
From: [REDACTED] Ed Boyden <[REDACTED]>
Sent: Tuesday, July 22, 2014 2:49 PM
To: jeffrey E.
Subject: Re: my guess is biological hash functions exist

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. <jeevacation@gmail.com> wrote:
> <https://www.khanacademy.org/economics-finance-domain/core-finance/money-and-banking/bitcoin/v/bitcoin-cryptographic-hash-function>
>
> --
> please note
> The information contained in this communication is confidential, may
> be attorney-client privileged, may constitute inside information, and
> is intended only for the use of the addressee. It is the property of
> JEE Unauthorized use, disclosure or copying of this communication or
> any part thereof is strictly prohibited and may be unlawful. If you
> have received this communication in error, please notify us
> immediately by return e-mail or by e-mail to jeevacation@gmail.com,
> and destroy this communication and all copies thereof, including all
> attachments. copyright -all rights reserved

--

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 - esb@media.mit.edu office - (617) 324-3085 cell - (650) 468-5625 fax - (617) 253-6285 skype - eboyden3 web - <http://syntheticneurobiology.org> twitter - <http://twitter.com/eboyden3> <?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
 <key>conversation-id</key>
 <integer>297250</integer>
 <key>date-last-viewed</key>
 <integer>0</integer>
 <key>date-received</key>
 <integer>1406040567</integer>
 <key>flags</key>

```
<integer>8590195717</integer>
<key>gmail-label-ids</key>
<array>
  <integer>6</integer>
  <integer>2</integer>
</array>
<key>remote-id</key>
<string>425875</string>
</dict>
</plist>
```