

Next Generation of Learning Platforms Introduction to Minitrack

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Continuous education is one of the big challenges for all countries around the globe. We are heavily involved, e.g., in the development of the German national learning backbone L3 as part of a research lighthouse project. In this context we have been approached by many people to foster contributions to the ongoing research and development regarding learning architectures which properly support the (adult) learning process.

The **Next Generation of Learning Platforms** minitrack focuses on general requirements and novel approaches of learning architectures that support flexible delivery of learning content over both traditional networks and upcoming wireless infrastructures, aiming to reach any potential user. The integrated systems in quest must be targeted to operate in a highly distributed web-based environment, tackling problems such as

- collaborative computer aided authoring support
- work benches for international coverage of learning topics
- easy reuse of learning fragments
- specialized search engines
- personalization of the learning environment
- remote tutoring support
- on-demand retrieval of learning material, and
- proper certification of the learners' achievements combined with overall quality control.

The accepted three papers for this year's minitrack provide a good overview on the work conducted in this research area. The topics include i) designs for web-based teaching with a focus on essentials for Business Education; ii) conceptual advancements that leverage off creativity in learning environments, aiming at enhanced skills development support using virtual worlds; iii) the definition of mobile platforms that support highly mobile users, based on future (3rd generation) mobile networks. At least 3 reviewers from the different organizations

refereed each of the submitted papers. The accepted papers are summarized below.

The CECIL approach describes a large-scale environment for computer supported learning based on web technologies, in support of a university wide resource management system. Cecil discusses the pitfalls of individualized solution proliferation through an entire organization such as a whole university, in this case the University of Auckland, NZ.

“Designing virtual arenas” is centered around a novel environment for various forms of teaching interaction, such as group discussions, seminars, and lectures. The approach features a new form of IT design, which aligns with the proliferation of virtual worlds. In a unique way, this design draws from real world constructions (here, based on LEGO™ bricks) which are “virtualized” to yield the artificial environments. Important aspects of new learning environments are particularly well supported through the flexibility of the real counterpart which supports easy restructuring and experimentation.

The third paper describes a complete mobile scenario for learners, leveraging off currently evolving infrastructures such as broadband mobile systems. The project was conducted in cooperation with one of the major suppliers in this area, Ericsson. It was based on use cases for ad-hoc support for learning on-demand while being mobile.

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