

---

**From:** jeffrey E. <jeevacation@gmail.com>  
**Sent:** Saturday, July 30, 2016 1:59 AM  
**To:** Danny Hillis  
**Subject:** Fwd:

----- Forwarded message -----

From: Jeremy Rubin [REDACTED]  
Date: Thu, Jul 28, 2016 at 9:51 AM  
Subject: Re:  
To: "jeffrey E." <jeevacation@gmail.com <mailto:jeevacation@gmail.com>

I've been thinking a lot about this the past few days, some of my thoughts below:

<=r>

Generally I'm very positive of the notion; there's a lot to be desired from our internet protocols.

=/div>

On the other hand, I wonder if this is a variant of trump=sm, we need to make the internet great again. At what point was it great before? When there were but a select few who were able to access it; and everybody on it knew they would be meddled with a bit. Once it went too mainstream no longer was being a hacker (or even, user) of such systems an at-your-own-risk endeavor, but was something that people depended on.

Similar modern endeavors include Urbit, linked for posterity <https://urbit.org> <<https://urbit.org>>, which is mostly made incomprehensible for the point of keeping out the un-enlightened. Urbit is supposed to re-imagine computing as fundamentally distributed.

I think it would require very close consideration to figure out why a new internet is actually needed. Traditionally in CS we think of a distributed system as striving to achieve Consistency, Availability, and Partition Tolerance (see Brewer's theorem, <https://www.infoq.com/articles/cap-twelve-years-later-how-the-rules-have-changed> <<https://www.infoq.com/articles/cap-twelve-years-later-how-the-rules-have-changed>>) but unable to get all 3 as they mutually assure each other's impossibility. If we add in a fourth parameter at a second layer of abstraction, let's call it Authenticity, a fifth, Privacy, and a sixth, law enforcement, we cover the gamut of most of what people care about in an internet system. These second three principles form another triangle similar to CAP, they mutually assure the other's impossibility in some way.

I think that thinking in terms of these desirable properties in terms of mutually exclusive groups is probably a useful way to consider the design space. Another well known one is Zooko's triangle:  
=A0[https://en.wikipedia.org/wiki/Zooko%27s\\_triangle](https://en.wikipedia.org/wiki/Zooko%27s_triangle).

In any case, I've gone on a slight tangent. My point is it's one thing to say you want a new internet because of a theoretical (or not so theoretical) button, it's another to have motive enough to actually build such a new network. Besides from the button, what properties seem critical to you?

<=div>

--

@JeremyRubin <<https://twitter.com/JeremyRubin>> <<https://twitter.com/JeremyRubin>>

On Mon, Jul 25, 2016 at 7:08 AM, jeffrey E. <[jeevacation@gmail.com](mailto:jeevacation@gmail.com)> <<mailto:jeevacation@gmail.com>> > wrote:

I liked the idea of internet 2.0 =A0 encouraged by the reset switch.

--

=A0 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](mailto:jeevacation@gmail.com) <<mailto:jeevacation@gmail.com>> , and destroy this communication and all copies thereof, including all attachments. copyright -all rights reserved

--

=A0 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](mailto:jeevacation@gmail.com), and destroy this communication and all copies thereof, including all attachments. copyright -all rights reserved