

**To:** Ed Boyden [REDACTED]  
**From:** jeffrey E.  
**Sent:** Tue 7/22/2014 2:57:54 PM  
**Subject:** Re: my guess is biological hash functions exist

yes as there might be an override, three inhibition signals, threshold, discarding would eliminate the calculation, . error correction etc.

On Tue, Jul 22, 2014 at 10:55 AM, Ed Boyden <[REDACTED]> wrote:

Sure... I guess I was thinking of this from an info theory standpoint, where if you can't recover the original, some info was discarded. But this is a tricky way to think. Best to stick to thinking about what one part of a network is computing, based upon what other parts of the networks will do with the signals received.

On Tue, Jul 22, 2014 at 10:51 AM, jeffrey E. <[REDACTED]> wrote:

> Not sure if discarding, as opposed to a function with a defined limit  
> output .

>

> On Tuesday, July 22, 2014, Ed Boyden <[REDACTED]> wrote:

>>

>> Absolutely! Computation means discarding information (e.g., sensory  
>> information being transformed into a decision requires discarding some  
>> of the info -- a passive photocopier does no computation), and a hash  
>> is basically doing that, but a one-way function, and towards some  
>> fixed length. I think that is probably the way brains error check,  
>> no?

>>

>> Best,

>> Ed

>>

>> On Tue, Jul 22, 2014 at 9:04 AM, jeffrey E. <[REDACTED]> wrote:

>>>

>>> <https://www.khanacademy.org/economics-finance-domain/core-finance/money-and-banking/bitcoin/v/bitcoin-cryptographic-hash-function>

>>>

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>> --

>> Ed Boyden, Ph. D.

>> Leader, Synthetic Neurobiology Group

>> Associate Professor, MIT Media Lab and McGovern Institute,

>> Departments of Biological Engineering and Brain and Cognitive Sciences

>> Co-Director, MIT Center for Neurobiological Engineering

>> New York Stem Cell Foundation-Robertson Investigator

>> MIT, Room E15-421, 20 Ames St., Cambridge, MA 02139

>> email

>> office

>> cell -

>> fax -

>> skype

>> web - <http://syntheticneurobiology.org>

>> twitter - <http://twitter.com/eboyden3>

>

>

>

> --

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--

Ed Boyden, Ph. D.

Leader, Synthetic Neurobiology Group

Associate Professor, MIT Media Lab and McGovern Institute,

Departments of Biological Engineering and Brain and Cognitive Sciences  
Co-Director, MIT Center for Neurobiological Engineering  
New York Stem Cell Foundation-Robertson Investigator  
MIT, Room E15-421, 20 Ames St., Cambridge, MA 02139

email

office

cell -

fax -

skype

web - <http://syntheticneurobiology.org>

twitter - <http://twitter.com/eboyden3>

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