

Blockchains Infuse Ethical Opinions. Now What?

Trent McConaghy

@trentmc0

Ocean Protocol

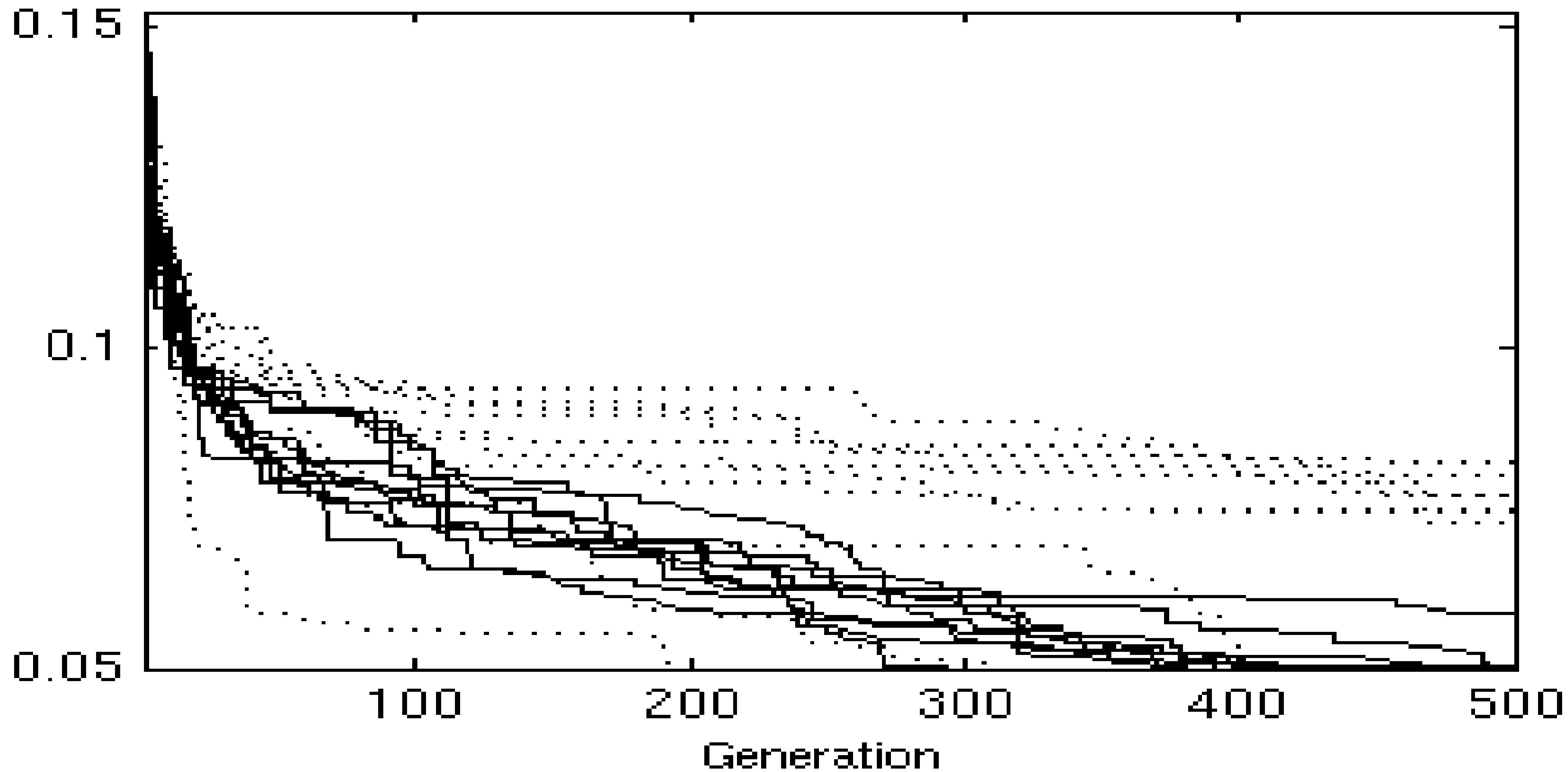


Formulating my optimization problem

$$\begin{array}{lll} \text{minimize} & f_i(\phi) & i = 1 \dots N_f \\ \text{s.t.} & g_j(\phi) \leq 0 & j = 1 \dots N_g \\ & h_k(\phi) = 0 & k = 1 \dots N_h \\ & \phi \in \Phi \end{array}$$

“Minimize cost, subject to power < 10 mW”

Convergence of the optimizer



What I thought I asked for



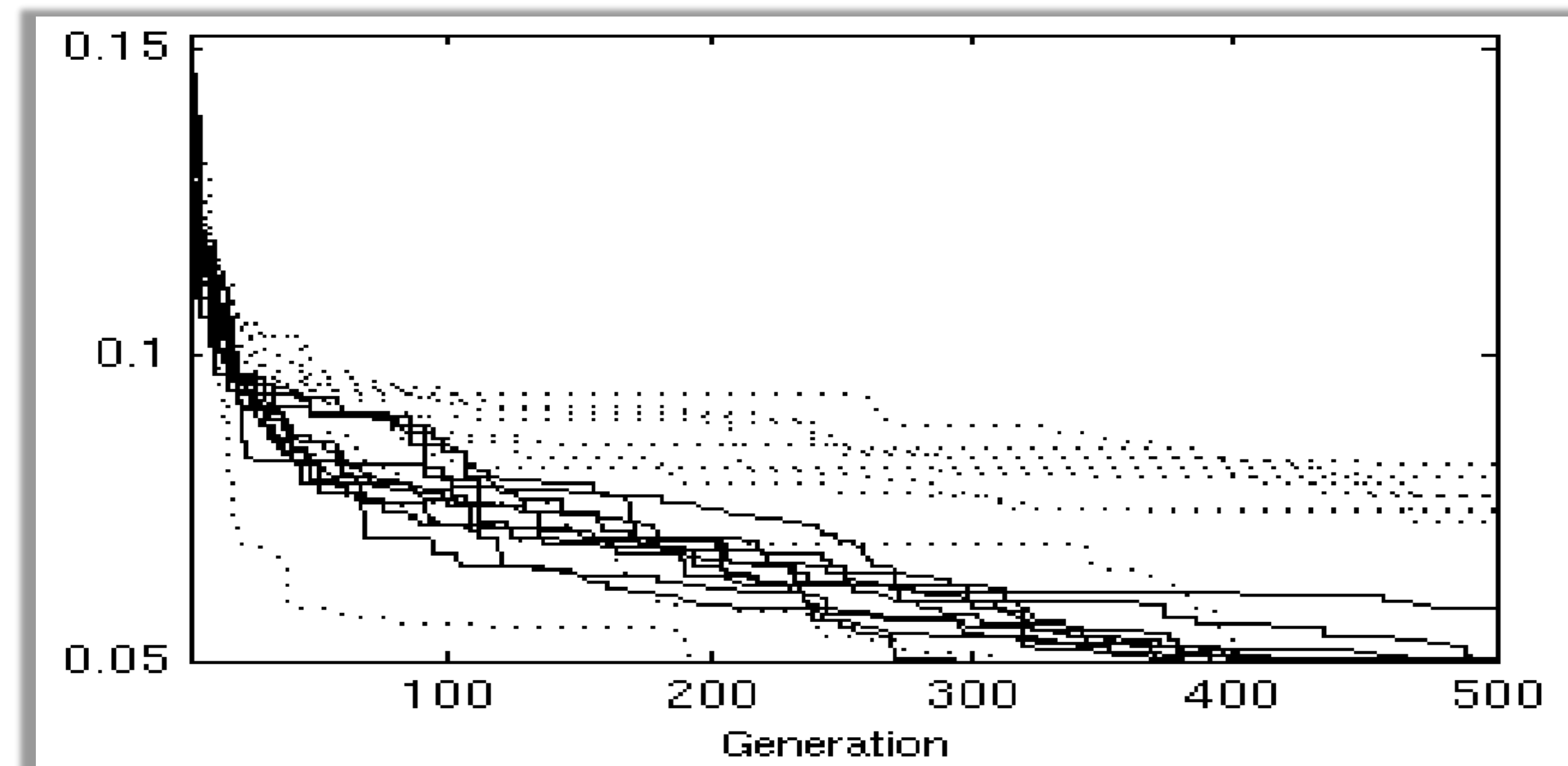
**What I thought I
asked for**



**What the optimizer
gave me**



Add new constraint, run again...



**What I thought I
asked for**



**What the optimizer
gave me**



More runs



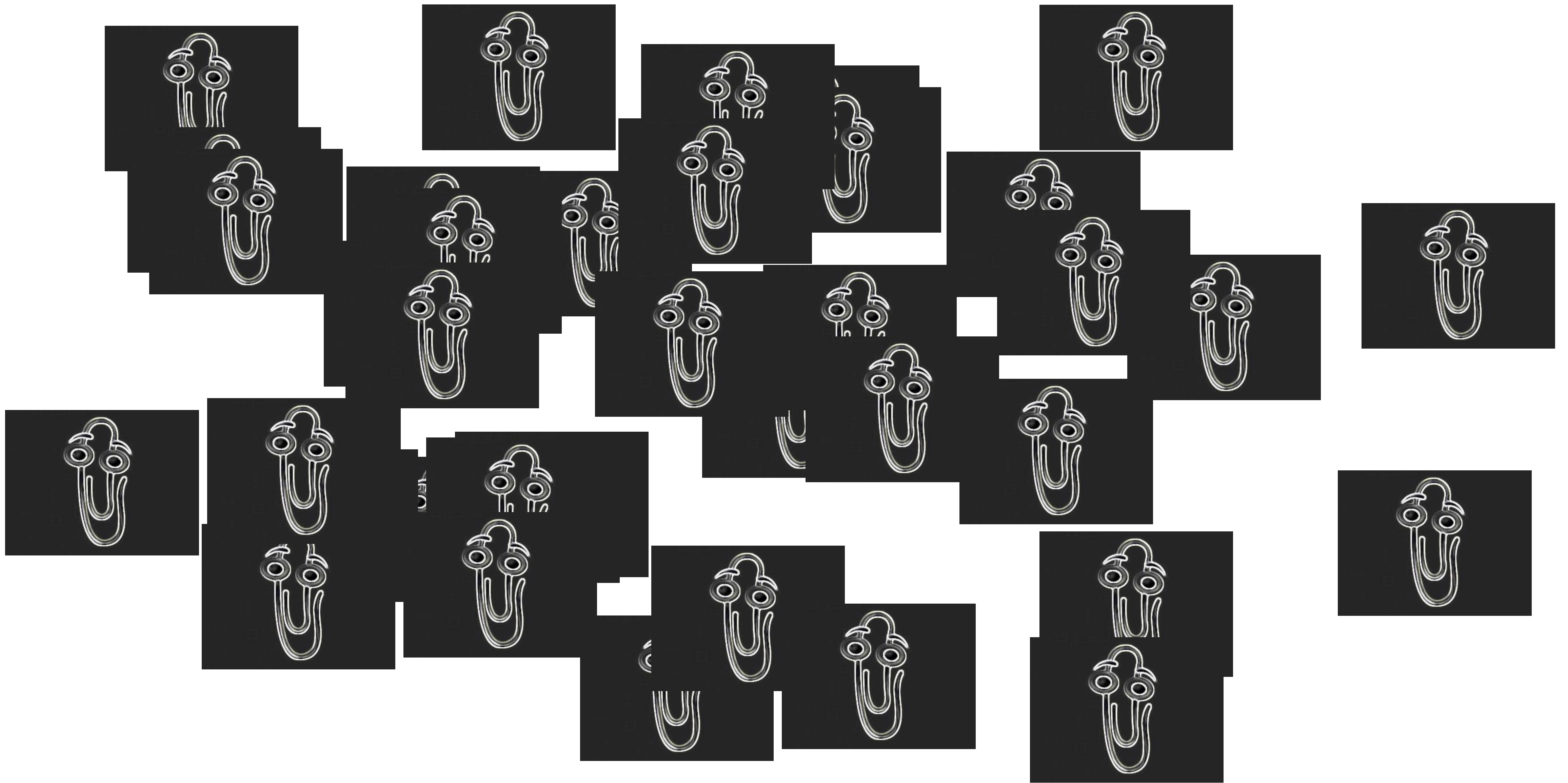


Designing incentives is *hard*.

The Paperclip Maximizer (Nick Bostrom, 2003)



Objective function (incentive): “maximize # paper clips”
Humans? Great source of atoms... for making paper clips.



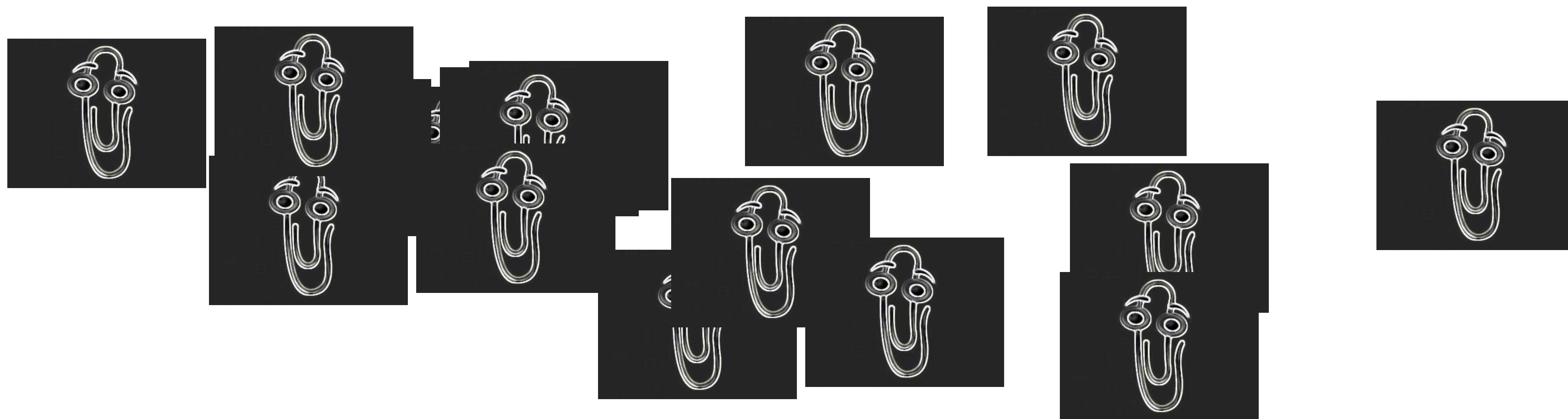
Bad incentives, bad outcome

**“Show me the incentive
and I will show you the outcome.”**

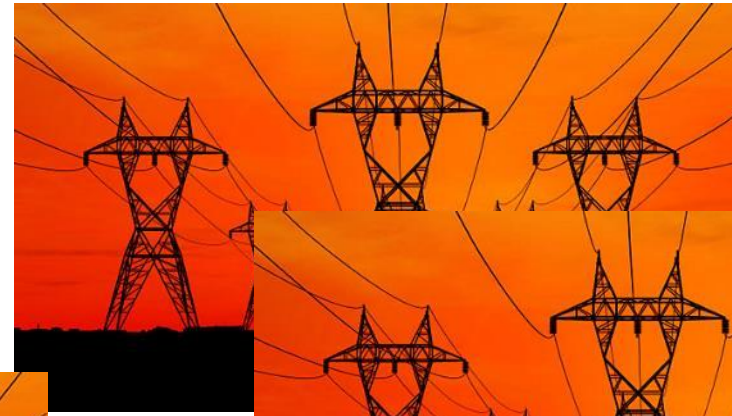
-Charlie Munger



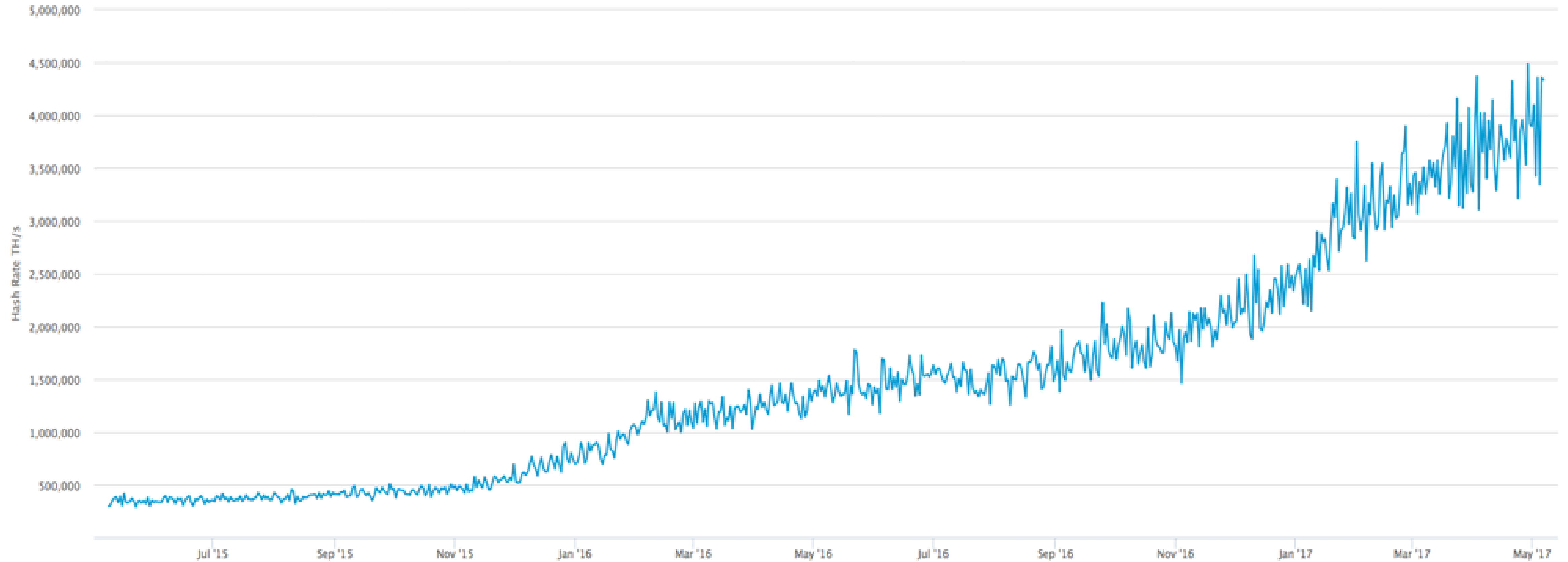
Is this a realistic possibility?

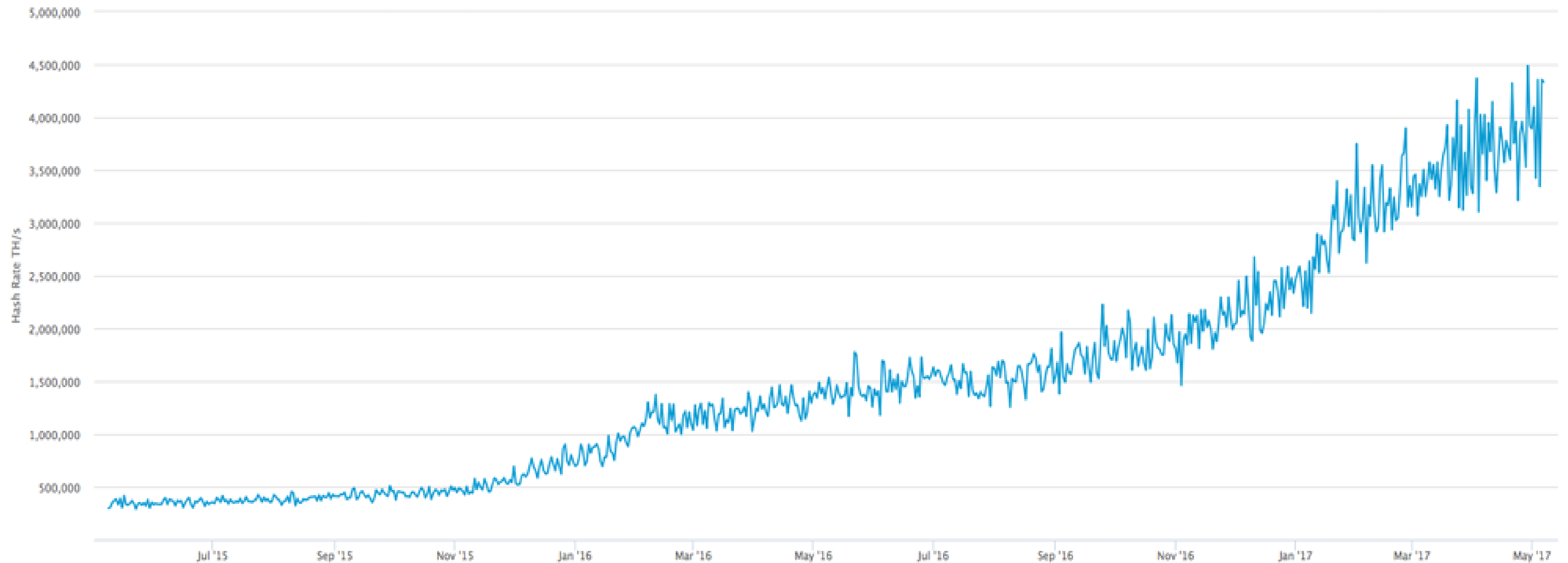


Something's eating the planet's energy



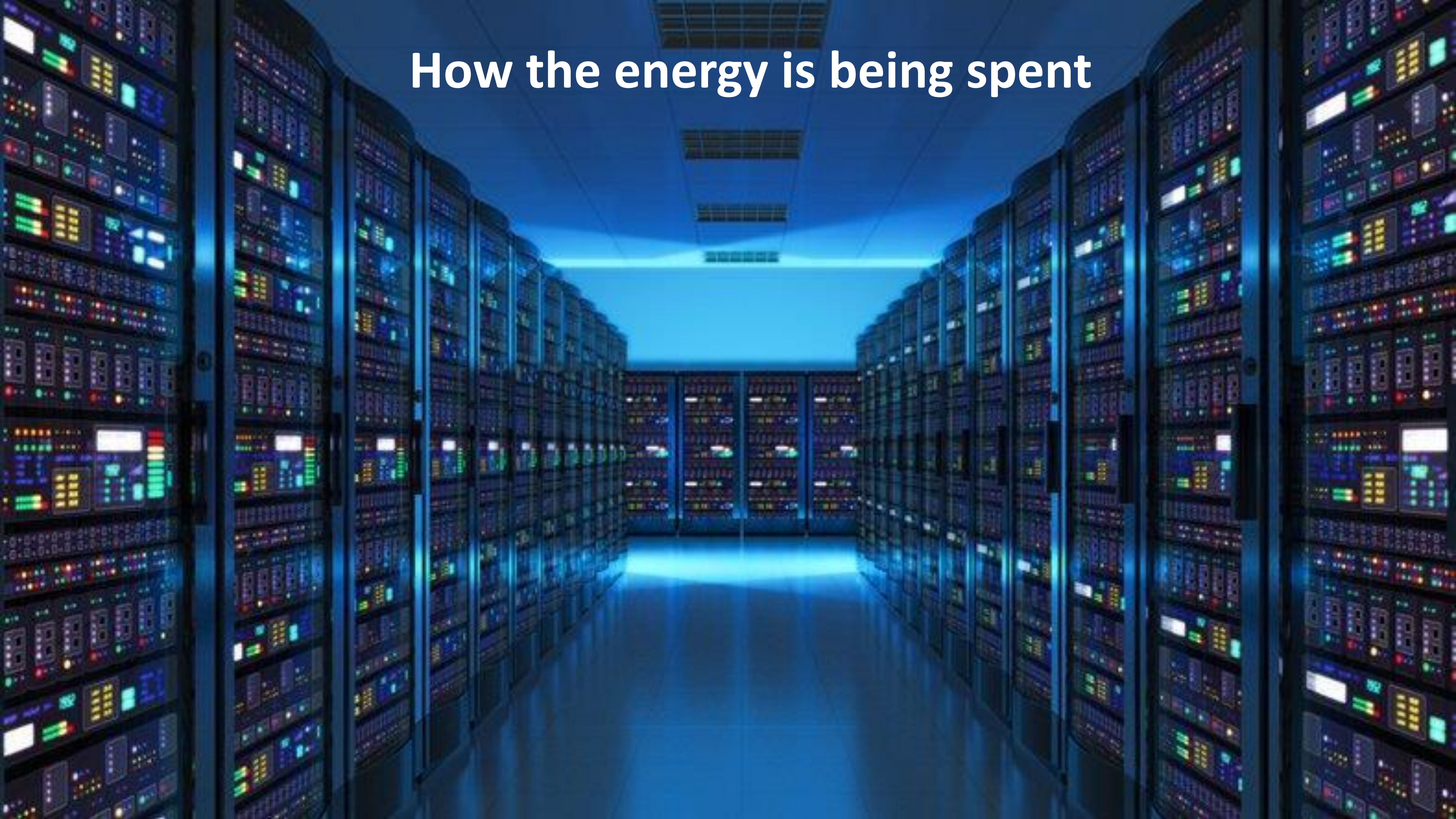
Exponentially more of it, over time





Objective function (incentive): “maximize energy used”

How the energy is being spent



Objective function: maximize security
= maximize hash rate
= maximize energy

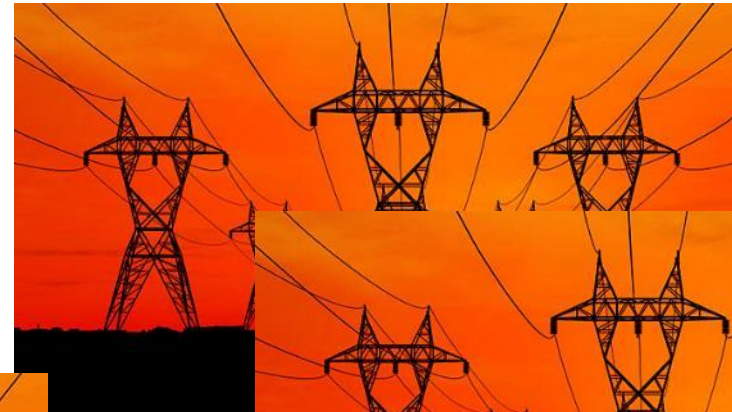




=



For better (and for worse)
Blockchains are crazy powerful incentive machines



South America



North America



Ethical choice



Incentive choice



Outcome

Exclusive vs inclusive govt policy

Manifested via economic institutions

Prosperity of the society

Ethical choice



Incentive choice



Outcome

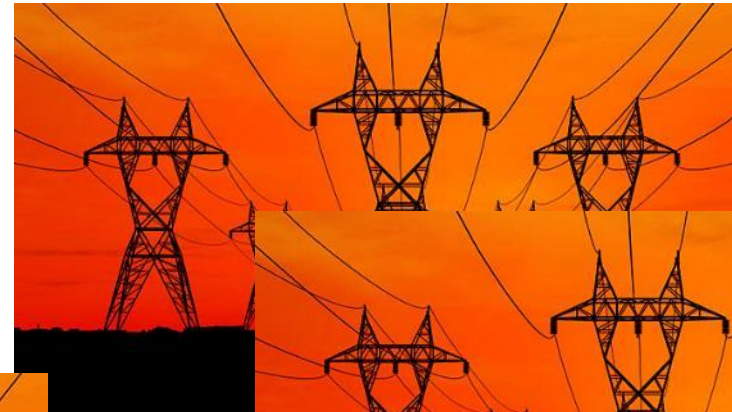
Exclusive vs inclusive govt policy

Manifested via economic institutions

Prosperity of the society

**Implementing incentives
= infusing ethical opinions**

Recall For better (and for worse)
Blockchains are crazy powerful incentive machines



Ethical choice



Incentive choice



Outcome

~~**Exclusive vs inclusive govt policy (?)**~~

Manifested via ~~economic institutions~~ Blockchain

Prosperity of the society / ecosystem

Ethical choice



Incentive choice



Outcome

~~**Exclusive vs inclusive govt policy (?)**~~

Manifested via ~~economic institutions~~ Blockchain

Prosperity of the society / ecosystem

**Implementing blockchain
= Implementing incentives
= Infusing ethical opinions**

**“Designed for ethics”:
Thoughtful approach for ethics**

**“Ignored the ethics”:
Not opinion-less. Simply bad design, and irresponsible.**

Ethical choice



Incentive choice



Outcome

~~Exclusive vs inclusive govt policy~~ **Our choice**

Manifested via ~~economic institutions~~ Blockchain

Prosperity of the society / ecosystem

Zcash

E-money

Based on the idea that privacy is a fundamental right.



Language



Internet money

Zcash is the first open, permissionless cryptocurrency that can fully protect the privacy of transactions using zero-knowledge cryptography. The Zcash client is now available for [download](#) as a command-line tool for Linux.

[GET STARTED](#)

[LEARN MORE](#)

WHAT IS ZCASH?





Improve humanity's access
to information

Including Censor-resistant
Wikipedia in Turkey

At 8am local time on April 29th, Wikipedia went dark for everyone in Turkey. According to group [Turkey Blocks](#), the Turkish government has issued a court order that permanently restricts access to the online encyclopedia.

```
Sat Apr 29 2017 08:02:55 GMT+0300 (+03)
https://en.wikipedia.org 5005 DOWN
https://tr.wikipedia.org 5009 DOWN
https://az.wikipedia.org 5009 DOWN
https://fr.wikipedia.org 5007 DOWN
https://www.wikipedia.org 5007 DOWN
```



Turkey Blocks 
@TurkeyBlocks

 Follow

Confirmed: All editions of the [#Wikipedia](#) online encyclopedia blocked in [#Turkey](#) as of 8:00AM local time turkeyblocks.org/2017/04/29/wik...

7:22 AM - 29 Apr 2017



2,886



1,022

A main goal of the IPFS Project is improving humanity's access to information. We strongly believe that access to history, of news, of free thought, of discourse, and of compendiums of vital information is key to modern human life, to a free society, and to a flourishing culture. The erosion of civil liberties wherever it occurs, and we want to help people like the citizens of



Privacy

**Fairly compensate content
creators**



Browse faster and safer with Brave.

The new Brave browser automatically blocks ads and trackers, making it faster and safer than your current browser.

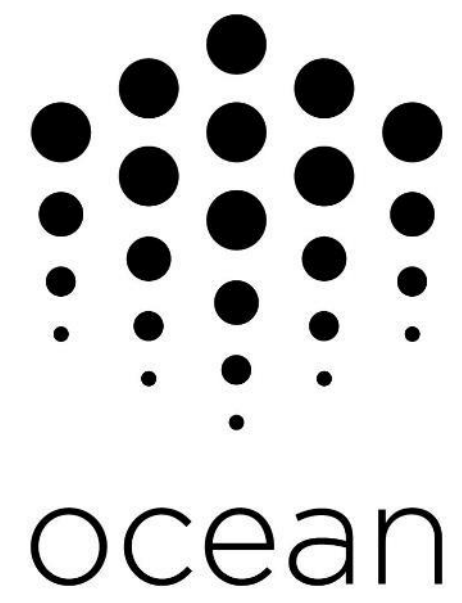
Start supporting **publishers** today with our new Brave Payments system.

Get Brave

For Windows 7 x64 or later.

[Download Brave for another platform](#)

Watch the Video



Better spread the economic gains of AI





Reputation



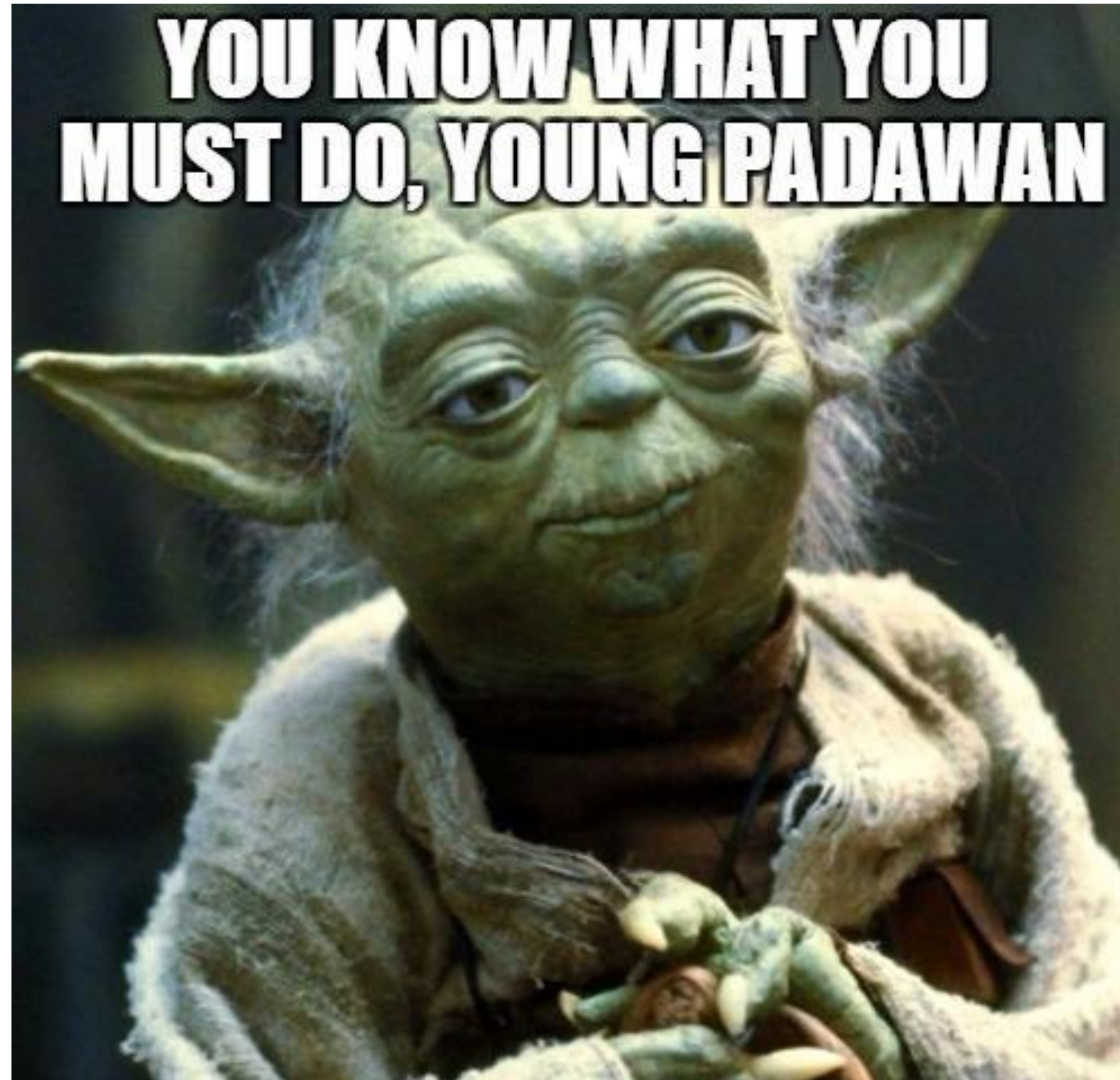
Intrinsic incentives

“I think I've been in the top 5% of my age cohort all my life in understanding the power of incentives, and all my life I've underestimated it.

Never a year passes that I don't get some surprise that pushes my limit a little farther.”

-Charlie Munger

**Blockchains are wildly powerful incentive machines.
They will shape the future of society.**



**Conceive a positive future that you want.
Then, build it! Infuse your values.**