

**A temporal reinforcement learning architecture for problems with hidden-state**

*M W Mitchell*

**ABSTRACT**

This report describes the method of constructing temporal representations for hidden-state problems in TRACA (Temporal Reinforcement Learning and Classification Architecture). The hidden-state problem is described followed by a description of the structures TRACA develops for a sample letter prediction problem. The sample prediction problem is sufficient to demonstrate TRACA's ability to represent problems with hidden-state. The development of TRACA's representational structures is presented step-by-step followed by an explanation of the final actual results produced by TRACA for the sample problem.