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## A Knowledge Representation Selection Criteria

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by

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## ABSTRACT

*Work in AI concerns the nature and functioning of knowledge wherein flexible representations are required in order to understand and generate expert behavior. Growing interest in generating expert behavior through the use of Expert System/Decision Support System Technology raises the issue on the importance of knowledge representation (KR) for this technology as several existing knowledge representation schemes affect and effect inference in significantly different ways. As a result, Knowledge Engineer (KE) is, often, failed to come up with a correct representational framework to formulate knowledge in a way the system is expected to behave. Furthermore, the unavailability of a relevant criteria for a good knowledge representation scheme itself has been a basic and big barrier in their work. Thus, this study focuses on: 1) Properties of consistent knowledge representation framework and designs a criteria set; 2) Analysis and Evaluation of existing KR schemes on the basis of designed criteria set; thereby, giving aid to KE to select ideal KR scheme based on a relevant criteria.*

*This study can be extended with the implementation of the KR schemes and can be evaluated according to the designed criteria set to obtain performance measurements for different problem domains.*

*Index Terms: Knowledge Representation, Expert Systems, Rule Based Expert System, Semantic Nets, Logic, Artificial Intelligence.*

