A Study of Collaborative Mechianisms for Web Teaching and Learning

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ABSTRACT

Because of the advanced technology of computer and network systems and the popularity of the Internet, not only the web-based teaching environment has broken the time and space barrier of the traditional in-class teaching system but also has provided a rich environment for presenting versatile, interactive teaching material. Currently, most collaborative learning environments mainly focus on how to present an attractive human-machine interface, and totally ignore the issues of how to design a set of collaborative mechanisms to effectively support a group of people working together in a virtual world. This study has analyzed the theory of organization, the methodology of Internet-based teaching and learning, and the technology of computer supported cooperative work. Then, a set of collaborative mechanisms have been introduced and graphically presented. The applicability of integrating collaborative mechanisms, Java, and Internet technology on the World Wide Web has also been investigated, and found to be feasible through the implementation of a collaborative group competition prototyping system. The result of this research will be useful as guidelines for future systems featuring dynamic, interactive, and collaborative teaching and learning.

Keywords : Collaborative teaching and learning ; Internet teaching ; Collaborative mechanisms ; CSCW

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