

Agent-environment state machines

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Traditional cognitive science and AI viewed cognition as computation, i.e., roughly speaking, the manipulation of internal representational knowledge of the external world through state machines (e.g., of the Turing machine type).

Most of this is strongly questioned in recent work on embodied, situated and distributed cognition.

However, using examples from robotic experiments and human case studies, this talk will illustrate that the notion of state machines is also useful in describing distributed cognitive processes emerging from the interaction of embodied agents and their environments, where knowledge and states are not purely internal, but distributed over agent and environment.