

## ARTS, COMMUNICATION AND DIGITAL TECHNOLOGIES

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### ABSTRACT

Paul Watzlawick, an Austrian sociologist and psychotherapist, set out a famous axiom about the necessity of communication. He said “One cannot not communicate”. From this point of view on culture and digital technologies, when we use social networks, various communication applications, computers, smartphones and watches on a large scale, and when we have smart buildings and cities, we could set another axiom: “One cannot not to use digital technologies” (whether for communication, work, art or some other purposes). With so much technology in our hands, on our skin, on our bodies, in our bodies and in our minds, haven't we become cyborgs - half people, half machines? People usually refuse to admit it.

**Keywords:** culture, technology, cyborg, identity, art.

### INTRODUCTION

Back in 1960s Paul Watzlawick, an Austrian psychotherapist and sociologist, constructed his theory of communication called The Interactional View. The theory was based on five axioms that Paul Watzlawick presented along with co-authors Janet Beavin Bavelas and Don Jackson in *Pragmatics of Human Communication*, of which the most famous is the one that says „One cannot not communicate“. In later years, Watzlawick's axioms and theory were elaborated in the works of other authors (Griffin, Ledbetter, & Grayson Sparks, 2012).

Watzlawick based his theory on the cybernetic tradition and terms such as feedback, homeostasis, *autopoiesis*, interactive information exchange and the like. Since cybernetics and communication theories are considered to be a precursors to many scientific fields like information theory, artificial intelligence and other contemporary theories that are of great interest for this research, and includes huge heuristic influence on many other fields such as cultural perspective and studies of human identity in the context of digital technologies (Hayles, 1999), also relevant to this analysis, we will take a similar approach and set forward a thesis that says „One cannot not to use digital technologies“. Whatever the purpose of that use, whether for communication, work, art or some other purposes, to stay involved in the culture, as David Bell (Bell, 2007) suggests, we need to use digital technologies (like smart phones, computers, social networks, applications such as Viber, What's Up etc.). However, such an approach to life and relation to technology and culture has its consequences. It happened that digital technology has „crept under our skin“, it dominates us and changes us and therefore that relationship between man and technology must be studied.

### ART, CULTURE AND REALITY IN THE CONTEXT OF DIGITAL TECHNOLOGIES

One of the first theorists who dealt with the concept of cyber culture was the French philosopher and culturologist Pierre Levy. In the book *Cyberculture* (1999), Levy claims that the key to understanding the culture of the future or cyber culture lies in the concept of „the universal without totality“ which represents the „paradoxical essence of cyberculture“ (Levy, 1999, p.98).

Universality of the new form of culture is realized through relationship and interaction in which totality is absent on the semantic level. According to Levy, the basic characteristics of cyber culture are interconnectedness, the creation of virtual communities and collective intelligence. Levy states that there are many art and cultural genres that could be considered to be part of cyber culture (Levy, 1999) and that cyber culture, as a form of cultural production, that uses the Internet, digital and hypermedia tools, or virtual data environments for creation, does not necessarily rely solely on these (digital or virtual) tools and environments. The cyber culture also uses the resources of the physical environment in its creation. In this sense, Levy distinguishes between „closed“ or offline art forms and „open“ art forms that are „accessible over a network and infinitely open to interaction, transformation and connection with other virtual worlds (on-line)“ (Levy, 1999, p.126). These forms of culture are complementary. They feed and inspire each other. It is not necessary to oppose them as is sometimes done, says Levy (Levy, 1999, p.126).

Let us also mention here the theoretical considerations of cyber culture by Lev Manovich. Basing his view of cyber culture on Levy's discussion, Manovich defines cyber culture as „the study of various social phenomena associated with Internet and other new forms of network communication“ (Manovich, 2003, p.16) such as online communities, multi-user online domains, the problem of identity in a new environment, everyday „cyborgization“ of the human body and the like. In this study, we used the term cyber culture for the culture that develops in the context of various forms of networking and cooperation on the Internet or in other digital and virtual environments, just like Manovich suggested, and the space in which the users and actors of that culture move, we named cyber space. In our research, therefore, the term cyber culture denotes forms of popular cultural activity and the field of creative artistic expression both on the Internet and in any other environment that involves networking and the use of modern technologies.

Culturologist David Bell also talked about totality (but not about the wholeness) as an aspect of contemporary culture. Bell based his perspective on cyber culture and the cyber environment on a Manuel Castells' networked society thesis, and argued that this culture of „real virtuality“ (a term he borrows from Castells), „because it is part of the network society, it follows the network logic, of on or off – to be in the network is to be part of culture, to be switched off is to be excluded“ (Bell, 2007, p.83) from the culture in terms of connection or disconnection with the network (in our case, the Internet). Therefore, to be present online through various performances or to actively participate, means to be part of the culture. Anything else means being out of culture. Interpreting Castells, Bell states that culture „has always been virtual because we perceived it through symbolic practice“ (Bell, 2007, p.83) which means that cyberculture is real, although mediated. In *Cyberculture Theorists: Manuel Castells and Donna Haraway* (2007) Bell cites a significant quote of Castells where he says that „[r]eality (that is, people's material/symbolic existence) is entirely captured, fully immersed in a virtual image setting, in the world of make believe, in which appearances are not just on the screen through which experience is communicated, but they become the experience.“ (Castells, 2000, p.400) David Bell says that in the new networked society of „real virtualities“, „previously existing cultural forms and practices have been absorbed and reworked“ (Bell, 2007, p.79), while cyberspace was created precisely by the merging of the Internet and virtual reality (Bell, 2001, p.32) which mixed with the physical environment, thus creating a new reality that we call cyber reality in this research. In the context of reality in which virtual and online have become everyday phenomena, different circumstances are developing as the basis of identity. Identity is the result of the interaction of different environments that are not opposed, but permeate and complement each other. We live in cyber reality and cyber culture, and our identity also becomes a cyber concept that does not necessarily have wholeness, just like Pierre Levy's culture. That is, if it exists, it can only be realized by unifying the different contexts and environments in which an individual resides and exists as their user, as a totality without wholeness that has long been considered an aspect of identity in a material world in which the organic body is the predominant measure of humanity (Janjetović, 2001a, 2001b). In this research, we found some art works (the art of the internet and multimedia as a segment of new culture) which gave us some answers and clues about life dictated by technology. As a methodological approach we used case studies in which we compared works of art with real life situations to gain an insight into the

relationship between art and reality. That kind of art, although not real (as art never is), is quite realistic when it comes to the reality in which we live today, and it says that everything that surrounds us and the way we live today has become a part of cyber culture and cyber reality.

That reality is no longer made only of the physical environment and the space of physicality in which we move, work or sleep. Reality today is made of physical and virtual, or online reality and spaces. It is a mix of those realities. Reality has been extended by virtual reality that is artificial in nature, but still real and impossible to avoid. We cannot not to be part of this new reality because of plenty of cameras on the streets and in the physical spaces that transpose us into the online space. The space in which we move has become cyberspace. Reality in virtual space does not exist in the sense that it exists in the physical world, nor is it separated from the world of (media) representation (which is increasingly true for this physical world as well). In virtual space, reality exists precisely as a visual representation. Only what is visually shown, exists as virtually-real and does not necessarily have a referent in physical reality, because physical reality is a part of cyber reality as well as virtual reality, it is not necessarily the original from which virtual reality arose. The appearance in virtual space exists as a *sui generis* reality, i.e. the reality which is not necessarily dependent on the reality of the physical (material) world, but the one that is in a constant relationship with it. Also, it is not a re-presentation, i.e. re-presentation of existing „real“ events, but as a possible new presentation of the events. This implies that the representation of identity in virtual space is not a different or repeated interpretation of identity from physical space, in the sense of pictorial re-presentation in traditional visual media, but a completely new process, a phenomenon in itself. It is a process that includes new, possible (pictorial) performances. It is the actual occurrence of the totality of all possible existences (Janjetović, 2001a, 2001b).

The space in which we move has become cyberspace, but not in the terms of William Gibson. In 1980s, William Gibson envisioned cyberspace as an artificial space that users can enter using special devices whenever they want. Today, we are part of that (cyber) space all the time. When we walk down the street or enter a mall or a bank we are recorded by webcams that are connected to databases in control centers. We become part of virtual reality whether we like it or not. In fact, we do not want to avoid it. We are constantly on our phones checking text messages, Facebook and Instagram profiles, emails, web sites. We are also moving our daily activities online: paying bills online, holding sessions online, educate ourselves online, even lawsuits and baby-sitting take place online (especially during the coronavirus pandemic). Our identity is no longer shaped only by our biological body, or our relationships with people and activities related to our physical space. Today, we are what we show online, what we see online, what we do with others when we are online. Online we can live second lives, make digital bodies, and make virtual friends, we can be whatever we want to be. But, we still cannot give up our life in physical space. Living in between the physical and the virtual, between the natural and the artificial, between biology and technology, we become cyborgs – half people, half machines who are a new state of humanity and therefore an important reason and subject for scientific (and also art) consideration (Janjetović, 2001a).

In this research, we started from the assumption that every user of the Internet and other virtual and digital technologies is actively involved in culture, as David Bell states, and that user is in an active and conscious relationship between the physical environment and the virtual (or online) space that is upgrading the „old“ body and the environment but immediate disconnection from the network, i.e. of the Internet, in the context of this paper, will not be seen as an exclusion from the cyber domain and the cyber culture as Castells and Bell suggest. The user who is not online at the moment still remains in the cyber environment, he just does not have access to certain spheres and practices of the virtual or online domains. The user is always aware of the existence of the cyber environment and his own presence or absence from some of the domains of that new (cyber) environment. Those who do not use, for example, social networks on the Internet, are aware of their existence, but they are also aware of their own absence from the mentioned environments. To be fully involved in the culture, one have to be part of it because everybody else are. To be in online „space“ is no longer a matter of choice but a state of necessity.

The discussion of identity in the culture of the Internet and new technologies presented by Sherry Turkle in her highly influential study *Life on the Screen: Identity in the Age of the Internet*

(2011) is extremely important for our research. In this book, Sherry Turkle dealt with the process of online identity creation and the ontology of online existence. Turkle reexamined the existing notion of identity as awareness of oneself as a unique person at every moment of time and in every situation, and found reasons why this approach to identity is unsustainable in the screen, i.e. cyber culture. Turkle began her study *Life on the Screen* (2011) with the idea that when we „project“ ourselves into the world on the screen, we perceive ourselves in a completely different context and begin to question ourselves from different aspects. In the mentioned text, Turkle (2011) examined the interaction and communication of participants in different multi-user domains and virtual games on the Internet and argued that in these online games in which multiple users participate, the self is constructed by one's own efforts, and social norms are built in the interaction in in such an environment, they are not simply taken over from the existing society, but these systems build their own relationships. New technologies have created a new context of human existence which is no longer a matter of choice, as is the case with Sherry Turkle, but in the modern age it cannot even be avoided thanks to the devices we use and from which we do not separate even when we sleep.

On the other side, Elizabeth Grosz claims that the image of our body affects the sense of self, and thus identity, and that image depends on the space around the body, on objects in the space and objects on the body (wardrobe, accessories, etc.). Grosz also states that these „inanimate objects“ when touched or „when they are on the body long enough, become extensions of body image and sensation“ (Grosz, 1994, p.80). Likewise, modern devices (especially portable or wearable ones) that are constantly connected with the body, become an extension of the body. Their representation (image), which is often an integral part (image) of the body, gives the user the feeling that his body is the body of a cyborg, i.e. that the users of these devices have become cyborgs. Cyborgs in the contemporary screen culture of the Internet and other digital media are neither organic nor mechanical as Jennifer Gonzalez (1995) calls them, but a new type of techno-cyborg that is a combination of image, machine and human body. In fact, users of new technologies clearly express the fact that they are aware of their integration with technology. This is proven by research on the self-image of users of social networks on the Internet by Fizek and Wasilewska (2011). Their research showed that photos of users of social networks include not only the figure and body of the person in question, nor only his or her friends, but the phone has become a mandatory prop. A photographic record in the modern online environment necessarily involves the combination of a person and a device. Papacharisi also claims that taking photos, that is, taking photos of oneself (taking selfies) has become an essential act in the online sphere that should also be recorded. The act of taking a photo of yourself has become part of the obligatory activity on the Internet. However, this is not the only goal of photographic representation on the Internet. In the photos shown, it is no longer enough to photograph a person (that is, oneself, if it is a selfie), but also the device with which the given photo was taken. The device, i.e. the camera or the phone is an indispensable element in the overall presentation of selfies online. The same is claimed by Lev Manovich, researching the way of presentation on Instagram. In the photos on this social network, the goal is to show one's own existence in an environment where there are other people and the device with which the photo was recorded (Manovich, 2016).

Man's relationship to these new devices makes futuristic visions of software chips embedded in human bodies that allow the control and manipulation of memory and experience on which, among other things, the basis of human identity stand has a strong foundation and are shown in the futuristic movies like *Total Recall* (Wiseman, 2012) by Len Wiseman and John Lyde's *Survivor* (Lyde, 2014). The idea that memory can be artificially implanted in the human mind and experience and behavior can be based on it, i.e. a person's reflection on his own being and identity (Landsberg, 1996, p.176) is the theme of the aforementioned film *Total Recall* from 2012 as well as its predecessor of the same name from 1990 (Verhoeven, 1990) and Robert Longo's 1995 film *Johnny Mnemonic*, because the body in contemporary culture has become a place to store artificial memory, says Christian Paul (Longo, 2003, p.170). This relationship between the device and the human body forms the context for the new experience of the self discussed in this research. It represents the context of cyborgization in which the notion of self and identity can be discussed in relationship between human and posthuman notions of the self, speaking in the terms of Catherine

Hales, that is, the union of man and machine in the terms of Donna Haraway. At the same time, it gives a clear picture of the technology-defined culture in which we live.

## CASE STUDIES

Miri Segal's and Or Even Tov's art project *Future Perfect* (Segal, & Even Tov, 2010) is a video that shows Sergey B. giving a televised conference speech to observers and it alludes to Sergey Brin the inventor of Google glasses shown in Figures 2 and 3. The video is based on a commercial for Google glasses, and the message is the same – life dictated by technology.

In Miri Segal's video, Sergey B. is the manager of the Gooble Corporation whose logo visually and unambiguously resembles the Google logo and thus refers to it. Sergey B. gathered visitors to promote a new product of the Gooble Corporation called G-mind. In the artwork of Miri Segal, the G-mind product is designed as a portable device that is activated by the user's mind, and is based on highly developed modern technology that allows recording and documentation of human memory where the image from the device can be displayed on the retina of the human eye, "a new brave reality" as Sergey B. states in the movie. All the human memories could be stored on different internet places accessible to users whenever they want. Video Sergey B. is a reference to the speech of the president and founder of Emotive Systems, Tan Le, who promoted her company's new product EPOC headphones that use brain waves to control the movement of the human body at TED Global 2010 (Tan Le, 2010). But, Miri Segal's work raises the question of attempts by large corporations such as Google, Facebook and others to put man in a passive relationship with technology in which machines would do everything for their users (even without physical touch just like Google glasses do in the Google advertisement). What Tan Le (from Emotive System) presented as a medical aid, Miri Segal considered in a cultural context as a technology that shapes us and turns us into cyborgs.

The relationship between man and technology presented in the art works of Miri Segal is reminiscent of the emergence of video games that involve the interaction of physical and virtual environments, such as the recently launched game Pokémon GO and the Blue Whale Challenge. Pokémon Go (2016) is an augmented reality mobile game. It uses mobile devices with GPS to locate, capture, train, and battle virtual creatures called Pokémon which appear as if they are in the player's real-world location while the Blue Whale Challenge (2016) is a social network phenomenon which is related to the fatal outcomes of the destinies of some adolescents. Miri Segal's work explicitly shows the idea of merging two realities – the physical one in which we reside with the presence of a biological body and the virtual one which represents a recorded and archived representation of artificially created content, as well as in the mentioned games. This art work talks about the impact and consequences that modern technology has on human life, i.e. users.

There is another scene from this art work which is of great interest for this study. This scene shows a virtually assembled audience (figure 6). This is a scene that is also no longer the „future“ or “future perfect”, but reality. Conferences, meetings, school classes and other events have been taking place online for some time and have become our everyday life, and since the Covid-19 epidemic, it has become a necessity. Figures 4 and 5 show actual recordings from classes at the PIM University in Banja Luka, where teaching takes place synchronously in the classroom and online through various e-learning platforms.

Let's consider in this context two more examples of cyber art (as Pierre Levy calls it). In Figure 6 there is an example of the antenna in the head of artist Neil Harbisson (*Sense of Colour: Cyborg Antenna*, 2004). Harbisson claims that the antenna is an organ that serves him to explore the reality, to hear colors and overcome the limitations of the body since he was born as an achromatope and cannot see colors. For Harbisson, being a cyborg implies a sense of identity. Or another example of more recent Wafaa Bilal's *3rdi* (2010) shown in Figure 7 in which the artist had a camera surgically implanted in the back of his head. The camera serves as an artist's third eye capturing the photos of space behind the artist's back. In Bilal's act the captured photos are sent via USB connection to the laptop that the artist carries with him, and from there using 3G wireless technology to the website [www.3rdi.me](http://www.3rdi.me) where they remain saved and available to the public. In

addition to the artist's action representing an attempt to capture his past, as he claims, the work can be interpreted from the perspective of McLuhan's theory of media as extensions of human senses. The built-in camera like a third eye and an upgrade to the sense of sight, enhances the human body for the ability to see the space behind the back (without turning the head or body) which is unavailable to human beings without devices. Wafaa Bilal's performance is an extreme case of upgrading the human body, but it is not new. People have long been accustomed to using various devices and prostheses to overcome deficiencies. When we compare standard hearing aids used to overcome the problem of deafness and the devices shown in the art performances, shown on Figure 3 and 4, we can conclude that the implants are no longer a phenomenon, but a real and common life situation. In that context the art performans by Bilal, as well as that of Neil Harbisson and other works covered in this study, show the degree to which the relationship between man and machine (device) has reached, but at the same time raises the question of the boundaries between man and machine, i.e. the questions of whether the media (and thus the other devices) has become extensions of the human body and human senses as stated by McLuhan (2008), or perhaps man has become an extension of devices and machines as stated by Christian Paul (2003, p.170).



Figure 1. Miri Segal & Or Even Tov. *Future Perfect* (2010).



Figure 2. Google Glass prototype (History of Information, 2013).



Figure 3. Google Glass can be controlled using the touchpad or with „voice actions“ (Tech advisor, 2021).



Figure 4. Sergey B's online audience (Miri Segal and Or Even Tov, 2010).

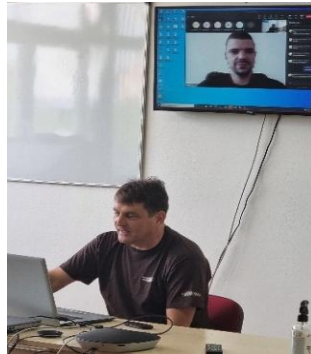


Figure 5. Footage from the class held in May 2021 at PIM University in Banja Luka. Photo by Ljubica Janjetović.

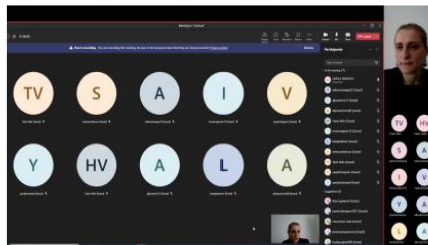


Figure 6. Footage from the class held on MS Teams in 2022 at PIM University in Banja Luka.



Figure 7. Neil Harbisson, *Sense of Colour: Cyborg Antenna* (Daily Mail online, 2014).



Figure 8. Wafaa Bilal. *3rdi* (The National Student, 2011).

## SOME THEORETICAL ASPECTS OF DIGITAL TECHNOLOGY USE AND COMMUNICATION

Miri Segal's video work *Future Perfect* also treats communication as a human necessity. However, considering the (digital) technologies and media that are used for communication today, it is necessary to consider what impact they have on interpersonal relationships because according to Paul Watzlawick, communication is a system of human relations, i.e. of the relationship between man and his environment in the form of an exchange of information in which man participates whether he wants to or not because one communicates verbally and nonverbally. Every behaviour, according to Watzlawick, is a form of communication. Whatever he does, a man is part of that system (Griffin et al., 2012). Watzlawick says „there is a property of behavior that could hardly be more basic and is, therefore, often overlooked: behavior has no opposite. In other words, there is no such thing as nonbehavior or, to put it even more simply: one cannot not behave. Now, if it is accepted that all behavior in an interactional situation has message value, i.e., is communication, it follows that no matter how one may try, one cannot not communicate. Activity or inactivity, words or silence all have message value: they influence others and these others, in turn, cannot not respond to these communications and are thus themselves communicating.“ (Watzlawick, 1967, p.29) It is precisely for this reason that man cannot not communicate says Watzlawick (1967, p.29).

Watzlawick (Watzlawick, Bavelas, & Jackson, 1967, pp.66–67) also stated that humans are the only living creatures scientifically proven to use both digital and analog forms of communication. e.i. metacommunication (communication about communication). He states that „if we remember that every communication has a content and a relationship aspect, we can expect to find that the two modes of communication not only exist side by side but complement each other in every message. We can further expect to find that the content aspect is likely to be conveyed digitally whereas the relationship aspect will be predominantly analogic in nature.“ (Watzlawick, 1967, p.64) But, if we take into account that in the modern world we predominantly talk digitally and since this digital communication is at the expense of analog, we can ask ourselves how much we are still human given the lack of relationship aspects of analog communication. We can also ask ourselves are we still able for metacommunication. Thanks to modern technology and many devices that are increasingly available to all levels of society, we talk more and more, but are we still able to talk about our communication or are we still human enough to talk about communication at the meta level posted by Watzlawick and the associates, remains a question to be considered in some future research.



## CONCLUSIONS

In the age of digital technologies, when communication and most of human practice are transferred to the online sphere, a person has fewer and fewer opportunities (if any) to remain in the mainstream of culture without using digital technologies for communication, work, art and the like. David Bell (2007) and Manuel Castells (2000) would say – to stay involved in the culture.

But, in this context, where different platforms, applications, chat bots and digital characters are increasingly replacing the physical environment, the human figure and appearance, where the human voice is mediatized and often replaced with keyboard beats, and touch is reduced to physical contact with the device, it is to be expected that interpersonal relations will also change and that people will become closer to devices than to other people. People are less and less separated from their (digital) devices. Devices become not only a part of human life (Fizek and Wasilewska, 2011) but also part of his body (Grosz, 1994), and thus his identity, as Lev Manovich (2016) suggests.

This relationship between man and digital technology was largely explored in art (Gonzalez, 1995) and by artists who, through the examples discussed in this study (Miri Segal's *Future Perfect*, 2010, Neil Harbisson's *Sense of Colour: Cyborg Antenna*, 2004 and Wafaa Bilal's *3rdi*, 2010), presented the future of man's relationship with devices and the idea of the cyborg as a new phase of humanism. Also, by comparing the ideas expressed in works of art with the actual state of human physical environment, it can be seen that humanity is moving in that direction exactly.

Finally, it is important to consider the notion of communication as an important human determinant and the impact of digital technology on the forms of modern communication. Paul Watzlawick and his associates claimed back in the 1960s that man cannot help but communicate, because all human behavior is communication. Also, Watzlawick presented the idea of the form of human communication as an analog and digital form, and metacommunication as an immanent human ability. In the context of contemporary cyber culture (as Pierre Levy, 1999 and Lev Manovich, 2015 would say), there is less and less analog (behavioral) communication, and more and more digital (content-oriented) communication, and any discussion about post-humans (Hayles, 1999) and cyborgs (Haraway, 2008) and doubts about their ability to metacommunicate (at least in the form in which it was presented by Watzlawick, Bavelas and Jackson, 1967) can be considered justified.

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