

## Semantic Platform for Adaptive and Collaborative e-Learning

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**Abstract :** Adapting the learning resources of an e-learning system to the characteristics of the learners is an important aspect to consider when designing an adaptive e-learning system. However, this adaptation is not a simple process; it requires the extraction, analysis, and modeling of user information. This implies a good representation of the user's profile, which is the backbone of the adaptation process. Moreover, during the e-learning process, collaboration with similar users (same geographic province or knowledge context) is important. Productive collaboration motivates users to continue or not abandon the course and increases the assimilation of learning objects. The contribution of this work is the following: we propose an adaptive e-learning semantic platform to recommend learning resources to learners, using ontology to model the user profile and the course content, furthermore an implementation of a multi-agent system able to progressively generate the learning graph (taking into account the user's progress, and the changes that occur) for each user during the learning process, and to synchronize the users who collaborate on a learning object.

**Keywords :** adaptative learning, collaboration, multi-agent, ontology

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