

ADRIAN

a platform for e-learning content production

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Abstract. *Universities and other institutions related to education are investing time and resources in E-learning initiatives. This leads to an increasing number of course offers in e-learning format.*

There are environments, called Learning Management Systems (LMS), designed to help teachers in the management of their courses. These systems support the management of administrative information, student evaluation and all the interactivity between teacher and students as well as among students. However they do not provide tools to help teachers to prepare and to produce content: lessons, tests, guided lab sessions, ... Here is where ADRIAN comes into the scene providing support for content production.

ADRIAN is composed of several components: one component to help producing lessons and lab guided sessions, one component for the production of tests and exams, one component to support the production of multimedia presentations and one component to generate interfaces that integrate all the other components plus some other components developed by the teacher.

The whole system is being developed with XML (eXtended Markup Language) using descriptive markup for content, and related technologies like XSL (eXtended Stylesheet Language) for all content transformations. This way we ensure the portability and platform independence of the system.

The last mentioned component, the integration component is based on ontologies, the user is asked to define an ontology for his course. After that the system generates automatically the web interface that integrates all the components.

In this paper we describe the ADRIAN architecture and the components developed so far. This description is illustrated with a real case study.

1. Topics

- Web-based courseware
- On the teachers' side: authoring tools
- Integrated learning environments
- Metadata applications
- Architectures and platforms for distributed teaching and learning
- Semantic web infrastructures and ontologies

2. Keywords

- Authoring tools
- XML and XSL
- Semantic Web
- Electronic Publishing

3. Preference

Oral presentation (30 minutes + or - 10). This is a **paper abstract**.

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