

Technology Enhanced Learning (TEL)

„Media will never influence learning“ ... Richard E. Clark made this statement in 1994 (Clark, 1994), which builds on the contribution of Robert B. Kozma (Kozma, 1993) and particularly on the contribution of Gavriel Salomon (Salomon, 1984). And it is true, the old dream of the Nuremberg funnel (Carroll, 1990) is still not possible – with all our pervasive and ubiquitous technology: Learning remains a basic



individual cognitive *process* (not an object), which – whether intentional (direct) or unintentional (incidental) – causes an alteration in behavior and/or knowledge (Holzinger, 2000). Technology however, *cannot* directly improve learning but it *can* facilitate and enhance learning through improved didactics, raised motivation and increased attention (Holzinger, 1997). Simulations, visualizations, interactions – there are a lot of possibilities which cannot be conveyed via paper or on the blackboard (Holzinger, Ebner, 2005). Taking these issues in mind, tremendous possibilities arise for using new technologies for enhancing human learning. However, a great deal of research and development is still necessary to bridge the gap between Psychology and Informatics and to gain a deep understanding of learners, which we aim to assist in every possible way: Technology Enhanced Learning (TEL) must serve the end-users, or as Ben Shneiderman pointed out “*Successful technologies are those that are in harmony with end-users’ needs.*” (Shneiderman, 2002).

This special issue of e&i, containing 9 original contributions, provides an overview of the research and development in Technology Enhanced Learning in European institutions, including Vienna University of Technology (AT), Helsinki University, Tampere University and Nokia Research (SF), Veszprem University

(HU), University of Koblenz (DE), Istituto di Scienza e Technologie dell’Informazione (IT), University of Bern and University of Zürich (CH), University of Rostock (DE), and University of Southampton (UK).

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