

Towards e-Learning 2.0: Case Study of an e-Learning Environment

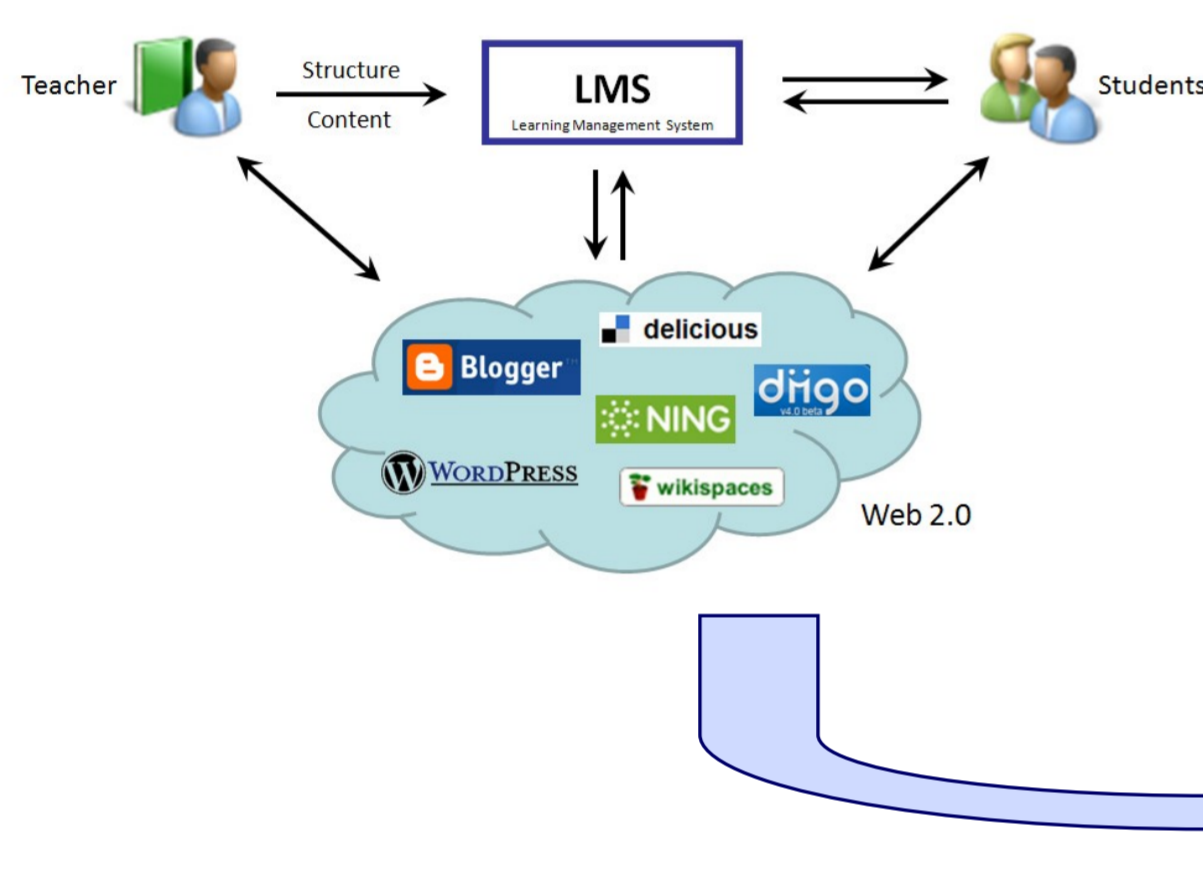
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Introduction

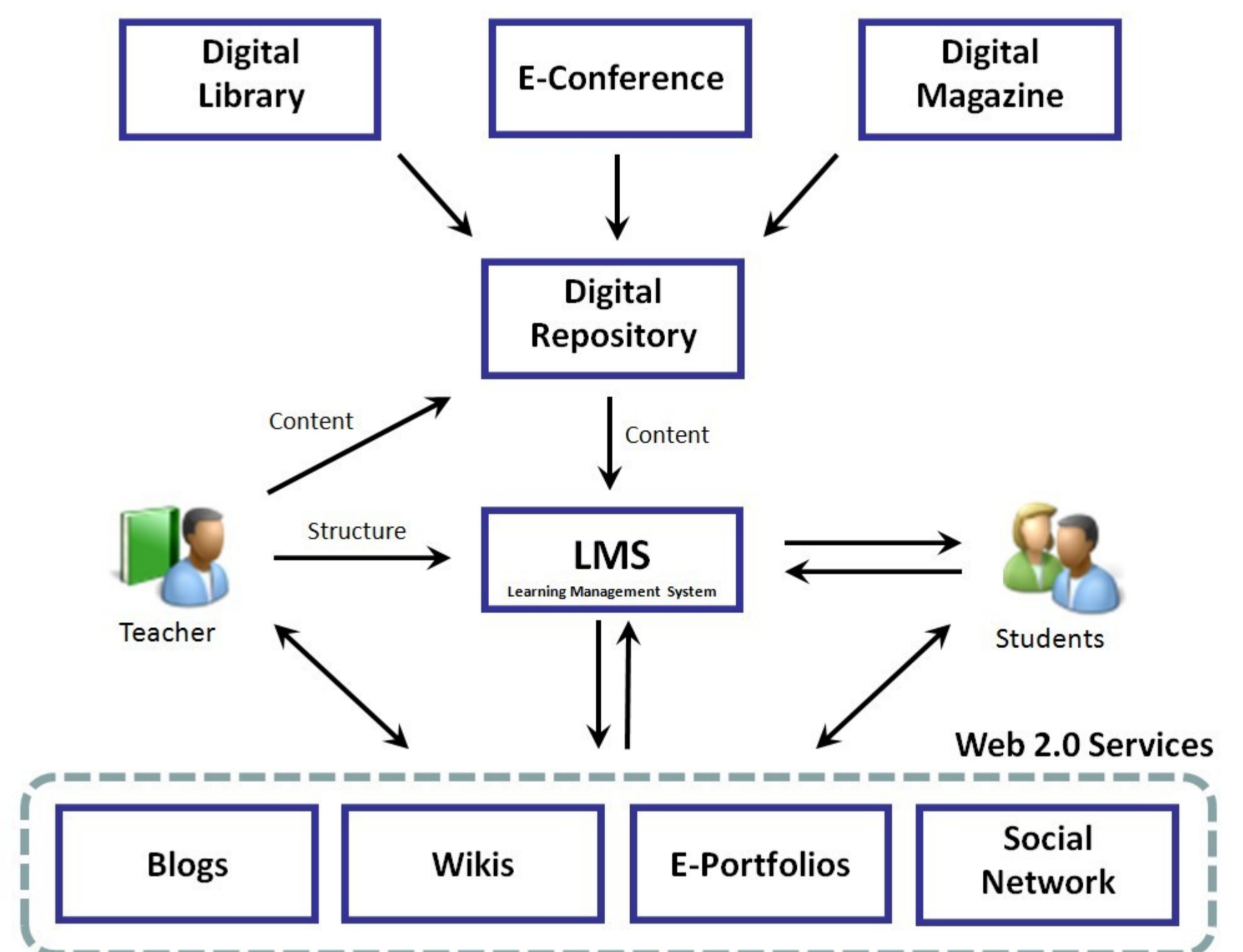
With an easier access to knowledge and information, academics needed to find new ways to study, learn, teach, research and even communicate (Gras, 2005). Learning Management System (LMS) plays an increasing role in this context, since it aims to making available educational resources and allowing communication and collaboration among teachers and students (Harman, 2007; Babo et al. 2010).

To understand the needs of our students we based on a survey (Babo et al. 2010) conducted by a group of teachers of several schools of the Polytechnic Institute of Oporto within a study to gauge the Internet usage habits of our students. Based on the survey and in several case studies (Misko et al. 2004; Gras 2005) of others educational institutions we obtained the basis for the PEACE system architecture. This system supports several tools and services, integrated in an transparent and personalized environment, that includes repositories, social networks, intelligent tutors, recommendation systems, automatic evaluators, virtual classrooms and 3D avatars.

PEACE System Architecture



The LMS occupies a central position in the proposed architecture, since is currently the natural place where students and teachers communicate. The LMS is fed by a repository that gathers information of several other systems such as, libraries, e-Conference systems, intelligent tutors, recommendation systems, and others.



To exploit the new web paradigm, the LMS interacts also with new Web 2.0 services. These services are well known by the students as they use it quite often in other contexts.

Implementing Web 2.0 services in the PEACE platform allows us to offer the benefits of such applications while offering the security of the preservation of content published (Oliveira and Moreira 2008).

Conclusion

The main contribution of this work is the proposal of a new e-Learning environment, more precisely, its architecture and components specification for a higher education institution. A secondary contribution is the description of the several services that will interact with the LMS. In this case, we enumerate its significance in the overall system and some interoperability issues that we need to address.

We are currently finishing the design of the system and we looking forward to start the modelling and implementation phase.

Bibliography

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