

## An Extensible Model for Using Technology in Education

Thomas A. Dwyer, U. of Pittsburgh

"Education is important because there are crucial human strengths that are cultivatable only in the fleeting years of childhood and adolescence,..."

"The answer is that the amount, subtlety, and utility of information received by each person is radically dependent on the history of experiences (or 'cultural background') each person brings to the listening room (example of three different people listening to a Verdi opera) ... Efforts aimed at perfecting either the record or record player will not substantially change this situation."

"In particular, we have been investigating the potential of computer-based technology ofr providing invigorating sets of experiences that will sensitize students as expert 'receivers' in a laboratory-bases mathematics curriculum."

"One flaw in this rhetorical argument is the assumption that acquiring knowledge from others is time-efficient, and that therefore the main job of education is to accelerate and refine the transmittal process. A more imaginative (and I believe a much more porductive position is that no knowledge is really transmitted; it must all be created.... This means that instruction makes sense only when it recognizes the existence of an internal representation/transformation system unique to each person."

"The idea of orchestration helps sort things out by reminding us of the advantages in a rich palette of tonal colors. It suggests that new textures can be created, and new dimensions explored, by exploiting differences, not sameness. (It also says that the most fascinating place to be is at the podium, not in the audience; this is a tremendously important point).