Influence of the New Media on Children's Play

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Abstract

The development of technology affects all spheres of human life, including children's play. The changes resulting from the fast development of technology and new media leave a huge dent in the process of children's play.

This paper tends to answer the question how the development of technology and new media influences the changes in the context of children's play, whether the new media has become just a good excuse for some other, deeper social changes taking place in a society and influencing all segments of human life, including children. It is concluded that, with the development of technology, children's play has evolved in another direction, a direction that has not been sufficiently explored, often unfavourably judged and blamed for all the negative changes in children's life. A basic developmental characteristic of children is their openness to something new and different. Children are by nature explorers who investigate everything in their environment and beyond. The possibilities of technology and new media in children's play are just another segment that requires exploration and investigation, and that is interesting for children to research. Simplicity and openness to new things is something one needs to appreciate and nurture in children. On the trail of these changes adults are faced with new tasks, such as showing complete openness to new things and discarding all prejudices, limitations and ignorance. When all of this is behind us, we can help children get into great exploration of the new media as a new and inevitable part of their new play. Accepting the strong impact of the new media on children's play allows us a certain amount of control over the quality of play in order to protect children.

Technology and the new media have become part of children's play, of the way children play in the 21st century.

Key words: *change; educators; technology.*

Introduction

Changes take place every day, triggered by, among other things, a fast progress and development of technologies that cast a conspicuous trail in everyday life of the society as a whole and of the individual. An important period of one's development and shaping commences in early childhood. Play is one of the crucial activities during the period of a child's growing up. Like all activities, game is also subject to various outside influences, one of them being the new media, and a speedy development of technologies in general. The influence of these changes is fast, without the ability of being postponed, therefore, it needs to be recognised and assessed promptly and accordingly by adults, in order to develop a high-quality children's play. Parents and caregivers try to provide a proper and versatile development of each child using their competence and knowledge. Simultaneously, they are to be in line with novelties and changes taking place under the influence of information and communication technologies. What supports this idea is a large number of studies done on the impact of information and communication technologies on the life of man from the earliest days, be it negative or positive. Hence, the need for a high-quality education process which requires an interdisciplinary approach to fulfil all individual needs of each and every child. Fulfilling those needs begins with providing a child with the right to have and make a choice and with enabling children to learn through play regardless of the sort of play. Using the new media and the informatics technology in children's play requires adults to make and undertake certain adjustments. Furthermore, it calls for the acceptance of differences in life styles in the age of globalisation.

A question arises - whether information and communication technologies and their integration into all segments of children's lives have a positive or a negative impact on children's play.

Children's Play

In the period of early childhood, play is the central activity through which children express themselves, at the same time being the key activity in the process of learning (Nutbrown, 2011). It affects an overall child's development with the process itself being unplanned and carried out spontaneously. In the process children often explore different forms of cooperative team play, thus, generating interaction with people, animals, and objects in their immediate or distant environment. Play is an unspecialised, non-diversified, very complex, ambiguous, and multifunctional activity (Duran, 1995, p. 18). As children's characteristic activity, it emerges within a child's first days of life and it accompanies them through the process of growing up. The idea that childhood is the time during which play is the most emphasised children's activity is supported by many authors, regardless of the theoretical approaches they may represent (Bateson, 1955; Piaget, 1962; Reynolds, 1976; Bruner, 1960; Erikson, 1972; Hyder, 2004; Slunjski, 2008; Hughes, 2010; Rodger, 2012).

Bruner (1976) reckons that the phenomenon of play cannot entirely or infallibly fall within the scope of a single operational definition. We encounter various interweaving definitions that complement each other with a strong synergy among them. Children play spontaneously and freely, only occasionally in need of help from adults, and through different activities they develop their intelligence and creativity, they strengthen their emotions and social skills (ECF, 2008). This process is of utmost importance for children and to them it is more than play; according to Plummer (2008, p. 27), play is *serious work* to children. Children learn while playing, and the process itself provides them with an opportunity to acquire knowledge and new skills in a simple, relaxing, and fun manner, without any pressure to achieve a goal or make a product. The aim of play appears as play continues and it alters in accordance with activities or manners in which children play. According to Plummer (2008), play offers structure and predictability, reflecting aspects of real life and offering valuable possibilities of learning. It is a known fact that children appreciate routine that gives them the feeling of safety, predictability, which is a setting where children are able to independently explore possibilities that a certain type of play gives them, broadening and acquiring new knowledge and skills through repetition.

Matejić (1978, p. 82) says: The outset being the fact that play is a child's open, outdoor (practical) activity; these characteristics of play should be emphasised here:

1. Simulative behaviour with the following features:
   - Divergence (organising behaviour in a new and odd way);
   - Incompleteness (does not include reaching a certain specific goal);
   - Inadequacy (behaviour that is disparate to a situation);

2. Personal activity, which consequently:
   - Implies that it has its own motivation sources;
   - Implies that the process of play is more relevant than the outcome of an action;
   - Leads to dominance of means over goals;
   - Leads to absence of immediate pragmatic impacts;

3. Personal functions of a player are met, i.e.:
   - It relieves tension, it resolves conflict;
   - It regulates physical, cognitive, and social and emotional development;

4. It is performed in the state of optimal motivation tonus, which consequently means that:
   - play occurs in the absence of imperative biological compulsions or social threats;
   - play occurs in the state of moderate physical tension.

This specific structure leads us to contemplate play as an element of children's behaviour with the purpose of communicating with their immediate environment through various signals, messages and demands. As supplement to its referential character, play allows retaining meta-communication functions (Duran, 1995).

As mentioned previously, this subject has been looked at by many authors and there are many ways in which play may be divided. Thus, most commonly used terms are functional, symbolic and rule-based play.

Functional play represents the possibility of exploring children's functions on the one hand, and the possibilities of the object of the game on the other hand. What needs to be emphasised is the relevance of social interaction in the environment that affects the way functional play broadens and develops. Piaget (1962) claims that functional play as well as sensor-motor intelligence takes place upon children's contact with physical environment. Piaget sees symbolic play as a phase of pre-operation opinion and correlates it with the structure of cognitive activity.

With rule-based play children should be familiar with the rules of play that are set beforehand, and that relate to children's culture, customs and environment. Children's rule-based play, as a regulatory mechanism of social relationships, has two great functions that are vital to the functioning of each culture: social integration (approaching the members of a group, obeying rules and social norms, control of personal wishes and impulses) (Duran, 1995).

Understanding play as an integral phenomenon requires a holistic and interdisciplinary approach, i.e. a joint approach of specialists from different fields. New findings, according to Kon (1988), most often appear on the boundaries of different disciplines. By interacting with other sciences a much wider view of children's play is gained - the play that has been going through significant changes, which can hardly be named or labelled, but which are easily recognisable. Children's play has undergone quintessential changes caused by omnipresent interference of ICT.

ICT in Children's Play

One of the disciplines, that is sciences, which is omnipresent in child's play is information and communication science. It is a science that increasingly creates a positive synergy with the process of education of early age and preschool age children, and it is integrated in all its segments. According to Malaguzzi, (1998) a child has a hundred languages, therefore, in this context one might say that the language of informatics, or digital language, has become one of the languages that the 21st century children speak. According to UNICEF from 1989, every child has the right to information access, hence to informatics literacy as the ground to its access. Prensky (2001) has named the generations born after 1994 *digital natives,* while to those generations that were born before he refers to as *digital immigrants.* Beside the division that Prensky has introduced, a new term *Generation Y* (Neuborne & Kerwin, 1999) appears in literature. Generation Y extends to children born after 1979, some 60 million representatives of new generation of young people in a national history and the first ones to be growing up in the world saturated with networking, informatics and digital gadgets with the promise of perpetual connectivity (Neuborne & Kerwin, 1999).

Nowadays preschool establishments are filled with *digital natives,* i.e. children who were born in the digital age, generation Y. The surrounding they live in changes at a

high speed that is occasionally difficult to follow. Such fast development of technology brings positive and negative consequences to the world children grow up in, while being surrounded with a constantly rising number of technical and communication technologies. Based on the research conducted by Annenberg Public Policy Center from 1999, 7 out of 10 families with children own a personal computer in their homes. Such exposure to digitalisation requires a certain sort of behaviour. According to Montgomery (2001), the culture of new media is still at its very beginning, so it is necessary to develop a culture of behaviour of using the new media. The culture of using the new media needs to be developed from the earliest days within a family the same as within education establishments (Pepert, 1980). This way educators are directly involved in the process that appears with ICT and its integration into the system. Fast change is perceived as a significant problem for many educators and they have to learn to cope with it, since it is necessary for them to enter the process of lifelong learning in order to strengthen their own informatics competences with the aim of using ICT in education system correctly. In order to have the new media properly presented to children of early and preschool age, it is necessary to meet basic conditions: competent and high quality professionals, reliable and adequate software, and ergonomically furbished space as to ensure that safety conditions are met for using ICT (Marinović & Baćac, 2000). Once these fundamental and utterly important conditions are met, using a computer becomes a great game. It becomes play in which, by using the new media, children enter a whole new world of play, the so-called digital or virtual world. It is a world where digital technology stimulates children's thinking and encourages acquiring and broadening the existing knowledge and skills in a new and different manner (Stevanović, 2003). The whole process continues through a game on a computer or a similar digital gadget. A positive impact of using a computer is seen in the development of perception and mental and psychomotor capabilities in children (Pivac, 2006). Using ICT has impact on cognitive capabilities, problem solving, deduction, and it stimulates creativity and intelligence, i.e. capability to cope with new situations. Using a computer and playing computer games is a good way to practice reaction to stress caused by one's own failure as a good preparation to learn to accept failing and as a constructive generator of building children's character by building determination and persistence in dealing with a problem under pressure. In this way stronger and more obstinate generations are formed, ready to influence access to information by undertaking actions themselves in order to enhance the process of work, that is play, in children of early and preschool age.

According to Hogan (2001), using a computer positively affects development of:
- critical thinking;
- communication;
- creativity;
- the right to have a choice.

Development of critical thinking can be stimulated through play that involves exploring computers and other digital media in a way that children are introduced to the outer and inner technical features. Before we address the computer as a media for conveying information and as a means of communication, it is relevant that children's own perception and understanding of the computer is developed (Pribišev Beleslin, 2011). Possibility of exploring the inside of a computer has contributed to children's understanding of what had seemed to them as completely abstract electronic and mechanic functioning of a computer, of its inside parts. Through these exploration activities an interest to acquire new terms specific to computers and its functioning would be triggered, and they are terms such as package, power key, graphic card, modem, USB stick, CPU – central processor unit or the heart of a computer, computer memory – the place which memorises input data and has a function that resembles the one of the human brain (Henderson, 2002). Beside them, there is an abundance of new terms and data that are appealing to children and which for this reason affect the development of children's curiosity. Each term that is related to ICT can be made familiar to children in a way that is understandable to them, so that they can better comprehend the way computers work. Modern approach to acquiring new knowledge and skills can be resumed to the demand that a child *learns by exploring and explores by learning* (Stevanović, 2003, p. 13). Children explore through play and this exploring play becomes the key drive to adopting new knowledge and skills. Through amusement at play, on an unconscious level, children broaden their competences and prepare themselves for the process of lifelong learning. After mechanical and technical exploration of a computer and getting to know the way it functions, their attention can be drawn to using software for computers. Choice of programmes, tools and games that might be offered to children demands thorough consideration of an expert, an educator or parents (Negroponte, 2002). Educators are to be aware of the importance of using the computer properly with the purpose of protecting children's health, and achieving set tasks and goals. The computer becomes educators' assistant that allows keeping track of the needs of modern society and children of the 21st century. By making a proper choice of programmes, tools and interactive educational contents, one affects humanistic and holistic approach to children's development, as well as development and formation of opinion, knowledge, abilities, skills, habits and attitudes (Rončević, 2011). The computer can be a media for confirming the acquired knowledge as well as stimulus for areas yet to be explored. Using a computer has an impact on motor, eye - hand coordination, hand and fingers motor skills. Pribišev Beleslin (2011) study results indicate that those children who have used computers show better results in physical activities, i.e. in using fine or gross motor skills in everyday activities. Interacting with computers children gain stimulation for playing out a virtual game (Aldrich, 2005) into a real play with their friends, parents or educators. This way of using a computer stimulates children to develop communication with their peers, as well as with adults

in their immediate or more distant environment. By using computers as their mediator, children make a social contact which is in this way nurtured, rehearsed and widened (IBM, 2003). Communication does not flow in one direction, it develops in regard to child – computer, computer – child, child – computers – children, computer – child – adults. However, forms of communication are not terminated here, because by using the Internet and its possibilities to communicate via Skype, Gmail and other communication-oriented programmes, communication grows up to immeasurable scope, including physical and social contacts, and virtual communication that crosses the limits of a child's comprehension. This way development of creativity is affected in the segment of communication itself and in information access and exchanged with the aid of computers and the Internet. Various programmes and tools enable development of children's creativity as a cognitive process that is especially expressed in science and art (Loveless, 2003). By using a drawing programme children can choose technique, colours, and shapes to create a digital painting. A digital work can be printed out in several copies, which allows the broadening of basic knowledge of the art of painting and affects the development of creativity, at the same time stimulating the use of other technical media, in this case, a printer.

All the activities mentioned here have no or little importance unless children are granted the ground right, and that is the right to have a choice. The key term is children's right to have a choice, and it is especially emphasised with children with special needs. A computer with adapted software programmes that target a specific disability, allows every child to be included in activities they have until recently been deprived of. Research has shown a big progress with children with special needs - in knowledge and skills development, increased self-confidence and enabling them with the sense that they belong and they are (Hinchliff, 2008).

Conclusion

Children's play has experienced rapid changes under the influence of ICT, and it is primarily necessary to understand these changes as characteristics of the 21st century and discover a modality to its understanding and acceptance. It is necessary that adults, both parents and educators, monitor changes in play among children of early and pre-school age, so that they are ready and open for the acceptance of the changes. However, what is relevant to be mentioned is that using ICT does not exclude play in the form as known to generations before the generation Y and digital natives. That is play which allows and enables children to get to know the world that surrounds them with all their senses, in an old-fashioned manner, through direct interaction with objects, people and environment. Since digital world has become part of life of children today, it is necessary that they are given an opportunity and possibilities for all the options. Adults are to accept and provide conditions needed for accepting these two forms of children's play with the purpose of granting children with the right to have a choice, according to UNICEF from 1989. By guiding children to use computers

properly, not only technically, but ethically and morally likewise, it is necessary that it is done so from the earliest age. In order to conduct this process, help is needed from competent experts who will plan activities for children of early and preschool age by taking into account developmental characteristics of children, their individual needs and abilities. It is necessary that children are prepared for the culture of using a computer and other digital technologies. By setting up a proper system of values, negative elements that accompany the digital era can be avoided and the computer will be perceived as a means of enhancing the quality of people's lives and children's play itself. By doing so, all the negative connotations would be annulled, the ones that are now assigned to the computer as the factor that has a bad influence on children's development as a whole, and children's play. The computer and digital technology is an integral part of children's world and for that reason we must do everything within our power so that they have a positive influence on children's play, with the purpose of ensuring steady overall children's development.

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Utjecaj novih medija na dječju igru

Sažetak

Razvoj tehnologije utječe na sve sfere ljudskog života, pa tako i na dječju igru. Promjene koje nastaju utjecajem ubrzanog razvoja tehnologija i novih medija ostavljaju velik trag na dječju igru.

U ovom radu pokušava se odgovoriti na pitanje koliko je razvoj tehnologije i novih medija utjecao na promjene u kontekstu razvoja dječje igre, te postaju li novi mediji samo dobar izgovor za neke druge, dublje socijalne promjene koje se zbivaju u društvu i utječu na sve segmente ljudskog života, pa tako i na dječju igru. Zaključuje se kako je razvojem tehnologije dječja igra evoluirala u jednom drugom smjeru, smjeru koji još nije dovoljno istražen, koji je često negativno osuđivan i optuživan za sve negativne promjene u dječjem životu. Osnovna razvojna karakteristika djece je otvorenost za novo i drugačije. Djeca su po svojoj prirodi istraživači koji istražuju sve u svom okruženju i šire. Mogućnosti tehnologije i novih medije u dječjoj igri samo su još jedan novi segment koji je potrebno istražiti i koji postaje zanimljiv predmet dječjeg istraživanja. Jednostavnost i otvorenost prema novome je nešto što je u djece potrebno cijeniti i njegovati. Na tragu tih promjena pred odrasle se postavljaju novi zadaci, zadaci kao što su potpuna otvorenost za novo, odbacivanje svih predrasuda, ograničenja i neznanja. Kada je sve to iza nas, možemo zajedno s djecom krenuti u veliko istraživanje novih medija kao novog i neizbježnog dijela nove dječje igre. Prihvaćanje snažnog utjecaj novih medija na dječju igru omogućuje nam određenu dozu kontrole nad kvalitetom igre s ciljem zaštite djece.

Tehnologija i novi mediji postali su dio dječje igre, igre djece 21. stoljeća.

Ključne riječi: *nastavnici; promjene; tehnologija.*