

Introduction

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Today's society requires from its members high levels of knowledge, skills and competences to cope with the affordances of work and everyday life. Well educated employees are one of the cornerstones of successful companies. It is not enough to learn once in school and then apply the acquired skills and knowledge successfully for the rest of one's life. On the contrary, the affordances of work and everyday life change quite rapidly and thus demand a steady accommodation, that is, lifelong learning. However, lifelong learning has to be rendered possible somehow. It requires time, effort and other resources, both for learning and teaching, for more or less every member of our society, in its specific situation, regarding its individual possibilities, goals and preferences. It is obvious that this will not be achievable without technological support. Therefore, Technology Enhanced Learning (TEL) is an area in which intense research and development takes place – within funded, national and international research projects, in companies and in concrete application areas that demand immediate solutions.

The aim of the present volume is to give an insight into the current trends in TEL, with a focus on language, namely language processing and language learning. All papers of this volume (they appear in alphabetical order according to the first author's surname) are related to language – either via the application of natural language processing (NLP) techniques, or because they deal with computer-assisted language learning (CALL). The paper of Lindstaedt and colleagues belongs to the NLP group: it addresses the exploitation of existing knowledge-resources for work-integrated learning. The authors define a knowledge artefact lifecycle beginning with the identification of knowledge resources, their semantic annotation and contextualized delivery, their presentation to users and their evaluation through user feedback. Niemann's and Wolpers' paper belongs to this group, too: via the MACE portal (portal.mace-project.eu) learning resources on architecture can be accessed. The authors describe the automated construction of so-called 'real world objects' – representations of buildings, architects, etc. – that are automatically related to learning resources using NLP technologies. Via real-world objects users can find appropriate learning resources, they are thus a means of improving information retrieval. The paper of Scheffel and colleagues stands in between the two groups: it is a technical paper as it defines the notion of a Responsive Open Learning Environment (ROLE) and presents both a technical and an institutional proof of concept that show how ROLES and their components can be developed and integrated into existing learning environments. However, it also addresses computer-assisted language learning since the proofs of concept are defined within language learning scenarios. The papers of Lemke and Antomo and colleagues, finally, address language-learning at schools: Lemke's article describes the successful implementation of a computer-supported distance learning service for small schools on islands (Halligen) in the North-Sea. Antomo and colleagues present the interactive multimedia project *Die SprachChecker*. The aim of this project is to foster reflection on language

and on multilingualism in particular and thereby to improve the general language awareness and sensitivity of pupils.

Quite clearly, linguistic technology already makes contributions within the domain of TEL. Nevertheless, the issue aims to invite further linguists to participate and improve technologies of TEL, for example regarding issues of multilingualism, didactics and evaluation of learning progress, not only for the design of specific e-learning courses but also for the design of entire TEL frameworks.