
Editorial: Information and communication technologies for training and education in Eastern European countries

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During the last decade quite a number of exchange programs, conferences and EC-funded project streams have evolved between Western and East European Partners. With regards to Educational Technology, the following *four* scientific conferences played a crucial role:

- 1 Moscow (ICSTI 1992)
- 2 Kiev (ICCTE 1993) and
- 3 Simferopol (EW-ED 1994)
- 4 Cesky Krumlov (Pan-European Collaborative Projects in Teacher Education 1996)

The main paper presentations have been integrally published in the book: *New Media and Telematic Technologies for Education in East European Countries: State of the Art in Media Research. Atlas of Main Research Groups. Directory for Joint European Projects*. As the publisher was so kind as to give us permission to include its first chapter in this special issue, it is worth giving one of the many excellent replies:

“... If an explorer would set out to survey the status of educational media and technology in Eastern Europe, this book would be the best resource to discover the professional ‘geography’ of the territory. (...). There is no other source that offers such a comprehensive overview of contemporary developments in this region. For individuals and institutions that want to explore joint programs and to gain a glimpse of the state of the art in media research, this is an indispensable source.”

Donald P. Ely, Professor Emeritus,
Instructional Design, Development and
Evaluation, Founding Director, ERIC
Technology, Syracuse University

One of the more emotional reasons to dedicate this special issue to the ongoing research into ICT integration and Educational Technology in Eastern European countries, was the recent passing away of Professor Dr. Alexei Dovgiallo who was one of the crucial pioneers in this field from the early seventies. He was the Head of the Dialogue and Tutoring Systems Department, Glushkov Institute for Cybernetics, Kiev, Ukraine. He was an expert in the fields of: cognitive problem solving, communication and information technologies, motivation, learning, teaching and intelligent educational software.

You can get a good impression of the enormous impact of his work on Training and Educational Technology in the former Eastern Block countries. In order to give you a more realistic impression of the coverage we make in the series of articles in this issue, see the map below:

Figure 1 The geographical position of the Ukraine amongst Middle and Eastern European countries



It is the general opinion that the earlier work done by the Dialogue and Tutoring Systems Department, at the Glushkov Institute for Cybernetics at Kiev has substantially contributed to the status of media in training. The belief that media and culture are not pulling in opposite directions was firmly established by this group. UNESCO was aware of this asset and built a special centre for holding seminars in computerized teaching technology. You can see on the map above that Kiev together with Sofia are in excellent positions to propagate educational innovations to the Euro-Asian countries which are east and south-east of them.

The global message from the following articles on the stepwise introduction of computers and communication infrastructure in regular education and training institutions, is that the need for hardware is still immense. Fortunately, the level of operating system and generic applications like Microsoft Office have now solved issues such as compatibility, and even less wealthy schools can afford equipment, as the price has come down to the level of consumer products. The more complicated stage is the actual integration of media in everyday lessons; teachers still need a longer period of assimilation before they automatically embed computer-based explorations in their teaching methods. Though we know now that the classical tutoring approach for Computer Assisted Learning is not the most effective one, we may expect that the so-called practice-and-drill method will still be applied in the first phases of didactic integration. It is not so much the inherent preference of the medium and its software that stimulates this initial approach; it is likely that the teachers' didactic method propagated by the teacher training institutes during the late 1960s and early 1970s have this consequence. In any case it seems quite likely that the coming computer and WWW invasion in schools is one of the best catalysts for adopting new methods for learning and teaching. It might be that the new global network is an indispensable help in the learning process which occurs between educational institutions. Our first experiments with internet-based video-conferencing seem to show a relatively high willingness by teachers

and instructors to take notice of complementary teaching scenarios, as long as they come from far away, and thus do not threaten their status in the institute itself.

In addition to the initial East-West conferences for Educational Technology, it was the loyalty and professional network of Prof. Karel Vosatka from the Czech Technical University in Prague that made this special paper possible. His continuous efforts to organize the yearly Poskole Conferences for the Czech Teacher Society in Sedmihorky are to be congratulated.

It is our hope that the Learning Communities in both Western and Eastern European countries will benefit from each other's traditions, theories and learning practices during the coming year. We are convinced that global communication facilities like the WWW make it ever easier to communicate with each other and to learn from the various attempts to integrate learning in everyday life such as in the working environment, in entertainment and in public information services like kiosks. The many recently finished European-funded bilateral projects like TEMPUS-Phare and Tempus-Tacis, Copernicus and many other European funded project streams have already shown the impact of the web. For the learning community it means that schooling and training initiatives should reconsider their counterparts abroad each time to find the best partners for international cooperation projects. Let this special issue inspire you to invest in the new media for communication and permanent mutual learning.

Contribution from Karel Vosatka

My thanks go to Prof. Kommers for his excellent idea to prepare this issue and for his invitation to me to collaborate on it! It is now ten years since the end of communist regimes in Central and Eastern Europe and it is an opportune time to look back. The reader of this special issue now has the opportunity to see the state of the art in different countries of the former Eastern Block and to compare their approaches to the use of computers and the integration of ICT in the educational process.

What do the Eastern European countries have in common and what are the differences?

A difficult economical situation at the start of the changes was common. With regards to the system of governmental educational management, most of the countries, under the influence of the new democracy and also the emergent market economy, changed the strict centralized management. Many of them are still looking for a good balance between the role of the State and the individual role of schools. All these factors have a clear impact on the area of ICT in schools.

With regards to teaching methods, there are also some differences. For example, the preference for technological education during the former education systems of these countries laid excellent foundations for the teaching of computer programming. We can still see the outcomes of that tradition in the results of international student programming contests, where the teams from Eastern Europe gain excellent positions.

On the other hand, the traditional education did not support a creative and communicative style of teaching and learning, which is so important for the development of the child's personality and independence. The possibilities, which the new ICT brings to the educational process, are a challenge for the removal of that handicap.

In conclusion, let me express my hope that at the end of the next ten years, the differences between the Eastern and Western European countries will not be so significant or academically interesting to warrant the preparation of a special issue such as this.