Chapter 14
Architectural Web Portal and Interactive CAD Learning in Hungary

Attila Somfai
"Széchenyi István" University, Hungary

ABSTRACT

It is the aim of this case to show the teaching web portal of the Faculty of Architecture at "Széchenyi István" University (www.arc.sze.hu/indexen.html) and its many uses. Nowadays, the Internet helps us to look into Hungarian and foreign study aids, and architectural websites. The Internet has created potential new and effective ways of cooperation between lecturers and students of the university and other institutions of higher education. The teaching web portal mentioned above realizes diversity and complexity of architecture, with efficient grouping of information, while being attentive to high professional standards. Computer Aided Architectural Modeling (www.arc.sze.hu/cad) is one of the new types of online lecture notes, where many narrated screen captured videos show the proper usage of cad software instead of texts and figures. This interactive type of learning assists students to become more independent learners. This type of teaching modality provides the opportunity for students who need more time to acquire subject matter through viewing video examples. The success of our departments' common web initiations can be measured through Internet statistics and feedback of the students and external professionals.

MAIN GOALS AND PHILIOSOPHY

It is high time to speak of the importance of the electronic knowledge-bases in the teaching of Hungarian architects and students, as well its multidirectional possibilities for use. The professional web portal of the "Széchenyi István" University in Győr is introduced, together with some of its subject matter of instruction. In today's wolld, the Internet provides access to teaching packages from domestic and foreign sources, professional portals and novel topics. Moreover, it makes possible to effectively cooperate among lecturers, professors and students, as well as among institutions of higher

education. The Internet initiative discussed in this chapter receives 2300 visitors in a month. The URL-address of the portal, and links to actual works are incorporated onto the homepages of numerous institutions dealing with the profession or the education in general.

Our "Database for Architecture" (www.arc.sze.hu/indexen.html) started in 2001 with the target to provide up-to-date and easily useable, editable knowledge materials that can be easily accessed at any time and from any place, to the education of architects at any level in Győr. A more effective education at a higher level can be achieved with the help of electronic subject matter following the changes in the profession in a flexible way. Knowledge of the fields of related branches, the most recent aims of science and technique, and examples realized in practical life are dynamically coupled with basic knowledge. Through the step-by-step building up of the complexity-aimed database-concept of several special branches, versatility and richness of our profession has also been outlined.

Realization of the above targets in the area of building construction entails that lecture notes, practical guides and study aids with references, electronic stores of drawings, and planning and construction sheets and brochures of leading companies manufacturing building materials – all that can be done at the same place. In addition to that, further homepages of professional and scientific character, journals, reviews and periodicals from Hungary and abroad, as well as a selection of independent articles can be found here. Successful operation of a database for architecture is provides numerous special services (search possibilities, integrated dictionaries, forum, students' administration, news bar).

Today, county borders are getting more and more permeable within Europe of the regions – thereby making wide-ranging collaborate and cooperation very easy. An important precursor and catalyst of this process is the world wide web (WWW) where results of international research and practical achievements can be published. The Internet is, however, much more then simply a media because cooperation can be established and practised on a daily basis among different institutions of higher education owing to its interactivity. There is a possibility for reasonable sharing of the activities, or publishing the results in a common knowledge base. As educational tools, electronic knowledge bases are interactive. At the same time, it must always be taken into consideration that education of future architects has the characteristic feature of often being highly individual regarding the duties given and solutions obtained. Therefore, a personal teacher-student contact is and shall be of the uppermost importance. The knowledge base provides a very useful background for these works, too, for example in informing a variety of tasks.

ELECTRONIC TEACHING KNOWLEDGE BASES AS ARCHETYPES

Based on existing professional databases and idea exchange, electronic teaching databases were believed to be suitable for the above detailed wide-ranging demands at our university. We were familiarized with one initiative in 1999 presented at the Conference on Building Construction where the educational computer program package on building construction (called "FAL", meaning "Wall") developed at the Budapest Technical University was introduced us by Nándor Bártol (see: Figure 1). The author wished to integrate the electronic lecture aids from the university department and links from outside of the university – representing the professional life – into a common knowledge base. The ideas on the structure of the database, the professional requirements and the way of actualizing were formulated as follows:.

Another ingenious contribution to professional knowledge transfer is the work of Dr. József Orbán from Pécs and a catalogue on building materials published by the company Orisoft in Pécs (see:

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