ANNALS OF PSYCHOLOGY/ROCZNIKI PSYCHOLOGICZNE
2023, XXVI, 4, 315–330
DOI: https://doi.org/10.18290/rpsych2023.0017

CYBERPSYCHOLOGY AND MEDIA STUDIES: CONTEMPORARY RESEARCH DIRECTIONS AND SOURCES OF MUTUAL INSPIRATION

Agnieszka Ogonowska

University of the National Education Commission, Krakow

The aim of the article is to present the relationship between cyberpsychology and media studies in the perspective of common research fields, main concepts and paradigms as well as analysis methods of selected phenomena related to the media sphere and cyberculture. Cyberpsychology is described in the article as a transdiscipline in the context of (new) media studies and media cultural studies. It has also been presented as a sub-discipline of media psychology and communication. Cyberpsychology represents "media-user based approaches", because research on main types of media is conducted in relation to their impact on human behaviour. The features of new media, the transition to the interactive network media paradigm and immersive technological environments in the 1980s and 1990s require the use of psychological methods by media experts. Cyberpsychologists, on the other hand, are obliged to use media-based approaches in their research. Within the framework of cyberpsychology focused on the study of digital media user, the mainstream of theoretical and applied research has been distinguished. Its links with other sub-disciplines of psychology and the relevant direction of contemporary research on digital media and cyberculture 3.0 have been indicated.

Keywords: cyberpsychology; media studies; digital media; cyberculture 3.0; new media paradigm.

Agnieszka Ogonowska, https://orcid.org/0000-0001-6469-9242. Correspondence concerning this article should be addressed to Agnieszka Ogonowska, Uniwersytet Komisji Edukacji Narodowej, ul. Podchorążych 2, 30-084 Kraków, Poland; e-mail: agnieszka.ogonowska@up.krakow.pl.

Handling editors: Paweł Fortuna and Andrzej Cudo, John Paul II Catholic University of Lublin. Received 2 Sept. 2022, received in revised form 14 Feb. 2023, 18 Oct. 2023. Accepted 18 Oct. 2023. Published online 16 Jan. 2024.

CYBERPSYCHOLOGY AS A TRANS- AND SUB-DISCIPLINE

Cyberpsychology has a "dual status": it is both a sub-discipline of psychological research and a trans-discipline in relation to other sciences dealing with media and digital technologies.

Cyberpsychology as a transdiscipline explores dynamic and complex relations between humans and cyberculture, as well as digital, social and network media, using research strategies and methods in the field of psychology, (new) media studies, media cultural studies and digital humanities (Ancis, 2020; Atrill-Smith et. al., 2018; Burnett, 2000). The subject of interest in this transdiscipline is also virtual reality (VR), augmented reality (AR) and mix reality (MR) and the studies on specific technologies, communication systems, "alternative" digital spaces[1] and media products in the context of their social or neuropsychological impact on individuals, online users/online communities (Barfield & Wiliams, 2017; Ogonowska, 2021; Riva et al., 2016a; Twardoch-Raś, 2021). This diversity of the research field affects the choice of research methods. Cyberpsychological research can be conducted within various psychological paradigms, e.g. psychoanalytical or neurocognitive (Atrill-Smith et al., 2018), but also within relevant research perspectives and scientific sub-disciplines related to the media, e.g. "culture-oriented cyberpsychology" (Ogonowska, 2019).

Cyberpsychology is still anthropocentric (human-oriented approach) unlike many prominent ideas associated with posthumanism or transhumanism. Therefore, its strategic aim is to develop an integrative concept of knowledge regarding the multi-level relationship between humans and technological devices, digital spaces and new media products. On the other hand, it is not indifferent to selected postulates of transhumanism, such as the idea of posthuman (Fuller, 2021).

Cyberpsychology takes into consideration psychological consequences of human being's cyborgization and the body augmentation, which occurs most often in the frame of artistic projects or due to medical recommendations (Barfield, 2016; Klichowski, 2014; Kluszczyński, 2015). However, while the key context of research for psychology is the environmental and subjective determinants of human behaviour, media studies focus primarily on the attributes of new media and their functionalities (Kluszczyński, 2015; Manovich, 2013). It is worth emphasizing that the strategies for the use of these media—according to media studies perspective—

[1] The concept of "alternative" communication spaces refers to Auge's concept of non-places. Non-places are created in the times of supermodernity as a result of the crossing of people and information from distant places and environments. Alternative digital spaces allow users to manage both their social network and their social identity.

result—first of all—from its construction, functionalities, affordances, and only in second place from the needs and motivations of media users (Manovich, 2013).

Nevertheless, the development of interactive and online media, the transition from the mass media paradigm to the network media paradigm in the 1990s somehow forced media experts to take more interest in media users. The fact that new digital and social media have achieved the status of dominant media in the understanding of technological determinists (McLuhan, de Kerckhove, Levinson)[2] has resulted in an elevated interest of media scientists in psychology, which related to specific research methods, psychological concepts and selected theories (Ogonowska, 2018c, 2019).

Cyberpsychology focuses on the study of various types of human behaviour in the new media environment. Researchers take into account in this context: online behaviour in the network, including social media and video games, tele-action and interactions in the media enabling online human-computer communication in real time (Kent, 2017), immersion and cooperation in VR, AR, MR environments (Paulsen, 2017). A separate issue is the impact of the so-called biomedia on human autonomy or a sense of identity (Barfield & Wiliams, 2017; Złotowski et al., 2015).

By analogy to the division into theoretical and applied psychology, or theoretical and applied media studies, within cyberpsychology, the trend of theoretical and applied research can also be indicated. As part of the applied cyberpsychology, analyses are carried out on the impact of digital media and immersive media environments on an individual and their negative consequences (e.g. related to pathological forms of media use, online aggression) as well as positive influences (e.g. including the positive impact of media on the development of an individual, including creativity, a development of social or linguistic and communication skills) (Ogonowska, 2018a). The research results are used to design more optimal solutions in the field of user experience, human–computer interaction (HCI) (Kent, 2017), or to create network games as well as to construct humanoid robots used in therapy or psychological education (Barfield & Wiliams, 2017; Campbell et al., 2018).

By analogy to applied linguistics (in practice, mainly speech therapy), applied ethnography or applied media studies, also in this area—it is about producing the so-called practically useful knowledge. This is for the purpose of: (a) designing and implementing solutions optimizing the effects of using digital media by various groups of users and (b) solving problems and eliminating the effects resulting from

[2] Marshall McLuhan, Paul Levinson and Derrick de Kerckhove are media researchers, representatives of technological determinism, which emphasized the influence of the dominant medium on mental functioning and social life in a given era. Today, the role of such a dominant medium is played by social media.

the media negative impact (nowadays, mainly social media, biomedia, video games) on individuals and social groups (Harley et al., 2018; Holden, 2020).

Cyberpsychology can also be considered as a research stream in the field of media psychology and communication, and this in turn as a subdiscipline of psychology. The psychology of media and communication would therefore be a parent category for cyberpsychology (Ogonowska, 2018c). This subdiscipline also includes, apart from digital new media, traditional analogue and digital media in terms of their impact on humans. For this line of research, the fundamental question is: "What do the media do with people?" (Jenkins, 2008; Levinson, 2022).

In opposition to new media ("pull" media), traditional media are described in the mass communication paradigm as one-way media, in other words—"push" media, which provided content in a one-directional manner, disseminating media text created by a company or corporation to be consumed by passive viewers (Goban-Klas, 2005). The recipient of these messages has no influence on their form and content, although the user may be influenced by them. The recipient[3] has the possibility of choosing different contexts of their reception (e.g. "social—individual or collective reception of a film, or institutional—reception of the same message at home or in the cinema). For example, reading a book as a printed, analogue medium stimulates the reader to understand and interpret its content, to create ideas about the presented fictional world. The same applies to film as a "compact a priori message", even when it is recorded on a digital medium, it still has an ontological status of a traditional medium. The perception of television advertising, which is usually distracted, can influence the choice of the product or service that had been advertised in a real purchase situation (Doliński, 2010; Ogonowska, 2004).

In turn, the so-called new media are networked, interactive, they enable real-time online communication, require various forms of user activity, including inter- and intra-media multitasking, and enable the user to play various roles: content recipient, commentator, observer, player, content creator, follower, influencer, etc. They already function in the digital communication paradigm, based on algorithms that make it possible to taylor the content to the profile and interests of individual user groups (Manovich, 2013).

The network activities are actively and constantly monitored. The so-called digital traces of these activities are used by broadcasters to create algorithms, profiling advertisements and other persuasive messages. The ability to monitor the behaviour of media users becomes the essence of the surveillance capitalism (Zuboff, 2019).

[3] In media studies, in the context of traditional media, the term "recipient" is used, and in relation to new media—prosumer, consumer, user. New media, often called social media or interactive media, provide endless opportunities for users to act as both consumers and creators of media (Auge, 1995).

The indicated attributes of new media and social media, including their interactive nature and the fact that users are prosumers[4] and producers of content invoke new research questions: "What do people do with the media?" and "What needs can individual media gratify or create in specific groups of users?"

The term 'media' is most often understood as: (a) technologies and techniques for telecommunications with the use of specific infrastructure enabling the exchange of (audio) visual messages using specific competences (e.g., media, digital, IT, information); (b) media messages and messages compacted "a priori", "a posteriori" and in mixed form; (c) "artificial" interaction environments created by these technologies (VR, AR, MR, Internet of Things) (Goban-Klas, 2005; Kluszczyński, 2015; Manovich, 2013). The term 'digital media' covers, among others: mobile and stationary media; external and incorporated media (biomedia) (Raś-Tardoch, 2021); digital databases (e.g., digital repositories, software) and narrative "off-the-shelf" media products such as movies, online games (Holden, 2020); screen-based media (tactile media) vs immersive media (Van Es & Schäfer, 2017). These distinctions are extremely important for research in the field of cyberpsychology. These individual attributes of media are related to their specific functionalities, which can—according to the affordance theory—be used by an individual in a specific action (Gibson, 1977; Manovich, 2013; Norman, 1999).

These questions have established a new perspective for research in social sciences, including psychology and social communication and media (called media studies/media and communication studies, for short). The subjects of the analysis are the issue of users' needs (functional, relational, empirical paradigm), media use strategies, and the final effects of these activities (pragmatic approach, empirical paradigm) (Dobek-Ostrowska, 1999; Ogonowska, 2018c). The concept of media effect is also related to the category of psychological impact at different levels—cognitive, social, neuropsychological impact; short- and long-term impact, etc. (Harris, 2004).

The exclusion of 'communication' from the name of cyberpsychology as a transdiscipline results from changes within cyberculture 3.0 itself (2010s), where users do not communicate in the traditional sense of this word, i.e. "face to face", but only remain in contact with the interfaces of various technology, applications, avatars, bots, screen or tactile media. Communication with other users is mediated. This in turn affects the form and content of communication and the level of user's communication competence. The etymology of the word "communication" indicates the community of certain activities (Dobek-Ostrowska, 1999; Goban-Klas, 2005) which nowadays is not a priority for media consumers and prosumers. They use

[4] 'Prosument' is a term used in social studies, especially in sociology and media studies, coined by Toffler (1980). The concept is a blend of two concepts: "production" and "consumption"; it means that a person acts simultaneously in these two roles: media recipient and producer of media content.

media for the "pure" pleasure of interacting with technology, and not necessarily with other people.

Technologies also, e.g. bots, are designed to simulate a conversation that serves various pragmatic objectives (e.g. obtaining specific information). They do not serve to build a traditionally understood relationship or bond, although users tend to anthropomorphize the media and the so-called effect of transferring emotions and feelings to technological objects (however, attributing human traits to technology is somehow related to the belief that it possesses them, which shows that media tend to be anthropomorphized) (Reeves & Nass, 2005; Złotowski et al., 2015). The use of social media is increasingly subordinated to two functions of communication: phatic ("stay in touch", "be logged in to the network") and self-promotional (Gordo-Lopez & Parker, 1999).

FROM "SEPARATIST" TO "CONVERGENT" MEDIA RESEARCH: THE PHENOMENON OF POSTMEDIA

Within the framework of the 20th-century psychology of media and communication, individual media, related communication systems and institutions, and their influence on the recipient had been explored separately (Goban-Klas, 2005; Jenkins, 2008). Hence, the names of these studies immortalise their "specialist" and "separatist" character, such as the psychology of literature or the psychology of film (Ogonowska, 2018a, 2018c). In Polish reality, one can also point to cognitively inspiring research in the field of psychology of television and audiovisual communication (Francuz, 2002; Harris, 2004) and psychology of the Internet (Szmigielska, 2009). The same tendency was true for media researchers who, for example, had been involved in film or television studies (Ostaszewski, 1999a, 1999b), or, since the 1990s, with the internet-oriented studies (Manovich, 2013). From the second half of the 20th century, research in four areas has developed particularly intensively: (a) genological research on genres, and then on media formats (e.g. research on film, radio, television, internet, computer and network games genres; the issue of genre transgressions, the so-called mega-genres and adaptation of media formats in different countries and cultures) (Godzic et al., 2016); (b) historical research on aesthetic and technological changes related to individual media (e.g. film history, television history, internet history; transition from analogue to digital media) (Goban-Klas, 2005); (c) research in the field of media theory (e.g. hybridization, tabloidization of media, models of media reception and individual messages due to their attributes and individual communication systems, the emergence of post-media, biomedia in

artistic and medical practices) (Celiński, 2013; Kluszczyński, 2015; Raś-Twardoch, 2021); (d) research in the field of media economics (e.g. on the profitability of individual productions, including media formats, selected aspects of the production process, distribution, exchange and consumption of media in the national and global media sphere) (Kowalski & Jung, 2008).

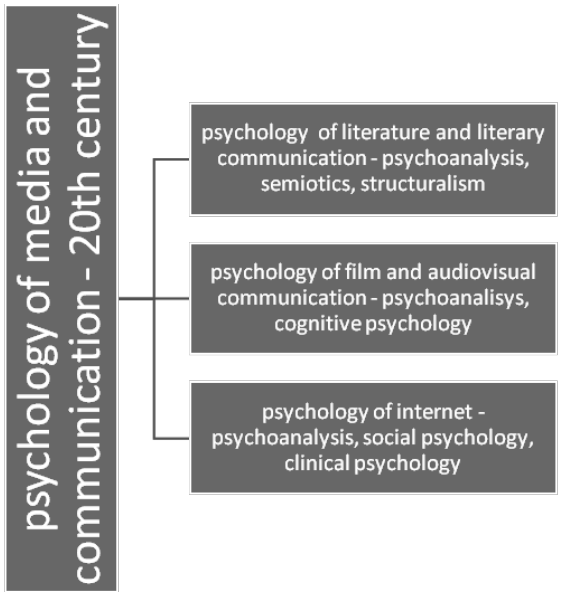
The indicated fields of research (genological, historical, theoretical, economic) can be treated as auxiliary, supporting studies to media psychology and communication, and then to cyberpsychology. They concern specialist knowledge regarding various levels of the media sphere: from the micro level, i.e. the study of individual media messages, to the macro level, i.e. the analysis of entire communication systems and technological infrastructure. They affect both the reception and production processes, but also the understanding and interpretation of media messages (Ostaszewski, 1999b). These systems and technological infrastructure determine the forms and the effects of interactions with other users, such as social media prosumers, consumers and producers.

In the second half of the 1980s, research practices also had their institutional justification. For example, in the Polish educational reality, film experts improved their knowledge and develop their academic competences until the 1970s/1980s mainly in philological studies. Film studies as an independent field of academic education took shape in the second half of the 20th century. In the following years, the researchers of other media (e.g. television, advertising, new media, computer games) have been educated on this basis. The philological nature of media studies of this period was characterized by the fact that researchers focused more on the media text itself, using for their analysis elements of other philosophical or psychological concepts as well as some selected ideas and theories established in literary theory (e.g. genre, narrative, fictional universe). However, the media texts, such as film, advertising, photography have always been the starting point and the main object of this type of research. Therefore, the researcher remained mainly at the level of the text and its individual interpretations made by using a specific method. That is why they had been of an idiographic nature. These interpretations had been focused on concrete features of a specific message or combined them (attributes and methods) at subsequent stages of the research procedure (Goban-Klas, 2005; Sztompka, 2005). Text-oriented research and media-based approaches were representative of semiotic, phenomenological, psychoanalytic (cultural psychoanalysis) and narrratological studies in the twentieth century. These studies, conducted in the context of research on film, television or network games, became the basis for later research in the field of media psychology, and contemporary cyberpsychology (Ogonowska, 2018b).

In the 20th-century paradigm of mass media (see Figure 1), elements of psychoanalysis and semiotics were used to study the media, mainly literature, psychology

and theatre, while the anonymous recipient was turned into a virtual reader or viewer (Godzic, 1991; Sztompka, 2005). Research of this type was conducted mainly in the field of literary and film studies, as well as theatre studies. In this spirit, the so-called cognitive film theory was developed (Ostaszewski, 1999a, 1999b). At the turn of the 20th and 21st centuries, the reflections of film scholars were a source of inspiration for experimental research conducted in the field of cognitive psychology (Francuz, 2002; Ostaszewski, 1999a, 1999b). The cognitive and experimental research was also inspired by pre-cognitivists and precursors of film psychology (Hugo Munsterberg, Rudolf Arnheim) as well as practical research conducted in this trend by the masters of the Soviet school of montage from the 1920s, i.e. Sergei Eisenstein or Lew Kuleszow (Ogonowska, 2018a).

Figure 1
Psychology of Media and Communication, 20th Century



Research on the media within this paradigm (mass communication) has also been undertaken by representatives of social sciences, mainly sociologists, political scientists and social psychologists (Dobek-Ostrowska, 1999; Goban-Klas, 2005). They introduced research perspectives into media studies, for which the reference point was the relationship between the medium/specific message and its recipient. Representatives of these social sciences initiated the perspective of "media user-based approaches" in media studies. Their media theories including Uses and Gratifications, Cultivation Analysis, and Media Ecology Theory have proposed

ways in which media are used and can be influential, even nowadays in the context of social media (Dobek-Ostrowska, 1999).

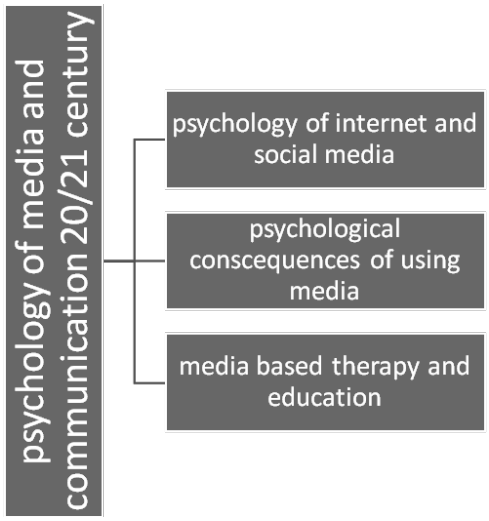
Contemporary schools and trends in (new) media and communication research can be divided into three basic pillars: the empirical school (e.g. the theory of use and benefits, the Palo Alto school, symbolic interactionism), the critical school (e.g. the Frankfurt school, the theory of communicative action by Habermas) (Dobek-Ostrowska, 1999; Szahaj, 2008), British cultural studies, structuralism and semiology and the so-called others, including technological determinism (McLuhan, de Kerckhove, Levinson), the hypothesis of the spiral of silence (Dobek-Ostrowska, 1999).

The empirical school was originally related to the USA and based on the sociological functionalism of Robert Merton, the communicological studies of Harold Lasswell and Paul Lazarsfeld. From the beginning, it was focused on researching specific media use practices. The final objectives were connected with answering the question: "How does it affect people?" in the context of human needs, motivations, social attitudes and behaviour patterns. In turn, the critical school had been associated in the first phase (until the outbreak of World War II) mainly with the European continent. It had been focused on textological issues and the performative (i.e. political, cultural or even psychological) impact of these media messages on the beliefs or attitudes of recipients (Dobek-Ostrowska, 1999; Szahaj, 2008).

With the development of network media, postmedia (Celiński, 2013; Jenkins, 2008) and the process of media convergence (Jenkins, 2008)—also in the area of media studies—there is research on specific practices related mainly to the new media use. Media scholars had been closer to approaches promoted by the empirical trend. Although "critical" approach has been continued within media cultural studies and cybercultural studies. Based on the latter exploration, new concepts, models and ideas have been developed and used in empirical research on digital media and cyberculture 3.0.

Since the 1990s, there has been a dynamic development of the Internet and the hybridization of media (Internet, television, press and electronic literature, Internet radio), which were previously treated as separate entities, also in research practices. There is also a paradigm shift in media studies—the paradigm of mass media is supplemented and then replaced by the paradigm of new media (network, interactive, mobile, hypertext) (see Figure 2). The concept of post-media emerged and has been developed by media theorists (Lev Manovich, Paul Levinson) (Levinson, 2022; Manovich, 2013). It can be seen as moving from the study of media (their structure, genres, construction of media universes) towards the features of new media and related user behaviour. In light of this paradigm shift, the question "What are people doing with the media?" is much more important and adequate to answer in the context of media morphosis (Goban-Klas, 2005).

Figure 2
Psychology of Media and Communication,1990s—21st Century



The twentieth century is also the use of psychological inspirations to study the media (mainly literature and film) by literary and film scholars. In this context, they use elements of cultural psychoanalysis and cognitivism. On the one hand, this tendency favours interdisciplinary cooperation, and on the other, this trend contributed to "appropriating certain topics" and terminological chaos. This applies especially to various cultural and quasi-therapeutic practices related to bibliotherapy, film therapy or cinema-therapy (Ogonowska, 2019). Some terms become transdisciplinary, such as narrative, memory, experience, and affect. This tendency is clearly visible in the so-called turns: cultural, narrative, experiential, affective, performative in the humanities. From the 1980s these turns began to dominate as the key contexts and useful frame for media and cyberculture research in relation to its users, producers and prosumers.

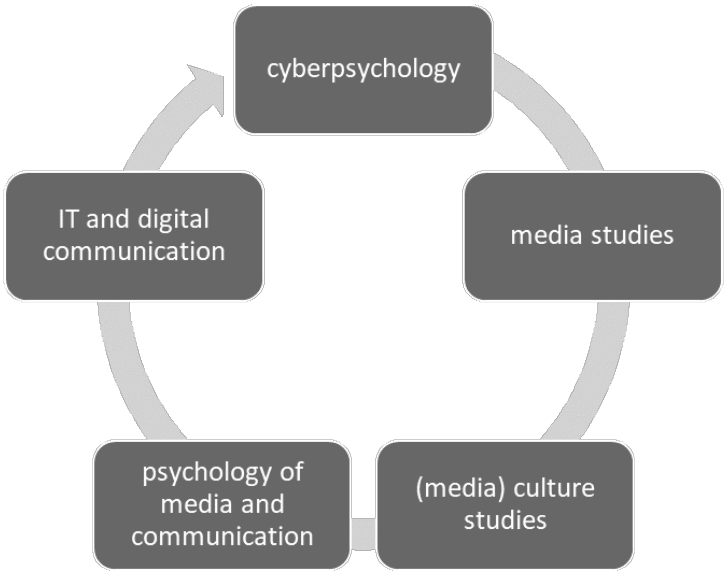
In the humanities, there has been a gradual departure from the metaphor of the world as a text that has the power to explain all key aspects of the modern human being's condition, towards the study of specific media practices and the dynamics of social life related to them (Goban-Klas, 2005). The intellectuals who lay the foundations for the performative turn include mainly anthropologists and sociologists: Arnold van Gennep, Victor Turner, Milton Singer and Erving Goffman. It was they who contributed to the fundamental change in the perception of culture and social reality, emphasizing their processual, incomplete and transformational nature, who put aside the research on stable and unchanging social products or structures (Goban-Klas, 2005; Jenkins, 2008).

BETWEEN TRADITIONAL AND NEW MEDIA RESEARCH: KEY DIRECTIONS AND INSPIRATIONS FOR CYBERPSYCHOLOGY

The coexistence of various media (traditional and new) and research paradigms is also conducive to the development of media studies, psychological as well as inter- and transdisciplinary studies focused on the relationship between a specific user and the medium (Jenkins, 2008). The frequently discussed issues include: the problematic use of media (Aboujaoude, 2010), the use of media in therapy (Brooke, 2017), and psychological education (Barfield & Wiliams, 2017; Campbell et al., 2018), or the influence of the media on risk and pathological behaviours of children and adolescents (Cerniglia et al., 2019). There are also attempts to study certain phenomena, e.g. interpersonal aggression (Vestergaard, 2020) or creating identity in new media environments (Riva et al., 2016a, 2016b; Turkle, 2013), but with the use of already well-established psychological knowledge derived from research on these phenomena, but in reality offline. Gradually, these studies began to appreciate and recognize the specificity of new media realities. They are being treated as the context of human behaviour and as the starting point for seeking more adequate research methods that could take into account the media and cybercultural determinants of these new psychological studies (see Figure 3).

Figure 3

Psychology of Media and Communication, 21st Century



Since there is a relationship between cyberpsychology and other subdisciplines of psychology, specific phenomena can be indicated, for example, within developmental psychology we observe the impact of network, tactile, mobile and interactive media on the development of a child in terms of language, communication, cognition, emotional and social competences. Moreover, digital media play a role in inter-generational communication.

Stages of development of media, digital, IT and digital competences in the perspective of life span psychology (Ogonowska, 2018b) have been widely reported and studied. Also, as part of cognitive psychology, research has been done on multitasking and the effectiveness of human functioning in terms of understanding, interpreting, processing and remembering information simultaneously from different media (so-called intermedia multitasking) and within the same medium (so-called intra-medial multitasking). Digital resilience and cybersecurity have been described and analyzed too (Attrill & Fullwood, 2016; Harris, 2004). On the ground of social psychology, the influence of technology on social communication processes, the expression of emotions and feelings, building interpersonal relations have been examined and explained, including such harmful phenomena as Internet aggression, cyberbullying, hate speech (Vestergaard, 2020). In the field of clinical psychology, Campbell et al. (2018) and Aboujaoude (2010) investigated the role of new technologies in diagnosis and psychological therapy and polyetiological determinants of pathological media use/problematic internet use, the use of humanoid robots in therapy and psychological education (Cerniglia et al., 2019) as well as virtual reality applications in psychotherapy. Drug use, bullying and alterations in body image were discussed in Riva et al. (2016a). Within health psychology, prevention of regressive, risk and (auto) destructive behaviour in cyberspace, prophylaxis of pathological forms of computer and Internet use were investigated by Aboujaoude (2010) and Vestergaard (2020), as well as sharing personal experiences and offering advice within online health-based social network. Online mental health information and psychological tele-education were described and explained by Riva et al. (2016a). In the field of neuropsychology, the impact of media experiences (multi-codes, polymodal, multimedia messages) on the activation of individual brain centres and neural pathways, and the influence of new media on neurotypical and non-neurotypical human functioning have been studied (Parsons, 2017). The importance of digital educational environments for the development of a specific type of skills, competences and knowledge of users, digital repositories of knowledge and information and their role in the transfer of ideas and personal development of individuals (Ogonowska, 2018b), attractive gamification features of the media products and collaborative storytelling websites in the context of user's engagement and motivation to learn have been developed (Riva et al., 2016a).

SUMMARY: CYBERPSYCHOLOGY— PROSPECTS FOR FURTHER RESEARCH

We can observe the dynamic development of new media and digital transformation (social media, post-media, biomedia, VR, AR, MR) (Celiński, 2013; Levinson, 2022; Thacker, 2004; Twardoch-Raś, 2021). Technologies used in HCI, therapeutic and assistive robots, specialized network games of an educational, training and therapeutic nature (Holden, 2020), simulators imitating natural working conditions also create a conducive atmosphere for the development of common research in the field of cyberpsychology and new media studies (Aoun, 2018).

As described in the article, the status of cyberpsychology as a transdiscipline as well as the perspective of—even much closer—relations with (new) media studies, it will remain a permanent tendency in contemporary projects. While, for cyberpsychologists it is important to study human behaviour in the media, in relation to new media and to determine the scale, scope and durability of media impact on various spheres of the human's functioning (at the cognitive, social, affective, neuropsychological levels, etc.), the priority area of new media studies there are explorations in the field of the media theory and history. Cyberpsychologists develop media user-based approaches, while media scholars are more specialists in new media-based approaches. These two perspectives allow us to better understand their current specificity and to more precise charting further development trajectories (Ancis, 2020; Attrill, 2015).

Due to the fact that the new digital media are more interactive, it is currently not possible to eliminate the role of the user from the field of media studies. As part of this discipline, however, it is about defining the strategy of using media and researching the impact of user preferences on the development of modern functionalities of new media. It should be profiled not only to their needs, but also to their competences (media literacy, digital literacy, IT and information competences) (Ogonowska, 2018b).

Scientific research, but most of all implementations in the field of applied (new) media studies, use psychological methods and selected concepts to study the behaviour and media preferences of media users. This area is particularly crucial and relevant in relation to the media education of children, adolescents and young adults, as well as the development of effective improvement of digital competences in all age groups. It is a very important task for media literacy experts and cyberpsychologists, especially nowadays in the era of mis- and disinformation, fake and deep-fake news, post-truth, and a global aberration of info-sphere or hybrid war. More attention is now being directed toward the role of psychology, education, and media studies

in combating fake news to help empower people at the individual level (European Commission, 2018). This is certainly a very promising area of collaborative research for applied new media studies and cyberpsychology (Greifeneder et al., 2020).

REFERENCES

Aboujaoude, E. (2010). Problematic Internet use: An overview. *World Psychiatry*, *9*(2), 85–90. https://doi.org/10.1002/j.2051-5545.2010.tb00278.x

Ancis, J. R. (2020). The age of cyberpsychology: An overview. *Technology, Mind, and Behavior*, *1*(1). https://doi.org/10.1037/tmb0000009

Aoun, J. E. (2018). *Robot-proof. Higher education in the age of artificial intelligence.* MIT Press.

Attrill, A. (Ed.). (2015). *Cyberpsychology.* Oxford University Press.

Attrill, A., & Fullwood, C. (Eds.). (2016). *Applied cyberpsychology.* Palgrave Macmillan.

Atrill-Smith, A., Fullwood, C., Keep, M., & Kuss, D. J. (2018). *The Oxford handbook of cyberpsychology*. Oxford University Press.

Auge, M. (1995). *Non places. Introduction to an antropology of supermodernity.* Verso.

Barfield, W. (2016). *Cyber-Humans: Our future with machines.* Springer.

Barfield, W., & Wiliams, A. (2017). Cyborgs and enhancement technology. *Philosophies*, *2*(1), 4. https://doi.org/10.3390/philosophies2010004

Brooke, E. (Ed.). (2017). *Combining the creative therapies with technology: Using social media and online counseling to treat clients.* Charles C. Thomas.

Burnett, R. (2000). *Disciplines in crisis: Transdisciplinary approaches in the Arts, Humanities and Sciences.* OECD STI Policy Papers.

Campbell, L. F., Millán, F. A., & Martin, J. N. (Eds.). (2018). *A telepsychology casebook: Using technology ethically and effectively in your professional practice*. American Psychological Association.

Celiński, P. (2013). *Postmedia: Cyfrowy kod i bazy danych* [Postmedia: Digital code and databases]. Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.

Cerniglia, L., Guicciardi, M., Sinatra, M., Monacis, L., Simonelli, A., & Cimino, S. (2019). The use of digital technologies, impulsivity and psychopathological symptoms in adolescence. *Behavioral Sciences*, *9*(8), Article 82. https://doi.org/10.3390/bs9080082

Dobek-Ostrowska, B. (1999). *Podstawy komunikowania społecznego* [Basics of social communication]. Wydawnictwo Astrum.

Doliński, D. (2010). *Psychologiczne mechanizmy reklamy* [Psychological mechanisms of advertising]. Gdańskie Wydawnictwo Psychologiczne.

European Commission. (2018). *Final report of the high level expert group on fake news and online disinformation.* Retrieved February 24, 2019, from https://ec.europa.eu/digital-single-market/en/news/final-report-high-level-expert-group-fake-news-and-online-disinformation

Francuz, P. (2002). *Rozumienie przekazu telewizyjnego: Psychologiczne badania informacyjnych przekazów telewizyjnych* [Understanding television messages: Psychological research on TV news broadcasts]. Towarzystwo Naukowe KUL.

Fuller, S. (2021). Cyborg persons: Humanity played in a different key. *Postdigital Science and Education*, *3*, 668–677. http://doi.org/10.1007/s42438-020-00214-4

Gibson, J. J. (1977). The theory of affordances. In R. Shaw & J. Bransford, *Perceiving, acting, and knowing* (pp. 67–82). Laurence Erlbaum.

Goban-Klas, T. (2005). *Cywilizacja medialna* [Media civilization]. Wydawnictwa Szkolne i Pedagogiczne.

Godzic, W. (1991). *Film i psychoanaliza. Problem widza* [Film and psychoanalysis. The viewer's problem]. Wydawnictwo Uniwersytetu Jagiellońskiego.

Godzic, W., Kozieł, A., & Szylko-Kwas, J. (2016). *Gatunki i formaty we współczesnych mediach* [Genres and formats in contemporary media]. Poltex.

Gordo-Lopez, A., & Parker, I. (Eds.). (1999). *Cyberpsychology.* Routledge.

Greifeneder, R., Jaffé, M. E., Newman, E. J., & Schwarz, N. (Eds.). (2020). *The psychology of fake news.* Routledge.

Harris, R. J. (2004). *A cognitive psychology of mass communication* (4th ed). Lawrence Erlbaum.

Harley, D., Morgan, J., & Frith, H. (2018). *Cyberpsychology as everyday digital experience across the lifespan*. Palgrave Macmillan.

Holden, C. (2020). *Psychology of video games*. Taylor & Francis.

Jenkins, H. (2008). *Convergence culture: Where old and new media collide*. New York University Press.

Kent, N. L. (2017). *Cyberpsychology: An introduction to human-computer interaction.* Cambridge University Press.

Klichowski, M. (2014). *Narodziny cyborgizacji. Nowa eugenika, transhumanizm i zmierzch edukacji* [The birth of cyborgization. New eugenics, transhumanism and the twilight of education]. Wydawnictwo Naukowe UAM.

Kluszczyński, R. (2015). Doświadczenia wizualne jako postobrazy (od wydarzeń multimedialnych do wizualnych biośrodowisk) [Visual experiences as post-images (from multimedia events to visual bioenvironments)]. In E. Wilk, A. Nacher, M. Zdrodowska, & M. Gulik (Eds.), *Więcej niż obraz* (pp. 343–357). Wydawnictwo Naukowe Katedra.

Kowalski, T., & Jung, B. (2008). *Media na rynku. Wprowadzenie do ekonomiki mediów* [Media on the market. Introduction to media economics]. Wydawnictwa Akademickie i Profesjonalne.

Levinson, P. (2022). The future of new media. Wydawnictwo AGH.

Manovich, L. (2013). *Software takes command: Extending the language of new media.* Bloomsbury.

Norman, D. A. (1999). Affordance, conventions and design. *Interactions*, 6(3), 38–43. https://doi.org/10.1145/301153.301168

Ogonowska, A. (2004). *Przemoc ikoniczna. Zarys wykładu* [Iconic violence. A lecture outline]. Wydawnictwo Naukowe AP.

Ogonowska, A. (2018a). Cyberpsychologia. Nowe strategie badania mediów i ich użytkowników [Cyberpsychology: New strategies for researching media and their users]. *Studia de Cultura*, *10*(4), 5–18. https://doi.org/10.24917/20837275.10.4.1

Ogonowska, A. (2018b). Edukacja medialna wobec cyberpsychologii: Nowe perspektywy badania mediów i ich użytkowników we współczesnej cywilizacji medialnej [Media education towards cyberpsychology: New perspectives on the study of media and their users in the contemporary media civilization]. *Interdyscyplinarne Konteksty Pedagogiki Specjalnej*, *23*, 93–109. https://doi.org/10.14746/ikps.2018.23.05

Ogonowska, A. (2018c). *Psychologia mediów i komunikowania* [Psychology of media and communication]. Oficyna Wydawnicza Impuls.

Ogonowska, A. (Ed.). (2019). Kulturoterapia: Strategie wykorzystywania mediów i kultury w leczeniu, profilaktyce i edukacji [Culturotherapy: Strategies for using media and culture in treatment, prevention and education]. *Studia de Cultura*, *11*(4). https://doi.org/10.24917/20837275.11.4

Ogonowska, A. (2021). *Cyberpsychologia. Media – użytkownicy – zastosowania* [Media – users – applications]. Oficyna Wydawnicza Impuls.

Ostaszewski, J. (1999a). *Film i poznanie. Wprowadzenie do kognitywnej teorii filmu* [Film and cognition: Introduction to cognitive film theory]. Wydawnictwo Uniwersytetu Jagiellońskiego.

Ostaszewski, J. (1999b). *Rozumienie opowiadania filmowego* [Understanding film storytelling]. Wydawnictwo Uniwersytetu Jagiellońskiego.

Parsons, T. D. (2017). *Cyberpsychology and the brain. The interaction of neuroscience and affective computing*. Cambridge University Press.

Paulsen, K. (2017). *Here/there: Telepresence, touch, and art at the interface*. The MIT Press.

Reeves, B., & Nass, C. (2005). *Media i ludzie* [Media and people] (H. Szczerkowska, Trans.). Państwowy Instytut Wydawniczy.

Riva, G., Widerhold, B. K., & Cipresso, P. (Eds.). (2016a). *The psychology of social networking: Vol. 1. Personal experience in online communities.* De Gruyter Open.

Riva, G., Widerhold, B. K., & Cipresso, P. (Eds.). (2016b). *The psychology of social networking: Vol. 2. Identity and relationships in online communities*. De Gruyter Open.

Szahaj, A. (2008). *Teoria krytyczna szkoły frankfurckiej: Wprowadzenie* [Critical Theory of the Frankfurt School: An Introduction]. WAIP.

Szmigielska, B. (Ed.). (2009). *Psychologiczne konteksty internetu* [Psychological contexts of the Internet]. Wydawnictwo Akademii Medycznej.

Sztompka, P. (2005). *Socjologia wizualna. Fotografia jako metoda badawcza* [Visual sociology. Photography as a research method]. Wydawnictwo Naukowe PWN.

Thacker, E. (2004). *Biomedia.* University of Minnesota Press.

Toffler, A. (1980). *The Third Wave.* William Collins Sons & Co.

Turkle, S. (2013). *Life on the screen: Identity in the age of the Internet*. Simon & Schuster.

Twardoch-Raś, E. (2021). *Sztuka biometryczna w perspektywie filozofii post i transhumanizmu: W stronę estetyki postafektywnej* [Biometric art in the perspective of post-philosophy and transhumanism: Towards post-affective aesthetics]. Wydawnictwo Uniwersytetu Jagiellońskiego.

Van Es, K., & Schäfer, M. (Eds.). (2017). *The datafied society.* Amsterdam University Press.

Vestergaard, S. C. (Ed.). (2020). *Encyclopedia of bullying* (Vol. 7). Nova Science Publishers.

Złotowski J., Proudfoot, D., Yogeeswaran, K., & Bartneck, C. (2015). Antropomorphism: Opportunities and challenges in human–robot interaction. *International Journal of Social Robotics*, *7*, 347–360. https://doi.org/10.1007/s12369-014-0267-6

Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power.* Profile Books.