ELENA – Creating a Smart Space for Learning

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ABSTRACT

The objective of the ELENA project is to demonstrate the feasibility of smart spaces for learning. Smart learning spaces are defined as educational service mediators, which allow the consumption of heterogeneous learning services via assessment tools, learning management systems, educational (meta) repositories and live delivery systems such as video conferencing systems or iTV (see Figure 1). Central design element of the ELENA smart learning space is a dynamic learner profile, which includes learning history, learner specific information and learning goals. Interconnecting learning services in a smart learning space leads to an empowerment of learners since they become capable of choosing among a variety of knowledge sources in order to achieve their personal learning goals. ELENA prepares the grounds for the rise of educational service markets and new service value chains, which will allow institutions to treat the performance of educational services as a make-or-buy decision.

OBJECTIVES

- To analyse existing standards for modelling learning-relevant data beyond learning objects and to provide recommendations for their further development.
- To develop schemas describing educational services such as educational activities, learning delivery, teaching assessment and learner assessment.
- To design and implement a smart space for learning that integrates heterogeneous services such as assessment services, content brokerage, learning management and human resources management.
- To test the applicability of smart spaces to the field of education and training from a business and organizational perspective and draw conclusions for the design of intelligent environments in this field.
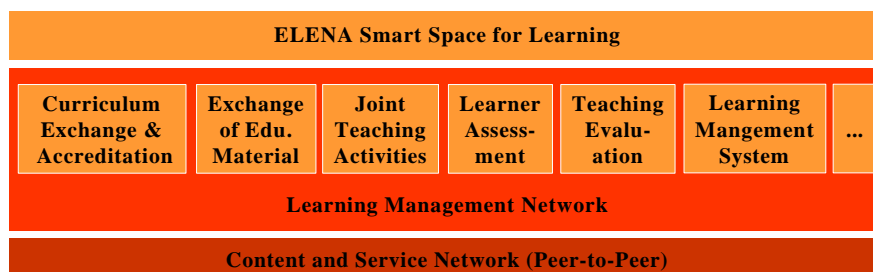- Develop best practice guidelines for deploying smart learning spaces from an organizational, technological and pedagogical perspective.

Figure 1: Elena Communication Framework