

The Knowledge Management Technologies on Danubius University Portal

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Abstract: Efficient sharing of knowledge is crucial in the building of academic knowledge work team. The importance in developing appropriate collaborative technologies to be embedded in the knowledge generation and sharing processes has been often undermined for the successful launching of Knowledge Management programs. This paper outlines the essentials of the new knowledge environment and collaborative technologies that are used to support knowledge work at Danubius University. The different type of collaborative technologies and environment are training us for the next web 3.0 generation.

Keywords: knowledge management technologies, collaborative learning, e-learning, Google Apps, Sakai.

1 Introduction

Project completion of Danubius University portal, <http://www.univ-danubius.ro>, is relatively new. It began by creating university site. To this was added other software products that enable automated necessary academic activities. Priority was and is a collaborative environment that provides members of the academic community (teachers, researchers, students, administrative staff etc.) the means to organise, store and access explicit knowledge and information.

The solution was the choice of open source software, and integration with other products already in the university.

Technology adds value and reduces the cost, time and effort needed for people to share knowledge and information.

2 The structure of Danubius University Portal

The portal structure takes into account the type of users (teachers, students, administrative staff etc.) and the type of activities they may participate.

Development of Danubius University portal followed three main directions: University management; Collaborative environment; Academic environment.

Also, bear in mind that users are accessing the portal in order to obtain information. And last but not least we must consider the purpose of implementing this portal: to manage information stored in different databases and to obtain reports on many aspects of academic work.

3 University Management System

University Management System (UMS) focuses on the characteristics of education system, providing a reliable solution for the academic environment.

UMS is an instrument dedicated to the management of the activities resulting from the existing educational processes in academic environments. The system's main objective is harmonizing the processes specific to university's management, providing opportunities for development of own methodology, in the same time taking into account the specific activities of educational general practices in Romania.

The product is based on Java technology and uses MySQL to store information at university level.

To the information stored in the database there have access university secretariats (each one only to area it manages and administrates), students – (to view the school situation) and product managers.

Stored data are used for import into Sakai database product, used for e-learning, described below.

4 Collaborative environment

As collaborative environment it was selected Google Apps which offers advanced technology needed for academic communication and collaboration, without the need for an additional cost to be acquired and maintained on site.

Google Apps is a service offered by Google in several variants, which allow simultaneous use of Google products (Google Apps Email, Google Calendar, Talk, Google Docs and Google Sites).

All these services have the characteristics of Web applications, which can be accessed from both Internet and intranet of an organization. One advantage of using these web services within an intranet is that it allows sharing, collaboration and publication of certain documents from persons authorized to use and have access to them according to rights established by the administrator.

Collaborative environment provides to students the following features:

- E-learning platform to access courses, laboratory issues, chat, etc. and bibliographic indications by Danubius Online;
- Able to view the school situation, the Student Information System;
- Access to facilities offered by Google Apps by iDanubius Students & Alumni Connect.

For teachers and researchers, there was considered:

- Use e-learning platform that allows creation of new courses, support for the seminar or laboratory work, tests, etc. by Danubius Online;
- Access to facilities offered by Google Apps by iDanubius Staff Connect;
- Access to research resources offered by the University etc.

5 Academic environment - Sakai (Learning and collaboration platform)

Sakai Portal ensures a great flexibility of the educational process administration and a very efficient learning process management.

The Sakai Project began through a collaboration involving the University of Michigan, Indiana University, Massachusetts Institute of Technology and Stanford University. Now, the project includes approximately 100 universities, colleges, and institutions of education around the world and is a landmark venture to create open-source course management, collaboration, and online research support tools for the higher education community [1].

Being part of Sakai Community, Danubius Teaching and Learning working group area is oriented towards the needs of teachers, instructors, researchers, collaborators, instructional technologists and user support.

Learning, invention and engagement are the essential and embedded ways of actions of University's mission. In 2009, we assumed a three-academic year Teaching and Learning Project by focusing on success factors: educator's ability; student's readiness; other.

The 2009-2012 Teaching and Learning Project is a substantially revised plan intended to anchor Danubius's position as a genuinely world-class higher education institution being the destination for the very best students. We identified three main goals for the 2009-2012 academic years:

- Increase all aspects of the teaching and learning environment;
- Support the distinctive features of the Danubius University student experience, and contribute to all initiatives to enrich this experience;
- Encourage teaching excellence, and raise the professionalism of teaching and learning at Danubius University.

At Danubius University there were implemented:

- Open Conference Systems (OCS) - for scientific events organized by Danubius University;
- Open Journal Systems (OJS) in order to manage scientific results, scientific articles and publications.

6 Conclusion

Over the past decade there has been a shift of emphasis in research on collaborative learning [4]. Our problem was to find out the most appropriate collaborative tools for our students, teachers and staff.

It's time for moving further collaborative learning and collaborative knowledge production, turn away from a traditional university education and stay alive. Students input it's very important. Knowing better our students profile, we are now in a position to deliver individual learning styles. Also, they were encouraged to collaborate among themselves and with others.

Expansion of higher education based on collaborative learning will help to increase the adaptability of human capital, competitiveness and professionalism, thus ensuring increased opportunities for participation in the modern and flexible labor market.

References

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