Invited Talk:
Reformulation in Artificial Intelligence

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Abstract

From the inception of Artificial Intelligence (AI) research it has been recognized that problem solving efficiency is tightly coupled to appropriateness of representation choice and that problem reformulation is central to human reasoning and problem solving. This talk will begin with a discussion of early explorations into automatic problem reformulation to improve problem solving efficiency. The talk will proceed with a discussion of the state-of-the-art in problem reformulation and discuss some probable future directions in this research.

Brief Professional Biography:

Dr. Van Baalen received his PhD in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology. His thesis, under Randall Davis, in entitled, Toward a Theory of Representation Design.

After receiving his PhD, Dr. Van Baalen spent two years at Price Waterhouse Technology Centre working on planning and knowledge representation systems. He then joined the faculty at the University of Wyoming.

Selected Publications: