

REFERENCES ORGANIZATION AS A DIGITAL EDUCATIONAL RESOURCE

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Abstract

The growth of demand for information, both digital and analog, stimulated by the students of the Architectural Preservation subject (School of Architecture, Polytechnic University of Valencia) has led to the project described in the following lines.

The first results of the educational innovation carried out in the academic year 2011/2012 are reflected in the framework of the project called "REScursos". As a preliminary stage, the teacher determines a first diagnosis and prognosis of the teaching process supported by digital tools. In this case the aim is to provide students with the proper skills in order to manage bibliographic references, both digital and analog. This process generates a directory of web resources, organized and structured according to the requirements of the subject, in collaboration with the students themselves. In fact, recently it became common the use of digital tools and platforms associated with the analog teaching, so that the student can be directed and guided in the acquisition of skills and abilities. On another level, the configuration of "REScursos" itself, tries to combine suggestions made by students with information provided by teachers.

In this way, a double objective is achieved: on the one hand to perform a structured range of digital resources, and on the other establish a more efficient organization in the management of bibliographic references.

Therefore, the project intends to give an answer to the growth of demand for digital resources, asked by the students of Architectural Preservation. This means that, in all this process, the student acquires a dynamic role, providing resources and proposing web pages, always monitored by teachers and colleagues.

Finally, the aim of the project is not to replace digital resources for analog ones, but, on the contrary, it shows how the traditional bibliographic resources require an in depth knowledge that sometimes can be provided only by the web and its real-time updates. The advantage of the directory is based on the unlimited possibility of feedback from the subject. In this way, outdated pages can be replaced by others, proposed by students or teachers, generating a useful system of resources that can be refreshed over the years.

Keywords: digital references, resources data base, bibliographic resources.

1 INTRODUCTION

In recent years, the students attending the Architectural Preservation subject (School of Architecture, Polytechnic University of Valencia) are increasingly asking for both digital and analog information. As a consequence, they were oriented and guided toward quality digital platforms and tools in order to complement the traditional and basic bibliographic resources. In this framework a proposal for the creation of a websites directory was presented. The directory was needed to be structured, detailed and specifically focused on the discipline of architectural preservation.

Architectural Preservation is a four-month course, integrated in the Architectural Composition area, with a rather recent track record since it was first taught in 2006/2007 academic year. It is included in the second cycle of the degree in architecture (5th year) and its teaching load is 4.5 ECTS credits.

The central objective of the course is to provide methodological skills that allow to understand the relevance and complexity of restoring historic buildings [1]. Moreover, the students are asked to put their acquired knowledge into practice and work on a hypothetical conservation project of an existing structure. Therefore the course focuses on a basic theoretical and practical preparation that lead towards the critical understanding of a variety of intervention criteria and techniques [2]. On the other

hand, due to the lack of time, the necessary simplification and structure of the course can be a risk and result in an empty oversimplification of the subject if not supported by adequate bibliographic references and resources. For this reason the project "REScursos" (RESources) was started.

2 EDUCATIONAL INNOVATION

The work plan proposed for "REScursos" project had three main points that guided it toward a conscious educational improvement [3]:

1) Perform a full diagnostic analysis through an anonymous survey among the students of the Architectural Preservation course about the use of internet resources. Its title and the main question were: "Which internet resources have you used for the Architectural Preservation course and what are they about?" (Fig.1). Academic year 2011/2012.

2) Analyze the results of the survey and outline a first draft of a websites directory concerning the subject. These sites are structured in macro-groups [4] and complemented by a selection of internet resources provided by the teachers. Academic year 2011/2012.

3) Run a test on the directory by handing out the database to the students and repeating again the first survey with the question: "Which internet resources have you used for the Architectural Preservation course and what are they about?". Academic year 2012/2013.

"REScursos"
Propuesta de un directorio de recursos web para la asignatura de Restauración Arquitectónica ETSALPV

ENCUESTA

ESTAMOS REALIZANDO UNA ENCUESTA PARA MEJORAR LOS RECURSOS DIDÁCTICOS DE LA ASIGNATURA DE RESTAURACIÓN ARQUITECTÓNICA. NUESTRO OBJETIVO ES REALIZAR UN DIRECTORIO DE RECURSOS WEB DE CALIDAD PARA IMPLEMENTAR TU PROCESO DE APRENDIZAJE EN EL MARCO DE ESTA DISCIPLINA. GRACIAS POR TU AYUDA, POR CONTESTAR EN UNOS MINUTOS A ESTAS 10 PREGUNTAS!

Como rellenar las casillas ¿?

| A | B | C | D | E |
|--------------|-------------|------------|---------------------|-----------------------|
| EN ELEMENTOS | Muy poco en | tema MEDIO | Muy poco de ACUERDO | Totalmente de ACUERDO |
| | DEACUERDO | | | |

- 1) He consultado con frecuencia recursos web (páginas web) a lo largo de la asignatura
- 2) Me parece interesante que los profesores de la asignatura propongan recursos web para la asignatura
- 3) He utilizado con frecuencia los diferentes recursos facilitados en la página del poliforum de la asignatura
- 4) He utilizado con frecuencia los directorios web facilitados en la página del poliforum de la asignatura
- 5) He recurrido a recursos web sobre todo para la componente teórica (temario) de la asignatura
- 6) He recurrido a recursos web sobre todo para la componente práctica (casos/estudios) de la asignatura
- 7) He empleado solo referencias bibliográficas como recurso de aprendizaje para la asignatura
- 8) Pienso que la asignatura es compatible con posibles recursos web, junto con otros recursos "tradicionales"
- 9) Pienso que los recursos web consultados son de ayuda y de soporte para el aprendizaje de la asignatura
- 10) Sería interesante tener un directorio estructurado de recursos web para el aprendizaje de la asignatura

RECURSOS WEB PARA LA ASIGNATURA DE RESTAURACIÓN ARQUITECTÓNICA QUE HE CUESTADO ACONSEJAR

Fig.1. Paper form of the survey processed within the framework of the teaching innovation project. (Authors)

2.1 Diagnostic and reflection

The students showed a positive attitude when it comes to using websites to help them to carry out an assignment for the course. On line support is sought not only to improve the practical part, but also in the section concerning the theory and history of restoration. This potentially positive approach has been proved to be unfortunately inadequate in many cases. The analysis of the works handed in by the students allowed the teachers to identify a significant number of problems.

The assignments revealed several misconceptions and errors related with their references. In many cases citations were inaccurate, entire phrases were cloned and repeated among several students, bibliographic references were superficial and inappropriate and finally some aspects simply required a more specific support from the teachers.

In order to properly analyze the situation before any teaching innovation, an anonymous survey was given to all the 264 students of the course and, as a consequence, a diagnosis about the use of internet resources was made.

The survey "Which internet resources have you used for the Architectural Preservation course and what are they about?" had a double purpose. On the one hand, it was possible to evaluate the referred websites identifying the phases of the assignment and the chapters of the subject where the students needed more of this type of support. On the other hand, it was possible to collect a series of advises, proposals, tips and tricks, about quality and useful websites spotted by the students themselves.

The aim of the survey was to promote constructive thinking. It was organized through a list of 10 questions so that the opinion of the students could be reflected. The last part of the inquiry included an important open section where the students could write down their advises and the list of websites consulted during the course.

The questions proposed to the students covered different aspects in relation with the learning process. The answers were taken into account when the structure of the website directory needed orientation.

These are the questions proposed:

- 1) Have you often consulted internet resources (websites) during the course?
- 2) Would you think interesting that teachers provide web resources about the subject?
- 3) Have you often used the several resources provided on the *poliformat* [5] page related with the course?
- 4) Have you often used the web links provided on the *poliformat* page related with the course?
- 5) Have you resorted to internet resources especially for the theoretical part of the subject?
- 6) Have you resorted to internet resources especially for the practical part of the subject?
- 7) Have you employed only bibliographic references as a learning resource for the course?
- 8) Do you think that the subject is compatible with internet resources, along with other more traditional resources?
- 9) Do you think that referred internet resources are of any help and support for the learning process of the subject?
- 10) Do you consider interesting to have a structured directory of internet resources for the learning process of the subject?

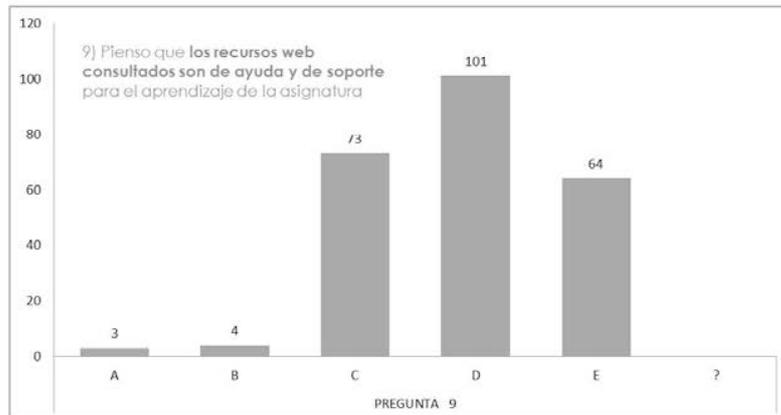
To be able to properly analyze the information collected there were 5 possible answers to each question: "without elements of evaluation", "rather disagree", "middle", "agreement" and "totally in agreement".

2.2 Analysis of the results

The analysis of the 264 surveys allowed to extract both qualitative and quantitative results about the use of internet resources for the Architectural Preservation subject (Fig.2-3).

“RESursos”

Resultados procesados tras la encuesta



| A | B | C | D | E |
|-------------------------------------|-------------------------------|----------------------|----------------------------|------------------------------|
| SIN ELEMENTOS de juicio para opinar | Más bien en DESACUERDO | Término MEDIO | Más bien de ACUERDO | Totalmente de ACUERDO |

Fig.2. Some diagrams of the diagnosis step of the “RESursos” project. Question: Do you think that referred internet resources are of any help and support for the learning process of the subject? 101/264 students agreed and 64/264 students totally agreed. (Authors).

| A | B | C | D | E |
|-------------------------------------|-------------------------------|----------------------|----------------------------|------------------------------|
| SIN ELEMENTOS de juicio para opinar | Más bien en DESACUERDO | Término MEDIO | Más bien de ACUERDO | Totalmente de ACUERDO |

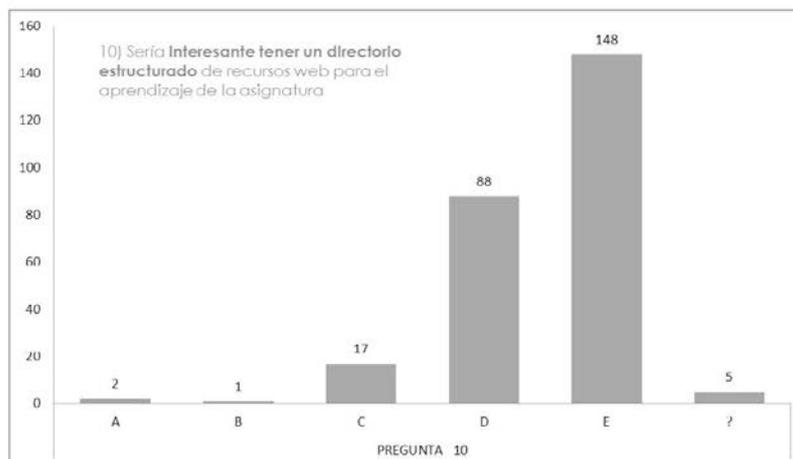


Fig.3. Some diagrams of the diagnosis step of the “RESursos” project. Question: Do you consider interesting to have a structured directory of internet resources for the learning process of the subject? 88/264 students agreed and 148/264 students totally agreed. (Authors).

In general, considering the qualitative aspects, most students showed interest in internet resources (156 polled) and recognized a regular use of them (115 polled). In quantitative terms the students accessed websites more often to improve the practical part of the course (107 polled) than the theoretical part (84 polled).

But the fact that a greater frequency of use of these resources does not correspond to a higher quality of the assignment is relevant.

Many students (73 polled) recognized that the websites were only beneficial to a moderate degree. It is significant to point out that the lack of quality of internet resources generates prudence among students, since in many cases they declared having used only the bibliographic references (102 polled). This tendency explains also that the students were clearly favorable about a websites directory provided by the teachers (148 polled).

3 COMPILATION OF THE WEBSITE DIRECTORY

After the analysis of the survey a directory of websites was compiled combining the suggestions proposed by the students with the selection of resources detected by the teachers. This gave the opportunity to complete a first collection of internet resources and organize them in a more efficient manner. To do this, "REscursos" project has 14 catalogs of web hyperlinks, structured according to the following indexes [6]: National publications, International publications, National magazines, International magazines, National documentation centres, International documentation centres, National archives, International archives, Restoration charters and institutions (Fig.4), Theory and authors (Fig.5), webpages of general interest for the subject.

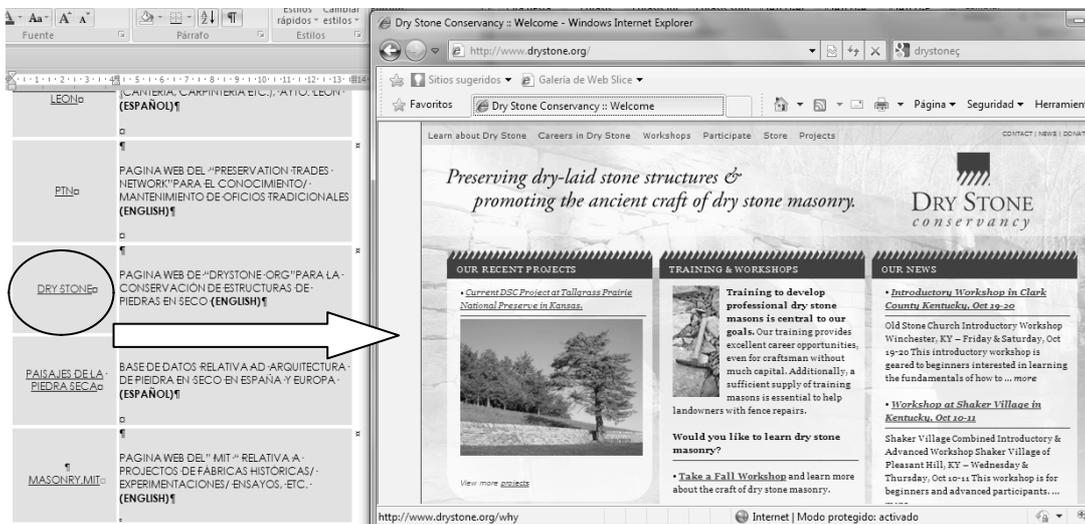


Fig.4. Example of tables with hyperlinks provided to the students. In the left column the name of the provided web page and in the right column a brief description (chapter: traditional features) (Authors).

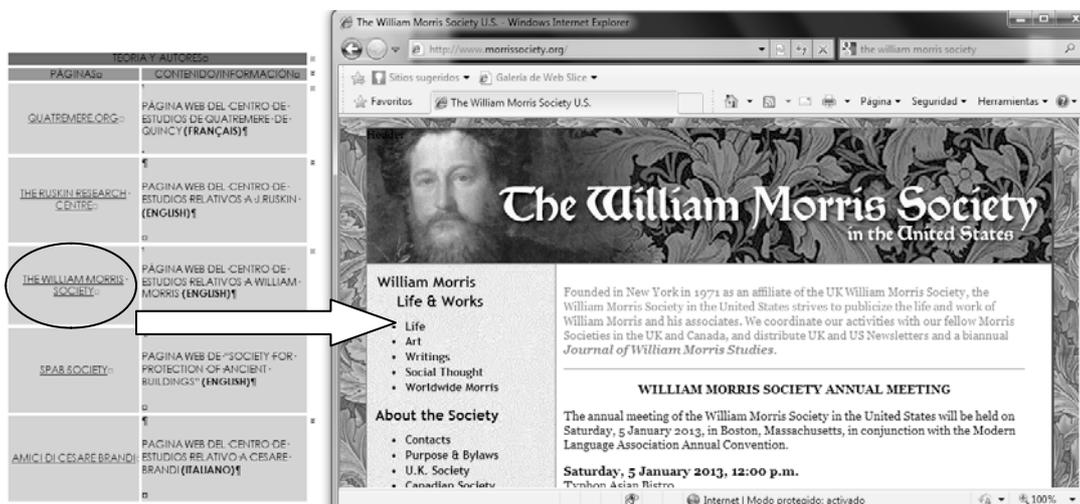


Fig.5. Example of tables with hyperlinks provided to the students. In the left column the name of the provided web page and in the right column a brief description (chapter: theory) (Authors).

All of them represent the sum of the joint students and professors contributions, creating a database where the links are complemented by a label that briefly describes both the content of the website and its language [7].

4 FIRST RESULTS AND CONCLUSIONS

The selected websites have a significant potential for the Architectural Preservation subject along with the traditional analog bibliographic references, as it has been established in other investigations carried out by the authors [8].

The described project responds to a real problem and gives an effective answer to the demand for digital resources about architectural preservation through an orientation effort shared between teachers and students. At no time internet resources were intended to replace the analog bibliographic references. The first ones are frequently updated, can lead to other resources and, nowadays, very easy to access but, on the other hand, the second ones are useful to go in depth into the different topics.

The advantage of the “REScursos” directory (Fig.6) is based on the unlimited possibility of backfeeding and implementation over the years. At the moment the directory still includes an embryonic collection of internet resources, especially taking into account that it is a developing teaching improvement, and therefore capable of being calibrated and profiled over time. Thus obsolete pages can be replaced by new others proposed by teachers or by new students in order to perfect a profitable tool with a long range.



Fig.6. Cover of the directory with the hyperlinks collected for the Architectural Preservation subject (Authors).

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