It is taken as given that the reason for interaction with MultiMedia environments is to learn. Human beings have been claimed to be machines for learning. It therefore follows that understandings about learning (especially in the context of computers) is central to the successful design of MultiMedia environments. In particular, learning (which can only be done by the student and can never be done for the student by the teacher) is a constructive activity. In learning, we make our own images and understandings of our experience (whether given to us or taken by ourselves), and we compose these together to make our own worlds. This sort of constructive understanding is, naturally, quite familiar to architects: our job is to design, to make the "new".

Accepting this position, it follows that we should design our MultiMedia presentations around the concept of learning: in particular, learning as opposed to teaching (most so-called Computer Aided Learning packages are not even teaching packages but are, in fact, instruction packages).

Designing MultiMedia presentations around learning means more than just changing the way we author our material, remembering, for instance, that what is known to the teacher is not known – and therefore is new – to the learner. The process is one of invention and of construction. Remembering this, we can appreciate that, for the learner, what we – the teachers – talk of as knowledge, as the known, does not exist for the learner when it is still to be learnt. That is why we prefer the notion of knowing, for there can be no knowledge without the knower knowing it.

Central to this understanding is the notion that the learner is involved. This means that (s)he is interested and searching (for more knowledge) and has some purpose or direction, and takes the responsibility for doing the learning.

Thus, the design of MultiMedia presentations, based in learning, needs to deal with the involvement of the learner, that is, the learner actively making, for and of him/herself, the understandings that allow us to believe that we have knowledge that is related to (generated from) other knowledge in whatever manner we may choose to pursue.

This indicates, in turn, that our MultiMedia presentations should be designed so that the learner must be involved: meaning that the learner makes his/her understandings through a process of productive
generation. This is how we can avoid the familiar bane of MultiMedia, that we get lost and lose our concentration, hopping from topic to topic without purpose or involvement, as happens when we surf the encyclopaedias, leaving with the discontent of a knot in the stomach.

We are developing such a system, which can be briefly characterised and described. Its main features are that it has both authoring and learning switches, the topics to be learnt are richly, multiply and redundantly connected in a manner such that every topic is generated from at least two others, and that any number of paths through the learning environment may be chosen by the learner. This program is not seen as a multimedia program in itself, but as a resource which, when used with and behind more conventional multimedia, may help overcome that lostness and lack of direction so common with multimedia: a lostness caused by the lack of involvement of the learner in making and understanding each topic. Multimedia presentations suffer, all too often, from exactly the problems of encyclopaedias, and with similar results.