

Automating the comparison of mental models of dynamic systems

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Abstract

The comparison of mental models of dynamic systems can help understanding differences between how people comprehend dynamic situations. Current approaches like the distance ratio and the closeness approach have been criticized for not taking into account essential characteristics of dynamic systems; an improved comparison method has been proposed. We operationalize the mathematical computations by means of a specialized software to ease this burden. This software is described in the paper. It briefly presents the comparison method which was developed by Schaffernicht and Groesser (submitted). Then it introduces the conceptual architecture of the software tool, its main data structures and proceedings. The paper applies the software to compare five idealized mental models and demonstrates the abilities of the software so visually analyse and present the results.

Keywords: mental models of dynamic systems, model comparison, software

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