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SCREENAGERS AND MEDIA. TOWARDS NEW PSYCHOLOGY OF MEDIA

Introduction

Due to the omnipresence of screens, contemporary culture and society are referred to as the culture of screens and the society of screens and monitors, respectively. The screen became an new cultural category and it even has its own typology.[1] The Polish Dictionary of Foreign Words includes three different definitions of this term. The first one describes the screen as a surface where light images (such as films or slides) can be projected, the second one refers to a component of a TV kinescope and finally, the term is used to denote a protective cover , e.g. against dangerous radiation[2] or the noise coming from roads and motorways. The screen divides two worlds: the real and the virtual one; it is a gate to the latter and it also protects the user against a complete immersion in the alternative reality.

The development of screen society

Human environment is saturated with various types of screens and, eventually, some researchers consider the screen as a new cultural category and they refer to the contemporary social formation as the **screen society**[3]**.** Thus, due to a permanent use of audiovisual media, the generation of postmodern global teenagers is referred to as screenagers[4], and human relationships change increasingly more often to the relations between the screens of various communication technologies behind which humans are hidden with their involvement in particular social contexts. Let's turn to the screens of an ATM, TV, laptop, iphone or a mobile phone. Each one substitutes direct conversations between the staff of various public institutions and private individuals; it imposes a new technological space and new conditions

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[1] A. Gwóźdź, P. Zamojski, ed., *Wiek ekranów.* Przestrzenie kultury widzenia, Kraków 2002

[2] Słownik Wyrazów Obcych, scientific edition by Prof. J. Tokarski, Warszawa, 1980, p. 176

[3] L. Manovich, 2001, *Ku archeologii ekranu komputerowego* [in:] A. Gwóźdź, ed., *Widzieć. Myśleć. Być. Technologie mediów*, Kraków, pp. 167-190

[4] D. Rushkoff, 1996*, Playing the Future*. How Kid's Culture Can Teach Us to Thrive in an Age of Chaos, New York

of contact that are often subject to characteristic economy of communication.[5] It is because of this new language and the globally shared media culture that practically there are no differences between teenagers who grow up in technologically advanced countries. They share similar tastes and lifestyles; moreover, they use media in the way that in many cases lead to addiction and pathologies in the key areas of social functioning. Thanks to the global products of culture (films, TV formats, computer games or pop-music) they are influenced by the same media culture, which shapes their social attitudes, cognitive representations of the world, value systems and life styles. Due to the global culture, they consider themselves the members of the community of anonymous users of new technologies and this sense of belonging constitutes the basis for their identity which every time is related with the answer to the question: *Who am I?*

Screens that are present both in the public (billboards, neon signs) and household spaces (private spaces such as icons on computer screens or home cinemas) attract and compete for the attention. The excessive number of screens and stimuli results in the fact that the attention is increasingly superficial, dispersed and intercepted instead of being actively managed by individuals. There is no time for a complex and more analytical interpretation of data and its further transformation into meaningful information, not to mention recording it in long-term memory resources. The moving or changing images capture the attention of individuals and, consequently, they transform every form of space into the space dominated by watching, peeping, monitoring and (compulsive) communication. The purpose of the latter is no longer to exchange the information but to make and maintain contacts, to locate oneself and the others in the various spaces of media interaction. The above processes are valued positively irrespectively of their quality, course and purposefulness as they testify to the possibilities of new technologies – among other things - to create relationship networks. However, this results an increasingly more common empty communication accepted by media, whose function is purely fatic and which gives the illusion that an individual – as an element of a relationship network – is not alone and is well established in a structure of virtual society. An active screen guarantees a contact with the others; it gives the certainty that there is always someone present who can be contacted in the real-time mode. The screen is becoming a bridge to the virtual social world which expands the space of action and communication beyond the physical space that is assigned to the

[5] Cf. A.Ogonowska, B. Skowronek, 2005, *Język na nielegalu. Wpływ multimediów na komunikację werbalną młodego pokolenia. O nową metodologię badań* [in:] A. Dytman – Stasińko, J. Stasieńo, ed., *Język a multimedia*, Wrocław

individual. The opportunity to be here (physically) and there (mentally) creates a psychological context of functioning for numerous media users who treat virtual reality as the basic form of their existence in which they locate all their resources, energy and vitality. The transfer of the attention and the increasing involvement with the reality seen 'through the looking glass" leads to numerous family tragedies and life problems of people who are addicted to new technologies.

It is a common practice that a computer or TV are switched on without a particular reason to use them actively. They serve only as a „background" to other activities. According to a neurobiologist Michel Desmurget the influence of TV set that is switched on is not neutral: a child can hear fewer words that are directed to it, its verbal expression skills deteriorate significantly and the number and quality of verbal interactions with other people decrease substantially. Moreover, when children are playing in the vicinity of a TV set on, their activities are less structured, less creative and more chaotic. They change toys more often and are less concentrated and committed to their games[6]. What is more, watching TV passively results in serious sleep disturbances among children aged 5-6.[7]

In the case of older users, the sole presence within the reach of media calms them down even at the status of *connected* but *not active*. Media are frequently used as a substitute for living human beings; human voice from television or the radio or active online communicators are the examples of such strategy. As a result, it seems just to say that in many cases new media, while increasing the effectiveness and efficiency of information exchange, isolate people from one another and they also isolate them from their physical and social realities.[8] Moreover, they increase the users' emotional involvement in the reality seen "through the looking glass", in the world where the screen is a specific interface both in the technological and cultural sense.

Types of screens

Lew Manovich points out to the fact that there are differences between the screens. Chronologically speaking, **classic screens** were a flat, rectangular surface to be watched from the front which was embedded into our real world. This category includes, for example, Renaissance paintings or computer monitors. The screen, which constitutes a clear boundary

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[6]M. Desmurget, 2012, *Teleogłupianie. O zgubnych skutkach oglądania telewizji (nie tylko przez dzieci),(TV Lobotomie : La Vérité scientifique sur les effets de la télévision)*, translated by E. Kanowska, Warszawa

[7]E.J. Paavonen, M. Pennonen, M. Roine, S. Valknonen, A.R. Lahikainen, 2006, *Tv exposure associated with sleep disturbances in 5-6-year old children, „Journal of Sleep Research" 15*, pp.154- 161

[8] M. Golka, 2002, *Ekrany w dorzeczach komunikowania* [in:] A. Gwóźdź, P. Zawojski, ed., *Wiek ekranów. Przestrzenie kultury widzenia*, Kraków, pp. 29-44

between the viewer's world and the world presented within its frames, functions as a window to other environment.

A **dynamic screen** constitutes a further development stage of this phenomenon. It retains all the features of a classic screen while bringing a new feature. It is the ability to present images that change in time. A breakthrough between a classic and dynamic screen can be easily understood when analyzing the difference between a still photograph and a film that consists of a set of moving images. Thus, this category includes cinema, TV and video screens.

Virtual screens are a third basic type of screens . The previous two types assumed some distance between the screen and the user/viewer or internaut. In this case, viewing, which implies a clear division between the subject and the object of a perceptional experience, is replaced by **immersion**, i.e. immersing the senses in the experienced reality. Another step that is predicted by contemporary theoreticians of culture is represented by a screen that is connected to the retina of the eye. Thus, a fourth type of the screen will emerge in the comparatively near future: the so called virtual retinal display (VRD).[9] This idea corresponds to Paul Virilio's cult of blindness (seeing things with the internal eyes of our brain) [10] on the one hand and on the other with the cybernetic model of an implant in the eye retina that is connected to the Internet, which enables experiencing virtual reality[11]. Thus, tele-watching, i.e. seeing things from a distance, is replaced by a form of internal dioptric experience on neuronal and psychological levels.

The technologies in question implement the so called dynamic screen, where the contents and its scope can be changed in time. It happens, as it is the case with traditional TV, that the change is imposed by the broadcaster and – to some degree – it is managed by the viewers thanks to a remote control, while in the case of the Internet and mobile phone, interactivity is required. This is often accompanied by interpassiveness, i.e. a situation when certain emotions and behavior are played on the screen on behalf of the users of the technology, who – through the sheer presence confirm the validity of the events shown and the acceptance of the positions and roles that are assigned to them. Interpassiveness frees TV-

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[9] A. Gwóźdź, 2002, *Mała ekranologia* [in:] A. Gwóźdź, P. Zawojski, red., *Wiek ekranów. Przestrzenie kultury widzenia,* Kraków, pp. 13-28

[10] Por. P. Virilio, 1994, *Światło pośrednie* [in:] A. Gwóźdź, red., *Po kinie?...Audiowizualność w epoce przekaźników elektronicznych*, Kraków

[11] L. Manovich, *Język nowych mediów*, op. cit, p. 188

viewers from the obligation to react despite the appearances of interactivity that show through expressions that are "directly" addressed to them (the techniques of direct addressing).[12]

The Internet, as a convergent medium, plays a significant role among the discussed technologies, as it creates a specific media environment in which such traditional media as films, TV, computer games, etc. can easily function. The Internet is also a medium that engages the receiver both in a cognitive and motoric way. This is so because the screen plays – which often happens simultaneously – various roles; It's the space of cognition, interaction and action, communication, surveillance (monitoring), violent behavior and pro-social actions; in other words it the space where messages are received and created. In fact, psychologists agree that regular and long lasting use of media leads to a permanent change in human personality and in the structure of neuronal paths in the human brain. However, data concerning biochemical, endocrinological, neuromuscular or sensory processes that may occur when watching – for example – TV, are practically unknown.[13] It is also unknown, whether the existence of media addiction results from a particular tendency of the users of such technologies and the characteristics of the media civilization in which we happen to exist or whether perhaps some particular features of specific media are addictive? The chapter will discuss the latter issue in a comparative approach (TV- a computer-the Internet – a mobile phone). In this respect, it is worth paying attention to the contents and the nature of a medium itself (e.g. the interactive character of the Internet or network games versus passive reception of traditional TV).

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The technologies have been presented in a chronological order for two reasons. First of all, every technology - according to the assumptions that were already expressed by the determinists - has a significant impact on human neurocognitive functioning irrespectively of the fact whether we are talking about printed or electronic media, whether the media are based on a verbal or iconic message. According to N.Carr, the evidence for the existence of a process that shaped our brains can be found in numerous neurological research project. Experiments proved that the brains of humans who can write and read differ in many ways from those who cannot do it – and the difference is not in the way they understand the language but also in the ways in which they transform eye signals, how they understand them

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[12] A. Ogonowska, 2006, *Voyeuryzm telewizyjny. Między ontologią telewizji a rzeczywistością telewidza,* Kraków
[13] R.Patzlaff, 2008, *Zastygłe spojrzenie. Fizjologiczne skutki patrzenia na ekran a rozwój dziecka,* translated by B. Kowalewska, Kraków

and how they formulate their recollections. [14] The influence of media is subtle, cumulative and spread in time. Every generation can be assigned particular media that define the personality, identity and communication patterns of its members. Don Tapscott, a researcher of new media, agrees with that idea and makes an attempt to visualize these dependencies. Thus, in the case of the first post-war generation, the so called baby-boomers, that includes people born in 1946-1964, TV was the invention that influenced the perception of the world. Generation X (which includes people born in the USA in 1965-1976 and 1970-1980 in Poland) is a multimedia-generation and it does not favor particularly one type of the media. Generation Y (born in 1977-1997, and 1980s in Poland) is the network generation, which uses the Internet to communicate, work, do everyday duties and to make new friends. Thanks to numerous applications that are offered by this medium, the Internet offer is highly personalized. What is more, particularly the younger generation of users personalizes the media to which they are constantly connected. The lack of the opportunity to use a mobile, blog, social network or the Internet TV result in negative emotions and frustrate the users. Thanks to the new technologies, the users are becoming increasingly engaged in multitasking and as intermedia users they can successfully compress the time devoted to using them.

The characteristics of screenagers

The generation of screenagers is also referred to as the ADD (Attention Deficit Disorder) generation, whose representatives have superficial and volatile knowledge, who easily share their privacy on the Internet and who have a prosumer's attitude to media which is the environment where they function both as creators and recipients of information. To achieve their goals, they apply remix strategies as they communicate through collage techniques which can be easily disseminated: mems, mashups, found footages, etc. The "copy and paste" technique makes them ignorant as regards the traditionally perceived rights of intellectual property. Moreover, it is a generation that treats equally the real and virtual world friends and identifies with virtual avatars. The representatives of this generation form coalitions and compete with the avatars of the others. The net kids, i.e. the teenagers of the Internet era have serious problems as regards their language and communication skills; they cannot make correct sentences in their native languages, select the information they receive, rank data sources, select adequate key words (e.g. in online search engines) or apply the rules of logics (e.g. to distinguish adequate logical operators such as and/or). [15] However, despite

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[14] N. Carr, op. cit., p. 68
[15] M. Desmurget, op. cit., pp. 109 - 111

the fact that they frequently apply new technologies, screenagers do not have particularly advanced media competences and, consequently, their activities in this area are often uncritical, thoughtless and automatic. On the one hand, the Web 2.0 culture that is related to the so called new media and the fact that the users often act as the producers of information facilitate the performatization of their behavior, but on the other hand there is a problem of the lack of fundamental skills that would guarantee effective and safe application of the benefits of new technologies.

TV attracts the attention of viewers and enforces a particular strategy of how the images are seen. In the case of still pictures, e.g. of a painting or of a fragment of physical reality that is in the field of vision of an individual, the process of seeing is active and the images are "processed" by complex movements of eye muscles.[16] There are transitions between particular elements of the image that is perceived and the eyesight is fixed continually on these elements. Then, on the basis of partial images, a complete image is created. However, the movement of eyeballs is not accidental, it is active and intentional as – to a large extent - it is steered by the individual motivation, attitude, expectations and knowledge of the viewer. That fact was proved by the classic research of Alfred Yarbus in 1967. After a series of experiments on perception in which paintings were used, he stated that the trajectory of eyeballs of a viewer does not only depend on the features of the image and the degree of how well the viewer knows the image but also on the viewer's motivations. The researcher proved clearly that the activity of the viewer can be influenced by asking him/her a series of questions regarding the image; it turned out that the questions had an impact on the individual strategies of viewing (the trajectories of eyeball movements). [17]

The situation is different in the case of TV viewing where the look is "frozen". Due to the nature of TV image, the perceptive activity of the viewer is limited and when watching TV, the viewer's pupil dilation decreases, which is the sign that the brain's activity is reduced. This is caused by the fact that eyes cannot accommodate as the distance and angle of watching are constant and imposed by the medium and the screen. The lack of the eye movement results in body numbness, immobility and lack of will. At the same time, some changes in the brain electrophysiological potential occur: in front of the TV screen the

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[16] R. Patzlaff, op. cit, p. 28
[17] Cf. P. Francuz, 2012, *Neuropoznawcze podstawy komunikacji wizualnej* [n:] P.Francuz, ed., *Komunikacja wizualna,* Warszawa, pp. 40 - 43

frequency of the beta waves decreases and the alpha waves start dominating, which leads to a decrease in visual concentration.

Another problem concerns, on the one hand, an incomplete process of perceptional organization on the part of children, who have difficulties with recognizing film characters and situations they experience as well as with the interpretation of the messages presented and, on the other hand, a strong and uncritical identification of young viewers with film and programme protagonists. Moreover, a problem appears with the identification of the media reality with the real one, which results in the creation of inadequate cognitive representations.

In 2011, as a result of the investigations on the psychological effects of exposition to screen media, the American Academy of Pediatrics issued a recommendation that parents should limit the access to media to children below two years of age[18]. According to M. Desmurget, every hour a day of "educational" TV between the 8th and 16th month of life results in the decrease of vocabulary by approx. 10%. Similarly, 2 hours a day of contact of children 15-48 months old with TV programmes with no age limits lead to a treble risk of delay in language development. The risk is six-fold if the first contact with TV occurred before the child reached the age of one year. [19] The number of hours devoted to TV viewing before the child is three years old is a negative factor as regards its future school education and the more time in front of TV, the higher probability that the child will have school problems which will emerge particularly clearly at the age of ten. An increased TV consumption at the end of the kindergarten period is a negative predicate of reading skills in primary school. The problems may concern social participation, concentration on tasks and the deterioration of attention-related functions. Moreover, the perseverance to solve problems decreases and the same happens to the motivation to engage in tasks that require intellectual effort. Because of the deterioration of language functions, such children have problems understanding the vertical structure of audiovisual (film, TV) narration and, consequently, they concentrate on its formal features that are most expressive (the rhythm, particular behavior of protagonists, unique element in their dresses). The decline in creativity is visible in the structure and form of games, the content of the children's works of art, which lack detail and well developed narration, and in their spontaneous comments on topics suggested by adults, which are less ordered and poorer as regards the structure and vocabulary. In the long run, the IQ of a TV child is becoming relatively lower and the development of other

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[18] A. Kołodziejczyk, 2013, *Media w życiu rodziny* [in:] A. Ogonowska, G. Ptaszek, ed., *Współczesna psychologia mediów. Nowe problemy i perspektywy badawcze,* Kraków, p. 52

[19] M. Desmurget, op. cit., p. 34

cognitive functions is delayed. According to Piaget's theory, the child can develop through its activities in the environment and the interactions between the parents, guardians and the peers. It imitates willingly their activities on the condition that it can see them directly. In line with the video deficit phenomenon, infants – even up to age of 3 – who watch an activity on the screen, remain passive and unmotivated to act. Moreover, an excessive contact with violence on the screen leads to the so called TV trauma, which is manifested by anxiety, depression, post-traumatic stress, dissociations and anger.[20] There are also such side-effects as sleep disorders, social anxieties, negative emotions and thoughts, and attention deficit disorders that may appear even till the adulthood.[21]

In the light of the above issues, TV education plays an important role in the prevention of addiction. It can be started when the child starts showing interest in this medium but not before the age of two, which is in line with earlier recommendations. The interactions may occur in various forms of the so called TV talks, which constitute a significant basis for informal education. Family home is a natural environment for watching TV and it is a safe place in which the first forms of developing TV competencies may occur thanks to the involvement of parents and/or guardians. A TV set cannot become a third parent and the child – sitting alone in front of a TV screen – a self-serviced individual. It is well known that the range of topics of conversations with a child should depend on its biological and development age as well as with its cognitive abilities. In the earliest period, the parents and the guardians play the role of mediators, i.e. they explain to the child the images it can see on the screen; they answer its questions and point out to the relations between the TV message and the social reality. Such talks do not only influence the comprehension level of the message by the child but they also neutralize its fears and anxieties that may result from both the presence of hostile or violent contents and the inability to interpret quickly the messages received. They help relieve the child's discomfort as the metanarrations of the adults are imposed on the network of TV images and messages. Moreover, the talks of this kind have a crucial preventive impact against iconic violence.[22] As regards this issue, it seems justified – especially in the case of TV – to analyze jointly the contents of advertising in order to make the child sensitive to the issues of social influence, persuasion and manipulation. The child should be gradually made aware of these issues in the context of other genres and media formats. In time with the development of the child's interests and cognitive abilities, one

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[20]L. Kirwin, 2012, *Czy kontakt z przemocą na ekranie pozostawia traumatyczne doświadczenia?*[in:] H. Grzegołowska-Klarkowska, ed., Agresja. Socjalizacja. Edukacja. Refleksje i inspiracje, Warszawa, p. 60
[21]L. Kirwil, op. cit., pp. 62-63
[22] A. Ogonowska, 2004, *Przemoc ikoniczna. Zarys wykładu (a draft lecture),* Kraków

should introduce issues related to comparative media studies. Practically, it would mean initiating situations in which children (aged 7+) watch fragments of various national versions of programmes based on the same format.

It was also observed that the emotional reactions of preschool-age children to fantasy messages (e.g. monsters) are much stronger than the emotions related to real dangers (e.g. the approaching disaster), which results directly from the level of their cognitive development. Even children over 13 feel fear against media images of physical and mental suffering, harassment, violence or global disasters such as accidents, epidemics, wars, floods, fires or terrorist attacks. Fears experienced while watching the media may result in traumas and other disturbances in the child's psychophysical development and this is the reason why the presence of parents or guardians is fundamental. While watching, they help concentrate on important issues; they explain problems and images that incite negative emotions and they support learning processes. By means of focusing children's attention, instructing them and contextualizing the contents of messages, they support effectively TV education and enable an appropriate implementation of the socializing potentials of TV.

The need for an early development of TV competencies is also justified by the fact that TV (irrespectively of its form) is one of the most significant socializing factors besides the family, classical educational institutions and peer environment. Family home is becoming a natural environment for TV watching (i.e. of the participation in a global cultural experience) and, simultaneously, a safe haven where – thanks to the involvement of parents and guardians –the development of TV competencies begins.

Computer

The computer screen is an interface to the alternative world that is accessible to the user at any time and without any limits. Apart from making and putting files into order, computer offers entertainment and meets the escapist needs of the user by providing computer games, films, photos (pornographic ones including), music clips and specialist software for editing. The computer is treated by its users as an external memory and the extension of several relate cognitive abilities such as data storing or ordering. Due to a personal attitude to this medium, users treat its breakdowns as their illnesses, which results in anxiety, anger and frustration. The reality of the computer is also a form of the world with its own order, customized to the needs of the users and managed by the users. The order in the computer reality may compensate the chaos in the real world and offers a need for a substitute control of a fragment of virtual reality that is completely dependent on its demiurge; it creates a place safe

from real problems. Browsing through files and a continuous use of various computer applications give a sense of security and cognitive activity. The user feels plugged-in and at the same time receives a feeling of relaxation. Even if the computer is off-line, it offers the sense of being in an alternative world and isolated from the current context of the difficult and painful existence.

The Internet

An online computer generates a completely new reality. The abundance of numerous Internet applications meets the needs of the most fastidious users who – as a result - have a sense of belonging to the online community. Being on-line facilitates the creation of one's own identity; it helps make contacts and makes it possible to create one's own messages (e.g. in the form of blogs, e-mails or posts on discussion forums). The TV voyeurism and exhibitionism that were discussed above, have their on-line equivalent which is developing thanks to the Internet cameras, video-blogs, dating services, the YouTube or social networks where messages (including films and photographs) can be shared which may be pornographic, intimate and private in character. Because of these applications, there is an increasingly stronger readiness to share carelessly the information on ourselves and the people with whom we have friendly or hostile relationships. Moreover, cyber-mobbing and cyber-bullying as well as other cyber crime inspired by the authors of on-line messages and the Internet users are a common phenomenon. Irrespectively of the crime and aggressive behavior, several initiatives emerge that have positive social response, e.g. online support groups or psychological advice services.

Network games and Second Life are a separate trend of research among psychologists who deal with the Internet. They can be investigated both in terms of communication environment and the environment of never-ending interactions. These parallel worlds require from the user almost as much time and involvement as daily chores and pleasures of the real world. However, the awareness that the virtual life goes on without the user of the application makes him/her anxious; moreover, a temporarily inaccessibility of the Internet causes anger. Both in the case of computer games and online communicators, the application generates a deceptive sense of connectedness with the virtual world and its inhabitants and it involves emotions and behavior typical for the real world social relationships, e.g. attachment, sorrow after the friend's death, love or jealousy. The computer screen protects to some extent the user's privacy (but the computer's IP can always be identified, so the anonymity is only temporary and illusory) so the user has some freedom of action: certain emotions and conduct can be revealed in the communication, which would not happen in everyday face-to-face

interactions The attractiveness of the Internet consists in "being in touch", "within the reach" of other people and cultural or commercial offers. Moreover – as it is the case with the computer itself – the Internet gives the sense that the user manages the virtual reality – an unpleasant contact can be stopped, an unattractive offer can be rejected or something can be arranged without visiting a hated institution or meeting a boring office clerk.

On the other hand the Internet makes it possible to be aux currant: to receive the latest information from the world, the latest gossips about celebrities, rates of exchange or the best holiday offers. One can also have a quick and free advice of the best specialist in town, read reviews on the latest theatre performances and films and can express his/her opinion by clicking on "I like it", which may influence the decision of other users who look for the information. The common involvement in the Internet increases the activities of media companies which transfer their operations to the network, e.g. they offer online issues of their newspapers or the possibility to watch online the new episodes of TV series. By incorporating classical media, the Internet attaches to itself new groups of users who increase the range of their online activities. It works in the same way as it is the case with the customers of a supermarket who, being attracted by the advertisement of one product, buy the whole range. The mere awareness of the abundance of the offer and opportunities that are generated by this medium have a gratifying effect on the users, especially when they can see similar behavior in their social environment.

All these factors result in the fact that the Internet makes its users committed and addicted as it guarantees the fulfillment of various needs at a relatively low effort and cost. It seems very attractive but also dangerous to people who are lonely, handicapped and addicted to psychotropic drugs and other activities such as gambling or sex.

Online and computer games

The new generation games reflect probably most completely the ideology of the present social formation that promotes youth, activity, change, novelty and mobility. Computer games transformed from a niche pop cultural entertainment to a well developed industry that is in the mainstream of popular culture and present in numerous diversified forms and various personalized types of interfaces (haptic ones, consoles, mobile phones and other). A computer game became an epitome of new social values as it is in the player's power to update the potentials of the game which is not a ready-made product (as a printed book). Thus, the user of this interactive and also ergodic medium is forced to be active as regards particular way of thinking, both linear and hipertextual in character. The players often need to apply logistics

analysis, i.e. they have to make predictions on the basis of available simulations or to create new media objects, make decisions and monitor their effects in real time.

The majority of network games, similarly to TV, belong to media of the present. However, TV does not require the interactivity on the part of the users, while the games involve both their brains and bodies, which successfully takes them away from other areas of the real social life. Despite numerous positive or even educational aspects of the games such as spatial learning, training of motor coordination, central and peripheral vision, spatial imagination, the ability to predict particular actions and to make strategic decisions under time pressure[23], it cannot be denied that the levels of technology and the content (interesting narrative solutions) are addictive. The games immerse the users, who become addicted by unusual visual experiences and interesting plots. They encourage competitiveness and give the users the opportunity to present to the virtual social world their competencies: manual skills, the knowledge on media products, intelligence, quick response time, etc. The interesting plots and attractive technology of the games, as well as the fact that they are based – for example - on a cult novel of film, result in the situation that the process of playing absorbs completely the psychological energy of the player. The fascination of the product and the opportunity to participate in a new and attractive cultural experience supersede other activities and the more incompatible the everyday environment is to the needs and mentality of the young player the more powerful is the process. In time, the virtual world becomes the only world that is worth interest. This sense is strengthened by the fact that it is inhabited by immaterial objects with which the players identify themselves and which are associated with a particular social value that is assigned to them by the others (avatars, real estates, animals, luxury goods, virtual companies and corporations). Thus, games create simultaneous worlds where the players are given a chance to try alternative patterns of existence, together with the change of such fundamental parameters as gender, age, race, appearance and profession. Players, while creating their avatars or identifying themselves with particular characters, extend the scope of their identity and literary become multidimensional characters that are created by themselves. They become products that embody their dreams which frequently can come true in the real world (e.g. the change of sex, plastic surgeries that change the face or the body, friendships continued outside the virtual world).

Mobille phone and iphone

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[23] Cf. A. Ogonowska, 2013, Współczesna edukacja medialna: obraz i rzeczywistość, Kraków, pp. 189 - 191

At present, there are two dominating cultural trends. One is the domestication of media – which concerns also the media that functioned so far mainly in the public area, and the other is the extension of the area of such mobile media as the mobile phone, transistor radio, newspaper and book. The technologies that are typical for both trends are subject to personalization and – frequently – to miniaturization. They are a part of the material culture that changes significantly the way of man's psychological and social functioning. People are surrounded by an increasing number of objects that are considered to be indispensible for everyday life and pressure as regards overcoming the limitations of time and space and – indirectly- the constraints of body and laws of biology. The mobile phone and its predecessors in the forms of landline and wireless phones developed new patterns of social communication as well as new ways of understanding the relations between private and public spheres. Moreover, the mobile phone, being a two-way communication and interactive medium, facilitates both the reception and the generation of information and the access to the Internet and all its media. As a result, the Internet became a mere addition to the mobile phone whose widespread use did not only lead to the decentralization of information flow but it also entrapped the users in a communication network that exists beyond any other types of environment and related constraints. The availability and readiness to receive the information from the mobile is a proof that one is active and continuously avaialble. A temporary breakdown of the medium or unavailability result in frustration, irritation and the sense of loss and defectiveness as well as the fear that a momentary separation from the internet will have negative effects to, first of all, the social functioning of an individual (the impossibility to be up-dated, to comment on the information received or to have the access to interesting data from the Internet or e-mail box)

Conclusions

The screen media discussed above lead to an increased involvement of children and teenagers in media (network, TV, computer) activities, which is happening at the cost of other social activities based on direct communication[24]. Consequently, the level of their language, communication and social competencies is continually decreasing as the media users have fewer opportunities to practice various forms of communication with other people on a daily basis and, as a result, neuronal changes occur in their brains and the levels of certain

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[24] A.Ogonowska, 2015, Komunikacja i porozumienie, Kraków

neurotransmitters. Screenagers are also susceptible to the pathological use of media, which is considered as a new form of behavioral addiction .[25]

[25] A.Ogonowska, 2014, Uzależnienia medialne czyli o patologicznym korzystaniu z mediów, Kraków

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Abstract

The aim of the article is to present the role and influence of new Information and Communication Technologies (ICR) on children and teenagers. Influence and social impact is one of the key issues of social psychology and currently – together with the development of new audiovisual media – it is applied in the research on the relations between media and their prosumers. A dynamic development of these technologies is a serious challenge to psychologists. That is also due to the specific features of media psychology itself, which is a hybride subdiscipline based on the research, theories and models investigated by psychology, media, film and cultural studies

Key words: screen, psychology of media, media impact on prosumers, screenagers, screen society