

# Re: Turing Machines and Physical Computation

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**From:** Neil W Rickert ([rickert+nn\\_at\\_cs.niu.edu](mailto:rickert+nn_at_cs.niu.edu))

**Date:** 11/30/04

Date: Tue, 30 Nov 2004 21:09:02 +0000 (UTC)

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examachine@gmail.com (Eray Ozkural exa) writes:

>Neil W Rickert <[rickert+nn@cs.niu.edu](mailto:rickert+nn@cs.niu.edu)> wrote in message news:<[coe8th\\$tdu\\$1@usenet.cso.niu.edu](mailto:coe8th$tdu$1@usenet.cso.niu.edu)>...

>> *Computation is the manipulation of representations.*

>*I am not sure if that's a good description.*

>*This formal symbol manipulation idea got some otherwise ambitious  
>philosophers like Brian Cantwell Smith and gang quite confused.*

>*Computers can work on representations, that's true. But it is not  
>necessary that what is being manipulated is "representation".*

It can be an abstract representation -- that is, one that doesn't  
actually represent anything.

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The received view of AI is something like:

A system of sensors that generates representation in some fixed  
manner.

A manipulation or transformation of these input representation into  
output representations.

A system of effectors that, in fixed way, generates physical  
actions (behaviors) from the output representations.

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sci.math: Re: Turing Machines and Physical Computation

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