Information tools as a support to the technological choices in the architectural project development. The present status and a proposal for a Department/Faculty

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New technologies able to manage the storage and distribution of large amount of data, along with the capillarity of the connections, have transformed Internet into a privileged communication channel for many organizations, included Universities and Colleges. Even in the Architecture world, we are seeing that the diffusion of the communication through the Net and the number of dedicated resources are increasing.

Internet has already imposed itself as one of the communication tools used by Universities to inform the students on their offering and to communicate how to access their services. Now it is becoming the more and more an essential space for teaching, managing complex projects and exchanging information.

These considerations are the starting point for this thesis that has a duplex goal: firstly to give a panoramic view of the Internet resources devoted to Architecture, and secondly to design a new internet site, dedicated to the architecture technology issues. This site is meant for a specific situation (the Turin Polytechnic) and its design is consistent with the local situation as well as the suggestions gotten examining the internet panorama during the first part of the work.
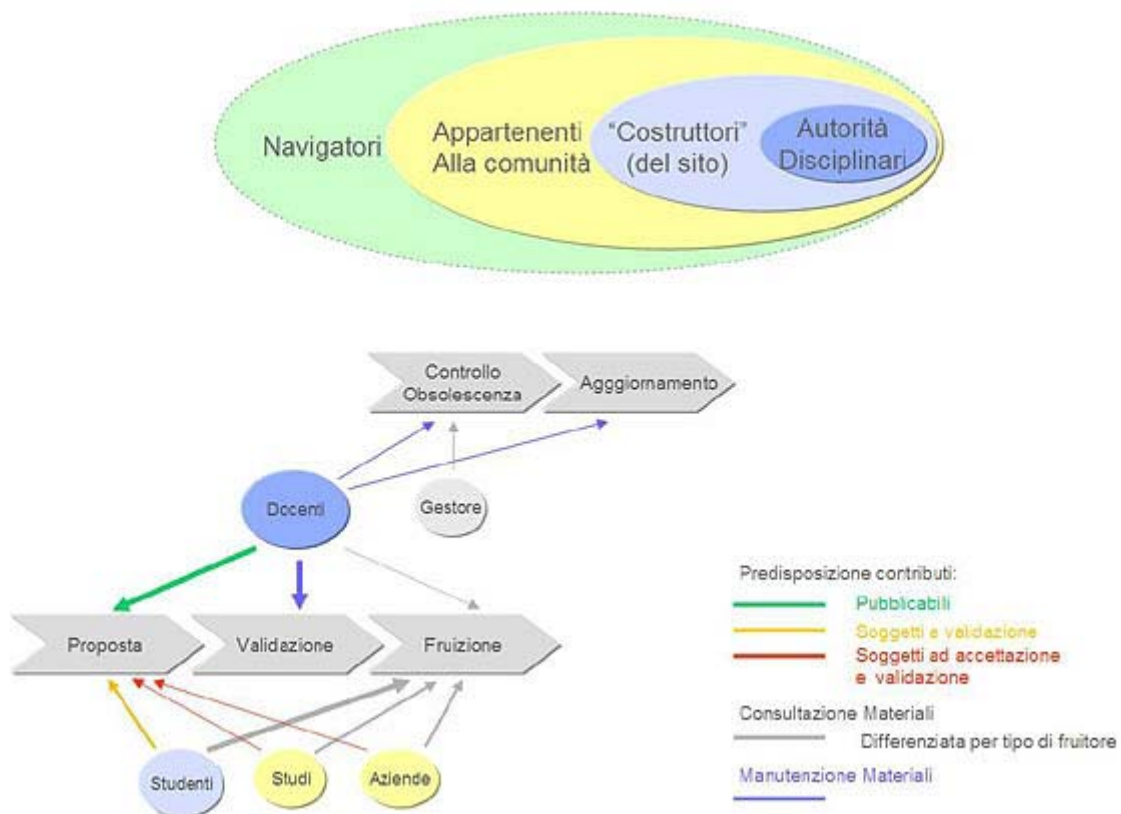
Pict. 1 Site Community and Roles

The analysis of the Internet resources has been conducted by site referred to: Architecture Schools, Professional Organizations, building and construction companies, publishers. Geographically, the coverage is global, but the thoroughness is decreasing starting from the Italian context -whose analysis would claim some completeness-, to Europe -whose coverage is rougher-, to the rest of the world covered only with specific examples considered of particular interest. Special attention has been paid to European Projects and initiatives involving both Universities and industries in the development of resources available through the Internet.

This analysis has shown these fundamental trends:

1.   Use of Internet in training, including student management and distant learning;

2.   Management and propagation of the knowledge related to Architecture and building industry, through appropriate schematization and Internet;

3.   Management of the construction project with computer based tools;

4.   Management of the creative process using computer based tools (electronic support to the heuristic phase of the project).

These tendencies have been considered (in various degree) when designing the site.

From the point of view of this thesis, the executive phases of the site development are not interesting and they have not been considered. On the teaching side, the driving role of the Distant Learning project (Winds), in which the Faculty is involved, has been recognized.

The possibility of building an environment that has features useful as a support to teaching, from a different perspective, has been considered interesting anyway.

Thus, the proposal for the site has been focused on the point 2 and 4.

Open to the active contributions of user -included company and professionals- and with a central role played by the Faculty, the proposed site has the goal to give teachers, students and architects, informative tools able to highlight and support the complex interaction-dialog among design ideas and: systems, sub-systems, processes, components, techniques contributing to the Architectural expression.
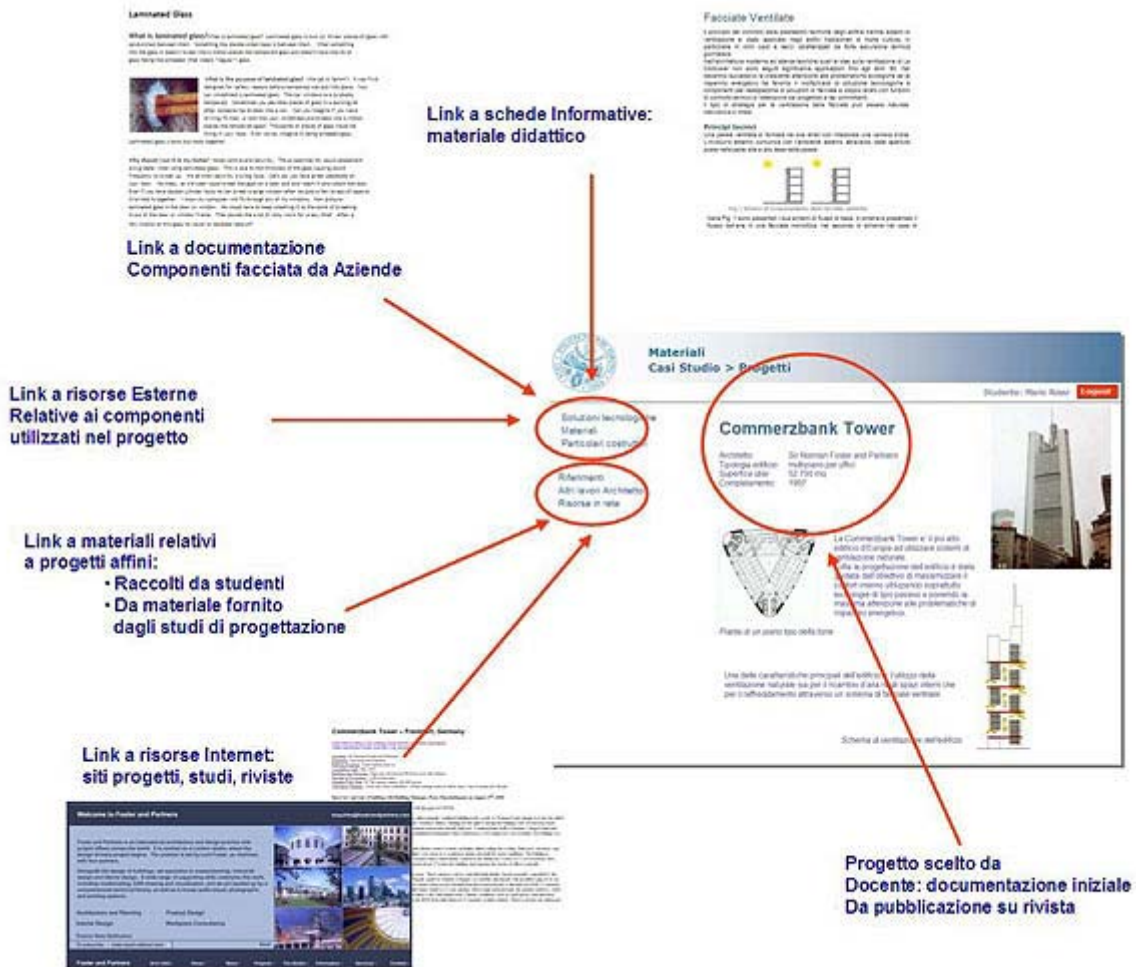
Pict 2 Document preparation sketch

The goal is to give an interactive, dialectic, tool able to correspond to the design intention and constructive hypothesis with pertinent information on materials and techniques, both independently that in systemic relationship, in the same way they interact in the project. This dialectic approach, between project and technology, asks the computerized system to interact with the different knowledge involved as well as with their languages. In this way the designer -a professional or a student- can have at his disposal informative tools that help with:

• A correspondence between design hypothesis and technological information on materials, techniques, etc.

• Vice versa, starting from the materials and techniques, design examples showing their potential from the project point of view and the technological critical points solved within the project.

Pict.3 Sample page

The proposed site tried to consider the project as a research activity that explores the possibilities that an idea, supported by specific motivations, has of reaching certain results with the use of technologies and techniques.

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