



Digital student – analogue school? Dilemmas of the educational process in the media space

KEYWORDS

network generation, digital technologies, technological immersion, teaching of the digital era

ABSTRACT

The article assesses the quality of the educational process carried out in the dimension of the use of new media. The author argues that the modern school still uses too many analog methods, offering education not adapted to the expectations of students who are part of the digital native generation. Theoretical analysis is supplemented by the results of studies from national and international reports on the level of teachers' media competence. The text proposes solutions that reinforce the idea of digital teaching and some of the benefits resulting from its implementation.

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Introduction – the digital dimension of reality

The information technologies dominating the modern landscape undeniably have a significant impact on the transformation of almost all the spheres of our lives, participating in the transformation of the environment of human life. Continuously improving techniques for generating, transforming and distributing information – and consequently for controlling production processes, research, management, education and many other areas of human activity – contribute to the continuous development of the information society.

A new era in communication, work, education, entertainment, economy and other areas of human existence began with the growing popularity of the Internet. As Alexander Bard and Jan Söderqvist note, “the [i]nternet is something completely new – it is a medium in which everyone, after spending a relatively small amount of money on technical means and performing a few simple actions, can become both a producer and a consumer of text, images and sound. It is hard to imagine something more inspiring – we are all authors, publishers and producers on the web, our freedom of expression has no limitations, and the potential audience is unlimited. Oceans of all possible information are available with a single click of the mouse. The development of this new medium cannot be compared to anything else (Bard, Söderqvist 2008:35). For members of the information society, computers, the Internet and all digital technologies are becoming some of the most important aspects of life and work. The world of new media (Lister, Dovey, Giddings, Grant and Kelly 2009) creates a different social reality in which contacts between people are mediated by the use of the media, creating a specific virtual space and media culture; the media infrastructure serves as the foundation of circulation of information of varying intensity and scope in all spheres of life, and all human activities are supported by media and information forms (Goban-Klas 2005:106). It should be noted that the Internet is a system, the scope, size and nature of which has exceeded all existing information systems and is still developing in a dynamic manner. What is more, one of its most important features is a kind of a “grassroots” development and uncontrolled or even spontaneous shaping. Derrick De Kerckhove argues that it is a kind of subconscious collective intelligence, which may result from the fact that its users are not only passive consumers of information, but also its active prosumers (Kerckhove 1996: 68, 72).

Tonino Catelmi, an Italian researcher of Internet addiction and the influence of technology on the human mind, uses the term “technofluency” to describe the observed phenomena of contemporary media reality. “A technofluent society is an active society that is ‘constantly on the move’, which loses its ability to get offline. [...] A technofluent society is above all a society that has abolished rigid boundaries. The digital world attracts, grows in an unrestricted way, evokes enthusiasm and excitement” (Catelmi 2015:31-32). The members of the technofluent reality face many challenges – here one may signal disturbing phenomena oriented around the so-called culture of the present, temporal transformations, information overload, inability to consume information and the process of neural transformations of young minds immersed in the net. In the culture of the present, we avoid continuation, settling down, preservation of traditions, setting long-term

goals; instead, we focus on getting the most out of the present moment with the emphasis on individual pleasant experiences (Gleick 2003; Gleick 2012; Ledzińska 2009; Szlendak 2009; Eriksen 2003; Krauze-Sikorska, M. Klichowski 2013). The digital revolution, of which we are observers and actors, creates new dimensions of learning about reality, shapes a new culture and completely different ways of experiencing relations with the world, others and ourselves. Transformations affecting modern civilisation force us to re-evaluate many systems of behaviour, patterns of thinking, shaping skills and attitudes. One of the important areas affected by the necessity of a thorough transformation of the existing algorithms of action is the sphere of education. The culturally new media of the Internet and related digital technologies, encourage people interested in the quality of the education process to take part in a discussion on how the school operates in different conditions than in previous years.

The aim of this article is to answer the question of the extent to which the educational model offered by modern schools meets the changing living conditions in a technology-oriented world, and, above all, the extent to which education is able to meet the expectations of its most important (and demanding) addressees – students of the network generation.

The network generation in the classroom

Today's students at all levels of education belong to a generation growing up around digital media, which shaped their lifestyles and strongly determined the way they explored the world and learned. This generation, commonly referred to as *digital natives*, lives on the web, draws extensively on Internet resources, leads a parallel life in social media. Being in constant contact with other members of their community, thanks to mobile devices they become a “wireless” generation (Hejwosz-Gromkowska 2015:180) immersed in an imaginary virtual world generated by 3D technology. Michał Ostrowicki defines immersion as “the process of drawing in, absorbing or immersing a human being in an electronic environment, as a result of which they activate actions there – here, we focus mainly on spiritual involvement, for example emotions” (Ostrowicki 2007:539-540). Immersion into the digital world of young people belonging to Generation Z creates their specific image – also including the digital one – which consists of traces imprinted by their own everyday existence on the web, as well as the effects of narcissistic and exhibitionist inclinations of their own (and their parents), realised within the framework of stylisation of their own Facebook identity (Melosik 2013; Szpunar 2016). In this

context, Antoni Zajac put forth the thesis that “humans have created digital technology, which in turn has created culture, and currently technology and culture create a new human being” (Zajac 2011:113). The network generation has completely different media habits than their parents at the same age – the dominance of passive reception of television and radio broadcasts gave way to the active use of virtual cyberspace. The average Polish teenager spends almost 20 hours a week online – twice as long as the parents’ generation and more than three times as long as the grandparents’ generation.

The time we spend on contact with various types of media is constantly increasing. In the light of the cyclical research available on the *We Are Social* website (“Mobile i digital w Polsce i na świecie w 2016 r.” report), the time that Poles, without division into age groups, spend on particular media is as follows: 4 hours 25 minutes (average daily Internet usage on a computer or tablet); 1 hour 17 minutes (average daily usage time of mobile Internet and smartphones); 1 hour 17 minutes (average time spent using social networks on various devices); 2 hours 28 minutes (average daily time spent watching TV) (*Digital in 2016* 2016).

The technologies that permeate the everyday life of young people “[...] mediate being together and being oneself. In this sense, they are part of the formation of their own identity. They are used by young people to find themselves and mark their place in the world. In this way, they become objects of management, planning, selection, creation for themselves” (Filiciak, Danielewicz, Halawa, Mazurek and Nowotny 2010:65). For young people, virtual space generated by technological resources is just as important (or maybe more so) than real one. The world in which they live, interact, play or learn is a combination of two dimensions: real and virtual, which is why it is difficult for them to imagine the reality shrunk to just one of them – the one that is real and tangible (Jaskuła 2015).

The description of the functioning of the Internet generation draws attention to the unwavering sense of difficulty of imagining life without access to the Internet, as well as to the greater skills and knowledge of young people in the use of new media, compared to their parents’ generation. This last characteristic draws attention to the fact that contemporary youth belong to the prefigurative generation, using the term coined by Margaret Mead (Mead 2000). This leads to the division, verbalised by Marek Prensky, into digital natives, leading parallel lives in the virtual world and digital immigrants, treating new media with distance or even fear (Prensky 2012). The researcher recognised that generational changes brought about by digital technology may constitute a serious barrier to effective understanding between these generations. This gap, observed in the socio-cultural stratification developed by the author, also affects the functioning of students and

teachers in the educational space. The blockade of intergenerational understanding therefore extends to the sphere of education.

The methods of education developed to date are not effective enough for the generation of digital natives. Tomasz Goban-Klas aptly emphasises this fact, noting that “school has also found itself in a new situation, because a new student was born – ‘media-oriented and mobile’” (Goban-Klas 2002: 45). The contemporary information space in which the student is immersed requires a new approach to education and upbringing, which should draw inspiration from the opportunities offered by the world of digital technologies.

The analogue dimension of school

While observing and analysing the educational activity of schools in the context of modernising the educational process and meeting the expectations of the young generation, it should be noted that it is one of the most conservative social institutions. “It slowly reacts to changes in the surrounding reality, ignoring the fact that today’s student comes from a different, digital world” (Morbiter 2010). It is difficult not to feel the impression that the world of *digital natives* (students) and the educational space created by *digital immigrants* (teachers) are two separate spheres, defined by totally different sets of objectives, motives for action or means of implementation. Mariusz Przybyła, in an attempt to answer this question, reduces the image of the school to a vision of a “conservative policeman who, just in case, tries to ‘close down the Internet’ and limit access to innovative solutions” (Przybyła 2012: 205). Educators and teachers who declare their belief in the idea of empowerment and individual approach to students, as well as shaping their passions and interests, contradict themselves when they ignore the educational opportunities offered by digital technologies, thus contributing to reinforcing the analogue image of the school. Paradoxically, the latest technologies appeared massively in the schools in regulations and statutes, in the “Prohibited” section. Bans on using mobile phones, photographing, filming and recording classes are commonplace. Interactive whiteboards are considered a symbol of the modern school, although, as Lechosław Hojnacki proves, they are not innovative in any shape or form, they rather help to preserve traditional ways of education (displaying presentations, replacing the projector) (Hojnacki 2013: 43). Avoiding the inclusion of new technologies in all aspects of the educational process strengthens the existing culture of appearances in schools, which affects the digital teaching perspective presented in this article. The training of rooting students in the culture of appear-

ances strengthened by the cultural inadequacy of the school (Klus-Stańska 2005) makes it impossible to break the dissonance between the multidimensional involvement of students in the media and the one-sided, traditional transmission of educational content, and thus increases the school's indolence in terms of achieving media education objectives. Eliminating or ignoring new media in the school is tantamount to dissociating teachers from students and from an element of their everyday life. The implementation of the educational process without the use of modern media has little to do with what the student does outside school and at home. Immersion in the world of digital media caused the feeling of a great dissonance between the attractiveness and pace of what students do in their free time, and the slowness and uniformity of what they have to deal with while studying at school, often deprived of the possibility of using new information technologies (Borawska-Kalbarczyk 2015). The contemporary school creates an educational environment that is unfortunately only partly attractive and partly (or not at all) intellectually stimulating, thus it does not create differentiated opportunities for emotional and cognitive engagement in discovering the world. This translates into poor motivation of students to any school effort, as education is far from their daily interests. This may result in the emergence of some barriers that may be difficult to overcome if they are not surpassed in a good way.

The image of the school presented in this article is confirmed by the available research results. In light of the research carried out by the Polish Brotherhood of Gutenberg's Knights in cooperation with the Institute of Library and Information Science of the University of Warsaw, a vast majority of teachers declare that digital tools should be used for learning both during classes and at home, although many teachers would prefer the technologies to be used mainly outside the school (Jasiewicz, Batorski, Kisilowska, Mierzecka-Szczepańska and Luterek 2013).

As a result of the research conducted by Marta Wrońska, the low attractiveness of media classes offered to students by Polish teachers working in schools at various levels, as well as their dependence on functioning in a multidimensional digital space can be noticed. In the course of studying elements of media culture, such as media literacy and attitudes towards the media, it turned out that teachers are at a lower level than their students, which may result in a reluctant attitude towards including digital media in education. M. Wrońska concludes that "teachers who are supposed to educate students in the field of media have considerable gaps and areas for improvement in this area, compared to their students, although the standards of teacher training include a provision on preparing teachers to acquire information and media competences, while information technology is one of the subjects to be carried out" (Wrońska 2015: 44).

This is confirmed by the conclusions of the “International Teaching and Learning Survey,” according to which only one in three teachers in Poland use information and communication technologies on a regular basis (Hernik 2015), which was confirmed by the analysis of data from the “International Computer and Information Literacy Survey”. In light of the latter, the use of new media by teachers in Poland is at a low level compared to other countries – in Polish middle schools, only 41% of teachers (the lowest percentage among the countries surveyed) use computers for teaching at least once a week (for example, in Australia this rate is 90%, and in Russia and South Korea – 76%) (Biedrzycki, Jasiewicz, Kaczan, Piechociński, Rycielska, Rycielski, Sijko and Sysło 2015).

Meanwhile, in light of the document “Key data on education and innovation through the use of ICT in schools in Europe,” it is assumed that ICs have a positive impact on education and that the benefits of ICTs extend beyond the use of computers and the Internet itself, taking into account other technologies, such as digital cameras and mobile phones, which can support education and personal development of students. Most of the European countries mentioned in the report recommend that teachers use different types of equipment: computers, projectors, DVD, video, television, cameras, whiteboards and virtual learning environments that include ICT infrastructure, which enables the creation of a personalised online learning space (Key Education Data... 2011). The educational activities of the Austrian Institute for Applied Telecommunication (OIAT) serve as yet another example. In a handbook, they provide teachers and parents with ways to overcome the risks associated with mobile phones, presenting opportunities for their positive use (“Using a mobile phone...” 2013).

Experts warn that the Polish school needs more investment, and that the IT equipment found there is more suitable for a museum of technology than for conducting classes. According to the researchers’ observations, mobile digital devices are virtually non-existent, and the use of student equipment is often impossible (forbidden). Laptops are a rarity both in the current equipment and in shopping plans. The majority of desktop computers at schools do not have any multimedia capabilities, and their configuration usually makes it difficult or impossible to install and use non-standard software (Hojnacki 2013:46).

Meanwhile, young people growing up in the digital world “want teaching to be in line with what they see in the real world [...], they want learning to be interesting and fun” (Tapscott 2010: 255), but in reality, there is a deep gap between the needs of students and the apparent educational activities carried out by teachers in the media sphere. The gap between how students (of the Internet generation) think and how teachers teach is most clearly visible after taking a closer look at

the learning methods offered by education. According to Don Tapscott (and there are reasons to believe that this does not only concern the American education system), the generation of contemporary youth will not be satisfied with passive participation and listening to lectures given by teachers (Tapscott 2010: 225). Another candid summary, which is devoid of any illusions regarding the quality of education, is presented by Aleksander Nalaskowski, who wrote that “education is carried out by people who use the contemporary language of culture as a foreign language, acquired late and despised [...] Its recipients, forced to take part in this ritual consumption, are young people who with the greatest difficulty master the language of lectures – the old culture [...] The symbolic teacher rooted in the past presents a picture of the contemporary world, which they do not treat seriously or as their own” (Nalaskowski 2009: 64-65).

The hope for bridging the technological gap outlined here, particularly in the mental sphere, is the transformation of teachers’ attitudes, because, according to Stanisław Dylak, “a great challenge for the school is creating opportunities for students to undertake school tasks in a friendly digital environment, and wise use of this can only be learned effectively through wisely managed practice” (Dylak 2013: 67). Don Tapscott offers a similar commentary, stating that teachers should “focus on changes in teaching methods rather than technical solutions. Learning is about radically changing the relationship between teachers and students in the teaching process. Understand this well and use technology to create learning environments where the student is put on the pedestal, where teaching methods are adapted to their needs and collaboration is possible” (Tapscott 2010: 258).

Conclusion: teaching in the digital era – selected exemplifications

To sum up earlier considerations, it is undeniable that the modern generation is “constantly connected, always online” living 24/7/52/365 using their mobile devices that they carry everywhere. Maciej M. Sysło aptly notes that “students cannot be disconnected, because the connection is not only a medium, but a state of consciousness” (Sysło, electronic document). It is clear that these tools need to be used in education, which should not fight against the digitisation of youth. It is an inevitable, progressive process that develops in an unknown direction, which teachers should perceive and accept, and then incorporate into their own educational influences in order to reinforce the educational attractiveness of the educational process and, above all, to educate students to use the media in a wise and sensible manner.

Skilful integration of new technologies into education might open up an opportunity to create a student-friendly, diverse learning environment, several of which will be presented below.

The use of digital technologies in education triggers many positive impacts on students. One of them is supporting creativity and innovation. The Innovation Portal, run by the Polish Agency for Enterprise Development within the framework of the National Entrepreneurship Programme, stated that the ultimate goal of educational innovation is to engage young people in the world of innovative technologies, preparing and motivating them to compete on the labour market in the context of a globalised world. The detailed list of activities identified as innovative includes: participatory education, multimedia educational presentations, educational games, “mobile school”, introduction of “state-of-the-art technologies for teaching”, “personalised Internet” in teaching (Konopczyński 2014). Computer-aided learning does not judge and motivate, it enables frequent and fast feedback, individualises the learning process by adapting to the needs of students, enables students to be more independent and provides a multisensory learning environment (images, sounds and symbols) (Pitler, Hubbell and Kuhn 2015). One of the ways to strengthen traditional educational strategies, using the technological resources and skills of the student, is to activate mobile education, presented in the report “Directions for the development of technology-enhanced education. New technologies in education. Proposal for a strategy and action plan for 2014-2020” (Sysło 2014). It consists of mobile devices, Internet access, virtual learning environment and organisational changes.

The report states that the condition for “mobile devices to become teaching aids should be part of a solution that we refer to as educational mobile technology [...], which serves the purpose of mobile learning – learning that can take place at any time and in any place where students and teachers would like to continue their education” (Sysło 2014: 11). The use of mobile digital technologies in education redefines the familiar learning process towards a new learning culture through which:

- the emphasis is shifted from teaching to learning (from *teacher-centred* to *learner-centred* model);
- personalisation, manifested in the possibility of creating individual learning environments and educational paths, becomes possible;
- the idea of *learning anytime* and *anywhere* is realised;
- the learner gathers their individual resources in a personal archive and can use them to create an e-portfolio to reflect on their own education and development as well as a contemporary version of the learner’s resume;

- the education process may be asynchronous (not all students learn the same thing simultaneously) and dispersed (taking place in different places and at different times);
- the education system is based on constructivist ideas, including building and developing knowledge by students in their real environment where they live and develop (Sysło 2014: 12).

As far as the subject matter of this article is concerned, the opinion expressed by Heliodor Muszyński, who, noting the inadequacy of the contemporary model of education to the contemporary conditions, stated, “For the school, this means facing an alternative that cannot be ignored or circumvented: either the school will respond to these changes and adapt its activities to the conditions of living and functioning in the media society, or it will become an institution of ever lesser importance in ensuring the cultural continuity of social life, as well as social development and progress. At the same time, it will cease to be an institution facilitating social participation, personal development and successful self-fulfilment for adolescent individuals” (Muszyński 2011-2012: 44) becomes crucially important.

Therefore, it is impossible to imagine a modern school that does not use modern technological solutions, but at this point it is important to bear in mind that any tool can be used as well as abused. Teachers who integrate digital media into education must therefore focus on minimising “the possibility of abuse and maximising the benefits of rational and responsible use of tools” (Morbiter 2010: 8). Providing many opportunities for contact with digital tools and providing young people with stimuli and inspiration from teachers as digital guides counteracts the indolence of schools in the use of new media and enables us to hope that as a result of the actions taken the desired attitudes of students will be shaped, favouring proper functioning in a multidimensional digital space.

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