Next Generation of Learning Platforms
Introduction to Minitrack

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Since last years minitrack on *Next Generation Learning Platforms* the eLearning industry went through a rough time consolidating a lot of the diversified market. We have carefully watched that a lot of the quick wins Companies and other organizations tried to get out of learning-on-the-web did not come through and we see at least from a commercial aspect that people in the training industry hit reality. This minitrack is about to check which approaches could add new aspects to the educational scene, specifically as the pressure to life-long learning is growing in a lot of organizations, and training and education is now a part of major development programs in Europe.

A couple of architectures and pilots we have seen over the last years (e.g. L3 and Cecile) materialized in either commercial implementations such as e.g. the SAP Learning Solution or became widely used as part of university infrastructures.

The **Next Generation of Learning Platforms** minitrack focuses in its third year on dedicated approaches of learning architectures that allow flexible delivery of learning content over traditional networks and upcoming wireless networks to reach potentially every person. The need for integrated systems and how they work best in a highly distributed web-based environment tackling problems such as

- collaborative computer aided authoring and learning support,
- work benches for international coverage of learning topics,
- enabling the reuse of learning fragments,
- metadata approaches and related standards,
- personalization of the learning environment supporting context,
- retrieving learning material on-demand and
- ensuring a proper certification of the learners achievements and quality control.

The accepted papers for this year's minitrack provide a good overview of the work conducted in this research area. The topics include

- web-based tools for the JIGSAW method used in teacher design activities for collaborative learning scenarios.
- A variety of approaches to support collaborative learning
  - by matching human actors to collaborative learning processes.
  - By exploiting context information
  - By collaborative exercises
  - By collaborative software agents.
- Support for the construction of new navigation patterns by using metadata of defined learning objects.

From University of Dortmund a design and evaluation of the KOLUMBUS prototype is described. The approach focuses on exploiting context to support asynchronous communication and learning, the uploading of material and the resulting communication contributions.

A joint paper from Mexico and Hawaii presents an innovative approach to use a software coach to facilitate collaboration based on the evaluation of advice reviews. A full system design is proposed.

Matching co-learners interests and expertise will enable future learning environments to enhance the knowledge transfer, bringing the complementary human actors together. Fraunhofer FIT presents a design and architecture to achieve these goals.

The University of Bern designed a new approach to combine eLearning Objects based on meta data to allow reusable objects to be combined for navigation paths and to formalize the evolution of eLearning Objects through authoring rules.

The University of Chile applied the JIGSAW method to web-based environments and presents a good overview on how this method has been used to provide instructional material on collaboration scenarios among teachers.

At the University of Hagen, support for synchronous collaborative exercises was developed and tested in a computer science course. The design of the FUB collaborative learning environment, lessons learned during its use, and implications for next generation learning platforms are presented.

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