

Automatic Generation of the Domain Module from Electronic Textbooks: Method and Validation

Abstract:

Technology-supported learning systems have proved to be helpful in many learning situations. These systems require an appropriate representation of the **knowledge** to be learned, the Domain Module. The authoring of the Domain Module is cost and labor intensive, but its development cost might be lightened by profiting from semiautomatic Domain Module authoring techniques and promoting **knowledge** reuse. DOM-Sortze is a system that uses natural language processing techniques, heuristic reasoning, and ontologies for the semiautomatic construction of the Domain Module from electronic textbooks. To determine how it might help in the Domain Module authoring process, it has been tested with an electronic textbook, and the gathered **knowledge** has been compared with the Domain Module that instructional designers developed manually. This paper presents DOM-Sortze and describes the experiment carried out.