

The Case for Evolution in Engineering Brains

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Abstract

This brief document describes the topic of the talk to be delivered at the 2013 AAAI Fall Symposium on *How Should Intelligence be Abstracted in AI Research*.

Talk Description

Although the human brain is a product of natural evolution, algorithms inspired by the capabilities of the brain often sidestep the role of evolution. While the hope in such efforts is that fundamental neural mechanisms can be reverse engineered or abstracted, this talk will argue that evolution and hence evolutionary algorithms play an essential role in designing the kinds of architectures necessary for brain-like performance. The main conclusion is that the subtleties of real neural organization may in part require the delicate hand of evolution to be realistically reproduced through artificial means.

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