forms of social care had psychopathic traits, while these traits occurred in as many as 28% of prisoners. On the other hand, Brandt et al. (1997) found that the prevalence of psychopathy in a group of imprisoned teenagers was 37%. The estimated incidence of psychopathy in adults in the general population is about 1%, increasing to 15-25% in groups of criminals. Admittedly, antisocial personality disorders are more common in prison populations (50-80%), but only 20% of them meet strict diagnostic criteria for psychopathy (Hare, 1998). A study by Coid et al. (2009) showed that psychopathy occurs relatively rarely, affecting less than 1% of the general population, although it is more common among prisoners, the homeless and psychiatrically hospitalized. For comparison, in extensive research conducted in Poland on a large group of junior high school students, Perenc and Radochoński (2016) showed that a relatively small percentage of the respondents (2.68%) showed clinically significant symptoms of psychopathy. This applies especially to young people living in a rural environment, who in this respect compare favorably (2.12%) with adolescents from the urban environment (3.45%). Interestingly, comparing the results of this study with the results of similar studies conducted in Hong Kong and China indicates some ethnic and cultural differences in the manifestation of psychopathic traits. For example, teenagers from Hong Kong obtained clearly higher results on a full scale of psychopathy than Polish and American teenagers (Fung et al., 2010). In turn, Polish teenagers achieved much lower results than their American peers. This applies especially to such features as emotional deficit and narcissism (Perenc & Radochoński, 2016). The significantly higher results ob-

tained by the teenagers in Hong Kong seem to be an unexpected finding. One possible explanation is that the greater intensity of psychopathic traits in Chinese teenagers may be due to different, culturally conditioned significance of basic features falling within the scope of psychopathy. For example, another previous study found that Chinese-Americans experience less emotion in response to both positive and negative stimulus effects, and report less variability in emotional experiences compared to Americans of European descent (Tsai & Levenson, 1997). This may suggest that Chinese culture is conducive to suppressing emotional expression, which may result in higher scores on scales measuring psychopathic symptoms.

It is worth adding that the vast majority of previous psychopathy research was based on clinical and criminal populations. In recent years, however, there has been an increased interest in psychopathic traits manifested by people from the general population (Hall & Benning, 2006). In this context, a subclinical form of psychopathy was distinguished, which is characterized by high impulsiveness and a tendency to search for strong emotions on the one hand, and low empathy and increased anxiety on the other (Paulhus & Williams, 2002). This change in approach to diagnosis has its consequences in relation to the epidemiology of psychopathic disorders. While the occurrence of "full psychopathy" is estimated at 1% of the general population (Babiak & Hare, 2006), the subclinical form of psychopathy probably covers about 3.6% of the population (Coid & Yang, 2008). It should be emphasized that in assessing the occurrence of psychopathy, factors such as the research methodology used and sociodemographic features of the studied population are of significant importance. Hence, there are often significant differences between individual authors in terms of statistics displayed. For example, in studies conducted by Neumann and Hare (2008), the incidence of psychopathy for the general population of Americans was 1.2%, and for African-Americans it was 1.9%. In turn, Lilienfeld et al. (2014), comparing the rates of psychopathy occurrence depending on geographical conditions, stated that this disorder is more common in European countries than in North America. Other factors determining the incidence of psychopathic disorders include gender and age. It is widely accepted that psychopathy is significantly more common in men than women. In studies on psychopathy scales, men obtained higher results especially with respect to such features as egocentrism, emotional defect and impulsiveness (Lee & Salekin, 2010).

Moreover, many studies confirmed the negative relationship between the age of the individual and the expression of psychopathic traits: as the age increases, the severity of these traits weakens (Coid et al., 2009; Lehmann & Ittel, 2012). It also turns out

that in some professional groups there is an above average percentage of people with this disorder, both in its full and subclinical form. For example, Dutton (2012), analyzing the results of research conducted in a group of 5400 adults, stated that 10 professions particularly "attracting" psychopaths include: lawyer, company director, journalist, salesman, surgeon, TV presenter, policeman, priest, cook and government official. The quoted author drew attention to the fact that these professions mostly belong to the group of white-collar workers, enjoy high status and prestige, and also provide potential psychopaths with the opportunity to meet the need to exercise power and control over others. For comparison, the occupations with the lowest percentage of psychopaths include: nurse, caregiver, therapist, craftsman, stylist, teacher, artist, general practitioner and accountant. These professions mostly require selflessness and empathy towards others, which contrasts with the egocentrism and emotional coldness typical of psychopaths. For example, some authors suggest that modern corporations have the characteristics of psychopaths because they are manipulative, risk-taking, and incapable of empathy and remorse (Bakan, 2004). However, corporations are not human, and thus not psychopaths in the literal sense, but members of management are human, and they are expected to behave like psychopaths when they play their corporate roles effectively. According to Brons (2017), the modern corporation promotes cultural psychopathy because it provides an environment conducive to the cultivation and practice of psychopathic behavior. Another symptom of cultural psychopathy is the proliferation of psychopaths in movies and TV dramas.

RELATIONSHIP BETWEEN PSYCHOPATHY AND CYBERCRIMES

The spread of digital communications, especially the Internet, has created new opportunities for psychopaths to engage in criminal activity, which may vary in the frequency and extent of damage it can cause to its victims. The most serious are the dissemination of computer viruses, cyberbullying and impersonation of another person or institution for the purpose of phishing. However, offenses using the Internet and mobile telephony (cyber-offenses) are also committed by people belonging to the general population. In a study conducted by Selwyn (2008) in a group of 1222 students, it turned out that as many as 94% of them admitted to having committed in the last 12 months at least one, lighter or average cybercrime, such as false self-presentation, unauthorized use of someone's online account, plagiarism of someone's written work, unauthorized copying of music or film, and the use of pornographic websites. This phenom-

enon is confirmed by studies previously carried out by Rogers et al. (2006) on a similar population. In this case, the most common cyber-offenses were: using someone's password, sending viruses, using electronic devices enabling free telephone calls, hacking someone else's files and plagiarizing someone else's written work.

In this context, cyber-offense can be defined as an act committed in cyberspace, which is associated with a specific violation of social and legal norms. Among the many types of cyber-offenses, there are those that are more often committed by psychopaths than others, due to the axial symptoms of this disorder, which include reduced empathy, a tendency to manipulation and impulsiveness. This category includes:

Cyber-stalking. In essence, it is a form of electronic supervision consisting of hidden strategies that use communication technologies to gain access to and control someone's online behavior. This offense is particularly common in social networks such as Facebook. Psychopathic individuals can use them, among others, to monitor the activity of the current or former partner. This is accompanied by writing specific messages, the content of which is unpleasant for the recipient, threatening him, sending him unwanted e-mails, sending comments to random people who present him in an unfavorable light, etc. (Best, 2011).

Trolling. In the literature on the subject, it is defined as antisocial behavior, the purpose of which is to cause interference in discussion forums and other social forums using deceptive and destructive methods (Buckels et al., 2014). Persons using it are called trolls, and their intention is often to cause interference and conflict within the group of participants in a given forum without personal gain. Some of them may treat this behavior as a form of entertainment.

Cyber-piracy. This term refers to the behavior of copying or downloading copyrighted material (e.g. written texts, video games, music, software) (Chaudhry et al., 2011).

Online deception. This offense involves the deliberate transmission of false information to others and is one of the most common on the Internet. Caspi and Gorsky (2006) stated in their research that as many as 29% of respondents admitted to frequent use of fraud on the Internet, with false data most often related to their sex, age, place of residence, profession and marital status. Interestingly, the respondents reported that the dominant emotion that accompanied the online deception was pleasure, instead of shame or guilt. The most malicious forms of cheating on the Internet include creating a false internet identity for the purpose of cheating, blackmailing or fooling people found in online communities and discussion forums. It seems that the context in which it occurs is also important for online fraud. For example, so-

cial media interactions usually occur between people who also interact in the real world, which can help detect a fraudster.

Cyber-vandalism. Cyber-vandalism consists of unlawfully accessing websites to retrieve certain data or change them in a way that may sometimes seem humorous, but can often be motivated by the perpetrator's malice or political considerations. Although some authors have classified it as a low-level cyber threat, they emphasize that its use usually requires high computer programming skills (Obolenskaya et al., 2018). Most authors believe that this form of cyber-offense is particularly unethical, regardless of whether it is targeted at private websites or those belonging to specific institutions.

Flaming. Typical of this group of offenses is showing personal hostility, ridiculing someone, sending malicious and abusive expressions, defaming someone, showing aggressiveness, cursing someone or using someone's name to tease others (Hardaker, 2010). It should be emphasized that, like trolling, this form of offense is more common in certain Internet communities that show more tolerance towards it (Lee, 2005).

Online sexual pushiness. It refers to any behavior that is associated with repetitive, unwanted sexual propositions directed to another person in cyberspace, as well as traditional sexual harassment or coercion transferred to the online sphere (Barak, 2005). This also includes sending images or videos of sexual content and addresses to pornographic sites. Young women are the most common victims of sexual urgency.

Unauthorized use of digital information. Refers to violating someone's privacy through activities such as logging in to personal accounts and unauthorized viewing of confidential information (Tsakalidis & Vergidis, 2019).

Reading someone else's emails. This offense can be carried out via the Internet or directly using a person's computer (Tsakalidis & Vergidis, 2019).

BASIC FEATURES OF THE INTERNET CONDUCTIVE TO CRIMINAL ACTIVITY OF PSYCHOPATHS

Authors dealing with crime in cyberspace have long been trying to determine those features and properties that favor this phenomenon. According to some, the Internet simply facilitates the manifestation of offenses, because it is a kind of extension of the real world in which given persons also violate applicable rules of conduct (Kiesler, 1997). Others believe that instances of criminal behavior in interpersonal relationships are the result of the impact of the atmosphere that prevails in online communities (Williams, 2000). Regardless of which of the authors is

right, it should be admitted that the occurrence of cyber-offenses is favored by both the specific properties of the Internet and the personality traits of the individuals who commit them. This means that relatively fast and cheap cyberspace access provided by the Internet can be used by some people to commit such offenses as theft, fraud, sending computer viruses or unauthorized misuse of someone's data. Using the Internet in this way relates primarily to psychopaths. According to Suler (2004), cyberspace creates conditions for the creation of a specific social environment in which the lack of face-to-face contacts favors the appearance of the "disinhibition effect". In such conditions, personality traits responsible for antisocial behavior can be enhanced, both in terms of their diversity and frequency. The authors dealing with this issue emphasize the important role of the following cyberspace features conducive to committing offenses: anonymity of the message sender, lack of non-verbal signals, asynchrony and poor clarity of norms. Many studies show that these features facilitate the expression of basic psychopathic features such as lowered empathy and lack of remorse, and disregard for ethical and legal norms (Flores & James, 2013; Wright et al., 2019), as well as reduced impulse control (Davis et al., 2002). Moreover, the basic features of cyberspace can have the effect of "psychological distancing" in some people, the essence of which is to perceive other Internet users as unreal, abstract beings (Trope & Liberman, 2010). This effect also seems to reflect other traits of psychopaths, such as reduced ability to adopt other people's point of view, impose control on them, and use them for their own purposes. Below, I discuss the relationships between the basic features of cyberspace and the symptoms of psychopathy that favor its use for purposes that are not in accordance with applicable legal order.

The first is the *anonymity of cyberspace*. This trait is used by a psychopath to hide or change his own identity in order to avoid responsibility for his actions. In this context, while feeling "invisible" in cyberspace, he is convinced of the low probability of being caught and exposed to criminal sanctions. Although some psychopaths may realize that online activity leaves some traces that may identify them, they think that the amount of these traces is small enough to give them anonymity and a sense of impunity. Armstrong and Forde (2003) believe that although anonymity in cyberspace is conducive to committing offenses, it should be considered at two different levels. The first level is associated with the perpetrators' poor knowledge about the functioning of the Internet, which is conducive to committing lighter offenses. On the other hand, at the second level, perpetrators with high knowledge of this kind commit crimes of a "higher weight" because they use encryption and proxy servers.

It should be added that the belief about anonymity in cyberspace is also shared quite widely by people from the general population who do not commit any serious offenses. For example, in a study conducted by Davis (2002) in a group of 497 Internet users, it turned out that 60% of them treat cyberspace anonymity as a potential reason for committing offenses, as it provides a sense of impunity. Anonymity can also be conducive to behaviors that are not generally considered criminal, e.g. cheating during online video games. The results of research conducted by Chen and Wu (2013) confirm a clear relationship between anonymity and the use of fraud in online video games, especially if these types of games are of a group nature. After some time, cheating begins to be perceived as normative behavior, although in other conditions it is treated as reprehensible. The de-individualization occurring here means that more and more people stop condemning offenses committed online, including cyber-bullying (Mesch & Talmud, 2020).

The second characteristic of cyberspace is *the lack of non-verbal indicators of interaction* between communicating people, such as physical appearance, eye contact, facial expressions, mime and manner of expression. In such circumstances interacting partners only need to rely on written words, which can often lead to misunderstandings and conflicts. The mere lack of eye contact in interactions in cyberspace makes it difficult to identify a person committing a particular offense. As a side note, it can be added that people with the features of psychopathy also use eye contact less often in direct relations, while their victims describe the eyes of psychopaths as containing a "fixed vacuum" (Todd, 2014).

Asynchrony of interactions, another feature of cyberspace, refers to a certain delay in the communication process that occurs in some online environments that use elements such as permanent messages, photo albums, and information that does not require their recipients to react in real time. According to some authors, e.g. Suler (2004), asynchrony makes cyberspace users less sensitive to current social norms, because there are currently no "guards" who can stop someone's inappropriate behavior online. The absence of an Internet audience that could monitor the course of interaction means that users do not feel the pressure to force them to comply with commonly accepted standards. Examples of behaviors that are particularly favored by asynchrony may be "trolling" and "flaming" because they do not require the presence of an interaction partner (the victim) at a given time, and the harmful content they contain often requires time-consuming verification.

The lack of clearly defined norms is another feature of cyberspace that promotes the occurrence of reprehensible behavior. Although some social networking sites require compliance with specific laws and poli-

cies, most users treat cyberspace as an open area for everyone that can be “conquered” without looking at legal regulations and social norms. Difficulties with implementing universally applicable social norms in cyberspace mean that at present one cannot speak of universal internet culture. One consequence of this is the existence of social networking sites that allow anonymous users to publish all kinds of reprehensible content, such as calls for the persecution of specific groups of people, the promotion of racist theories or the unlawful sharing of personal data.

The above-mentioned four basic features of cyberspace in practice work in a complementary manner, which promotes the expression of psychopathic features possessed by specific Internet users. Some psychological mechanisms participating in this process play a mediating role. One of them is *psychological distancing*, consisting in changing the level of perception of reality that an individual experiences in contact with cyberspace. As is known, online interactions are completely based on virtual reality, which can reduce the sense of reality in relation to online behavior. A long time ago, research by Milgram (1963) showed that it is much harder to deliberately harm someone with whom we have direct relationships than someone with whom we do not contact directly and see the effects of our actions. This situation applies to interactions taking place in cyberspace, which is why some Internet users, and especially psychopaths, may think that their offenses do not cause any real damage to their victims. This is also confirmed by the results of newer studies, which showed that Internet users committing various offenses were excused by not having seen their victims directly, as well as the potential damage they could cause with their behavior (Selwyn, 2008). It should be added that psychological distancing in psychopaths can also lead to self-directed behaviors that reflect their heartlessness and defects in higher level emotionality.

Another important consequence of the structural features of cyberspace is the *reduced empathy* shown towards other users by psychopaths. This is particularly because of the lack of non-verbal indicators of interaction in cyberspace, which prevents those involved from observing each other’s reactions. To some extent, this phenomenon also occurs in groups of users who do not show mental health disorders. For example, studies by Konrath et al. (2011) showed that, since the 1990s, as digital communication has spread, the ability to empathize in the general population has decreased by up to 48%. Among other things, the cited authors explain the increase by the number of offenses committed in cyberspace. The authors of more recent studies (e.g. Terry & Cain, 2016) warn that the progress in digital technology, which has changed communication patterns, threatens the expression of empathy, mainly because of the lack

of non-verbal feedback. The lack of effective social “filters” on the Internet is conducive to psychopaths expressing thoughts and feelings that need not be authentic at all.

In some people, structural features of cyberspace may also be conducive to adverse changes in *the moral sphere*, which in turn facilitates their involvement in socially unacceptable behavior. In this respect they resemble psychopaths. It especially relates to the role played by psychological distancing, which limits the influence of moral principles observed on a daily basis in direct contacts between people. The lack of clearly defined social norms, which is typical of online contacts, is also important, which contributes to disregarding the potential consequences of offenses committed in cyberspace. The presence of adverse changes in the moral sphere among Internet users has been confirmed in research conducted by Flores and James (2013). They stated that 98% of participants responded to situations occurring online without taking into account their moral context. Most often, they did not perceive the moral dilemma present in a given situation or believed that it was irrelevant. Other studies revealed that moral dilemmas occurring in online situations, more often than in real situations, are solved by utilitarian reasoning, which is characterized by reduced empathy and the presence of elements of hyperrationality. The authors conclude that also subclinical psychopaths have a weak sensitivity to moral norms (Li et al., 2020). This leads to the conclusion that in the case of many people there is a violation of moral norms in relationships with others in cyberspace, despite the fact that these people generally follow these norms in real relationships.

MANIFESTATION OF PSYCHOPATHIC PERSONALITY IN CYBERSPACE

Along with the spread of digital communication, interest in the role of personality traits in determining offenses and deviant behavior in cyberspace has increased in recent years. Research has shown that there is a clear qualitative difference in personality profile between cyber-deviants and people in the general population who often use digital technology. People classified as cyber-deviants generally have a higher level of features such as a tendency to manipulate and exploit others, and no moral inhibitions (Rogers et al., 2006). Many studies indicate the presence of a particularly strong connection between psychopathy and cyber-harassment, which means that the features of psychopathy occupy a central place in the personality profile of individuals making such offenses (Goodboy & Martin, 2015). The cited authors also state that the use of both textual forms of cyber-harassment (e.g. sending information offensive to others) and image forms (e.g. sending compro-

missing photos or videos) characterizes psychopaths equally. Research also confirms the presence of a statistically significant relationship between higher levels of intensity of psychopathic traits and increased cyber-aggression (Pabian et al., 2015). Another kind of interesting effect of research on the discussed issues was the discovery of the relationship between the features of psychopathy and narcissism and sending autographs to cyberspace, the so-called “selfie”. It turned out that people promoting themselves on the web (e.g. on Facebook) show a greater than average intensity of narcissism, which also belongs to the psychopathic personality traits (Fox & Rooney, 2015). Similar results were obtained by Buckels and colleagues (2014) in research on the personality traits conducive to trolling. It was found that this form of cyber-offense is strongly correlated with features of sadism, followed by psychopathy and narcissism. Interpreting the obtained results, the cited authors came to the conclusion that trolling is a specific manifestation of a sadistic personality, and the Internet is an area providing perpetrators with satisfaction from this type of activity (Caspi & Gorsky, 2006). In the light of the latest research, the prototype troll is a man with a high level of psychopathic traits, accompanied by a tendency to sadism and a defect in empathy (Sest & March, 2017). These features, combined with high intelligence and proficiency in using digital technology, mean that trolls are often masters in manipulating others, because they are able to use their knowledge to inflict emotional and moral suffering on victims, while distancing themselves emotionally from their behavior.

The literature also contains interesting data showing the relationship between psychopathy and participation in online games, especially those that contain elements of competition and aggression. It is especially true in relation to online games in which the virtual killing of the “enemy” or weaker player occurs, as well as other types of antisocial behavior. It was found that frequent participation in such games positively correlates with a greater intensity of psychopathic traits (Kircaburn et al., 2018). Some researchers are convinced that psychopathic personality traits can be determined by analyzing content posted on social media. For example, Garcia and Sikström (2014) came to the conclusion that words published on Facebook reflecting emotional coldness and aggressiveness are an important indicator of psychopathy. The comments appearing on this portal have a similar meaning, which present a low level in terms of language, and their content contains aggression and profanity. Analogous research conducted in a group of Twitter users revealed that the authors of messages containing a greater number of words indicating anger, curses and negative emotions also showed an increased level of psychopathy (Sumner et al., 2012).

Among the characteristic features of people committing offenses on Facebook, Machiavellianism, which is the basic element of the so-called Dark Triad, deserves special attention. As is known, this feature is characterized by the manipulation and exploitation of others, which involves the need to obtain a lot of information about potential victims. Considering that Facebook users often publish intimate personal data on their sites, individuals with high Machiavellianism are eager to collect this type of information so that it can be used for malevolent purposes at the appropriate time. This also applies to rumors that are often disseminated in cyberspace (Lyons & Hughes, 2015). Psychopathy, which is another basic feature of the Dark Triad, also determines surveillance on Facebook, albeit for reasons other than Machiavellianism. Individuals with high intensity of this trait badly bear the feeling of uncertainty, so they are strongly motivated to remove or reduce it. One way to achieve this is to collect as much information about the surrounding environment as possible, which gives them control over it (Ruggiero et al., 2012). Therefore, it should be assumed that people with high intensity of psychopathic traits will often surveil and supervise others on Facebook, with a sense of uncertainty playing the role of an intermediary variable. Clearly different factors determine the activity on Facebook of people with high narcissism. As is known, narcissism is associated with the manipulation of one’s own identity in order to achieve specific goals, as well as a low level of empathy for others. For these reasons, narcissists do not show much interest in other people’s Facebook profiles, as they are not helpful in achieving their own goals. In comparison with psychopaths, they are less involved in the surveillance of this portal (Horton et al., 2014).

CONCLUSIVE REMARKS

The spread of the Internet has fundamentally changed the forms of interaction that people enter with each other, and has created new opportunities for building their own identity and self-esteem. On one hand, by hiding their physical appearance, people can express themselves more freely and openly, while on the other, they can hide or fabricate their personal data, such as gender, education level, financial situation and many others. This way, Internet users can express their “other self”, often fundamentally different from the one that dominates in real life. This also applies to pathological personality traits that can be projected into cyberspace treated as a specific social environment. Its structural and functional properties, such as anonymity, the lack of non-verbal interaction indicators, asynchrony of interaction and the lack of clearly defined standards favor this. These properties are also used to commit punishable of-

fenses. Cybercrime is now a growing threat because the number of people using the Internet is increasing worldwide, and the use of digital technology tools does not require specialist knowledge. Cybercrimes are committed not only by individuals, but also by organized criminal groups. Among them, special attention should be paid to individuals exhibiting psychopathic personality traits, which pose a particularly high threat to Internet users. This risk is greater if the group of axial symptoms of psychopathy is accompanied by high intelligence. That is why Internet users who meet these criteria not only more often commit various cybercrimes, but also their offences are more harmful to victims. It should be remembered that victims of antisocial behavior online experience at least similar effects, both material and mental, as victims of criminals operating in real life. Some authors even claim that cybercrime leads to more serious and longer lasting consequences, especially for the mental health of victims, e.g. depression, chronic anxiety and low self-esteem (Nicol, 2012; Park et al., 2014).

The aim of this review is to draw attention to the threat posed to cyberspace users by people with heightened psychopathic personality traits. When considering the relationship between computer criminal behavior and psychopathy, one should also remember about the important role of other features of the disordered personality. For example, in a study by Seigfried-Spellar et al. (2017) computer crime was associated with other types of antisocial behavior including general, violent, and nonviolent antisocial behavior, suggesting that it might be considered part of a higher-order antisocial behavior construct. In the cited study, computer crime scores indeed showed the strongest relationship with psychopathy traits; however, forgetting the role of other variables would be a serious limitation. These variables also include the sociodemographic characteristics of individuals committing cybercrimes, such as age, gender or social background. Together with the characteristics of the disturbed personality, they form a theoretical framework showing the complex relationships between the psychopathic personality disorder and cybercrime. This assumption was strongly confirmed in recent empirical studies (Withers, 2019). Therefore, future research should be directed towards a better understanding of the role of other elements of this framework. A wider knowledge and understanding of the personality background of cybercrime, especially in relation to psychopaths, would allow interested specialists (including psychologists, educators and judicial officers) to develop more effective strategies to protect potential victims. Because computer crimes are as much about the individuals involved in deviant behavior as they are about the technology, future research also should be focused on improvement of cyberspace security.

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