Technology Support for Self-Organized Learners (Guest Editorial)

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This special issue is dedicated to new ways of self-organized learning and its technological support. More and more research in the field of technology-enhanced learning focuses not solely on learners within institutional settings but the topic of “crossing boundaries and contexts” has become something like a hidden agenda. This agenda is connected to the phenomenon that for long years research was focusing on topics like content production and delivery or platform discussions. But with the rise and success of social software the situation has changed. Instead of providing learners with completely pre-defined learning environments a relatively new branch of research and technology-development in the field is focusing on the question how individuals can be supported to plan their learning process on their own and to conduct it within networks of learners with similar competence development goals.

While we do not see self-organized learning as the panacea to solve all educational problems we think that from the perspective of a lifelong competence development need technology-supported and self-organized learning will become a very important factor besides formally organized learning offerings. In the core of this new development we see the empowerment of learners which is enabled by the use of new and advanced learning technologies or new appropriations of old technologies.

Several perspectives on this topic are presented in this special issue. Examples of new technology developments are presented which have been designed and evaluated with the target to enable new possibilities for self-organized learning. Other contributions focus more on the aspect of self-organizing agents as a part of supporting services for lifelong learners. Other contributions study more general questions like the relationship between several motivational aspects of self-organized learning or the question of gender differences in self-organized learning. Several contributions focus on the design and role of the electronic portfolio for self-organized learning, other studies evaluate the implementation of technologies to support self-organized learners in specific contexts. In the next part we will introduce the contributions to the special issue more into depth.

Contributions

Originally the topic of this special issue was the theme of a special track/workshop during the Edumedia Conference “Self-organised learning in the interactive Web“- A change in learning culture?” in Salzburg in May 2008. After the call for papers for a special issue in the Journal of Educational Technology & Society we have received 30 contributions from 19 different countries. After a double-blind review 10 papers have been selected to be published in the special issue.

- Matuga presents a study undertaken with 58 high school students taking university-level e-learning courses. The study objective was to investigate the relationship between self-regulation, goal-orientation and study achievement when high school students take part in online college courses.

- Yukselturk and Bultun present a study about gender differences in in motivation and learning strategies in synchronous and asynchronous communication. This was done by regarding 145 volunteer students taking part in an online course in Online Information Technology.

- Pata presents a conceptual framework for learning design to support self-directed learning at university courses. The framework is based on ecological psychology and introduces the concepts of “learning spaces” and “learning niches”, collectively shared entities which, in the view of the authors, emerge through individually perceived affordances. The niche-approach is being discussed in the light of traditional learning design approaches. The authors present an empirical study in order to demonstrate the applicability of the learning niche conceptualization.
• Glahn, Specht & Koper focus on contextualised and ubiquitous learning in their contribution. Their paper analyses learner participation as a contextual dimension of adapting graphical indicators of interaction data for engaging and motivating learners in participating and contributing to an open community. The analysis is based on interaction data and interviews with participants in a nine week lasting design study, during which the effect of two indicators on the engagement of the participants in the group activities has been compared.

• Väljataga & Fiedler argue for a course design in which participants are not simply engaged in developing knowledge, skills and orientations in regard to curricular subject matter and the use of technology but actively involved in self-directing intentional learning projects with the support of social media. This perspective is enriched with some empirical data collected from a pilot course taught at Tallinn University, Estonia.

• Louys, Hernández-Leo, Schoonenboom, Lemmers & Pérez-Sanagustín describe in their contribution the self-development of competences within a pilot scenario where several usage profiles and tools from the TENCompetence project are applied. A evaluation methodology is introduced and some results and main findings are discussed.

• In the contribution of Vavoula & Sharples the authors introduce the concept of Lifelong Learning Organisers (LLO). LLOs help learners to capture episodic and semantic aspects of learning events in all kind of learning contexts. Several requirements are defined and refinements for the development of the concept of LLO and also its example implementation KLeOS are discussed.

• Campbell introduces an exploratory descriptive study that examines how the use of an online journaling environment influenced students’ capacity to adaptively react to self-determined knowledge about the effectiveness of their method of learning and set learning goals.

• Kirkham, Winfield, Smallwood, Coolin, Wood & Searchwell present a platform on which a new generation of applications targeted to aid the self-organised learner can be presented. The new application is enabled by innovations in trust-based security of data built upon emerging infrastructures to aid federated data access in the UK education sector. Within the proposed architecture, users and data providers (within Virtual Organisations formed for specific learning needs) collaborate in a more dynamic and flexible manner by defining their own data-object-based security policies. This is enabled using a Service Orientated Architecture (SOA) that presents trusted services to ensure that these policies are both applied and enforced.

• Drachsler, Hummel, van den Berg, Eshuis, Waterink, Nadolski, Berlanga, Boers & Koper present a study about the use of a personalised recommender system for navigational support in learning networks. To answer some research questions in respect to efficiency and effectiveness of such a system an experiment is introduced which was set up within an Introduction Psychology course of the Open University of the Netherlands. Around 250 students participated in this study and were monitored over an experimental period of four months.

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We hope you enjoy the special issue.