ITV-Learning: a Prototype for Construction of Learning Objects for Interactive Digital Television

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The technological growth characteristic of the Society of Knowledge has called for the development of a new teaching profile in which gathering information is not fitting any more, but rather producing information and focusing on solutions that will satisfy the specific needs of the teaching process and reduce the use of costly systems. The production of Learning Objects (LO) for TV is part of this context. Television is one of the most popular means of communication in Brazil, over 94% of the families own at least one TV set. Using TV as a teaching tool can realize the potential of the teaching process and help teachers achieve their goals not only in our country but also in other nations with a low level of Education. We propose an authoring tool, called ITV-Learning, for the construction of learning objects for interactive digital TV (IDTV) that will enable instructors to get knowledge of programming and LO construction. This tool gives instructors autonomy in the construction of learning objects for IDTV. Its big differential is that it makes teachers with basic computing knowledge into developers of applications for IDTV. The ITV-Learning tool is designed to provide the means of constructing hypermedia applications with space – time synchronization for IDTV. This tool is presently a prototype in the Java programming language. The architecture of the ITV- Learning tool is based on five layers: creation, simulation, ITV-Learning Java desktop, repository and NCLua module.