

Intra College Portals – Defining the Future of Learning

Abstract

The objective of this white paper is to discuss how a web portal for intra-college collaboration can enhance the quality of the learning environment of a college, from different perspectives.

Specifically, we will explore the technologies and latest concepts in the world of “collaborative web applications” like discussion forums, blogs, on-line repositories, wikis etc. We will propose these technologies as building blocks of a futuristic learning environment.

Introduction: What is an "Intra College Portal"?

It is a web based portal dedicated to a college, used by its students, teachers, & administration to collaborate among them. It allows them to share day-to-day notices & announcements, do day-to-day interaction, and share knowledge through Internet efficiently, without letting unauthorized outsiders see it.

A college is a highly interactive environment and collaboration between various entities is an integral part of its functioning. This collaboration not only takes place in the class room (i.e. teachers and students) but also regularly between management and students, placement officer and students, among teachers, among students etc.

With increase in number of courses, teachers and students in an institution, the traditional methods of information sharing like notice boards, hand-outs etc. do not serve the purpose efficiently. Or rather we can say these old methods cannot keep pace with people’s expectations of ‘instant gratification’. For instance, modern-day students (almost all of whom are Internet savvy) would find it almost impossible to wait till next morning to meet their teacher just to get some reference material. And certainly the teacher would also not want the students to wait. Both would prefer an asynchronous method of giving and taking the document. Such are the needs which are fulfilled by an intra-college portal.

So, intra-college portal is an organized and secure platform for interaction, information sharing and knowledge sharing. The focus of this white paper is to find out the best possible combination of features for an intra-college portal which enhance the quality of learning environment.

The aspect of 'Quality' in educational institutes

In most industries like manufacturing or software it is easy to observe and measure the quality of the product or the end result, which clearly indicates the quality of manufacturing processes involved in creating that product. Thus, through tests & observations of the product, it is easy to control the quality of background processes because every attribute of the finished product has a corresponding manufacturing process. However in case of educational institutes, it is difficult to map the attributes of a student to his or her "manufacturing" processes. That's because, the end-result is the value addition to students in the form of skill, understanding, attitude etc. We cannot have a one-to-one mapping between the set of values added to students' personalities and set of processes they have gone through or resources they were provided with.

Desirable end-results in the 'product'

Skill -
Understanding -
Theoretical Knowledge -
Professional Attitude -
Team Work -
Future Ready -
Hard Working -

Can we map?

Resources & processes employed by the institute

- Teachers
- Labs
- Library & Study Resources
- Co-curricular Activities
- Course Design
- Environment
- Industry Interaction

Thus if college management wants to ensure that quality of the internal processes is high, they cannot rely on just the feedback mechanisms. 'End results' in this case, cannot be effective benchmarks. They will have to use other ways to look at quality aspect of their organization. One such criterion is 'Flow-of-information'. Organizational behavior experts believe that flow of information within an organization is as important as flow of blood in our body. Organizations like railways and defense are obvious examples. In case of educational systems the importance of information flow is more pronounced.

Taking the analogy of human body a little further – it being a successful and time-tested system – observe that one of our most vital organs, the heart, is fully dedicated to ensure proper flow of blood to all the other organs. Similarly the system, through which various departments or entities of an organization share data/information mutually, becomes a vital asset for that organization. If educational institutes can ensure a well-paced flow of information between teachers, students, management, placement cell, library etc. overall quality can automatically get ensured.

Collaboration channels within a college

To design a good intra college portal we need to identify the logical channels in which day-to-day information sharing, interaction, & knowledge sharing takes place within a college. In our case those would be following pairs of entities which share information :

- Teacher – Teacher
- Teacher – Student
- Student – Student
- Placement cell – Student
- Management – Student
- Management – Teachers

In the next section we will mention the web applications which can be useful in improving day-to-day collaboration in the above channels.

The "Portal way" is better...

Let us consider the example of an activity in a college where the principal wants to conduct a seminar where students would be required to present research papers. Following are the two ways of doing it:

Traditional way	Portal way
1. Principal writes his intentions and purpose and gets it posted on notice boards.	He writes a blog.
2. Calls a meeting with teachers to discuss details.	Starts a discussion with teachers using on-line forum.
3. Teachers provide reference material to students using photo-copies	They upload the documents on intra-college portal.
4. Students flock the teachers for their anxieties, queries and discussions during college hours	They use on-line discussion forums and teachers reply at their convenience.
5. After the event, all the research papers are kept in college library for reference	Research papers are uploaded to an e-library.

Although there are many advantages of adopting the 'Portal way', we'll mention the two most obvious ones.

1. "Points-of-Access": In above case, the points-of-access in the 'traditional way' are notice boards, meeting room, staff room, seminar hall, library etc. These are physical locations where information is interchanged. There could be 10 notice boards, 5 meeting rooms, individual offices to teachers, 1 library and 1 seminar hall but none of these are multi-purpose. In the 'Portal way', points-of-access are the PCs or laptops connected to Internet which, obviously, far out-number the traditional ones.

2. Synchronous vs. asynchronous: Three of the five activities mentioned above have a major bottleneck in case of 'traditional way'. They require the people who wish to share information to meet at a common time & place. The Portal way supports asynchronous information sharing, thus saving a lot of time for everybody.

Thus we can generalize that common goal of various web applications (in our case at least) is efficient collaboration within a group of users. Such applications are therefore also known as "Groupware".

The benefits of groupware are well recognized for classroom learning too. Steven A. Greenlaw in his paper "Using Groupware to Enhance Teaching and Learning in Undergraduate Economics" writes, "*...The theoretical justification for using groupware comes from the active learning paradigm known as constructivism. Using traditional pedagogy, an instructor might present a lecture, that is, the refined product of his own research, whereas a constructivist would provide an environment in which students construct their own understanding of the source materials (e.g., a class discussion). A constructivist might ask students to read from a bibliography of sources instead of a text book. Although a lecturer is likely to deliver a better product, in the sense of a more knowledgeable interpretation of the literature, proponents of constructivism argue that students are likely to learn more from the process of digging through the materials.*"

It is now easy to imagine what kind of web applications would be required to build intra-college portals. Applications like discussion forums, blogs, on-line repositories (libraries), and basic content management applications are a must and wikis could be an added advantage.

Advantages of on-line discussion forums: Discussions among students on any topic happen mostly outside classroom when students explore issues in their own time. Forums are the only way to encourage these discussions and 'record' them as it has no counterpart in the traditional way. It greatly adds to the understanding of students by creating a centre of activity (parallel to the classroom), which is accessible 24x7. Hence physical location and time-slots no more remain a constraint for students to express their thoughts or participate in a group discussion. This not only ensures a higher quality discussion, it also attracts higher number of students to participate who may be shy or confused during the class.

Advantages of Blogs: Blogs are user-friendly web publishing tools. Sarah Lohnes of National Institute for Technology and Liberal Education (www.nitle.org), in her paper "Weblogs in Education: Bringing the World to the Liberal Arts Classroom" writes, "...In possibly the most prevalent current use of blogs in the classroom, teachers are using weblogs to provide course content such as syllabi, assignments, and updates. At a very basic level, this utilization is akin to the static web pages that teachers have been creating for years to provide this information; weblogs simply enable teachers to post and update materials with more ease, efficiency, and flexibility". There is no doubt that Blogs have removed the entry barriers like HTML skills for people willing to express themselves through Internet.

Both forums and blogs have a common advantage that they, over the time, emerge as useful archives (or knowledge bases) of articles, discussions, FAQs etc. Similarly on-line repositories can be used to create a virtual library for the college which can store documents and educational videos. On-line repositories would soon become an integral part of colleges as the multimedia based learning becomes popular.

For institutes which provide distance education, these features will become unavoidable in near future because they enhance the interactivity in such courses while saving costs and time involved in printing and postage.

Implementing an Intra-College Portal

Intra-college portals have been implemented in past using traditional web-development/web-programming methods by resourceful universities and institutes. It typically required a dedicated team of web programmers, editors etc. to create web pages and upload data in electronic format based on inputs from teachers and professors. Outside classroom, the communication between teachers and students was limited to e-mails.

The modern way of implementing it in a college is to customize a ready-to-use portal framework hosted by third parties (*like iBranch.in*). This approach has many advantages over self-developed and/or hosted portals (*details in ['Advantage iBranch'](#)*). Also, the state-of-art web applications included in such portal frameworks eliminate the need of web-programming to upload content, thus teachers and students can easily add content on their own.

Conclusion

The developments in the field of collaborative applications are going to define the way of life in educational institutes. Looking at the bigger picture we can say that these developments have resulted from the latent requirements of students, teachers and management globally. The 'smart organization', apart from focusing on their core activities, would also respect the rapidness of these developments and thus outsource their needs to specialists.

Scope of further research

"The Technology Source Archive" (<http://www.technologysource.org>) has lots of articles and research papers on technology based education which deal with all possible prospects, issues and scenarios. As the portal describes itself, "Published from 1997 to 2003, The Technology Source (ISSN 1532-0030) was a peer-reviewed bimonthly periodical whose purpose was to provide thoughtful, illuminating articles that would assist educators as they face the challenge of integrating information technology tools into teaching and into

managing educational organizations... This Web site maintains all of the articles originally published in The Technology Source, which you can peruse...”

References

Researchers and writers who have contributed towards The Technology Source Archive (www.technologysource.org)

Steven A. Greenlaw (associate professor of economics at Mary Washington College), Using Groupware to Enhance Teaching and Learning in Undergraduate Economics, 1999

Bob Boiko, Content Management Bible, First Edition 2002