# APPLICATION OF WEB PRESENTATIONS IN THE FUNCTION OF <br> PRESCHOOL EDUCATION AND UPBRINGING QUALITY IMPROVEMENT 

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#### Abstract

Education and education-related processes faced with the challenges imposed by rapid and unstoppable informationalcommunicational development bring along the need for all the levels of education, as well as teachers, as the agents creating and realizing it, respond to these challenges and prepare young people for life in constantly changing world. Constantly increasing changes reflected in other spheres of life have been an obstacle appearing as an impossibility to create clear picture of what the world will look like tomorrow. Preschool teachers in kindergartens are, on the one hand, faced with the changes children are going through, and on the other hand, with the demands for lifelong learning, requiring them as professionals to be reflexive practitioners, who learn permanently and improve their practice. The omnipresence of informational technologies in everyday life of children and adults undoubtedly imposes the need for teachers to possess necessary knowledge and skills in order to purposefully use advantages offered by these technologies in the work with children. The paper deals with the design of internet sites and software which should address these needs and challenges of contemporary preschool education and upbringing. Apart from the possibility to offer what should be learnt, i.e. the content, they should also have impact on how and to what an extent certain contents should be learnt, introducing completely new methods and techniques of learning and teaching.


Key words: preschool education, IT, communication, quality of education.

## Introductory considerations

When in 1949, shortly after the Spanish civil war and the Second World War, George Orwell published his novel under the title 1984, the readers and the critics accepted it as a warning to future generations what stand to take against totalitarian ideologies like fascism or communism. The novel became and has remained popular until the very present days, even though its ideas have been more easily accepted by dictators hidden behind various ideologies, aims and unproven diseases. Those who were in the role of Winston Smith (the main character in the novel) often experienced his destiny, they used to be arrested, tortured and rehabilitated. Thus, Julian Assange (the founder of the controversial WikiLeaks) is nowadays an example of an ideal Smith's double; seemingly free, he lives (in a political asylum) in Ecuador's embassy in London, deprived from his basic human life to move freely, since he is under the threat to be arrested. Apart from this example, a number of newly coined words from the novel have been borrowed into every day language, showing to what an extent fiction can become reality (e.g. Newspeak, doublethink, duckspeaker), crimethink...)

Finaly, Big Brother has entered our homes through a TV show, also enriching our vocabulary by a collocation Reality Show. At the same time, informational shows have been informing us, just like Big Brother: war is piece, sending of the so called peacekeeping forces throughout the planed, as a guarantee of safety, reminds us of Orwell's words: freedom is slavery. Selfisolation of the states not ready to accept the requirements imposed by large and rich countries, has produced their slow ruination, or in accordance with the interests of powerful world forces, they become democratized - liberated through the will of the people. Finally, Orwell, as well as present reality finds their strongpoint in the statement: ignorance is power, man as an individual has been liberated - he does not have either to think or to know anything - it is much easier to google a piece of information, ranging from the recipe on how to prepare an easy meal to an on-line manual how to make a (space) aircraft.

On the other hand, conventional understanding and duration of the process of education, has become lifelong learning. The era of fast changes demands use of human resources, and at the same time investment in their quality in regard to their skills and knowledge. Education is expected to get adjusted to the market demands, so that it can at any moment offer possibility of retraining and additional training, with increased emphasis put on informal education and learning. As a consequence, traditional education methods have become improved and upgraded (projectors, presentations, interactive tables...), but even more often replaced by the application of modern information communicational technologies (on-line learning).

In the end of the $20^{\text {th }}$ century computers in education were on the margins; however, today, while schools are still not on the cutting edge, the profound importance of the computer as a knowledge tool is widely recognized (Kurzweil, 1999). The Internet has become a great and open base of knowledge necessary to wisely use, for educational processes to be modernized and equipped to prepare young people for the world of constant changes and help them find their own place in such a world (Božić\&Micić 2006: 216). Pupils and students own computers, more often smart phones, which through wireless communication canals provide them at any place in any time access to variety of contents, as well as teaching materials. At the same time, employers have realized that learning and knowledge have become a foundation for creation of newly created value. Multinational, as well as small companies have imposed a need for training and developing new skills to emerge as an ongoing responsibility in most careers, not just an occasional supplement (Kurzweil, 1999). It is also worth mentioning that these Kurzweil's words date back from 1999 when they were suggested as a prognosis how 2009 will look like. Just like Orwell, Kurzweil was in the time of rapid changes, able to realistically portrait the present time; it is therefore necessary to pay special attention to everything which is today offered as a future of education.

## Initiatives and resources for open education

Open Educational Resources and the policies of open education have been significantly developed in recent years, creating new possiblities for the improvement of education; at the same time, they are great changes for all relevant participants in the process of education, i.e. all stakeholders. The initiative Open Education in Europe was initiated in 2013, putting the idea of open education in the centre of educational reform, accepting that openness is a value characteristic for increasing number of modern initiatives, as well as communities.

One of the problems facet by those who try to develop new forms of education in order to help new learning generations, as well as those involved in teacher education and training, has occurred in the conditions in which young people were raised and grew up in digital era. Jukes and Dosaj (Jukes and Dosaj, 2003) have made a difference between digital immigrants (majority of those nowadays involved in the field of education) and digital natives, i.e. current generation of young learners. They have found that teachers and those who educate teachers - digital immigrants - prefer lower level and controlled provision of information from limited sources, singular processing and giving one task or limited tasks, i.e. single/limited-tasking, at the same time provide text before image, sound or vide, that they provide a piece of information in a linear manner, logically and sequentially, they like
their students to learn separately and independently, rather than in a network or in interaction; also they prefer teaching just in case and giving and delayed rewards; they are also inclined to teaching within a curriculum. On the other hand, their students - digital natives prefer information quickly from multiple multimedia sources, parallel processing and multi-tasking, prefer processing pictures, sounds and video before text, random access to hyperlinked, interactive multimedia information, they prefer to interact/network simultaneously with many others, to learn in time, they prefer instant rewards, they are inclined to learning which is relevant, instantly useful and fun. It seems that in such circumstances informational technologies can give significant contribution to bridging the differences between the agents in education, introducing innovations in their work and improving their cooperation, thus increasing the quality of upbringing and education. In a nutshell: We learn and solve problems in different ways... (Gráinne Phelan, Programme Manager EMEA, Enterprise Google, Inc.)

As a dominant Web browser and as a company with overall approach to contemporary communication, Google offers more programs under a common name Google Apps for Education, a package of internet application in a cloud which through interconnectedness become more efficient and powerful, while enabling us do the job in a shorter time and in an easier and more interesting way. Curricula, syllabi, scientific projects, distance learning, testing in an on-line environment and real time are only some of possible applications of these systems. Insisting on the logics of Any place, Any device, Any time the company strives for adapting Education to new ways of working.

Khan academy is a centralized data based, containing more than 6000 recorded tutorials from all fields of education, which is currently being used or has been used by over 100 million learners. A free world-class education for anyone anywhere is an idea which came to life, and further development of the platform is heading towards gamification (Badges, Levels, Leaderboards, Progress Bar, Awards...) and personalization of plan and program of learning. Possibility of getting immediate feedback and development of platform for trainers leads to removing of the obstacle repeatedly pointed out by John Dewey: if we teach today as we taught yesterday, we rob our children of tomorrow.

Explaining what Wikimedia is, Jimmy Wales, one of its founders says: Imagine a world in which every single person on the planet is given free access to the sum of all human knowledge. That's what we're doing. Initiated in 2001, Wikipedia, as one of the projects of Wikimedia Foundation, has become the greatest encyclopaedia in the world, visited by 550 million interested individuals each month; at the same time it undergoes 11 million alterations and additions during the period of one month by 80.000 active
users in the whole world; it currently contains 30 million articles in 286 languages and it is the sixth most visited site on the Internet.

Packages, tools, data basis, encyclopaedias, courses like, e.g. OCW (Open Course Ware) ili MOOC (Massive Open Online Courses), Agile development frameworks (e.g. Scrum) appear every day; possibilities have been exponentially incresing and those involved in education should only choose their own way to learn and teach. Having sketched the current state in all spheres of life in general, as well as in education, in particular, we were interested in the extent preschool teachers use available possibilities opened up by ICT both in their everyday life and in their work.

## Brief Analysis of the Current State or Theory vs. Practice

In a survey (Prtljaga 2014) carried out in certain preschool institutions at the territory of Belgrade and Vrsac, on the sample of 200 subjects (130 parents and 70 preschool teachers), one of the questions was the following: Do you use a computer? The obtained responses are as follows:

Table 1 The extent to which computers are used by parents and preschool teachers

| Use of a <br> computer | I do not use <br> it | I use it at use it at <br> work | I use it both <br> at work and <br> home home |  |
| :--- | :--- | :--- | :--- | :--- |
| Kindergarten <br> teachers | 10 | 0 | 60 | 0 |
| Parents | 0 | 14 | 36 | 80 |
| Total | 10 | 14 | 96 | 80 |

Graph 1 The extent to which computers are used by parents and preschool teachers, in percentages


Considering application of web presentations in the function of preschool education and upbringing quality improvement it is important to point out that the research result have shown that none of the kindergarten teachers involved in the survey uses a computer at work, indicating that IT are not present in their immediate practical upbringing - educational work in a preschool institution. As a consequence, it is possible to conclude that preschool teachers obviously have acquired knowledge necessary for the use of ICT, having in mind that most of them use computers at their homes; however, they do not use them at work at all; thus, it seems that it is necessary to create technical preconditions for use of computers in their everyday work with children and for practical application of ICT in learning of youngest children.

## Conclusion

Kindergarten teachers in preschool institutions are, on the one hand, faced with the changes of the very children they work with; on the other hand they are faced with the demands of lifelong learning, imposing the need to be professionals and reflexive practitioners who learn constantly and permanently improve their own practice.

The omnipresence of IT in everyday lives of children and adults inevitably imposes the need for preschool teachers to acquire knowledge and skills necessary for purposeful use of advantages these technologies offer in the work of children. Design of internet sites and software able to respond to the challenges of modern education and upbringing is expanding. Apart from offering should be learnt - i.e. content, they should influence the way and extent of learning, i.e. how to learn and how much to learn, introducing completely new methods and techniques of learning and teaching.

Furthermore, preschool teachers have to be adequately trained and competent, preventing children from spending too much time in front of a TV or a computer. In other words, they should be committed to their work on prevention from negative consequences electronic media might have for children (Bell 2007). Preschool teachers are expected to use ICT in kindergartens creatively, affirmatively and purposefully. In other words, it is necessary for preschool teachers to act in preventing its inadequate use while using its various and multiple potentials, to use it to make positive influence in all fields of children's development, leading to quality improvement of all segments of upbringing-educational work and development of media culture of a child (Andjelković: 2008, 70).

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