Telelearning systems engineering - towards a new ISD model.

The author has been deeply involved in technology-based learning and distance education since the seventies. The early projects were in the didactic of mathematics, on-line training of teachers in LOGO, authoring systems and AI-based learning environments. Since the creation of LICEF in 1992, the focus has shifted to knowledge-based instructional design, intelligent agents and virtual campus models and their implementations. This paper summarizes this more recent work and owes a debt to the many researchers and research professionals who have participated in the various projects at our research center on these questions. We will first examine the new challenges to Instructional Systems Design (ISD) entailed by the growth of web-based learning and knowledge management, to justify the need for a new effort in the field. Then, we will give an account of the main actual approaches in network based education, present our own proposals, and underline the larger set of questions that addresses new challenges to the ISD field. Then, the stage will be set to present a method for Telelearning Systems Engineering that we have developed in the last eight years, together with a set of performance support tools for designers. We will finally discuss the foundations of this method and present a set of eighteen principles that can be applied to plan meaningful interactions in distributed learning models and telelearning systems. (Author’s abstract)

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