MICROC@MPUS® . A WEB-BASED EDUCATIONAL ENVIRONMENT

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ABSTRACT

The Innovation in Computer Science Unit at the University of Alicante has developed an e-learning tool called MicroC@MPUS®, a sophisticated World Wide Web-based educational environment that seeks to supply a virtual academic meeting space between teachers and students. Partners interested in acquiring the software rights are sought.



TECHNICAL DESCRIPTION

0. GENERAL INTRODUCTION

MicroC@MPUS® offers three levels of usage: administrator, teacher and student. The first of them manages the different courses, modules, and/or topics which are made inside the web of the platform. Likewise it deals with adding teachers and students and it is in charge of managing access.

The task of the teacher is to build his/her subject, to look for materials, to create activities, to manage the contents, to give the best usage to the resources that the platform offers …

To end with, he/she is the responsible for his/her own subject, as in the traditional learning.

The student takes the opportunity of learning, using the different resources to build his/her own learning, besides communicating with the rest of the colleagues, participating in the debates, and so on.

For the usage of this telematic system it is not necessary any technical knowledge, because of the user interface, in all levels, is very intuitive. However, in the following user manual the user can find a brief description of each and every single functionalities of the MicroC@MPUS® tool.

0.1. STARTING THE SESSION.

To start one session in MicroC@MPUS®, the first that you can see is the identification screen. Every user of this tool must have a user's name and a password to have an access to it. After writing the user's name and password, you can click on enter and, if your data are correct, you will see the starting screen of MicroC@MPUS®.

There are three different user's profiles:

Teacher

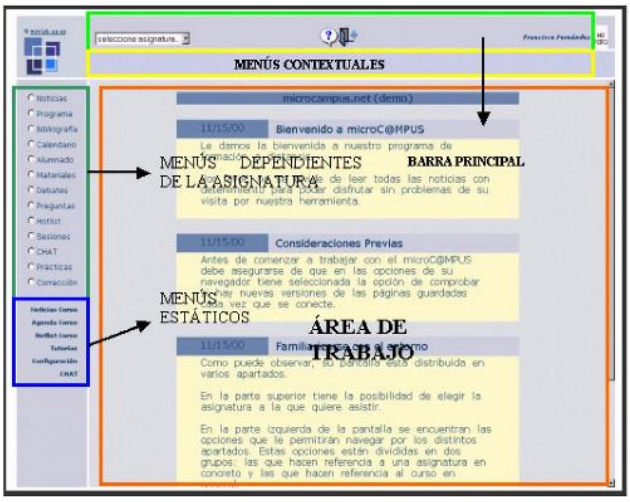
Student

Administrator

According to the chosen profile, you will perform different options.

0.2. OVERVIEW OF THE TOOL

After the user has identified him/herself, once inside MicroC@MPUS®, the screen is divided in different frames:



0.2.1. Main Bar.

In the upper frame is the main bar. In it, you can find on the right of the trademark. The subjects given (case of a teacher). If you access into the system with the administrator profile, you will be able to choose any of the existence subjects.

Also, you have the following options: ask for contextual help (variable whose content depends on the present screen), or leave the application

0.2.2. Contextuals menus (suboptions of menu):

This area shows the actions that you can perform once the option, in the menu of subject, has been selected.

As an example, when a teacher selects the option “materials”, he/she has the following

options:

- Browser

- Adding materials

- Looking at my materials

All these options will appear in this area of the screen.

0.2.3. Menu of subjects.

The left frame in the screen is divided in two parts. In the upper part is the menu of subjects. These menus drive us to information related to each of the subjects (news, materials, program…). In each moment refer to the subject that is selected in the main bar.

It is directly related to contextual menu.

0.2.4. Menu of courses.

These menus offer the possibility of accessing to information not directly related to specific subjects. Data such as agenda, news, and so on should be looked for by clicking the corresponding option in this area.

Depending on the hosen profile to access into MicroC@MPUS® the user will have some options or others.

0.2.5. Working area.

In this area the user can consult, add, modify or delete the information that the system allows, in each case.

1. COURSE

The course is the largest unity of information of the MicroC@MPUS® tool. One course is divided in modules and these ones in subjects. Each subject has different options:

1.1. NEWS

List of the general news of MicroC@MPUS®. They don’t refer to any particular subject, but the course in general.

1.2. CALENDAR

Calendar of the course. All the classes, events... and so on of all modules of the course, are included.

1.3. HOTLIST

List of interesting addresses grouped by topics.

1.4. SUBJECTS

List of all subjects of the course. The subjects are grouped by topics and the topics by modules.

1.5. TEACHER STAFF

List of all teachers of the course.

1.6. TUTORIALS

List of all questions of the students, whether answered or not.

1.7. ALUMNI

List of the students.

1.8. ADMINISTRATION.

List of the administrators. Selecting one administrator you can access his/her data.

1.9. CONFIGURATION

Form to modify the user's data. To modify any of the data, the user has to previously introduce his/her present password.

1.10. CHAT

Through this option the users of the system can chat to interchange impressions of the course. There are three channels in this option: the secretary, the studies room and the social club.

1.11. MESSAGES

List of received messages.

2. SUBJECT

All the options explained below, depend on the chosen previously subject.

2.1. NEWS

List of the news of the selected subject, ordered by date.

2.2. PROGRAM

It shows the program of the subject: aims, contents, methodology, evaluation, resources and bibliography.

2.3. BIBLIOGRAPHY

List of books ordered by authors. Selecting one book you can see its file: author, title, edition, city, date of publication.

2.4. CALENDAR

In this option the working area is divided in two parts: on the left appears the present month and the two following ones.

With the options [previous] and [next] the user can go throw the rest on the months.

2.5. TUTORIALS

List of the most frequent questions, ordered by date, done by the students to their subject's teacher.

2.6. ALUMNI

List of students. Selecting on student, the user can see his/her file.

2.7. MATERIALS

List of materials of all teachers. On clicking the file, it will be download in the computer.

2.8. DEBATES

List of present debates. On clicking some of them, the list of the present messages of the debates is shown. Here you can add a new line of discussion or answer any of the previously selected messages.

2.9. HOTLIST

List of interesting addresses grouped by topics. On clicking a address you can access directly to its web page in a new window browser.

2.10. QUESTIONS

List of the most frequent questions, ordered by date.

2.11. SESSIONS

This section is specially important because the course is designed from the sessions.

2.12. CHAT

Through this option, the students and teachers of a particular subject, can chat to exchange impressions about the subject.

2.13. EXERCISES

List of disposable exercises (case of a teacher) and subject to be made (case of an student) of the particular subject. Selecting an exercise, you can access to its content.

2.14. CORRECTION

List of students and exercises, with their corresponding marks.

2.15. MESSAGES

List of received messages. It is such as Inbox.

ADVANTAGES AND INNOVATIVE ASPECTS

This environment has advantages in both programming and pedagogical sides. On the one hand, this virtual environment has several organizational and educational advantages that turn it into useful support for conventional education and into an essential operating system for distance education:

• First of all, as organizational advantages, MicroC@MPUS® offers the possibility of standardizing the teaching function and unifying teachers work towards students.

• Secondly, as educational advantages, MicroC@MPUS® allows more communication (because of the asynchronism) and better communication (by fitting

the message to the environment). The dialogue between teachers and students is controlled by MicroC@MPUS®, but the pedagogical model is furnished by the designers of the course.

On the other hand, MicroC@MPUS® programming is clear and solidly made. As MicroC@MPUS® is modular, it is possible to programme and to add any kind of function to it. In this way any kind of courses can be developed by using this flexible and versatile environment. Moreover, as an operative system, MicroC@MPUS® allows to manage any amount of students by increasing or decreasing the number of computers.

CURRENT STATE OF DEVELOPMENT

Nowadays, MicroC@MPUS® is used at the University of Alicante (Nursery's High School, New Technologies, Biotechnology, Magister Lucentinus, International Relations Centre, IMIA), in entities such as CIBERAULA and in other countries: University Agraria of La Habana, UNED de Costa Rica, University of Gulf of Mexico, University of Chile, Technological Institute of Costa Rica, University of El Salvador, etc.

Now, the platform is available on 2 technologies:

• ASP technology (for Microsoft Windows Servers).

• PHP technology (for Linux Servers).

COLLABORATION SOUGHT

The Computing Innovation Unit at the University of Alicante is interested in providing the MicroC@MPUS® software to educational organisations and sharing these experiences with the microcampus.net program. In particular, it is interested in:

• End-user licence agreements for the MicroC@MPUS® software.

• Adaptation of the MicroC@MPUS® software to the customer´s needs: languages, further modules, etc.

• Establishment of hosting agreements for the MicroC@MPUS® software at the University of Alicante facilities.

• End-user licence agreement for the MicroC@MPUS® software to participate in the microcampus.net program.

• Selling educational material made by the MicroC@MPUS® software.

INTELLECTUAL PROPERTY RIGHTS

The Computing Innovation Unit at the University of Alicante owns the intellectual property rights of MicroC@MPUS® software.

RESEARCH GROUP PROFILE

The Computing Innovation Unit is the media-technology lab at the University of Alicante. It was created in 1997 for develop technological projects to improve

education, co-ordinate projects (library, teaching...) and investigate new applications.

It has carried out several multimedia and educational project for the University of Alicante, but its main product is the MicroC@MPUS®.

MARKET APPLICATION (1)

Computer Science, Language and Communication