

Re: Turing Machines and Physical Computation

Source: <http://sci.tech-archive.net/Archive/sci.math/2004-12/3370.html>

From: Bill Modlin (wmodlin_at_yahoo.com)

Date: 11/30/04

Date: Tue, 30 Nov 2004 16:32:25 -0500

"patty" <pattyNO@SPAMicyberspace.net> wrote in message
news:VQ4rd.590978\$mD.327332@attbi_s02...
> *Eray Ozkural* *exa* wrote:
>
>> *Neil W Rickert* <rickert+nn@cs.niu.edu> wrote in message
news:<coe8th\$tdu\$1@usenet.cso.niu.edu>...
>>
>>> *The putative difficulty in writing effective software is a more common
>>>and mundane version of the same thing, IMHO.*
>>>
>>> *That's actually a quite different problem.*
>>>
>>> *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".*
>>
>
> *Can you give us an example of where a computer is *not* manipulating a
> representation ?*
>
> *patty*

Patty, weren't you the one who suggested that representation is only meaningful in the sense of representing something to an interpreting observer? The machine goes through a sequence of changes in state. Normally the people who program it think of some elements of those states as representing something... numbers, characters, cars, hurricanes, chess pieces, whatever. But there may be ambiguity about what a particular element represents, depending on ones point of view. There is nothing about for example the state of a memory location that makes it inherently a

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representation of any particular type of thing. And if a computer were to be executing some arbitrary (random, or of unknown origin) sequence of operations, which was not a representation of anything particular to any existing observer, I'm not sure in wh