



*With new methods of aviation training constantly being introduced, Hansjörg Lotter, president and CEO of infoWerk, calls on the training industry to examine its procedures and standards.*

# New training systems require new standards

Every instructor who has worked with multimedia-based training (MBT) knows the wide variety of feedback received from students: "time-consuming animations"; "great program"; "hate the colours"; "amazing"; "boring"; "long downloads"; "motivating" and so on.

There is little consistency in the feedback regarding the animations, the visualisations or the interactivities. In fact, there are also huge differences of opinion in what comprises good and bad quality MBT. In the end, however, common goals emerge:

- to transfer knowledge and skills to the learner efficiently, consistently and effectively;
- to explain, animate and visualise complex information and processes;
- to stimulate the human channels of information absorption appropriately for the understanding of complex content.

To accomplish these goals, some important process streams must be implemented:

- MBT should provide opportunities for learners to accelerate their knowledge and skills via dynamic visual presentations and simulations of complex aviation concepts;
- MBT companion systems must be in place to allow learners to self-monitor their proficiency levels in each knowledge/skill area;
- instructional strategies must be appropriate for the knowledge to be transferred or the skills to be learned.

To become not only universally acceptable, but to fulfil its greatest potential, MBT must meet certain levels of standardisation. This is key, first of all, to making MBT user-friendly and compatible between manufacturers, vendors and users of such systems. The Aviation Industry CBT Committee (AICC) currently develops and establishes such standards. AICC describes the communication process between the user interface and the Learning Management System (LMS). The LMS, when used as a companion to the MBT:

- manages course structure and assignments;
- monitors learner progress and testing;
- manages student enrolment;

- collects information and provides a means of interaction between learner and instructor.

It is important here to note that simple websites lack the means to provide this tracking in a consistent, transferable way. What is required is nothing less than a new model of a sharable, interoperable learning content system, defined by the aviation industry, that provides the mechanisms for this kind of learning and learning management.

Entirely new learning technologies would be made possible by adopting this model. It would make possible large content repositories and the development of a new "content economy" where Sharable Content Objects are traded widely (Distributed Learning System). An even more interesting prospect is the development of complex Learning Management Systems that can assemble, reorder and redefine learning content to fit the real-time needs of the learner.

The Advanced Distributed Learning Initiative (ADLI) has defined the SCORM (Shareable Content Object Reference Model). This should be the starting point for the next generation of advanced learning technologies that will be highly adaptable to the learner's individual requirements.

## PART OF THE PROCESS

An important question remains – what is the role of the authorities? Regardless of the branch of aviation, whether airlines, airports, aircraft manufacturers and so on, clearly the authorities will have to become integrated into the process of developing and operating such training systems. This is particularly important where licensing is part of the training goal.

Training is and will remain a burden for each company. New regulations on the horizon do not promise any improvement in this situation. From my standpoint, there is one clear solution – integrate the training process as much as possible into the working process. Create a "learning on demand" system, which would allow the achievable goals of MBT to work for the benefit of all of us in the aviation industry. +