

A Personalization Web Service for Curricula Planning and Validation

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We present a service-oriented personalization system, set in an educational framework, based on a semantic annotation of courses, given at a knowledge level. The system supports reasoning-based curriculum sequencing and validation:

- curriculum planning: building personalized curricula, formalized by means of an action theory. Classical planning techniques are adopted, which take into account both the student's initial knowledge (context) and her learning goal.
- curriculum validation: verifying the compliance of curricula w.r.t. the course design goals.

Course design goals are specified in a curricula model, where the design goals formalized as a set of LTL temporal formulas expressing constraints at the knowledge level.

Learning Objects are modeled as Actions:

What the course teaches, and what is requested to know for attending it in a profitable way, is described by means of preconditions (prerequisites) and effects (learning objectives).

