

Abstract

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Intelligent Tutoring Systems: Components and Design Approaches

Intelligent Tutoring Systems (ITSs) are now popular instructional software. ITSs promise to be highly effective in learning and education during the next century. An important aspect of ITSs is their ability to provide individualized instruction in a manner similar to what offered by a personal human instructor. To achieve this level of instruction, ITSs utilize sophisticated representations of knowledge concerning the domain being taught, instructional strategies for teaching within this domain, models of the student, intelligent user interfaces. While they are powerful, effective, good, complete ITSs are very difficult to design. Developers use many approaches to design their ITSs there is no standard methodology to accomplish this task.