

Content/Kazalo

6/2007

EDITORIAL / UVODNIK	231	
RECENZENTI / REVIEWERS	232	
RESEARCH PAPERS	233	BOJAN CESTNIK, INGRID PETRIČ, TANJA URBANČIČ, MARTA MACEDONI-LUKŠIČ Structuring Domain Knowledge by Semi-Automatic Ontology Construction
	239	MIRJANA KLJAJIĆ BORŠTNAR, ANDREJ ŠKRABA, VLADISLAV RAJKOVIČ, MIROLJUB KLJAJIĆ Simulation Based Group Learning
	248	ALENKA GORTAN, EVA JEREB The Dropout Rate from E-Learning Courses and the Satisfaction of Students with E-Learning
	258	UROS RAJKOVIČ, OLGA ŠUŠTERSIČ, VLADISLAV RAJKOVIČ, DARJA CIBIC The Educational Challenges of E-representing International Classification of Nursing Practice
	263	TANJA URBANČIČ From Fragments of Knowledge Towards a Bigger Picture: How Can the Process be Supported
	267	MAJA PIVEC, PAUL KEARNEY Games for Learning and Learning from Games
	273	IVAN GERLIČ Distance Education Models and New Communication Trends in Education
PROFESSIONAL PAPERS	279	VLADIMIR BATAGELJ, IZTOK KAVKLER, MATIJA LOKAR Project CALIBRATE – Calibrating eLearning in Schools
	288	OLGA DEČMAN DOBRNJIČ, METOD ČERNETIČ ICT Use in Boarding Schools
SUPPLEMENT / DODATEK RAZPRAVE	A173	MATEJKA TOMAZIN, ANDREJ BRODNIK Učni cilji pouka računalništva v osnovni šoli – slovenski in ACM K12 kurikulum
	A179	MATEJA KUNSTELJ, TINA JUKIČ, MIRKO VINTAR E-uprava: Kaj pričakujejo od nje slovenska podjetja?
POVZETKI	A189	
DONATORJI	A191	
IMENSKO KAZALO	A193	

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Editorial

6/2007

Education in the information society (2007)

Texts discussing envisioned predictions for the present millennium reveal that the basic types of knowledge needed in the future are those of mathematics, computing and informatics. What do these, to some people rather daring, statements refer to? Most of all they point out that knowledge is, for example, key not only for discoveries in the fields of bio-sciences and astrophysics but also for solving current burning social and ecological issues. Essentially, it is about making the qualitative shift from technology-based to science-based innovation. In this, the computer surpasses the boundaries of a technological tool, the use of which is commonly limited to desktop applications and the Internet. Here, e-literacy signifies significantly new methods of work that enable this leap.

Informatics and computing have reached a threshold of a new knowledge revolution. Besides being merely a tool for operating knowledge, computers, together with new methods such as data mining, also enable the creation of new knowledge that leads to new discoveries that would otherwise be impossible. An example of this is the decoding of a genome.

Revolutionary shifts in knowledge have been infrequent throughout the history of mankind. They have occurred as the result of basic conceptual discoveries, among them algebra, or technological discoveries, an example being the telescope. When in 1202, Fibonacci published *Liber Abaci* and introduced algebra as a new branch of mathematics, algebra enabled a

shift from written to symbolic mathematics. Similarly, the invention of the telescope in 1604 by Galileo and later technological inventions such as the microscope and X-rays significantly influenced the development of science. Thanks to these shifts, humans have changed their understanding of humankind, the world and the universe. It goes without saying that the mode and content of education played an important role in this process.

It is difficult to estimate the depth of the change that computing and informatics are bringing into the 21st century. We can say that it is having an important effect on how we live, on how long we live, on what we know about ourselves and the world around us and on how to protect the entire life-support systems of the earth. What are its effects on the processes of education? It appears that its influence is essentially greater than ever before. What is the reason for this difference? Most of all, the knowledge of informatics and computing is closely methodologically aligned with the processes of education. Important differences arise also from the fact that new challenges cannot be tackled if knowledge is something that is intended only for the elites. Technology, however, enables knowledge to be available to everyone at all times. Furthermore, this means a big shift in learning.

Efforts for suitable education are numerous and varied, from small suggestions and examples of good practices to conceptual shifts in thinking. It is becoming clear that the way to motivate the youth of today, for example to obtain a university degree, cannot be achieved only by emphasising the expectations regarding the knowledge they will attain or the degree they will receive on paper that will be recognised outside our borders. Universities in the

United Kingdom have therefore edited a publication on the 100 greatest discoveries made at their institutions, intended primarily for high-school students and politicians. For politicians, it aims to demonstrate that investments in knowledge and research pay off eventually despite their long-term nature. To the target group of students, on the other hand, the universities wanted to show that university is not only an intermediate for delivering codified knowledge but that it can also offer access to newly generated knowledge by participation in concrete projects leading to new discoveries and solutions.

And what lies in store for us at the 10th conference "Education in the information society" held in the frame of the multiconference "Information society"? The contributions present some of the results of research and development from the pre-school to the university level and lifelong learning. Our goal is to enable the flow of knowledge and ideas and, more importantly, to encourage future work in this field.

Vladislav Rajković
Tanja Urbančić
Mojca Bernik,
urednici



Seznam recenzentov 2007

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 Groznik Aleš, Univerza v Ljubljani

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 Krapež Alenka, Gimnazija Vič

Krope Feliks Srečko, Ministrstvo za notranje zadeve

L

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 Lobnikar Branko, Univerza v Mariboru
 Logar Tanja, Center za poklicno izobraževanje

M

Makovec-Brenčič Maja, Univerza v Ljubljani
 Marinšek Robert, Center za mobilnost in evropske programe izobraževanja in usposabljanja
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 Milost Franko, Univerza na Primorskem
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