A FEW SUBPROBLEMS CONNECTED WITH INFORMATICS AND EDUCATION

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Abstract: *The paper deals with the problem of informatics and education. The author tries to find suitable approach to each of four selected subproblems connected with the topic.*

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1. INTRODUCTION

The informatics has a great impact on contemporary society, economics and education. The education supported by modern teaching and learning technologies, such as computer networks and digital communication tools, denotes the e-education. The point of view of the author is included.

2. INFORMATICS AND STUDY PROGRAMMES

Nowadays the informatics affects almost all military and civilian university study programmes. Its influence is visible in economy, management, natural and technical sciences, medicine, language studies, etc. Especially availability of electronic information sources and Internet communication can support the development of all mentioned branches. The informatics tools allow easy content storing and updating, information sharing, usage of connected databases, network communication, etc.

Informatics has become an important part of the general education. Contemporary information society requires deeper knowledge of the informatics in compliance with the needs of study branches and working positions.

Contemporary informatics gives the tools and methods for its own development and improvement. E-education in informatics can serve as a pattern for other fields of education.

3. SELECTED SUBPROBLEMS

E-education in informatics offers many various challenges to solve. The author has decided to choose four problem areas from the wide range of interesting subdomains of the topic. Opinions of the author can be found in the following subchapters.

3.1 Setting of goals of education, content of education and information sources usage. The primary task of the leaders of education is setting the right goals of this activity in compliance with the real needs of the target group. Every teacher or tutor should have the capability to successfully defence these goals

in discussion with students. The content should be prepared and suitable study sources should be recommended with respect to the structure of the target group.

Contemporary education needs a good feedback and communication among teachers (tutors) and students. The lectures without feedback and communication can be boring and ineffective. Underestimation of this fact leads also to the low number of students in the lecture halls.

3.2 Modern communication tools and methods and their usage in education. Contemporary education needs a good choice of communication tools and methods which are comfortable for both teachers and concrete target groups of students. A good mix of F2F, phone, videoconference, e-mail, discussion forum, chat, ICQ, Skype, etc. supports the motivation for required study activities fulfilment.

Receiving a syllabus before every lecture (a logical backbone of the lecture) can bring a motivation and higher attention of students during the lectures. The effectiveness of those lectures for students can be significantly higher.

Education based on ICT brings new possibilities for cheating on tests. Teachers and tutors should be prepared for this new environment and responsible for correctness of testing and task assessment.

3.3 Individualization of education, adaptive systems. A very interesting kind of pedagogical research is the development of adaptive learning systems. Such systems should prepare students according their knowledge about the students' learning needs, required study outcomes and specific personal capabilities (learning styles). On the other hand there is a necessity to be prepared for living and working in difficult information environment. Especially university students should be prepared in the real world with its enormous quantity of information of various qualities. From this point of view especially university students should improve their skills to assess the quality and usage of various information sources for their education.

3.4 Study privacy and modern educational technologies. The problem of study privacy in the information society can be an interesting topic for contemporary research. It is the fact that contemporary society uses technologies that can radically interfere with the privacy [1,2]. Insufficient knowledge about the possible danger can lead to the forcing of unsuitable point of view.

4. CONCLUSIONS & ACKNOWLEDGMENT

It should be emphasized that education is not only about getting of new information. Education represents a whole complex of elements and activities, through which students achieve a higher level of knowledge and skills. It is necessary to know how to organize new information, analyze and synthesize them. Education must positively influence or change human thinking. Educational technology can help to achieve this goal, but the technology itself does not guarantee real quality of education and life.

The quality of education and its effectiveness can bring the future prosperity for the states and regions. The investment into education is the investment into the future. E-education is an expression of modern technology usage in education, its development and improving will continue with the key role of the informatics in this process.

REFERENCES

1. Hrubý, M. Freedom in Adult Education. *Journal on Efficiency and Responsibility in Education and Science.* Vol. 1, No. 2. [online]. Available: http://www.eriesjournal.com/_papers/article_56.pdf. (2008)
2. Hrubý, M., Dvorský, J.. Possible 'Roadblocks' in Distance Learning Development. In *Distance Learning, Simulation and Communication 2009. Proceedings.* Brno: University of Defence (2009)