Adaptive Learning via Intuitive/Interactive Collaborative and Emotional systems

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A·L·I·C·E

Adaptive Learning via Intuitive/Interactive Collaborative and Emotional systems

ALICE is a project co-funded by the European Commission under the 7th Framework Programme. It is aimed to define models, methodologies and prototype software components able to solve some of the most relevant problems of current e-learning systems and tools such as:

- lack of Interaction: most of the times the only interaction available is to click on "next" button to step through the material presented
- lack of Challenge: unchallenging material makes the learning experience unattractive and discourages progression
- lack of Empowerment: the learner expects to control the learning experience, while, often, the learning experience controls and limits the learner
- lack of Social Identity: the learner is often isolated from his/her peers reducing the collaboration and the learning achieved through social interaction.

GOALS

Alice aims to build an innovative and adaptive environment for e-learning and to combine personalization, collaboration, and simulation aspects within an affective/emotional based approach. Moreover Alice strongly wants to contribute to the overcoming of the current e-learning systems and contents' limitations.

Such a learning environment will be interactive, challenging and context aware and will provide users with empowerment, social identity and authentic learning experience.

All Alice components will be integrated in IWT Intelligent Web Teacher



IWT is a complete e-learning and knowledge management platform.

IWT delivers personalized courses based on learner's previous knowledge and preferences allowing them to learn only required concepts through the most feasible learning resources.

IWT architecture is **modular**, this allows the deployment of solutions capable to cover different application scenarios by composing service building blocks.

RESEARCH THEMES

Alice will perform researches on the following themes:

- Adaptive e-Learning: to provide learning experiences customized on specific learner needs and preferences even dealing with different context and complex learning resources and when the requests are made in natural language
- Simulation and Game based learning: to enhance the learning experience with highly interactive simulations like Virtual Scientific Experiment and Serious Games
- Storytelling: to introduce interactive didactic elements, oriented to a student-centred teaching approach able to involve emotionally, to provide guidance and to make reflection easier
- Affective and Emotional Approach: to stimulate attention and motivation during learning activities by discovering the emotional-affective feeling of a learner and building personalised support
- Collaborative Learning: to increase the learning efficacy in developing specific skills (e.g. communication, problem solving, decision making, etc.) also when collaboration turns out to be difficult by reusing the knowledge elicited during collaborative learning activities
- New Forms of Assessment: to evaluate learner performances while interacting with complex didactic components (e.g. simulation, serious games, collaboration, storytelling, etc.).

PILOTS

Alice will be initially used for teaching and training purposes in the following contexts:

- Science teaching at University: teaching of scientific topics (e.g. mathematics and physics)
- Emergency and Civil Defence training in secondary schools: training about actions and procedures to be performed in case of emergency (e.g. the behaviour to adopt when the treat of a risk shows up).

PARTNERS









