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Towards individual thinking and emotional learning

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Information and Communication Technology (ICT) has a dual role in our information society. On the one hand, ICT is assumed to cause partly unpredictable changes in our future information society and in its educational contexts in particular. Increasing challenges of rapidly changing, knowledge-intensive and technology-oriented working life presuppose that facilities for life-long learning and continuous competence development are guaranteed for people in different phases of life. On the other hand, with the aid of ICT, solutions can be built for answering in these challenges. Considerable expectations have been set for the use of new technologies in education at the beginning of this millennium. For example, virtual universities have gained special attention to meet the challenges of the changing society. Distance learning solutions are assumed to provide answers to the problems of availability (accessibility and cost) and the demand for flexibility (time, place and pace) of learning.

The most optimistic views suggest that global networks and the use of computers for intellectual communication will further enhance and expand the ways in which humans connect, communicate, and create a sense of community. However, also more critical questions about the possibilities and quality of virtual learning environments have been presented. Since traditional models of distance learning have not inspired researchers and teachers to develop innovative pedagogical practices, research and development work of the field has started to focus more on creating many-sided pedagogical practices, utilizing ICT, that can support students in their efforts for deeper-level learning and interaction.

Recent research on learning technologies has indicated that at its best, virtual learning environments can support individual thinking and construction of shared understanding between students as well as to create emotionally touching learning situations. One of the essential requirements in the rapidly changing society is to prepare learners for participation in socially organized activities and many virtual learning environments are based on collaborating and sharing expertise. Networked technology used in different learning environments provides a learner a relevant platform for

storing, communicating and sharing knowledge. Instead, more advanced technological solutions to support many problematic issues in virtual interaction, such as lack of sense of co-presence and difficulties in reaching shared understanding or coordinating knowledge in distributed teams are still missing.

As a part of Agora Center's InBCT project, the aim of the just established Agora Learning Laboratory (ALL) is to answer to some of these challenges of designing environments for life-long learning by creating a research and development center of internationally high level. The particular focus of ALL is to work as a research training environment, and it bases its activities on multidisciplinary expertise of University of Jyväskylä. The aim of ALL is to facilitate research on virtual learning environments, research-based evaluation of these environments as well as the use of this knowledge in designing powerful learning environments and models for e-Learning. The contexts of the research projects are related to different content areas and educational levels (schools, universities, work organizations). The first initiatives of the ALL are related to the development of learning environments for studying research methodologies (e.g. development of interactive data analysis and visualization environment and testing the effectiveness of learning environment for studying experimental design and statistical inference).