Instructional Technology and Individualized Learning

In the college classroom instructors usually prepare their lessons to the "average" student and hope that the rest of the class will be able to follow. The traditional lecture style -usually combined with some private reading-, does not allow for much individual attention.

The introduction of computer technologies for learning -such as distance education, simulations, bulletin boards, etc.-, is changing traditional educational practices. It is shifting the way individuals learn and instructors deliver information.

Learning technologies can be designed to benefit different learning styles. Well-designed learning software can offer a self-paced learning environment, letting students proceed at their own speed and interest. It can provide exploratory virtual environments in which students can learn by tactile, auditory and/or visual stimuli. It can communicate learning material to the linear and non-linear thinker by presenting the subject in sequential and/or non-sequential styles (Jarc, 1999; Reese, 2002).

In the late 1980's, instructional design principles paved the way to the notion of individualized instruction and learning was seen as a process of knowledge construction. This shift in the conception of learning plus the impetus gained by the idea of personalized instruction became central in advancing instructional design as a field (Ayersman & von Minden, 1995). Attending to different learning styles and the different ways learners may navigate instructional is today its most important area of research and development.

This presentation will convey key issues of this research: the need to simultaneously evaluate multiple technologies while incorporating broader parameters to define learning styles.

Given the limited number of studies that focus on more than one technology and the diversity of learning style models, it is difficult to form any definitive conclusion on the effects of matching learning styles with technology (Jarc, 1999). The presentation will also share results from a exploratory study that describe the impact of different technologies upon a group of classes taught to undergraduate students at Springfield College, MA.

Finally, the presentation aims to focus the discussion on the potential of different technologies to accommodate learning styles.

