

IS THERE ANY SPACE FOR PRESENCE TEACHING IN A DIGITAL WORLD?

A PROPOSED FRAMEWORK FOR WEB USAGE



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Presentation content

- propose an empirical framework to integrate the Web as a local resource to support teaching activity.
 - based on three years experience of using a homepage within the Intranet University system with outside Internet access
- discuss the potential of digital information to enhance students performance, and present some guidelines to allow “*live experience*” of class content themes.
- promote discussion about *in site* teaching, its shape and functionality for the next few years

The University environment

- every student must have a laptop computer
 - turns the university into a very rich computer environment
- offers communication facilities to students
 - using a local area network with entry points in classrooms and other locations in campus, and allowing free access to the Internet
- use Internet as a digital information resource for student's activities, and a preferred way to interchange information
 - the University support several Internet services like Web, electronic mail, news, and Internet Relay Chat

NetLab environment

- all the success conditions are available, for creating a high potential learning environment, rich in technology
 - students have their own laptops, a convenient access point to the network, an unified interface to access information (the browser), and a set of services
 - give to students, from any major, a technological experience in order to start using computers in everyday tasks as students, and later, as professionals
 - the resulting environment is coined by the author as **NetLab**

NetLab references

- The NetLab experience, moving the action to electronic learning environments. *BITE, Bring Information Technology to Education*, Int. Conference. March, 1998. Maastricht.
- The Role of Teachers in Rich Technological Environments. *1st Workshop on Current Advances/Practice on Internet/Intranet Based ODL*. June, 1998. Porto.
- A technological related discussion on the potential of change in education, learning and training. *EuroConference'98*. September, 1998. Aveiro.
- papers available for download from:
http://www.ufp.pt/staf/lmbg/lg_com.htm

Experience gathered from NetLab

- an alternative way to spread information for students for dealing with scale and time restrictions
 - an opportunity to reach a higher number of students
 - an opportunity to distribute information in an easy way where each student get it when he wants from the network in campus, or from outside campus, accessing Internet
- as a result of student's interaction and of using the Web facilities for different class contents, it is possible to specify the Web pages as a growing set of functionality

The evolving use of NetLab

- use of Web pages
 - as an alternative communication channel
 - for class support material
 - for organising the interaction between class, teacher and students
 - to maintain a diary of the students/teacher relationship
 - to maintain the class materials
 - to built an historic log of each discipline
 - to built case studies and practice exercises
 - to support assessment and even exams
 - to integrate each discipline within the group of disciplines that the author is responsible for, sharing available resources
 - to integrate students contributions
- start supporting interested people outside the class and even the school (from the net)

The evolving use of NetLab

- opportunity to make innovative use of technologies and regain student's motivation
 - it has more to do with people than with technology,
 - even more with the traditional teacher role of simultaneously being a coach, a facilitator, an actor, and a friend
- the teacher as a person who gives the direction, orientation and rhythm in class and offers appropriate feedback is more important than the technology skills that students can develop in an independent way of the ones that the teacher really have.
 - there is a place for presence teaching but just for excellent performance in less time than it now spends with students in face-to-face situations.

A framework proposal

- why present a framework to plan digital resources in the Web?
 - promote the discussion of better practices using Web facilities to support teaching;
 - offer an initial roadmap to involve students with class contents, case studies and problems;
 - organise the electronic material resources produced or linked by teachers and students in a way that can be useful and understandable by all its users

Framework steps

Eight sequential steps designed to involve students

- *disseminate the technology,*
- *stimulate the need,*
- *provide tools to feel and use,*
- *introduce how to do and associated tools,*
- *validate the environment,*
- *start to spread the values of know how to use and how to create,*
- *involve the students in creating their own Web services,*
- *create a rhythm usage pattern.*

Disseminate the technology

- goal: [turning its use into fun](#)
- introduce the Internet as an information resource
- introduce the Internet Relay Chat (IRC) to give an “human touch” to laptops and network use
 - IRC attracts many students to configure their own laptops and make their first contact with computers as a communication tool
 - it can be for many, the smallest path to also starting using an Internet browser
 - some games produce the same effect for the introduction of computer use

Stimulate the need

- goal: [provide situations where the Internet can be an obvious advantage](#)
- proposing the access to remote institutions' Web sites or specific information that can be harder to find
- turn visible the fast way in which information can be gathered and its availability in electronic format.
 - electronic format can potentially be used to integrate work and reports without the need to spend large amount of time entering text and making graphics
 - it also modifies the way people learn how to operate with computer applications

Provide tools to feel and use

- goal: [give clues to take advantage of Internet facilities](#)
- examples are:
 - electronic mail to communicate;
 - Web searchers to gather information;
 - ftp to faster file transfer
 - telnet to enter remote computers
- tools stimulate each student to use the Web as an information resource and augment their autonomy as information collectors and report generators

Introduce how to do and associated tools

- goal: [help students build their own Web pages](#)
- a basic understanding of the html standard is needed
- some tools available as freeware and/or shareware can be used to create more complete versions of these pages
 - the use of other pages from Web as examples can enhance the capacity of each student to get a fast start in Web design

Validate the environment

- goal: getting more and more information about class into the class Web pages in first hand
 - previous to physical distribution
- Web class pages have more importance if they are used as the exclusive media to distribute relevant information
 - examples are work proposal descriptions, collection of past exams, detailed remarks about tests and works (not just the final marks), and other items that can justify a regular visit to the Web pages

Start to spread the values of *know how to use and how to create*

- goal: involve students in helping another students from other classes or students with difficulties from the same class
- the knowledge and sharing of techniques is proven to be going for everyone in a way that the student who shares new information is recognised and the entire group gets richer
 - these values are difficult to implement but the experience demonstrate that most students recognise who's who and who really did one thing in first place
 - some cultural factors apply here!

Involvement of students in creating their own Web services

- goal: **promote interest groups outside the class scope**
- once students start creating their own pages and use internet facilities to gather information for their needs, they tend to be grouped outside class topics into topics that are more relevant to them
 - an example of students that organise themselves into a group outside class is the ecology related group *Geonúcleo*, that have their own independent Web pages - <http://www.ufp.pt/units/geonucleo/>

Create a rhythm usage pattern

- goal: **collecting data about what is more relevant**
- obtain a growing collection of electronic resources to support students with contributions from past students, that tend to be improved and used by actual students
 - it is possible to allow each student to develop some topic in greater detail based on their own interest
 - this kind of interaction between students and the class contents give a better idea of what are the most studied topics and which ones are the more interesting, providing information about students motivation

Framework considerations

- the proposed roadmap is a difficult one:
 - assumes the availability of computers and network for student's use
 - considers that students motivation is greater when they are the computers' owners
- this roadmap represents hard work for the teacher
 - its payoff takes time, and several runs of a given discipline are needed to get into the last three framework steps.
 - however, the material production and organisation is much easier, giving opportunity to a more flexible and innovative discipline structure.

Present and future work

- making the transition from an individual learning system to a collaborative system, mediated by automatic assessment facilities;
- creation of a local collaborative system to make collections of related references to other materials and maintain them updated;
- use of 3D facilities to represent information structures resulting from both individual and group contributions;
 - some systems exist but lack field studies about their impact into real learning environments

Questions arise

- Will education based on technology delivery systems become a commodity?
- Is there a need for a physical location or just a organisation and groups of human resources are sufficient to make a school?
- What will be the major education system: the old traditional one or the education programs offered by some professional profiler organisation?
- How it is possible to cope with scale to educate the third world, with innovative systems required by developed countries?

Questions arise

- Will be a need for marks and assessment like we know them today or it will be better to have some sort of professional credits to be awarded in an ongoing way?
- How to invert the today phenomena that young people have a great ability to work with machines than their teachers have? Is this really important to care about?
- What will be the values of tomorrow's school and how will they be put in practice?