

Re: Alan Turing's Halting Problem is Incorrect (FINAL PART)

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On Thu, 08 Jul 2004 00:39:17 GMT, "Peter Olcott"
<olcott@worldnet.att.net> wrote:

>> *Well of course the halting problem is artificially contrived, it's
>> about Turing machines, which are artificially contrived.*

>>

>> *Martin*

>

>*A TM is derived for the real purpose of determining the actual
>limits of computation. TM's are perfectly valid and useful. They
>provide an excellent means to study the foundations of computing
>with a model of minimal complexity.*

I agree with you to this point.

The counter-example program

>*that proposes to prove the case of the Halting Problem is another
>case entirely. It does not relate to anything real, or anything
>possibly real, or even a comparable measure of a possible real
>thing. It does not show the real limits of the potential capabilities
>of automated program validation. It is purely an artificial contrivance
>used to prove a pointless point.*

The question of does a Turing Machine halt on a given input, is a "real" question, as it applies, in a straight forward manner, to real computer programs. It's an important question in that the vast majority of the time, we want our programs to halt. The counter-example program is important because it shows that any attempt to let the computer do the work is going to fail for certain programs. This is ended a real limit to what can be done with computers.

Martin