Abstract

Traditional ways of an aesthetic expression like hand drawing and renderings, painting and artistic graphics, are now enriched by computer multimedia techniques. The multimedia techniques are used in the Department of Architecture of Warsaw University of Technology for presentation of students’ designs. The connected media, like computer renderings, animations and sound are used to express sophisticated aesthetics intentions by students in their conceptual designs.

In the past two years, three inexpensive multimedia editors were tested on PC’s: Tempra Media Author, HSC Interactive and Multimedia Director 4.0. The most convenient, but not excellent, for our purposes was The Tempra Media Author. Several aspects of multimedia presentation were analyzed and some suggestions for the future were done.

There are some aspects of the usage of multimedia in presentations in students’ designs:

- organisation of information allowing for easy and on-line access to the information one needs at the moment.
- integration of information - possibility of gathering various kinds and sorts of information at one place, allowing for presenting the most complete and comprehensive information at one place. This results also in the self-discipline of designer in creating the presentation.
Fig. 1 - Examples of different kinds of information concerning the same project that can be gathered in one multimedia delivery

- interactivity, introducing an element of creativity also for those who use the message.
- information being easy-to-read
- physical possibility of easy moving the information
- possibility of using multimedia techniques and features on the Internet, which introduces fully interchangeable projects shared worldwide.

Traditional methods in the presentation of designs - mechanical drawings, black and white freehand drawings, color perspective renderings using all available techniques, and traditional three dimensional models - can now be enriched through the introduction of multimedia computer techniques.
The utilization of new technologies for presentation introduces new qualities to the form of delivery of the idea, such as:

**The possibility of linking many media in a single delivery, known as a multi – media presentation**

Traditional forms of presentation are usually single – medium in nature; even if many media are used, they tend to be characterized as being made up of many single – medium presentations rather than a single multi – media one. Of course, it is possible to create multi–media presentations using traditional tools (e.g. light and sound presentations), but preparing and conducting such a presentation requires a whole gamut of tools and technical maneuvers, which are usually not universally accessible.

In delivery aided by computer techniques, various media are merged into an inseparable whole with the help of an appropriately set up computer and programs. The multiplicity of media which can be utilized should also be noted. They are by no means limited to the basic picture and sound, but can encompass digitized drawings or graphic presentations, drawings executed with the assistance of a computer, computer simulations (renderings), computer animation, digital video pictures, or any combination of each of the above. Forms of
pure sound may also be discussed in a similar way: narration, sound scenery, synthesized and natural sounds, and their combinations.

Fig. 3 - Examples of mixing different picture media like computer renderings, photographs, video images

**Ease of editing of every element in the multi-media delivery – flexibility of presentation**

An extremely valuable feature is the capability of undertaking partial changes without upsetting the structure of the whole presentation, which can be rebuilt using modified elements. In contrast to traditional methods, this makes it possible to create the presentation almost in parallel to design work; certainly with only a minimal delay. All earlier versions can be stored in a manner allowing for future use, which in the case of traditional presentations would have necessitated the execution of a part of the work from the beginning. Even the structure itself of the presentation can very easily be changed and adapted to the needs of the moment.
The introduction of interactive presentations

Interaction is of great importance due to the possibility of user adjustment of the scope of delivered information in accordance with the user’s own, concrete needs. This way, the presentation can contain all vital information about the design, which can be investigated selectively. The same volume of information presented in a classic manner would certainly prove impossible to absorb by someone who is only interested in a segment. The fact of interaction itself is also an important factor in the proper examination of the design. It forces the viewer to demonstrate activity, thus interest in the presented design.

Ease of information storage

Another pivotal factor is the ease with which multi – media information can be stored to computer memory carriers. This is extremely facilitating when compared with traditional forms of presentation. Its practical reflection is the ease of storing and retrieving student works executed with the help of computer techniques juxtapositioned against classic methods.

Ease of information transfer

The multi – media presentation of information about a design can, thanks to general access to the global Internet, be delivered to any point on the Earth in a manner which is much simpler and more effective than traditional presentation. There already are examples, encompassing the Department of Architecture of the Warsaw University of Technology, where design classes are conducted with a group of students dispersed throughout the world, in touch through the university Internet links. The developed designs were written completely in digital form, and are thus ideal material for multi – media presentations.

In addition to all the new and positive qualities tied with methods of presenting student designs, multi – media techniques also have several faults. Most of them are the result of a lack of easy access to technology on an appropriate level. This problem include:

– the common tendency to endeavor at achieving the quality of traditional techniques rather than creating new qualities of delivery;
the enormous dependence on the equipment used for the presentation; and the lack of access to medium–grade equipment, such as:

- problems with recreating a full–sized video picture on the computer screen;
- the relatively large size of good quality audio files;
- problems with recreating colors properly; and
- problems with the incompatibility of various computer systems.

It seems, however, that most of these problems will be solved as technological progress proceeds. The others, as computer techniques become more accessible, perhaps.

Conclusions

Multimedia techniques are a very good vehicle for the presentation of student designs due to the potential for the lucid delivery of ideas which are sometimes extremely elaborate and sophisticated. Student designs are theoretical exercises which are targeted at teaching ways of seeking out various roads leading to the solving of a problem, as well as identifying and defining that problem. They contain, by their very nature, a great intellectual load which has a chance to be fully demonstrated thanks to multimedia techniques. A single model in the computer’s memory can be demonstrated in various ways to show completely different aspects of the design, for example.
Fig. 6 - The same model made with the computer can be used to carry different messages

Through multimedia techniques, reception of the design can be directed by the appropriate choice of instrument in order to call attention to its most significant aspects.
In conclusion, the need to prepare the presentation with extreme care gives the student the opportunity to appreciate the importance of delivery of one’s own idea which, presented illegibly, will not be understood, and certainly will not be accepted.