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Gembloux Agricultural University : ICT learning

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Abstract

This paper describes and comments the available ICT tools in Gembloux Agricultural University and the state of using in 2009.

Key words

Teaching, ICT, learn platform, recorded courses system, videoconferencing intranet.

1. Introduction

Gembloux Agricultural University includes about one thousand of students coming from more than thirty five countries, 550 staff members with 120 professors, responsible of teaching and management of research, and 300 specific contractual research workers, all of these with a university degree and paid by private contracts corresponding to an amount of 55 % for University's budget.

The university is composed by 30 Departments, a Library and a General Computer Center (SIG). This one offers a lot of tools for users (students and personnel).

Except for the PhD level, by year, each student has lecturers for 60 ECTS credits (720 hours; theory: 50 % and practice 50%) and he obtains a degree of Master bioengineering (several specializations) after five years of studies.

The service of Information and Communications Technology (ICT) devoted to learning is assumed by the staff of the SIG.

After this introduction (paragraph 1), this paper describes using's state in 2009 of available ICT tools: learn platform (paragraph 2), recorded courses system (paragraph 3), videoconferencing (paragraph 4) and intranet facilities (paragraph 5). Some general considerations close the document (paragraph 6).

2. Learn platform

1° WebCT, officially renamed Blackboard Learning System [1] a Web-based server software platform. To their “WebCT courses”, instructors can add such tools as discussion boards, mail systems and live chat, along with content including documents and web pages. Its main purposes are to add online elements to courses traditionally delivered face-to-face and to develop completely online courses with few or no face-to-face meetings.

If you are a designer, you can use this program to design and organize material similar to those used in classroom courses, such as lessons, reading lists, goals, quizzes and assignments. You can put existing content such as Web pages, text documents, graphic file, video file, etc., into a course. You can also add communication tools (electronic mail, chat rooms, online discussions) in such a way that those who are run the same course can interact with one other, creating the virtual classroom.

You can evaluate your students’ performance through quizzes and assignments, and keep a record of their marks.

2° At the University of Gembloux, this learn-platform is mainly used as support for courses essentially in two first years of Bachelor degree (mathematics, physics, chemistry, zoology and botany) and for some complementary courses in Master degree.

Why isn't it more used? There is most probably a problem of time. WebCT has been often criticized as being difficult to use. But this criticism partly reflected the flexibility of the system. Where other systems present a single way of organizing or adding course material, WebCT offered several options with more of the structure left to the individual instructor. Nevertheless, it takes time to learn how to use this platform of teaching and the professors are already largely occupied by traditional teaching and by their researches. WebCT is more the job of teaching assistants which are more inclined to launch out in this work. Unfortunately those tend to disappear with the profit from assistants in research which have already so much work in the different laboratories! Consequently, this problem remains unsolved.

3. Recorded courses

1° The University needed an easy-to-use solution for professors. They hoped to create content quickly and conveniently without taking too much time out of their research activities. It was also important that the content-creation tool would work with common software applications used during classroom lectures such as PowerPoint. So the selected record course was “Camtasia Studio” software [2].

Two different protocols have been proposed. The first one is a recording during the lecture. The professor uses “Camtasia Studio” in his own classroom, during the lecture. It automatically records exactly what is displaying on the instructor's computer screen. That may include any windows-based application or Web site. It also records what the teacher is saying. After the recording, the instructor can edit this interactive content and share it online via WebCT in all the popular streaming media formats including Flash.

In the second protocol, the professor uses “Camtasia Studio” outside the classroom. He prepares his PowerPoint content and records his voice synchronized with the PowerPoint document quietly in his office. In this case, the teacher can make different recording tries and chooses the best one. It takes much more time but the result is more professional.

2° Until now, this procedure doesn't be successful. Most of the professors are reticent to these recordings. They're afraid about the risk to see the audience emptying itself.

4. Videoconferencing

1° Videoconferencing allows two or more parties to communicate via both voice and picture through end points. Each videoconferencing suite may be used for teaching or research purposes and offer the ability to hold conferences with many other sites throughout the world. It is also possible to hold multi-venue conferences with several sites.

Videoconferencing is such a flexible and versatile system that it can be used for multiple purposes. Videoconferencing can be used by the scientific researchers to discuss about their works, to present their researches, to share information. Distance learning is another example of the uses of videoconferencing. The students can attend classes or communicate with instructors without either having to leave their preferred locale.

The University bought a portable system that can go anywhere on campus. It's allowed any researcher, any professor to initiate or participate to a videoconferencing with other sites.

2° In function since the end of 2008, the videoconferencing system is nowadays only used for meeting between researchers. It offers the advantage of holding of the virtual meetings of work whereas the participants are not physically together; avoid expensive travels; it increases the contacts between researchers coming from different countries.

Currently no professor uses this technology to diffuse courses. At this time, they don't need it because all courses are given inside the University.

But if we decide to develop new masters often elected by the foreign South countries in particular, this new technology will be a solution. We think too it is a good tool to diffuse specific or high level lectures in specialization because more and more it is difficult for University to build high level laboratories and competencies in all the research topics: international networks and connexions will be an obligation to preserve an high level of teaching.

5. Intranet

1° An intranet is a private computer network that uses Internet technologies to securely share any part of an organization's information or operational systems with its employees.

2° Many professors use Intranet to disseminate information with their pupils. They share the support of their courses, the syllabus, etc. This practice is very widespread in our University. They use this way whereas WebCT because in departments there is often somebody who knows how to add documents on the intranet; this solution is thus inexpensive in time compared to an investment in WebCT formation. More; this tool is only for internal use and the preoccupations about the respect of author's rights are avoided.

6. Conclusion

When the SIG was established on 1965, its only use was for research works (treatment of data, simulation).

Thirty years later, the SIG became the “manager” of networks, internal and external, and offered computer classrooms with big orientation to office's software facilities. For research, each Department developed solutions with their own computers.

To day, it is the beginning of ICT learning tools. The use of tools, nevertheless selected by all the teaching community, is very poor because the culture of the University is more oriented to research. The time devoted to build pedagogical documents with ITC is considered by professors as too long, too “heavy” and a waste of time.

There is no indicator showing the benefit of this kind of teaching about students' results. In the evolution of the professional career (curriculum vitae: pedagogical evaluation), there is no advantage to use these tools and the departments don't receive money's advantage.

As last information, the investment by University in permanent personal, hardware and software for ICT learning is estimated by year and for 1000 students at about 100 Euros by student, without estimation of time spent by the teacher himself to integrate ICT in his lecture and the time spent to prepare a new teaching's hour (estimation; 20 hours of work).

Nevertheless, go away, wait and see...

Literature

[1] <http://www.blackboard.com/> (03-06-2009).

[2] <http://www.techsmith.com/> (03-06-2009).