Extensibility of Personal Learning Environments

In contrast to traditional LMS-driven e-learning solutions, a Personal Learning Environment (PLE) takes a more natural and learner-centric approach and is characterised by the freeform use of a set of lightweight services and tools that belong to and are controlled by individual learners. Rather than integrating different services into a centralised system, the idea is to provide the learner with a plethora of different services and hand over control to her to select and use the services the way she deems fit. A PLE driven approach does not only provide personal spaces, which belong to and are controlled by the user, but also requires a social context by offering means to connect with other personal spaces for effective knowledge sharing and collaborative knowledge creation (Chatti et al., 2007).

The main objective of this thesis is to design and implement an architecture enabling the selection, aggregation, and integration of different learning services/resources into a single PLE based on the learner’s preferences and needs. The services can be combined based on different technologies. Examples include SOAP-based Web Services; more lightweight Web Services based on REST, JSON, etc; Ajax-based mashups and open APIs; Feeds, Widgets/Gadgets, Portlets, Plugins.

Ideal applicants should be proficient with JAVA technologies and relational databases. Prior experience with Web Services and/or Web 2.0 technologies (e.g. AJAX) is a plus. For further information please contact:

Dipl.-Inf. Mohamed Amine Chatti
Lehrstuhl Informatik 5
Telefon: 0241/80-21510
Email: chatti@dbis.rwth-aachen.de

or

Dr. Christoph Quix
Lehrstuhl Informatik 5
Telefon: 0241/80-21511
Email: quix@dbis.rwth-aachen.de