

Call for Papers

Journal of Artificial General Intelligence

Special Issue on

Machine Consciousness

The purpose of this Special Issue is to explore topics at the intersection of consciousness studies and Artificial General Intelligence (AGI). Among the many important questions lying in this intersection, are the following:

- What do contemporary theories of consciousness say about the possibility and nature of consciousness that may be possible in intelligent robots and software programs?
- Assuming machine consciousness is achievable, what are likely to be the similarities and differences between machine consciousness and human consciousness?
- What can one say about the relationship between degree of consciousness and degree of intelligence, across the scope of potential intelligent systems including humans, robots, and software programs?
- How important is embodiment for the development of machine consciousness? How should "embodiment" be defined in this context?
- What are some contemporary robotics or AGI architectures that have the potential to lead to significant degrees of machine consciousness? Why do they seem to have this potential?
- Is consciousness (or advanced forms of consciousness) something that must emerge within a robotics or AGI system via the system's interaction with its environment, rather than being explicitly programmed in? If so, what are the conditions for its emergence?
- What implications do the social, collective aspects of consciousness have for the possibility and nature of machine consciousness?

For this Special Issue, we are particularly (but not exclusively!) interested in submissions from AGI researchers who have things to say about the “machine consciousness” aspects of their AGI designs or theories; or consciousness researchers who have specific ideas about the relevance of their consciousness theories to particular AGI architectures.

The focus and contents of this Special Issue are influenced by the International Workshop on Machine Consciousness, which was held in Hong Kong in June 2009. The workshop featured talks by AI and machine consciousness researchers on their work, as well as extensive discussion. More information about the workshop is available here:

<http://novamente.net/machinecs/index.html>

Submission

Submissions should be sent by January 15, 2010 to machinecsjagi@gmail.com

Manuscripts should conform to the JAGI authoring and formatting guidelines that can be found at the journal's web site, <http://journal.agi-network.org/>, and should not exceed 20 pages of total length.

Manuscripts will be submitted to a traditional anonymous peer-review process with publication of accepted contributions expected by summer 2010.

Authors will be required to provide the final camera ready, formatted and copy-edited manuscript.

Inquiries regarding this special issue can be sent to machinecsjagi@gmail.com or directly to any of the special issue editors at the addresses below.

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