






Media changes and the development of remote education

Jakub Jerzy Czarkowski , Marcin Strzelec , Agnieszka Pytka 

CONTACT: Jakub Jerzy Czarkowski, PhD, Academy of Justice, Wiśniowa Str. 50, 02-520 Warsaw, Poland,
E-mail: jakub.czarkowski@swws.edu.pl
Marcin Strzelec, PhD, Academy of Justice, Wiśniowa Str. 50, 02-520 Warsaw, Poland,
E-mail: marcin.strzelec@swws.edu.pl
Agnieszka Pytka, MA, Academy of Justice, Wiśniowa Str. 50, 02-520 Warsaw, Poland,
E-mail: Agnieszka.pytka@swws.edu.pl

Keywords:

distance education, mass media, education, media development

Abstract:

The teaching-learning process has always been associated with communication. It is worth paying attention to the fact that each activity in the course of the learning-teaching process should be treated as an act of interpersonal communication – between the teacher and the student, or internal dialogue – intrapersonal communication. The opportunities created by the spread of new technology for remote education are huge. but be aware of the limitations. ICT (information and communication technologies) is not a panacea for the problems of the remote education system. However, they can help overcome the barriers of conventional education and higher education, and can also contribute to the development of the LLL (Lifelong learning, lifelong, lifewide, voluntary, and self-motivated) system.

“I see media development as beginning with the baby’s pointing and throwing things out of the crib, and with our pre-verbal ancestors sitting in a circle and clapping together or throwing down stones.”

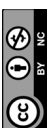
Janet H. Murray

1. Introduction

Teaching and learning has always been closely related to communication. Their ties to the media are likely a consequence of the media being a communication tool. In the learning process, communication involves the participants. At the same time, it is worth paying attention to the fact that every action in the course of the learning-teaching process should be considered an act of interpersonal communication – between the teacher and the student, or internal dialogue – intrapersonal communication.

In such an approach, education will be a special type-category of acts of communication between people (or internal dialogue), the conscious or, according to some definitions, also unconscious goal of which will be an educational change. When media development is considered, including their pedagogical aspect, it is perhaps worth answering the basic question: what is, and what is not, a medium. The broadest definitions describe media simply as ‘tools of conveying a message’.

When analyzing the development of the media, including their pedagogical and social aspect, it is worth answering the basic question: what the media are and what they are not. The broadest definitions present media simply as ‘an instrument for communicating the message’.



In this meaning, Paleolithic drawings – like the horse from the Montastruc cave or the wounded bison from the Niaux cave – could be considered media. It should be however noted that, in order to really consider anything as media, there has to be an identifiable sender of the message. It is uncertain whether these Paleolithic works of art were intended to be news to anyone. They could be a way of expressing oneself, fulfilling one's own aesthetic needs, they could also be made for religious (or any other) purposes, not related to communication with others.

The first invention which was used for communication was unquestionably writing, created around 5000 years ago (Goban-Klas, 2004, p. 16). There is multiple evidence that in the ancient times documents and signs (tablet carvings) were created, which were meant to be either messages for very small groups or were meant to serve future generations – like in the case of Egyptian temples – and had a clear educational aspect.

Distance learning is nothing new and its history dates back over 300 years. It should be noted that the precursors of distance education were the Americans (until today the leaders of DE) – the first press release advertising a correspondence course consisting in sending training materials, exercises and written works by teachers to students appeared in 1700. It is worth emphasizing that a DE was initiated in Poland. At the Jagiellonian University in Krakow over 200 years ago. The first attempt to lecture students outside the University took place in 1776. These first courses were intended for artisans. Three years later, a distance course in physics was launched in Warsaw.

Correspondence courses, as distance learning was originally called, started of XIX century and developed rapidly throughout Europe.

In the beginning of XIX century, both in Europe and USA, various language and stenotype courses were offered. In 1837 in Bath (UK) Isaac Pitman, an English photographer and the inventor of stenography, thought until today to be the forerunner of distance learning, initiated a series of correspondence courses. In 1873, in Boston (MA), Ann Eliot Ticknot founded what she called the Society to Encourage Study at Home – and at the same time created a teaching method which not only included remote student assessment but also students corresponding with each other. The Society taught 24 subjects grouped into 6 'disciplines' (History, Science, Art, Literature, French, German). Each course lasted a full month – and each was supplied with a list of obligatory readings and assessment tests. Over 10 thousand students participated in the courses in the 24-year-long history of the Society. All its courses were based on printed words and images" (Czarkowski, 2016, p. 85).

2. Observed changes

Also in Poland, in the nineteenth century, various attempts have been taken the distance learning among them it is worth pointing Flying University, which was founded 1886 years. Banned 20 years later (during the 1905-07 revolution), it took the name of the Society for Scientific Courses. It is worth noting that at the turn of the 19th and 20th centuries, many societies dealing with open education were established, including the Society of Academic Courses for Women or Universal University Lectures.

The next breakthrough in DE was the introduction of educational Radio, whose beginnings date back to the early 20s of XX century. This was when something called exactly that, 'educational radio', was founded, commonly used from the 30s in the low-populated regions of Australia. The interest in radio as a tool for transmitting educational content returned later in the 70s. The methods of education and obviously the quality of the broadcast improved noticeably, but the main target group – those living in rural areas, remained unchanged.

Educational television was the next step in the development of distance learning. In 1945 the first 'Educational Television' was launched by Iowa State University and by 1948 five other centers involved in TV education had joined in. In 1952 the Joint Council on Educational Television influenced the governmental Communications Committee and a separate TV frequency was allocated for educational purposes only. Since that time a significant number of educational TV stations launched and schools began equipping classrooms with TV sets. Since the beginnings of XX century a number of so-called Open Universities opened, which offered degrees obtained solely through distance tuition. This form of studies however was initially not widely accepted and the skills acquired by 'post' only were deemed inadequate. This was attitude was force-changed by British Open University (started in 1969), which broke the last of barriers in academic distance-learning. Currently many countries upkeep open universities, in which TV is the dominating form of communication, sided by multimedia technologies (ICT).



Television was used in Poland to create ‘Television Farmers College’, which operated from 1965. In the years 1966-1971, Television Polytechnic operated, which broadcast supplementary materials for students and potential candidates. The growing demand for this type of teaching resulted in the launch of Radio Teachers and the University of Television (NURT) in the 1970s. It is worth noting that the word ‘nurt’ in Polish means the same as a current in a stream or river. Despite the primitive technical means available at that time and only the unfavorable socio-political climate, over 600,000 students graduated from NURT during its existence. On this basis, it can be safely concluded that the effectiveness of this type of education was very high and reflected the level of interest in this form of study in the society.

The very rapid development of digital technologies, especially computers and satellite communications, observed in the second half of the 20th century, resulted in the emergence of multimedia, the Internet and interactive television. All these digital means of communication have an increasing impact on learning and teaching processes, including distance education. (Tanaś, 2003). When in 1962 the first American telecommunications satellite (Telstar 1) was placed on the orbit, the era of tele- and video-conference teaching began. Through the 70s and 80s it remained the most often used form of delivering educational content over distances, particularly by academic centers. It is worth mentioning the role of one of the universities. One of the first ones was Alaska State University, making its courses available to many other US universities via satellite connections since 1985.

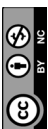
The rapid and multifaceted development of the Internet brought a breakthrough and raised the popularity of lifelong learning, including distance education, to the top. The development of the Internet is conducive to lifelong learning, especially as adult education through various forms of vocational education and training, which consists of ‘formal and informal activities’. (Pólturzycki, 2016, p. 179). Online education has a number of advantages over other forms of learning, the most important of which are:

- the use of modern technologies that allow for wide and inexpensive access to multimedia content
- combining the advantages of various media,
- constant control over the learning process
- the use of interactivity.

As before, the leader here is the USA. The first virtual schools were established there in the 90s (Pachociński, 1999, p. 157). The use of the latest achievements of information and communication technologies in education in recent years is commonly known as e-learning.

In Poland, studies via the Internet have recently been recognized as a full-fledged form of obtaining an academic degree. In many environments, however, they are not recognized as a fully valuable form. It should be noted that a number of academic institutions, combining traditional full-time studies with forms of e-learning, make it possible to come into contact with it. One of the important places popularizing e-learning is WINDOW (WINDOW) – Warsaw University of Technology (www.okno.pw.edu.pl). Both engineering and postgraduate studies are available in 6 different fields of study. Interesting distance learning opportunities are also offered by the University of Warsaw (UW) – COME (Center for Open and Multimedia Education). in the field of intercultural pedagogy. The Jagiellonian University and the AGH University of Science and Technology have included e-learning forms in several of their postgraduate courses. Work is currently underway to open an Open Television University. In addition to Polish Television, several scientific institutions and the Polish Academy of Sciences are involved. Unfortunately, the work on TOU has not been successful so far (www.pan.pl/pfun/pl/menu/muo.html).

A joint project of the Maria Curie-Skłodowska University (in Lublin) and the University of Humanities and Economics (in Łódź) turned out to be very fruitful – their combined efforts resulted in finding a Polish virtual University (PUW). The first distance studies were launched by the University of Humanities and Economics in October 2002 in two specialties: management and marketing, and IT. In 2003, two additional specializations were launched – political science and nursing. In 2005, about 700 students took part in PUW distance courses, including 29 foreign students – mainly from Europe, but also from the USA, South Korea and the United Arab Emirates. Since the beginning of the PUW project, more than 4,000 students have attended at least one online course. Currently, about 180 separate training courses are available at the Poznań University of Technology Library (www.puw.pl).



3. Lessons from observation

It can be concluded that the development of the media clearly influenced the development of distance education. It has been shown that with the emergence of new media, new forms of communication and transfer emerged (and are still being created), which had a significant impact both on the didactic and educational process and on the tasks and goals of education. The essence of those changes was the development of the means (way) of communication – the mass media. New tools that were developed for forms and ways of communication served also the purposes of enhancing the didactic possibilities in the teacher-student communication. This is clearly visible when we consider the ‘tree of media domains’; the development and changes of the communication process happening alongside the development of media becomes then clearly apparent. Mass media also present themselves as a tool, under certain circumstances, more effective than anything else. It seems that it was the Speaker, the Retor? (or rather the speeches they gave) that could be considered the first such medium. In the Ancient Rome they gave speeches ‘ordered’ by the state, pronouncing the will of the Senate or Caesar to the people. It should however be noted that the real mass media arrived with the invention of the printing press – which meant that the message could truly be received by the masses (McLuhan, 2001; T. Goban-Klas, 2004). The issues of communication and its character in relation to the media are illustrated in Figure 1.

Figure 1. Interpersonal communication

Interpersonal communication	individual	direct		conversation	
		indirect (via media)		letter(writing) telegram telephone	Internet
	indirect (via media and mass media)	non-periodical (single-instance)	speech book poster		
		periodical	newspaper radio TV		
	group	direct		lecture theatre performance (actors TO audiences) rock concert	

Source: Own study based on Fidler, R. (1997). *Mediamorphosis. Understanding the New Media*, Thousand Oaks: Pine Forge Press, p. 34.

Transformations in means and modes of communication make the introduction to the practice of distance education following the media determines the successive phases of the development of this form of training.

Figure 2. Education development phases according to media development

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
1840	1920	1940	1970	1980	1990
Print	Print Sound	Print Sound Moving image	Print Sound Moving image Computer	Print Sound Moving image Multimedia technologies	Print Sound Moving image Multimedia technologies Internet Virtual teaching

Source: Individual work



The chart above illustrates the changes in distance education. In its early stages, they focused on enhancing the content of the message. The initial form of the printed words and pictures was later enhanced by adding sounds, moving pictures. The new emerging media initially strengthens the message, but the situation changes more profoundly. With the advent of computers and multimedia technologies, it was possible to increase the level of learners' activity and finally, thanks to the Internet, wide communication between the teacher and the student became possible.

The knowledge society, the information society or, as others would like, the media society is just emerging. The very presence of the media causes a deep distortion of the sense of space and time, and with them the physical basis of all social and individual experiences. (Galas, 2020, p. 27-36). For this reason also it is justified to use the term 'media society' even today, a society powered by a great, and still growing, power of digital media. This in turn results in the change in the concept and form of institutional education – adjusted to suit the needs of the reality it is supposed to serve.

Today's united Europe supports distance education, recognizing its role and place in education for living and working in the media society, the knowledge society or the information society. Programs are organized to promote distance learning and information and communication technologies in education. Distance learning is reaching a new quality at all levels, from primary schools to university studies. It should be noted that the emergence of a pandemic and the limitation of direct people-to-people contacts are of great importance here. This allowed for the visualization of many advantages of distance education. While this type of education does not seem to be able to fully replace the traditional model, it has a great future ahead of it in an information-dominated world where continuous lifelong learning has become a necessity.

4. Summary and Conclusions

In conclusion, it is worth noting that the development of civilization has always been accompanied by knowledge and technological progress. It was the technique and tools that made us more dexterous, efficient and productive. It is worth noting, however, that we are currently observing an intensification of changes. Giddens states: *Modernity inevitably globalizes, and the destabilizing consequences of this phenomenon connect with the circularity of its reflective nature, creating a universe of events, in which the risk and danger take on a new character* (Giddens, 2008, p. 125). These phenomena were also observed in pedagogical sciences. The opportunities posed by the spread of the new technology are emphasized, but we should be aware of the existing restrictions. *ICT (Information and communication technologies) are not a panacea for the of education system problems. However, they may help in overcoming the barriers of conventional education and higher education, and also can contribute to the system of LLL (Lifelong learning, lifelong, lifewide, voluntary, and self-motivated)* (Tanaś, 2011, p. 96). Observing the changing world, it encourages us as the teachers, to seek new solutions that will allow, maintaining mutual subjectivity of students and teachers and the personal dimension of the process of teaching and education, to take full advantage of the benefits brought by modernity.

REFERENCES

- Czarkowski, J. J. (2016). *Transformation and development of distance education*. In: Bocheńska-Włostowska, K., Janus, A. (ed.). *Man – Media – Communication*. Warszawa – Rużemberok: Verbum, SW im. Jańskiego.
- Fidler, R. (1997). *Mediamorphosis. Understanding the New Media*, Thousand Oaks: Pine Forge Press.
- Galas, B. (2020). *Przemiany więzi w globalnym społeczeństwie sieci – szkice z pogranicza dystansu społecznego*. In: Czarkowski, J. J., Malinowski, M. M., Strzelec, M., Tanaś, M. (2020). *Zdalne kształcenie akademickie dorosłych w czasie pandemii*. Warszawa: DiG.
- Giddens, A. (2008). *Konsekwencje nowoczesności*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Goban-Klas, T. (2004). *Media i komunikowanie masowe*. Warszawa: Wydawnictwo Naukowe PWN.
- McLuhan, M. (2001). *Galaktyka Gutenberga*. In: McLuhan, E., Zingrone, F. (ed.). *Wybór tekstów*. Poznań: Zysk i S-ka.
- Murray, J. H. (2012). *What is a Medium? Shared Focused Attention*, <https://inventingthemedium.com/2012/01/10/what-is-a-medium-shared-focused-attention/> [Access: 12.02.2021].
- Pachociński, R. (1999). *Oświata XXI wieku. Kierunki przeobrażeń*. Warszawa: Instytut Badań Edukacyjnych.



- Pólturzycki, J. (2016). *Spór o kształcenie ustawiczne. Polemiki i analizy*. Warszawa–Radom: Wydawnictwo ITEE.
- Strzelec, M., Czarkowski, J. J. (2019). Development of distance education in the context of mass media transformation, *International Journal of New Economics and Social Sciences*, 9(1), 325-339.
- Tanaś, M. (2003). *Edukacyjne konsekwencje rozwoju środków informatycznych*. In: Kwiatkowska, H., Szybisz, M., (ed.). *Edukacja i dialog w świecie przyszłości*. Pułtusk: Wydawnictwo Typografia.
- Tanaś, M. (2011). Kształcenie komplementarne na poziomie akademickim– kontekst dydaktyczny i informatyczny. *Heteroglosia*, 1/11.

