

Re: Alan Turing's Halting Problem is incorrectly formed (PART-TWO)

Source: <http://sci.tech-archive.net/Archive/sci.logic/2004-06/2286.html>

From: Bryan Olson (*fakeaddress_at_nowhere.org*)

Date: 06/29/04

Date: Tue, 29 Jun 2004 02:25:59 GMT

Peter Olcott wrote:

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> "Bryan Olson" wrote:
>
>>Peter Olcott wrote:
>>
>>>> bool LoopIfHalts (bool YouSayItHalts)
>>>> {
>>>> if (YouSayItHalts)
>>>> while(true)
>>>> ;
>>>> else
>>>> return false;
>>>> }
>>>>
>>>> This function would both compile and run correctly.
>>>>
>>>>And I can describe another program that decides whether
>>>>LoopIfHalts(x) halts for any given x. Working at that level is
>>>>not going to lead you to an understanding of Turing's result.
>>>
>>> NO YOU CAN'T That's the whole point.
>>>
>>>LoopIfHalts halts given 'false', runs forever given 'true', and
>>>essentially hangs for non-boolean inputs. In standard C++:
>>>
>>> bool LoopIfHalts_halts_for_input(bool input)
>>> {
>>> return ! input;
>>> }
>>>
>>>
> No when you provide "true" to the LoopIfHalts
> function you are also saying "This program halts"
```

No, check your references. I'm not also saying that, and the

halting problem has nothing to do with whether I'm saying that. As the halting problem is defined, I've produced a machine that solves the special case of the halting problem where the machine is LoopIfHalts.

If you want to re-define the same terms to refer to some other problem, I'm not really interested. Especially if all you can argue is that your version doesn't make sense.

> *That is why I called it YouSayItHalts. As soon as*
> *You Say It Halts is goes into an infinite loop.*

But that's not what I said. I said it "halts given 'false', runs forever given 'true', and essentially hangs for non-boolean inputs". I was right. I said I could "describe another program that decides whether LoopIfHalts(x) halts for any given x." You said I could not, and you were proven wrong. If you have a counter-example, let me know, but don't make up stories that I also said something I didn't.

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--Bryan