

Part I

Invited Papers

Learning in Agent-Oriented Worlds

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Abstract. There is an increasing level of interest in designing and implementing intelligent agents capable of surviving, performing tasks, and adapting to complex and dynamic environments. These agent-oriented worlds can range from autonomous underwater surveillance vehicles to web-based softbots, and present a variety of challenges and opportunities for machine learning. The complexity and variety of these worlds suggests the need for approaches involving learning at multiple levels and integrating more than one learning methodology.

A framework for describing such approaches has been developed and will be presented. Examples of the use of this framework to design agents using both symbolic and non-symbolic learning methods will be given, and will serve as the basis of a discussion of interesting open issues.