Elearning: Who is a student here?

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Abstract: The presence of informational communicational technology in education has brought significant changes in relationship between elements of the learning-teaching process. These changes are evident in structure, function and interaction between those elements. In the educational process influence of technology could be observed from the point of view of each educational element: the student, the teacher, the content and the context in which these elements are situated. In this paper we are considering changes in student's role, as a result of technology influence by its meaning and functioning in that process. Positioned as an estudent, especially in online education, a student is gets his or her own virtual dimension and loses his or her usual personality. Also, in this paper we consider the position of a student according to definition, from his aspect, final aims of education, and transformation of student's role depending on transformation of other elements of education. Furthermore, we consider student's role in the timeframe of his vertical education through the lifelong education which is today's necessity.

Keywords: eTeaching, eStudent, eLearning, eEducation, ICT

Elearning

Education implies two connected processes: teaching and learning. Key processes of teaching and learning are realised through communication between teacher, student and content (Prat, 2003). Those three elements represent process core and they are brought together, or better, they aspire to concerted interaction towards quality and fulfilled realisation of the fourth element - the aim of education. Aim is directly determined by students and then by the teacher, while the content determines the aim in qualitative and quantitative meaning.

In "classical" school, educational process is static by its determinations which are either ruled or determined by agreement and last till the realisation of the aims. That means that context: subject/Lesson, grade, school, university defines ways of realization at the very beginning of the process, and the changes during the process are minor.

The speed of development and improvements of technology are reasons for changes in science and education almost in revolutionary forms. To make new generations of students capable for challenges on work market they need to have new competence: teamwork, self-learning, communication skills, quick adoptions to new circumference, finding, searching and validating information, critical thinking, decision making and ICT skills. Traditional school system is no more capable of responding to work market demands, and it's necessary to adopt or transform it. If a teacher introduces educational technology into the process of education, other elements of education won't change. The way of connection between elements and their interaction change which demand changes in teaching methods and adjustment to specific situation from the teacher. Teacher's duty to adjust teaching methods to specific situation is a constant in his job, no matter which technology is used, although determined by technology. Then every element, in its name gets a prefix "e", which means “electronically”. eTeaching, depending on educational context, could b emerge on different levels in different shapes:
- as a part of, or addition to classical education, which creates mixed or hybrid mode or blended learning
- as completely independent shape in which students learn in online mode, which makes eTeaching a form of distance learning.
The intake of ICT in teaching process and creating eEducation has a big influence on ways students learn. Nowadays/Future eStudent experiences changes in relationship with every educational element separately because of quality changes in relationships between those elements. In that way eschool decontextualize, or better recontextualize educational process. Decontextualization is evident even on program level, and gets more expressed in complex forms. The biggest influence of technology in eSchool is evident in new meaning of "class". The meaning of the "class" here is basic social unit in which students are gathered. Turning a class into an eClass makes it more dynamic in activities. Complete process of education is realized through new forms and loses its former static.

What changes in education with application of technology and how it happens? From our aspect it is important to answer: Who is a student here? The best is to examine the influence of ICT on the student immediately, and then its influence to relationships between a student and other elements of education intermediate.

1. Student (alone) and with other students: "Old" generations of students, while transforming to eStudents, have to adopt old skills from traditional school, and develop new skills for successful resourcefulness in online environment: access, communication, viewing, resuming, correlating, synthesise and to develop skills for successful online learning: learning habit, time management, making notes, effective reading, critical thinking and writing texts.

"New" generations of students, which are entering educational context, have grown up with new technology," (Prensky, 2003.). All their life they are surrounded with cell phone, computer, video games, video cameras etc. Such a generation expects from every educational context the appropriate way of motivating for work and knowledge acquisition different from traditional way. eLearning ensures high level of interaction between students. Students don't learn only from the teacher and offered content but they also learn from each other with constructivist approach to the content through different ways of synchronic and asynchronic communication. Of course, that does not exclude the necessary individual work. It is possible to have synchronic communication between students or between a student and a teacher, which demands that student and teacher are active at the same time - which is possible with using videoconferences, audio conferences with presentation, online discussion etc.

Asynchronic communication gives students an opportunity to make communication with other students who don't have to be active at the same moment - email, forum etc.

2. Student and context: In educational context there are lots of elements that have influence to student's learning and application of different kinds of eTeaching. Depending on educational context (primary or secondary school, high or higher education or lifelong learning) different teaching perspectives are dominant, which is closely connected with degree of eTeaching development.

In primary school the educational component is very important and still evident in secondary school too. Complete transformation to online learning isn't appropriate for that educational context. In primary school students will, in between, adopt basic computer knowledge and develop conscience about computer as an indispensable device for work. It's necessary that students use computer as a learning tool for different subjects, not only Computer science (Informatics technology). It is important that content is methodically adequate for supplying new knowledge to students in an interesting and contemporary manner. In primary school it is possible and recommended to use mixed mode learning in which classical teaching is combined with technology aided teaching (Rosić,2000). It is possible to involve students in learning networks and connect them with students from other schools and other countries. In that way students can develop conscience about advantages of cooperative online work. It's very important in this context that students acquire skills of independent learning and inner motivation which will make them ready for lifelong learning.

Secondary school has more roles: it has to prepare students for work market - vocational education, it has to prepare them for continuing education at the university and for lifelong learning. Students should have opportunity to use technology in all subjects, not only in Informatics, to give the use of technology full meaning. In this educational context hybrid mode finds its place in work with talented students, in free activities, writing homework, seminars, and different projects, national and
international cooperation. Students in secondary school could gain prefix "e" only in possibilities mentioned above because of the educational component. eEducation is very important for students who cannot attend school regularly (distance or health limitations). Today more and more secondary school students attend online courses apart from regular school which means they have potential and it's a matter of time and opportunity when some subjects will be organized in a hybrid mode.

Educational component gradually weakens in higher and high education, which makes transition to mixed mode teaching logical in this context. There is no obstruction that some courses could become online courses. Introduction of eLearning will enable adults to attend university along with their regular work.

Getting outside of formal education doesn't mean the end for student's education. Speed of technology development and quantity of information are growing daily, so it's demanded from every working man to improve in his profession. eCourses have great advantages in that context because they are place and time unrestricted so they can answer teaching challenges of in homogenous groups (different age and knowledge).

Problem: In primary school computers are mostly used in Computer science classes. Despite the technical opportunities, few teachers decide to apply new technology in everyday teaching. Computer science isn't obligatory subject, so the number of attending students depends on school organisation, and mostly on government's permission for the employment of a Computer science teacher. In secondary school, depending on the kind of school, students can have 1 to 4 years of Computer science. Until now, the application of technology in school subjects was mostly relied on enthusiasm of individual teachers. To make every educational context capable for answering challenges of 21st century it's necessary to make, and to implement strategy plan and program for application of educational technology in all school subjects.

3. Student and content: Subject content and the literature list that goes along with it (textbook) is defined by school plan and program written by the Ministry of education. Students in classic class adopt contents from lesson notes and textbooks. Number of information is growing rapidly and often information provided for students aren't connected with real needs - information in textbooks lost their actuality and importance. Content in context of eLearning is flexible, addition and changes are possible during performance of teaching process - refreshing and updating are possible. eContent is structured in learning objects, well arranged in time, with clearly expressed aims and tasks of teaching. eStudent can access eContent in any time, from any location and work on it with no interruptions. Students therefore, can directly communicate with content they are studying. Second great advantage of online learning, for students, is a possibility of formative knowledge testing which precedes summarizing knowledge evaluation. Internet enables that content can be interactive, multimediial and more acceptable and provocative.

A necessity for making more eContent leads to the necessity for development standards for eLearning, the most popular of them being Shareable Object Reference Model (SCROM). It isn't possible to develop eLearning in its full quality without Learning Management System. LMS enables delivery of learning content, reporting, following students achievement, communication, knowledge checking etc. In some schools learning contents are available on common web pages, but that kind of content implementation doesn't use all of ICT possibilities.

4. Student, teacher and aims: Teachers were the only source of knowledge in the traditional classroom. Students could communicate with the teacher only once or not even once in a week, depending upon the mode of the teaching applied. The students were expected only to reproduce the given knowledge orally or in writing. That mode of teaching can not satisfy the needs of the students of the new generation. LMS tools and eLearning enables teachers to adjust the teaching to the new generation of students, so called “digital natives”, and to reply to the challenges of today’s society. eLearning brings many advantages. In the first place, the aim of the eLearning context should be to teach students to think and observe the teaching content critically and also to create their own knowledge as opposed to the traditional reproduction of knowledge. Second characteristic is cooperation in eLearning between students, students and teachers and students and content. LMS tools enable students to communicate with the teacher regardless of time and space through various
ways of synchronic and asynchronic communication, which represents a great and valuable advantage for the students in comparison to the traditional communication. eTeacher uses new paradigms of teaching which demands different working methods from the students and puts students in the centre of eTeaching. Constructivist method of content acquisition is the most interesting because it enables the teacher to become a motivator, and a guide and to motivate students' own independent knowledge building. Collaborative learning is especially interesting and important teaching strategy strongly related to the constructivist method of learning. It encourages team work where students exchange ideas and thus increase the interest for teaching materials and develop critical thinking. Students are encouraged to take over the responsibility for their own learning.

Conclusion

eEducation enables students in formal and informal education to easily find their way in the work market. In the table 1. you can see the shortcomings of the traditional teaching process in comparison to eTeaching, and it also gives us an insight into the advantages students get when teachers use informational-communicational technology in the present teaching context.

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<thead>
<tr>
<th>Characteristics</th>
<th>Traditional teaching methods</th>
<th>eTeaching</th>
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<tbody>
<tr>
<td>Teacher gives information, students listen</td>
<td>eTeacher is a motivator and a guide and students build their knowledge themselves</td>
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<tr>
<td>The work of an individual is pointed out and awarded</td>
<td>Teamwork is emphasized</td>
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<tr>
<td>Subjects are individual entities</td>
<td>There is a correlation and integration between many subjects</td>
<td></td>
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<tr>
<td>The content of the textbooks can not follow the fast developing information and technologies</td>
<td>eContent acquires new information from various sources</td>
<td></td>
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<tr>
<td>Students has only printed material available</td>
<td>eContent has got all advantages of audio and visual materials but it can also be printed out</td>
<td></td>
</tr>
<tr>
<td>Teachers are primary sources of knowledge</td>
<td>Many sources of knowledge are used</td>
<td></td>
</tr>
<tr>
<td>Students have mastered the content if they can successfully reproduce it</td>
<td>Constructivist method is applied - students are successful if they have mastered critical thinking, solving tasks and presenting their ideas and thus apply their knowledge to their own context</td>
<td></td>
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<tr>
<td>The periodical communication between students and teachers is difficult</td>
<td>Communication between students and teachers is time and place unrestricted</td>
<td></td>
</tr>
<tr>
<td>Static in all its elements</td>
<td>Dynamic in all its element</td>
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Question: „Who is a student here?“ is interesting from the aspect of traditional meaning of the word „student“. In eEducation, although depersonalized by the virtualisation, students don't lose their basic position. When they get completely virtualized, students can be set into the heterogeneous structures of „virtual classroom“ which brings complex situations rarely possible in traditional classroom. In simple words, eTeachers will not be able to see if their students are at the same starting level, if their motives and interests are identical or at least supplementary, and finally, if they are of the same age. It is necessary to develop some form of revealing or self revealing. It has psychological and pedagogical meaning and it demands special and wider elaboration and thus it surpasses the purpose of this paper.
The answer to the question: „Who is a student here?“ (in the framework of eEducation) can be completely envisaged only in a specific situation and when all potentials of eTeaching and eLearning are accepted and applied. In this paper we have tried to point out the specific changes which have been recognized in various situations as a quality shift or as sensitive moments in the process.

References

