The State of Anthropological Uncertainty as an Educational Problem

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Abstract

The assumption was made that in the epoch defined as technopoly or techno-everydayness, in which almost every person is physically or mentally supported by technology, or is simply "improved" with the help of it (so-called Human enhancement), the sense of anthropological uncertainty appears to be more and more common. This was often emphasized by Jean Baudrillard, the author of the concept of the "disappearance of reality", proclaiming that the real world is replaced by simulacra: “Am I finally a human or a machine?” - he was asking and then answering in the following way – “Today the answer to this question no longer exists: I am a human being in real and subjective terms, but virtually and from a practical point of view I am a machine ". Even if his position is considered too radical, one cannot ignore or diminish the importance of the impact of high technology on the physical, and especially the mental condition of the users of everyday media. These considerations have focused on the educational implications of this impact, recognizing that young internet and smartphones users are more exposed to the effects of a sense of anthropological uncertainty than adults, and hence they require strong support in this area from pedagogical theories, and above all from pedagogical practices. Presentation of the current research findings in this area creates an opportunity to define the scope and program of modern media education, which has been called education for information freedom and information activism. Such a pedagogical concept is based on popularizing, teaching and shaping a positive attitude of young people towards the Internet and technological gadgets, which is based on the conscious observance of the principles of "information hygiene", and the supreme principle in this case is self-limitation. That is why the state of anthropological uncertainty is one of the most difficult challenges imposed by techno-everydayness that school and non-school education has to accustom with.

Keywords: Realignment of Education, Anthropological Uncertainty, Human Enhancement, Computer Addiction

Introduction

The benefits stemming from education are so obvious that they do not require any special justification. Especially when the didactic and educational processes - as it happens today, in the era of information societies (heavily diversified in terms of acquiring, processing and transmitting information) – are subject to complete commercialization and submit to the laws of free market economics. When the number of NEETs (Not in Education, Employment, or Training – unemployed people who do not continue education or vocational training) is increasing in the richest countries, when there is Wikipedia, and when students become school reluctant “digital natives” and their parents, guardians and teachers become “digital immigrants” (Prensky, 2001: 1-6). After all, even the founders of the online encyclopedia are in favor of investing in the development of education systems. Jimmy Wales, one of the founders of Wikipedia, says: "What about the fact that thanks to the Internet today we have access to a greater range of information than ever, if it is information of different quality? [...] Today's youth can handle computers and the Internet very well, but they do not know how to assess the credibility of what they find on the Internet. Someone needs to teach them how to distinguish facts from opinions, information from gossip, truth from falsehood. This is a task of schools and teachers "(Wales, 2011: 22). In other words, education is always purposeful, but it must respond to the challenges of the reality in which it is carried out. Therefore, it does not only have to constantly transform its own content, forms, and even goals, but above all it has to persistently and permanently favor the development of students and teachers.

Jean-François Lyotard, a very radical analyst of the information society who characterized it with the words: "We now live in a time-space, in which there is no identity, only transformations" (Lyotard, 1988: 31), was conscious of the need to create postmodern education. However, he did not give teachers the hope for reaching self-fulfillment or achieving their traditional

didactic and educational goals. Reflecting on their future relations with students, he predicted that in the didactic and educational practice the importance of "cyber-professors" would increase, stating quite ironically that small losses would be incurred by pedagogy alone, as students would simply have to "learn something", probably not the content itself, but rather how to "use terminals" (Lyotard, 1997: 142-143). Since the new reality itself delivers new content and problems, we are in the constant need for learning and teaching others.

It is easy to point out controversial assumptions and issues in Mark Prensky's and Wales's educational concepts and outrage Lyotard's shocking pedagogical proposals, but there is no doubt that the above-mentioned interpreters of post-modern processes that take place in the world enrich the current arguments of the education crisis researchers, and simultaneously they set new, very bumpy ways to modernize teaching and upbringing processes. The essential condition that has to be fulfilled to follow them is the determined tightening of school and out-of-school education connections with everyday life, which Prensky calls "realignment of education" (Prensky, 2001: 5). More and more often, we notice that the realignment of education consists primarily of the critical acceptance of new technologies referred to as shallow and soft technology, i.e. taming them.

The nature of modern man's relationships with machines should undoubtedly be one of the most important aspects of this educational taming. As with time this connection has become deeper, more complex and ambiguous. Many researchers have already written about the fact that we can witness the creation of a mechanized man, others - about the creation of a humanized machine. The associated with this phenomena threats to individuals and societies were pointed out in the last essay by Jean Baudrillard, which he written shortly before his death. The following words of the essay are particularly moving: "Let's talk about the world in which man disappeared. I mean disappearance, not depletion, extinction or extermination. Because the depletion of resources or extinction of species are physical processes and natural phenomena. This is where the essential difference lies, as the human race is the only one able to find a special way of disappearing, which has nothing to do with the laws of nature. Perhaps we can even talk about the art of disappearing "(Baudrillard, 2009: 15). Furthermore, Baudrillard wrote about the dangerous consequences of this state of things much earlier: "Am I finally a human or a machine? - he was asking himself and immediately concluded – Today, the answer to this question no longer exists: I am a human being in real and subjective terms, but virtually and from a practical point of view I am a machine. As a result of this, the state of anthropological uncertainty is created "(Baudrillard, 1994: 254).

Even if one does not share Baudrillard's pessimistic position, it is difficult to disagree with the increasingly common belief that the state of such anthropological uncertainty cannot remain indifferent to educators, since all modern students are free to use high technology products, especially multimedia gadgets.

The "Human Enhancement" problem

Anthropological uncertainty is of course a phenomenon, and at the same time a very ambiguous concept, but now in the human era, that is, in the Anthropocene - as Eugene F. Stoermer and Paul J. Crutzen (2000: 17) called our times – is fully justified in describing the deepening relationships of man with technology. These relationships are clearly radicalizing the shared by most people belief of the Renaissance thinker - Pico della Mirandola - saying that human nature has not been determined once and for all (2010: 39). In the 21st century, scholars and ordinary people more often ask: Who is a modern man and what is humanity?

They do not ask, because they are watching movies like *The Bicentennial Man* (directed by Chris Columbus, 1999), a screen adaptation of the book entitled *The Positronic Man* (1992) by Isaak Asimow and Robert Silverberg, in which the hero is an android working as a servant for a wealthy family. The robot looks like Robin Williams, because this actor played his role, but more important than his physicality is in this case his omniscience, patience and forbearance that allows him to build real emotional relationships with people.

These questions are also not asked due to the fact that people read massively texts written by futurologists, such as Peter Cochrane and Raymond Kurzweil. In the middle of the last decade of the 20th century, when he was still the head of the British Telecom research department, P. Cochrane claimed that "around year 2015, there will appear a computer that will be the equivalent of a human being. It will have the human-identical ability to associate concepts and the same memory capacity. In ten years, [it] will appear on our desks, and after five years we will be able to incorporate [its] extra processing power [not just information]"(Cochrane, 1994: 28). Whereas at the beginning of the new millennium, R. Kurzweil claimed, among others: "Computers will cease to exist until 2009. Visual information will be sent directly to the retina via devices

placed in glasses or contact lenses. Thanks to this we will have virtual high resolution monitors at our disposal, [which] … will provide us with a fully coherent visual virtual reality ... By 2029, thanks to the exponential trend in miniaturization, computing, communication and scanning the brain we will have billions of nanobots - intelligent machines of the size of the cell blood or even smaller ones - traveling through small blood vessels in our brain and communicating directly with our nerve cells. The nanobot technology will provide us with a fully coherent and convincing virtual reality "(Kurzweil, 2001: 21).

According to the quoted authors, limb prostheses and mentioned body organs do not change our humanity, but the replacement or substitution of most organs (over 50%) and the "copying" of the human brain raises doubts about the boundaries between a person and machine. The years 2009 and 2015 passed, and our computer counterpart did not appear, but the year 2029 is still ahead of us.

Moreover, the question "what does it mean to be a human ?" is asked so often not because a handful of researchers and thinkers have created posthuman conceptions known as transhumanism, in which different currents are distinguished. They do not draw the attention of most high-tech users yet. They often have a utopian or even dystopian character. However, they are proposals that seem interesting to individuals and communities who dream of immortality, perpetual progress and self-overcoming, which means they have some pedagogical potential.

Keeping in mind all these reservations, the question about the character and scope of transgression of humanity is more often formulated not only in public discussions, but also in private talks. As the said transgression does, indeed, take place. Zbigniew Brzeziński pointed to it, while writing: "we have entered an era in which natural sciences are transforming from the tool for conquering the external environment into the tool for conquering the human being" (Brzeziński, 1998: 8). Today, the most important weapon in this conquest – use of pompous language here is completely justified - is engineering, actually technology. Hence, the dispute between technophiles and technophobes becomes less interesting and more unproductive. As the network society analyst rightly asks: "Shouldn't we talk about technological everydayness rather than everyday technology in the mass dimension, or even, when meaning everyday life, define it - automatically - in connection with technologies?" (Żabicki, 2007: 214).

The answer to this question is obvious: contemporary man is indisputably a technological man, because he or she is almost always and everywhere supported by technology.

The notion of a technological man includes an ever-growing field of meaning in all three phases and at the same time aspects of human synergy with a machine: in the forms of transcorporalism (extension of the body with prostheses), transsensualism (extension of senses) and transintellectualism (extension of mental functions and modalities).

Thus, digitization radicalizes evolution, increases human productivity, speeds up some of its functions. And so it changes the human in such a degree that some researchers are already talking about the period of human cyborgization, in which man transforms into an anthropo-technological hybrid or at least becomes a *fyborg* (term invented by Alexander Chislenko) – a functional cyborg, a biological organism equipped with technological additives that expand its natural capabilities (Gazzaniga, 2011: 333).

Michael S. Gazzaniga developed his own definition of a technological man who toaday can be called an "augmented man", which he ends with such a conclusion: "Some researchers predict that in the near future (in less than forty years), when someone is born not very astute or physically unfit, we will able to change it. It seems even possible that if one comes into the world as a psychopath, we will be also capable of changing that. The degree to which we will be able to tinker with such traits, and how far we will be able to change the current physical and psychological state of a given person is today the subject of intense speculation "(Gazzaniga, 2011: 335).

In the light of the current state of knowledge about the "symbiosis" of man with a machine, this conclusion is convincing and rightly draws the attention of researchers and machine users to the dilemmas that people will constantly and repeatedly resolve in the near future. And this task will be extremely difficult, because after all, a technological man - as it results from widely conducted research - is ahead of the ethical man and has an increasingly disintegrated personality and identity (Miczka, 2015a: 50-76). However: "not the amount of silicone or metal in our bodies indicates that we are cyborgs, but rather whether our life strategies are flexible and whether we are able to stop at the right moment" (Radkowska-Walkowicz, 2008: 114).

The issue that is associated with our future, both as a species and as a single human being, which toughen all the dilemmas that are extremely difficult to resolve, is the subject of an "artificial man". Is it possible to print "doppelganger" or a "human" in the near future on a printer or other highly specialized machine? The visionary from Silicon Valley leaves us with no illusions: "There will be," he says, "many versions of version 2.0 of a human body, and each organ and system will have its own course of elaboration and improvement. [...] One of the features of the version 3.0 will be the ability to change our bodies "(Kurzweil, 2013: 306). In the latter variant, it will be possible to have a brain, which in a large part will not only be augmented and improved, but simply non-biological.

Taking all this into account, it can be stated unequivocally that in spite of many disputes and controversies the issue of "human enhancement" has become an everyday topic not only for researchers, but also for ordinary people. Therefore, education cannot remain indifferent to it.

The problem of redesigning education

The ever-increasing distance between technological progress and morality, technical skills of multimedia users and the ability of valuing this use and its effects should be the basic content of modern education. Hence, the multidimensional discussion on values, enabling students and teachers to make a profit and loss account resulting from their presence and activity in the digital world is the most important, especially in the so-called media education. This is a prerequisite for any further reflection on the state of anthropological uncertainty.

Almost every modern educational process, especially media education, is to a large extent downgrading the role of epistemological knowledge (this of encyclopedic and memory character), understood as the state of knowledge and increasing the role of cognitive knowledge, that is – putting it the easiest way - used knowledge that is necessary to understand the world. But, it does not mean that students are deprived of memory as it is assumed, that their intelligence is limited or that they process information without its deeper acquisition, but it is a consequence of the commonly experienced so-called redundancy (excess) of information, the increase of ambiguity, uncertainty and risk associated with social life and the disposal of digital storages (nowadays known as "clouds") enabling storage of an unimaginable amount of information. In such a situation, the rank of this knowledge, which is useful, and allows for effective solving of life problems and broadening cognitive horizons increases naturally.

The issue of cognitive knowledge functioning within the framework of modern education accurately illustrates the mechanisms of learning and teaching proposed to educators over 40 years ago by Gregory Bateson (1972). He was the creator of the so-called cybernetic techniques of learning and teaching. He distinguished three levels of accustoming knowledge, and considered "primary learning", which was strongly ideologized, controlled and typically mnemonic, not enough effective, creative and outdated. Moreover, the "second-degree learning" that is the process of learning how to learn, diminishing the importance of material knowledge and the list of reading, was also considered insufficient to properly recognize changes in the surrounding world.

Bateson recommended "third-level learning" consisting in developing new pedagogical strategies that would be based on plastic thinking and action and quickly assimilate what is needed and what would allow to know to what extent knowledge and skills respond to the challenges of reality, i.e. they would enable deep understanding, experiencing and conscious decision-making. Today, it can be stated that neither any of the branches of pedagogy nor general pedagogy nor any specific methodologies have been able to work out described above new, quickly reacting to the "human enhancement" pedagogical strategies. Although, it will be extremely difficult to achieve the goal indicated by Bateson, every education must use high technology and respect it. Thus, in addition to standard texts, it should be open to hyper- and poly-texts. In addition to traditional information media, it should use digital records, "consumer electronics", "wearable electronics" (e.g. smartwatches and phablets), personal miniature modems and multimedia hybrids.

Intercourse with multimedia has its own specificity, which shapes the sense of reality and basic social behavior of members of the information society. They have an irresistible feeling that they are gaining more and more freedom and are more and more overworked because they actively participate in the creation of various cultural communities and quickly make many decisions regarding everyday matters. Therefore, education must focus primarily on educating students on how to use info-freedom and infoactivism (Miczka, 2014: 335-346 and Miczka, 2015b: 115-124).

Confusions associated with the freedom of multimedia users reached its apogee in 1996 when John Perry Barlow announced *A Declaration of the Independence of Cyberspace*, in which he wrote: " We must declare our virtual selves

immune to your sovereignty, even as we continue to consent to your rule over our bodies. We will spread ourselves across the Planet so that no one can arrest our thoughts" (Barlow, 1996). The idea of liberty is one of the most frequently discussed communication issues among multimedia users, and hence among the majority of students and teachers.

The framework of the discussion on the freedom of information is determined by two polar positions occupied by the so-called cyber-libertarians and cyber-paternalists. The former obsessively defend the principle shared by the Thelemites, heroes of *Gargantua and Pantagruel* (1546-1564) by François Rabelais, expressed in the words "do what you like" and believe that in the virtual world man liberates himself from the oppression of states, physical world limitations and freely shapes their own identity. The latter, even though they note that the authors of the realization of libertarian ideas reject hierarchical models on the internet, replacing them with forms of heterarchy, panarchy and even anarchy, do not obey traditional laws and customs, and have a clear impact on the real world, proving that "network freedom" is based on false assumptions regarding, among others, anonymity in the network. They claim that all the freedom in the digital world is a total illusion, because in fact when using the Internet we are subject to even more advanced surveillance and control than we used to be (for example from the traces of our communication connections help create our profiles), but we do not feel this painfully and immediately. This situation is well illustrated by Lawrence Lessig, describing it with the words "freedom by control" (2005).

According to Manuel Castells, "the issue of social control over the Internet is perhaps the most fundamental political issue of the Information Age" (2003: 187), which means that it is also one of the fundamental educational issues every democratic state has to face with. The second issue - as already mentioned - is the information activism, or in fact hyperactivity of multimedia users, who live in almost permanent connection with media (which helps them avoid civilization exclusion) and carry out many communication acts simultaneously (multitasking - using many multimedia at the same time). Information activism can lead to a disturbance of the sense of balance in the life of individuals and communities, and, as recent studies show, it often manifests itself in the Internet users in the form of the "ego depletion syndrome" (Baumeister, 2002: 129-136). In an age in which quantitative criteria and determinants are obsessively important, human behaviors such as overworking, multidimensional and continuous character of work and spending free time, as well as the *homo interneticus'* problems with spontaneity, creativity and stimulation of the imagination become a serious educational issues.

Questions on what replaces human experience in multimedia communication (maybe internet rituals, cyberseeking?) are relevant educational subjects. How to manage the diligence of computer and electronic gadgets users? How to promote restraint in using them? According to Michael Novak, the path to the formation of a more integral person and the mature use of freedom and the culture of excess should begin with the promotion of the so-called culture of self-government, that is intelligent limitation (Novak, 1998: passim).

In other words, when we take into account the difficult subject of multimedia competencies of a contemporary human in the education and upbringing of each type and on every level, we will be able to realize the idea of redesigning the whole education formulated by Kenneth G. Wilson (1996). Of course, this does not ensure effective dealing with the state of anthropological uncertainty, but it is the *sine qua non* of modern didactics and education.

Conclusion

The main subject of the presented considerations is the pro-technological attitude of a modern human towards himself and the world. It can serve to improve the quality of life, but it can also turn into a "narcotic attitude". The so-called "computer addiction", leading to narcolepsy, or loss of the sense of reality, is an extreme manifestation of anthropological indeterminacy and is also one of the most difficult challenges of education. The challenge becomes more difficult, because more and more space of human life is occupied by virtual and augmented reality, to which actual situations, phenomena and problems are transferred. Mergence of these realities and the blurring of borders between them is widely observed.

Man has already gained rich virtual experience and learnt many interactive behaviors as a recipient of television programs, as a consumer making decisions under the pressure of advertising, a music video listener, an audiovisual user, as a participant of training courses using simulators to teach various professions and finally as a computer owner. They learned to process data faster and faster, although they rarely knew what they were about or what to do with them. They mastered the technologies, but did not acquire sufficient knowledge about them, because they stopped the learning process after having acquired knowledge on information processing mechanisms. They focused more on the process of cooperation with the machine than on the understanding the principles of its work and message content. They got used to a simulation that

creates its own reality, rather than imitating it. In the end, man even started to believed that they were a co-creator or subject entity in reference to which everything is adjudged, despite the fact that as a co-creator and subject entity they exist in the technological culture in a rather "operational" way, because more and more often "the network itself becomes the author "(Noël, Toutcheff, 1985: 33).

The interaction between a human and machine is often of the interaction character, which is deprived of the traditional referential function. In other words, in a more metaphorically and more cautiously way, virtual reality demonstrates the "nakedness" of referentiality, demonstrates above all simulacrum, which replaces the world and demonstrates its own cognitive mechanism. Striving for even greater precision of statements on this subject, it should be said that virtual reality and the constantly spreading out augmented reality bring to the forefront a world characterized by flexibility in replacing itself with other worlds and special capabilities of satisfying the needs and fantasies of man.

Reassuming, it can be stated that new communication competencies testify to the changing cognitive perspective of man. However, we cannot talk about changes in communication norms, because multimedia do not eliminate such behaviors as knowledge organization, language analysis, reading, transmission of information and perception, but thanks to consumption, synaesthetic viewing, navigation, pure operability and image inclusions the evolution of human basic communication activities achieves the level at which they lose their original character. They lose even their first-rate importance in culture. However, it should be emphasized one more time that it is particularly important that new communication competencies, being more spontaneous, free, improvisational and difficult to predict, exert an increasing influence on common people's behavior and consolidate new habits and forms of thinking and behaving in social life.

Undoubtedly, these are challenges for education, which obviously have been noticed today, but which are extremely difficult to meet. Therefore, written almost 20 years ago by Umberto Eco the statement is still incredibly valid: "Mass media do not have a long tradition, and therefore an obligation to be decent. But I do not believe that they can be arranged. I especially do not believe in any censorship. Anyway, even if the television can be censored, the internet does not undergo any censorship. I think that education would be a much better solution. Just imagine schools teaching how to watch TV, how to critically analyze it. School needs to be reinvented! It must prepare students for intelligent and critical media use. But this is what the present rulers are dealing with very little "(Eco, 1996: 14). The appearance of the problem of the state of anthropological uncertainty, gives the issue an even more up-to-date character.

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