

How Internet and Intranets are challenging all educational systems

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Abstract

A recent (March 2000) survey reports that there are over 100.000 WWW sites, that contain educational material of some kind. This survey is correct, if the "some kind" is interpreted in a rather liberal fashion. However, closer inspection will reveal that much of the material is little more than some sort of pages from an electronic book: the advantage over books (except for the ease of accessibility?) is quite unclear, to put it mildly. "The World Lecture Hall", a basically positive undertaking, contains only a very partial list of already screened material (<http://www.utexas.edu/world/lecture/>). Even this shows already some 90 topics with some 2000 entries, many entries with dozens of chapters: hence, this site alone points to probably well over 10.000 units that can be considered reasonable quality information material. I have very deliberately used the term "information" rather than "educational" material: as blurred as the border between those two types of material may be, there is a tremendous difference, a difference not often recognized enough. WWW (be it an Internet or Intranet variety) will only change our educational system if it offers much more than information. The buzz words most often heard are: " You don't just need information but interaction, you need things where the computer is used in essential way, not just as page turning mechanism".

This is not incorrect as such, yet has led to so many wrong efforts that I consider it today a very angerous statement indeed. Many persons have deduced from this statement that if they just add animations or simple simulations where you can play around by adjusting parameters a bit, maybe also a few trivial questions thrown in here and there, they will obtain what is needed for basically (partially) replacing usual teaching techniques. Nothing could be further from the truth. The whole history of CBT from the early sixties on has proven that this is incorrect! It has taken a long time for at least some people to understand that this is not why WWW can and will revolutionize all our educational systems.

In my talk I will argue that the crucial element is to have a powerful networked training and learning environment that does provide (a) material that uses modern multimedia techniques (b) allows the communication and cooperation between arbitrary groups of learners and experts (c) makes the system get richer and richer because of questions being asked and answered, (d) gives feedback to those who have created material (e) permits learners alone or cooperatively to not just look at material but to actually work with it (and I will explain what this means), (f) does not deal with education as an isolated situation but part of human knowledge management, (g) provides a powerful administrative, statistical and progress tracking machinery in the background and (h) never forgets some facets of cognitive psychology much too often overlooked or unknown.

In my talk I will sketch some of the major components and give some interesting examples. I will also claim that such systems are slowly emerging and that they will indeed challenge all traditional educational systems. I think faster than most of us want to believe.