CML: An Intelligent Tutoring System for Employee Training or Re-training

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Abstract

This project models an innovative system called CML (short for Complexity Measure of Learning), using rule-based and case-based reasoning as well as mathematical techniques and proofs; it also describes its development as a computer program. The CML system is very useful and cost-effective to train employees who have forgotten algorithms, or need a refresher course. CML captures the complexity measure of a learner's beliefs as a student, trainee or an employee learns an algorithm. The complete project also discusses the implementation in detail, including a sample run of the program, and provides the result in the form of a graph. It shows an interesting and new usage of case-based reasoning that is crucial to the system. Finally, it compares the CML system to several important existing works in Cognitive and Learning Sciences. The CML system provides valuable assistance in the assessment of learning, in Distance Learning (virtual classrooms) as well as physical classroom learning Scenario.

Biography of Speaker

Suchitra Abel received her Ph.D. degree from the University of California, Berkeley, in 1979. She had 12 years of teaching experience at various universities, as well as 9 years of industrial experience. She has been an Adjunct Lecturer at Santa Clara University since 1993.