

Building a digital library at the university of the Third Age

Knowing that elderly people, once they get acquainted with the personal computer, like doing something useful (they don't usually approach personal computing as a divertissement), serious and shareable. When asked as a consultant I proposed to the University of the Third Age in Vicenza the implementation of a digital library as a container for their memories.

Such a system could be the most suitable medium to share the results of cooperative researches such as University of the Third Age projects, especially when they are related to housing, town areas and so forth, including also "traditional" pictures, sounds and video recordings. For a library on the city, for instance, senior students could follow the complete path from picture digitizing to integrating material in a hypertext and indexing it by means of a multimedia database management system that can be accessed visually.

Some topics related to the city as a subject could be:

- * historical notes
- * historical city centre yesterday and today
- * memories
- * quality of life

Even students in a small remote classroom could share the experience of their researching "colleagues" who actually performed site visits to gather the material. In the end, a digital library could be the most appropriate "living" and dynamic container of memories and history to be passed on to the new generations.

Once upon a time, only science fiction described visual techniques for accessing databases. Moreover, not always science fiction movies have been capable of anticipate future reality.

They usually suppose possible the violation of a physical law, or exaggerate the capabilities of an existing technology instead of showing us a totally new one. Let's think of how many times in the past computing power has been visualised using gigantic peripherals such as tape drive libraries, contrary to modern researches in this field, which is trying to achieve solid state memories and miniaturisation.

On the other hand visual techniques for accessing databases were easy to implement and user friendly, everybody could immediately understand their utility and not only experts.

The most natural way of exploring a new place is wandering around it spontaneously comes the desire of getting close to objects around us to look at them from different viewpoints as well to touch them.

Even an ordinary reader could think of this description as a virtual space populated by virtual representations, that is, three dimensional models.

This could be a way to implement a virtual visit of a museum but also a remote or dangerous sites, biomedical images and e-commerce.

A computer science expert should realise that this is also a way to store and represent objects that have spatial coordinates.

The two main requirements for this work are: using the Internet and using "poor" technologies.

The first one is easily understandable: proprietary standards are no longer acceptable nowadays. Distributed applications and Internet compatibility are compulsory as well. The second requirement concerns with the use of free software, a choice that many times offers powerful applications at no cost.

The system will file records in a robust multimedia enabled database system. The query interface should be textual as well as visual. It should be possible to query by keywords, keycodes or similar codes as well as to move (virtually) among file objects, to access their records when touching the model and viceversa. Records will hold pointers to virtual space coordinates, permitting to move in front of a particular object in the virtual space.

A password system should control user privileges. Proprietary data encoding should be avoided, to permit easy data export in the future.

Multimedia databases are quickly becoming development platforms for new generation multimedia applications, especially when internetworking is involved. The combination of traditional search and retrieval database capabilities with multimedia data management permits the construction of exciting applications.

An interesting challenge will be the design of virtual worlds, once particular field of application has been defined.

People will choose their favourite implementation based on their user friendliness or their appearance or other reasons.

New ways of cooperative working between scientists and artists open up, as well as new ways of expressing the greatness of human mind, which in its essence has no age limits, especially if it is used to lifelong learning.

Mauro Furin