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Towards a Synthesis of Multimedia and Intelligent Tutoring Systems

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Abstract

Multimedia is being used almost in every field. This study is about the use of multimedia in the area of intelligent tutoring systems. This project studies the advantages and disadvantages of interactive multimedia and intelligent tutoring systems , and analyses the ways of combining these technologies in search of an interesting, learnable, flexible, compelling and technology-enhanced educational tool.

Educational packages need to be evaluated for effectiveness. When it comes to computer-based instruction, technical concerns such as multimedia effects are taken seriously and there is not enough emphasis on its educational value. There is not much concern about the appropriateness of the instruction method to the computer medium. This research proposes a framework for evaluating educational packages which include a number of issues.

Several pieces of educational software were evaluated using this framework and *Diagnosis for crop protection*, a multimedia software package that aids in teaching the process of diagnosing crop problems, was selected for modification, as a practical application of the theoretical work.

We studied different multimedia system development models and methodologies. We also analyses the cognitive issues and intelligent features that enhance the learnability.

Finally, the appropriate intelligent features and other factors that could enhance *Diagnosis for crop protection* to be a more 'active knowledge constructing' environment have been identified. The current version of *Diagnosis for crop protection* was represented using an appropriate methodology and the proposed changes were described in detail.

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