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## Insights into e-pedagogy concept development

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### Abstract

E-pedagogy as a branch of pedagogy is at the beginning of its development. Conducting the analysis of theoretical resources available, the author of the article provides an overview of theory and existing practice in e-pedagogy. An approach to e-pedagogy content improvement has been proposed. Special attention is paid to including some educational aspects not considered before to the e-pedagogy content. The ideas proposed by the author provide opportunities to develop study programs and pedagogical practice taking into account the effect caused by modern digital technology on the people social behaviour.

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### 1. Rationale for e-pedagogy

Originally, pedagogy is defined as learning and educational theory and practice, as a scientific branch studying the unity of theory and practice. Within this understanding of pedagogy, methods and learning resources are seen as pedagogical technologies, consecutively and systematically applied for accomplishing pedagogical tasks. Pedagogical technology is connected with precise formulation of an issue, recognition of interconnections, the choice of appropriate resources and their consecutive application in practice following a developed pattern. Since the 1990-ies, digital technologies such as cell phones, Internet, communications software have started to develop very rapidly, they have drastically changed the way people communicate as well as their social behavior in general. In the 21<sup>st</sup> century,

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it is necessary to consider a new generation that can be referred to as the digital generation, the existence of which is highly dependent on the opportunities provided by digital technologies. Taking into account the needs of the digital generation, pedagogy should react to those needs and develop a new scientific sub-discipline – e-pedagogy.

### 1.1. Conceptual framework of e-pedagogy

Being a branch of pedagogy, e-pedagogy is only at the beginning of its development. Although digital technologies already play an important role in the educational processes, e-pedagogy is still not clearly conceptually defined. Empirically, in the pedagogical practice e-pedagogy is understood as a branch of pedagogy, which studies and develops learning technologies and improves didactic approaches to a successful technology application. It means that along with e-pedagogy a new set of learning theories has been developed within modern pedagogical practice – e-didactics. In pedagogical practice, various definitions of e-pedagogy have been suggested:

- Approaches to teaching that utilize the affordances of digital information and communication technologies and cater for the learning preferences of the digital generation (Wee Hin, & Subramaniam, 2009);
- The study of teaching via the Internet, or the study of online instruction (Swartz, Cole, & Shelley, 2009);
- Teaching and learning strategies developed specifically for online and/or blended environments (Salmons, Wilson, 2009);
- E-pedagogy is an e-learning pedagogy (Mehanna, 2004).

In the recent years, some other synonyms for the term *e-pedagogy* have been used in pedagogy and pedagogical research and practice, such as digital and online pedagogy; however, conceptually these are studying the issues mentioned in the previous definition of e-pedagogy.

Currently, the analysis of the term *e-pedagogy* as it is used in pedagogical practice allows concluding that the aim of this branch of pedagogy is to investigate existing and promote the entire body of new learning methods, learning forms and resources for the e-learning process. Consequently, the scope covered by the e-pedagogy is limited, ignoring the second aim of pedagogy: research and development of the theory and practice in the field of e-education. Therefore, it is very important to define the most essential content guidelines to be included in the theoretical and practical basics of e-didactics and e-education.

### 1.2. Characteristics of e-pedagogy content

Content analysis of the available resources in the field shows that the concept of e-pedagogy as a branch of pedagogy has been used since the beginning of the 21<sup>st</sup> century, providing a unified research area for two separate disciplines: e-teaching and e-learning. At present, in the pedagogical practice these concepts are frequently associated with distance learning issues.

Current e-pedagogy research and practice mainly address the following issues:

- Methods, forms and resources of learning organization and their relation to distance learning technologies (Syed, 2009; Tomei, 2013);
- Opportunities provided by the application of the Internet in the conventional learning process (Witta, 2009);
- Application of mobile technology and distance learning in higher education (Pablos, Tennyson, & Lytras, 2015);
- Pedagogical and andragogical approaches to learning process using information and communication technologies (Wang, Farmer, Parker, & Golubski, 2012);
- Assessment of schoolchildren and student learning performance in e-learning (McKay, 2013);
- Professional pedagogical competences, development of competences for distance learning implementation (O'Neill, 2015).

Undoubtedly, application of different technologies in the learning process is studied within other fields as well; however, the research is related only to the learning aspect, not involving the teaching aspect. It can, thus, be concluded that the current application of the concept of e-pedagogy only partially reflects the essence of pedagogy as such;

therefore, the concept of e-didactics should be applied instead. This statement can be substantiated by the comparison of the main guidelines concerning the content of didactics and e-didactics:

Table 1. Content of didactics and e-didactics.

Didactics	E-didactics
Learning process (structure, principles, regularities, learning theories);	E-learning process (learning environment, principles, regularities, learning theories);
Learning methods, learning forms and resources;	Learning methods, learning forms, resources, technologies and software applied in e-learning;
Learning outcome evaluation (evaluation approaches, functions).	Learning outcome evaluation (evaluation approaches, functions).

Pedagogical process is dual by its nature, it involves two procedures – teaching and educating. Ignoring the educational aspect in the process of teaching may lead to the fact that a student does not develop awareness of one's own needs regarding personal knowledge, competences and attitudes. In its turn, if the education process is conducted disregarding the teaching aspect, students may fail to develop critical thinking skills, turning them into individuals incapable of analyzing causes and consequences of their actions. Therefore, it is necessary to produce e-education content taking into consideration development needs of the digital generation.

## 2. Concept of e-education and its content

In pedagogical research and practice, education as a concept has two meanings. Education, in its broader meaning of “upbringing” or “socialization”, is a purposefully organized personality formation process, aimed at transfer of socio-cultural experience from one generation to another, development of value systems of new generations, as well as development of personality and self-control. During the process of socialization, a meaningful personal attitude towards people, labor, cultural values, nature, society and country is formed. It gives students the possibility to become full-fledged members of the society capable of defining and taking responsibility for their activities in life. In a narrower meaning, education is a person's work aimed at the education of a child (young person) in a preferable way, taking care of him/her, teaching, educating, developing practical skills necessary for life, involving specific social life situations, forming his/her personal development conditions (Dictionary of Pedagogical Terms, 2000, p. 24). Prior to defining e-education content guidelines, it is important to determine the concept of e-education.

### 2.1. Definition of e-education concept

According to the results of content analysis of available pedagogical resources, e-education as a concept has not been used before; consequently, the particular concept has not been comprehensively defined yet.

Prior to explaining the concept of e-education, it is necessary to characterize social experience of digital generation and to clarify the needs and conditions for its development. These are very challenging research tasks taking into consideration that the new generation is not a homogeneous social phenomenon and the research into the nature of digital generation as well as the impact of digital environment on its development is still at the emerging stage. Sociological research provides insights into characteristics of digital environment and analysis of behavior and ways of self-expression of its participants (Russel, 2006); therefore, the issues concerning socialization process in the digital environment are studied at present. However, education and socialization processes differ considerably – education is a purposeful process, whereas socialization is a situational process, affected by both objective controlled and subjective uncontrolled factors.

Available research data indicate that digital environment influences development of the following social behavior models of young people:

- A more informal communication style develops, e.g., greeting disappears from the communication process;
- Noticeable linguistics economy in written communication, such as proper names are not capitalized, incorrect word spelling is used, etc.;

- Digital communication focuses on the information exchange rather than on the participants of communication;
- Learners' mutual communication becomes more superficial and less humanitarian, putting emotional interrelations at risk;
- In the virtual communication process, any barriers and norms of behavior disappear among young people before and during puberty;
- An illusion of a virtual society, as a perfect society for young people, emerges;
- A necessity to escape from the real world appears.

Digital environment, being one of inherent life spaces of youth, may cause addictions, resulting in degradation of social characteristics of a personality. The following behavior patterns could be a sign of computer addiction among the youth:

- Aggressiveness in case of restricted access to computer games;
- Larger number of virtual friends in comparison to the real ones;
- Eager denial of computer game addiction;
- Open disregard of hygiene, lack of interests characteristic of peers, and negligence. (paradisi.de)

These and, probably, some other features of the social profile of digital generation determine content of the e-education concept. Today, e-education may be considered one of the fields of education because teacher's theoretical knowledge base and purposeful educational practice should be active in the digital environment, providing knowledge, skills and attitudes required by new generation.

## 2.2. Content of e-education

Tendencies of social development, ideals, and aims have always been connected with the aim to educate an individual, determining objectivity of this aim. Educational content, methods and forms should be selected accordingly. In each society, the ultimate aim – to raise an ideal personality – is different and corresponds to different social needs (Špona, 2004).

The aim of e-education is to provide the youth with the opportunity to acquire as much knowledge as possible on action models that may be used in digital environment to develop communication skills in social networks and cultivate the sense of responsibility towards processes occurring in digital environment. One of the most important tasks of e-education is development of a personality capable of perceiving digital environment as a tool for improving the quality of life, not as an alternative for a normal social life. Therefore, e-education should be complemented with the following content guidelines:

- Social network types and characteristics;
- Social network application aims and opportunities;
- Terms and conditions of social network personal profile development and operations within it;
- Cooperation types and communication culture in social networks;
- Aims, norms and ethical principles of blogging and tweeting;
- "Trolls", their aims, individual behavior in case of trolling;
- Computer games – opportunities and risks, types of computer games;
- Signs of computer addiction; individual actions in order to minimize computer addiction risks;
- Possible risks of Internet usage; technological and criminal threats, individual actions in order to minimize risks;
- Causes of conflicts among young people in digital society, "book generation" and "digital generation" relationship and communication development principles;
- Basic social needs of the people, ways of meeting these needs in the digital environment.

Digital environment is changing dramatically, it is getting continuously enriched with new technological solutions. It provides new opportunities in the fields of information and communication. Therefore, pedagogical research should

become more dynamic in order to timely diagnose the changes in people's behavior in digital environment, and to specify and improve e-didactics and e-education content.

### 3. Conclusions

Based on the results of the content analysis of the available resources in the field of e-pedagogy, the following conclusions have been made:

- E-pedagogy is considered to be a branch of pedagogy; therefore, it should reflect content structure characteristic of pedagogy: didactics and education. Concept of e-pedagogy in theory and practice is narrowed, it is observed only as e-learning, application of distance learning and digital technology in traditional learning methods, forms, tools and technologies. The particular content discussed in the paper is more related to the concept of e-didactics.
- Concept of e-education has not been used in pedagogy before. To provide e-pedagogy as a branch of pedagogy with content structure, it is important to formulate the concept of e-education, which is teacher's theoretical knowledge base and purposeful education practice. It will allow new generation to obtain necessary knowledge, skills and attitudes for taking reasonable actions in the digital environment.
- The content of e-education is determined by actions of digital generation and their needs in digital environment, which should be examined to ensure its appropriate application for correct personality development. Therefore, e-pedagogy research should follow digital environment and its participants' social behavior changes in order to timely update e-education content.

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