

# **MySLU: A WEB Portal Project Promoting ICT and WEB Based Collaboration in Higher Education Philippines Experience**

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## **Abstract**

*Recent research in educational technology has identified several factors to determine the efficiency exhibited by students in acquiring new skills and knowledge. This research points out that the adoption of eLearning can greatly improve the quoted efficiency when compared to traditional approaches. [1]*

*One way of reaching this goal is to develop an online web portal presenting the institution's learning environment in a way that answers self-directed students questions. Effectively developing and deploying educational web portal can dramatically increase productivity and profitability of research and education. The success of this initiative lies in aligning portals with user's current needs. This paper presents the components/ framework of the MySLU web portal that answers the identified educational requirements of the users. It also presents the experiences, challenges future directions in implementing the web portal and how the web portal was personalized to address the educational objectives of the project.*

*The paper also intends to discuss lessons learned in identifying the appropriate tools in implementing an e learning project with consideration on resources constraints*

## **1. Introduction**

### **1.1. Study Background**

Students in the 21<sup>st</sup> century demand life-long learning on the click of a mouse. To effectively meet such demands at the same time keeping the institution's leverage in today's leapfrogging technological pace, institutions need to get potential student's attention and interest in their learning programs at the same time provide the teacher the necessary tools to innovate their teaching experience.

Historically, the learning process has taken place within the confines of the infrastructure of institutions. The need to be a participant in such institution was driven by the notion that in order to access information and knowledge, a learner had to be present where the teacher was. This school of thought adheres that the method of "instructor lectures while students listen and absorb" is the only viable way to teach and learn.

This contention however is no longer true. With the bewildering array of claims regarding the impact of ICT in education and the market availability of powerful and affordable technologies, a resulting revolution is grounding a reorganization in the mode of learning, particularly in the way people learn, the way instruction is given and the way they collaborate.

Recent literature shows that portals can offer far-reaching access to a diversity of information. Colleges and universities are using student portals across the world in this age of expanding technology. “There appears to be a strong positive relationship between using the information technology for educational purposes and involvement in effective educational practices such as active and collaborative learning and student-faculty interaction” [2]

Web portal technology allows educational institutions to assimilate all information and services used by their communities and present these in a seamless, self-service web environment that tenders an exclusive experience to every user.

## 2. Discussion

### 2.1. MySLU Web Portal Project

When discussing and planning any portal framework, it is imperative to arrive at a common understanding of what we mean by a portal. Michael Looney and Peter Lyman defined portals as “systems which gather a variety of useful information resources into a single “one stop” web page helping the user to avoid being overwhelmed by “info glut”. [3]

In the context of an educational setting, the educational web portal allows access to many resources and services such as instructional materials, lesson plans, news about current events, instant messaging and the ability to conduct controlled searches.

In the framework of the project, MySLU web portal is a personalized, consistent, single sign-on web interface to different services provided by the Saint Louis University. It enables users (students, alumni, faculty, and other employees) to become more productive and efficient in using information and resources intended specifically for them. It allows different departments, units, or entities to give personalized information regarding grades,

classes, library services, research materials, events and others.

Included as general objectives in the development of the project are a) to give students expedient access to a diversity of useful information and student services; b) to open the lines of interaction among the community users; c) to allow students and teachers alike to share information for common class activities d) to provide a tool for faculty to innovate teaching and a tool for students to experience an alternative form of learning. e) use a single consistent web-based front end or interface to present information from a variety of resources. Information about a certain person for example is stored in many different databases at the university. These information redundantly reflected in the student information, employee information, course information, alumni information, library information, calendar and scheduling software, and so on. It is the role of the portal to put a consistent "face" to this information so that users don't have to deal with dozens of different web interfaces to get their information.

Based on the assessed requirements of the users and the achievement of the objectives, the MySLU web portal was organized along the following categories. Academics, library services/research, Events and Communication.

Below is the figure depicting the framework adapted by the project.

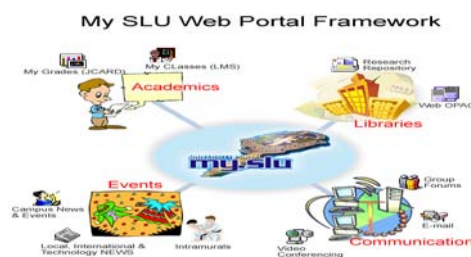


Figure 1: MySLU Web Portal Framework

The proceeding figure shows some snapshots of the portal.

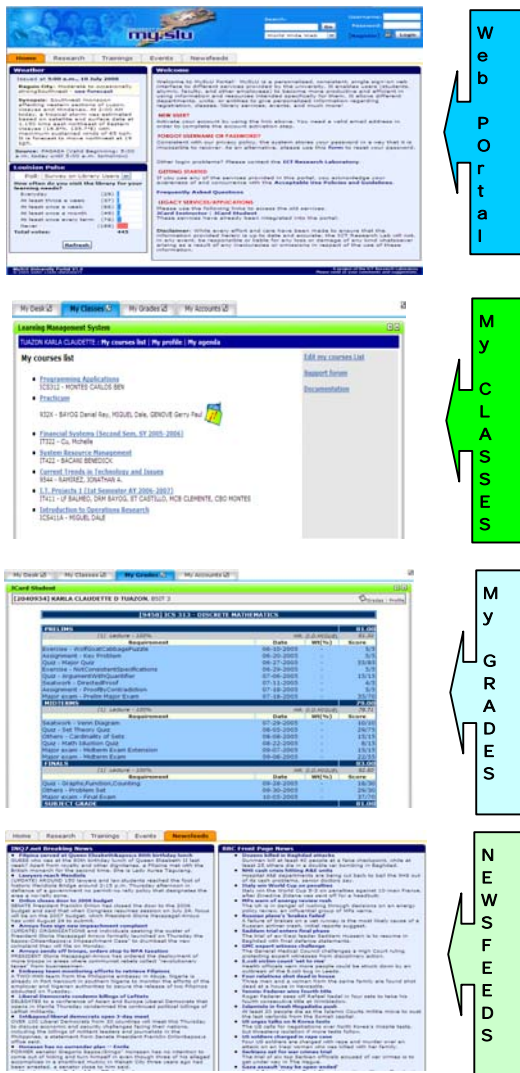


Figure 2: Snapshots of Some Modules

The Academics category features a flexible Learning Management System named as My Classes as one of its element. My Classes enables the instructors to design, deliver and manage e – learning programs easily and efficiently. It allows teachers to develop and deploy learning materials in complement with the teaching activities done in class. Such tools also allow students to access class activities even outside the university. After careful review of existing LMS choices both proprietary and open source, the LMS was finally implemented using an open source platform: DOKEOS. The general choice of the LMS is driven by

financial constraints of the university and the fact that there is a strong community support provided by DOKEOS. Personally interacting with the developers in Ghent Belgium also played a vital factor in the choice of LMS.

Another key feature element is the JCARD, which is the grading system. This is an in-house developed software of the ICT Research lab. This system was developed prior to the development of the web portal. It was later integrated to the web portal and to provide consistency of term, it was coined as My Grades in the web portal. This system allows teachers to track student activities and performance anytime, anywhere. Through such system, transparency on activity scores and grades are possible.

A featured element in the library/research category is the digital repository. Relevant to any educational activity is the role of library and research. Repositories of both local and global information is provided. SLU Dspace is a customized open source software that handles local research documents such as theses, technical reports and others. A link through the library system also developed in the ICT Research laboratory allows a user to connect to a paid online journal subscription using EBSCO aggregator. It also connects to a web based OPAC featuring existing library holdings.

A number of events categories are captured in the portal. These include current international events. It also includes local events in the campus. International as well as national events are live news feeds. The portal was designed to collate news headlines from already different existing news providers. Local campus news and events are also captured in the same manner. An existing university web page features a list of upcoming events and these are collated in the MySLU portal. Integrated in the portal is also a developed web page that handles major activities for the intramurals.

The communication category primarily covers the email feature and the discussion group through the web portal. Integrated in the LMS are other communication capabilities such as video conferencing and online forum and online submission of documents, recognizing that cost of development or purchase and maintenance of any system is a primary concern. Therefore alternatives of effectively and efficiently implementing and integrating services /modules have been carefully considered prior to the project commencement. The cost of development and maintenance of a portal is a primary concern. Through VLIR funding, the development has been made possible

Table 1 summarizes how the elements were implemented.

## 2.2. Issues and challenges

Following are some of the major issues and challenges that have been raised in the duration of the development until the operation of the portal. These issues and challenges are categorized along business challenge, organizational implication, policy choices and technology concerns.

### 1. Business challenges

- a. Initial and ongoing cost for development, enhancement and the maintenance of web portal
- b. Will there be a subscription price and how was it assessed?
- c. If the portal is free, how will it be funded and how will it be sustained?

### 2. Organizational Implications

- a. Readiness of teachers to use the resources available
- b. Will training be provided for the teachers?
- c. Who will administer the portal and the LMS?

Table 1: Implementation Information on the Elements

Element /Category	Description	Implementation
<b>MySLU LMS</b> <i>Academic</i>	A system that allows the teacher/trainer to create content, structure activities long a sequenced path, interact with students and follow their progress.	Customized Open Source Software
<b>JCARD-My GRADES</b> <i>Academic</i>	Online Class Record System An online class record management system.	In house developed software
<b>DSPACE</b> <i>Library/ Research</i>	A repository that contains research documents in digital form, including theses, public lectures, technical reports, working papers, conference papers, images, videos, and other similar items.	Customized Open Source Software
<b>WEB OPAC, EBSCO</b> <i>/Library- Research</i>	Developed system for online access of library holdings. EBSCO is an aggregator which is a paid subscription to online journal	Linked to existing library page developed by the same group
<b>NEWSFE EDS</b> (international and national) <i>/Events</i>	Headline news feeds from prominent international and national news providers	Collated from existing news and events providers
<b>CAMPUS EVENTS/ INTRAMS</b> <i>/Events</i>	These are local events in the campus. The intrams website showcase exciting activities and interactive polling is made possible.	A Link to existing SLU web page covers the campus events. The intrams is another project developed
<b>EMAIL DISCUSSION GROUPS/ Communication</b>	Email systems as well as an online group discussion facility are tools for communication. A group can be either closed (private) or open (public). Forums are often used for peer editing groups, for survey questions, or	Integrated in the design

### 3. Policy choices

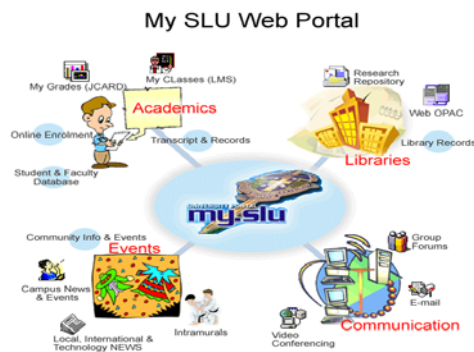
- a. Are there policies in place should there be cases of infractions done by the users?
- b. Will it be available for users to access from home or anywhere?
- c. Are there provisions offered to subscribers in the event that the portal is no longer available?
- d. Are the materials posted in accord with the policies of the university?

### 4. Technology concerns

- a. Is there a provision for technical assistance through options like email, chat, telephone?
- b. Is there an Availability of Reliable Internet Connection?
- c. Is there a compatibility of security system (firewall) of LAN /WAN with the portal and any links to outside sources?
- d. During the development/enhancement, were good graphic design principles followed?

### 2.3 Future Directions

Included in the challenges are future enhancements which the developer intends to pursue. Figure 3 shows future service and module enhancement of the web portal



### 3. Conclusion

Many organization underestimate the resources requires to successfully roll out an implementation plan for a web portal project. They tend to underestimate the type of resources required, focusing primarily on the technical aspect. Each implementation is different and that there is not one standard configuration. What is important to note is that organizations implementing a portal should recognize that it requires careful planning based on the needs of the entire school. The development as well as the maintenance of such initiative is never easy particularly under resource constraints. Future technology enhancement and institutional changes and administrative support are considered key drivers that can sustain the life of such kind of initiative.

### 4. References

- [1] F. Colace “E-Learning Platform: Developing an Evaluation Strategy in Real Case”: 35<sup>th</sup> ASEE/IEEE Frontiers in Education Conference
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- [3] Looney M and P. Lyman (2000) “Portals in higher education: What are they and what is their potential?” *EDUCAUSE Review* 35(4) July/August <http://www.educause.edu/pub/er/ermoo/articles004/looney.pdf>