

Introducing INTUITEL – an Intelligent Tutorial Interface for Technology Enhanced Learning (Poster)

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Abstract

INTUITEL, an Intelligent Tutorial Interface for Technology Enhanced Learning, is an EU FP7 project. INTUITEL aims to provide e-learning environments with a novel approach empowering them to support learners with adaptive guidance and feedback messages. The objective of this project is to enhance e-learning content and Learning Management Systems (LMS) with features that so far have been provided only by human tutors (Henning et al., 2014). An INTUITEL enhanced LMS will provide an integrated learning environment that can adapt itself to the needs of the learner. The solution provided by INTUITEL will monitor learners' activities and their progress, so as to support their learning with formative feedback based on their profile and the relevant pedagogical pathways (Swertz et al., 2014). Additionally, feedback could be provided by insights arising from monitoring learning styles and attitude, the cultural and emotional context in which learning takes place and the relevant environmental influences such as ambient noise, available communication bandwidth and interface features such as device resolution.

The INTUITEL project has brought together 12 partners from the ICT industry, the commercial e-learning sector and universities as expert e-learning practitioners. The Holon Institution of Technology is one of the didactical partners responsible for the project evaluation program and implementation efforts.

The poster will present the core principles of the INTUITEL solution:

- A. **Intelligent Tutoring** based on learner's behavior and teacher's experience.
- B. **Freedom of Choice.** The learning experience is a non-intrusive one enhancing learner's metacognitive skills instead of making him part of a programmed learning process.
- C. **Integration with various Standard LMSs.** INTUITEL is a tutoring system that can be integrated with LMS, due to its lightweight web service integration mechanism. During the project five LMSs are enhanced by the INTUITEL interface, two open source LMSs (Moodle, ILIAS) and three commercial ones (Clix, Crayons, Exact) (Pérez et al. 2013).
- D. **Existing Learning Resources Adaptation.** Learning resources anywhere on the net may either be linked together without altering them, or be imported a designated mechanism enabling their use as is by INTUITEL (Henning et al. 2004).

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The poster will present the INTUITEL approach, the user interfaces and preliminary findings from implementation tests (Verdú, 2014).

Keywords: Tutoring System, Adaptive Learning, LMS, Learning Pathways.

References

- Henning, P. A., Heberle, F., Streicher, A., Zielinski, A., Swertz, C., Bock, J., & Zander, S. (2014). Personalized Web Learning: Merging Open Educational Resources into Adaptive Courses for Higher Education. *Personalization Approaches in Learning Environments*, 55.
- Pérez, E. V., Fernández, J. D. C., Pérez, M. V., Santos, L. R., & Henning, P. A. (2013). Intelligent Tutoring Interface for Technology Enhanced Learning with Moodle. EDULEARN13 Proceedings, 2869-2870.
- Swertz, C., Barberi, A., Forstner, A., Schmötz, A., Henning, P., & Heberle, F. (2014). A SMS with a KISS. Towards a Pedagogical Design of a Metadata System for Adaptive Learning Pathways. In World Conference on Educational Multimedia, Hypermedia and Telecommunications (Vol. 2014, No. 1, pp. 991-1000).
- Verdú, E., Regueras, L.M., de Castro, J. P., Kohen-Vacs, D., Gal, E., Ronen, M. (2014). Intelligent Tutoring Interface for Technology Enhanced Learning in a Course of Computer Network Design. In Frontiers in Education Conference 2014 (October, Spain).