Blockchain Requirements for *Safe* AI Governance

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Why The Future Doesn't Need Us

▶ Intelligent Machines

Bill Joy: Biological species almost never survive encounters with superior competitors.

Stephen Hawking: "The development of full artificial intelligence could spell the end of the human race."

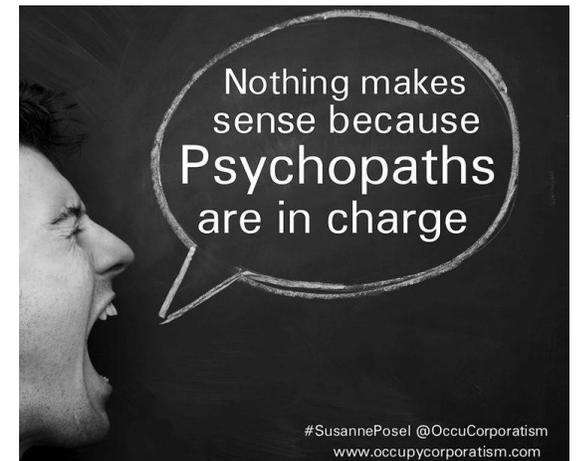Elon Musk: "With artificial intelligence we're summoning the demon."

▶ Sociopathic Corporations

If corporations are indeed "persons," their mental condition is accurately described as pathological. They have no innate moral impulses, exist solely for the purpose of making money and are systemically driven (indeed, legally bound) to do whatever is necessary to increase revenues and profits, with no regard for ethical issues.

▶ Capitalism & Super-capable Selfish Human Beings

  ▶ How much damage could a single pre-historic human being with a spear do?

  ▶ How much damage can be done by a wealthy/brilliant teenager with internet?

Nothing makes sense because **Psychopaths are in charge**

#SusannePosel @OccuCorporatism
www.occupycorporatism.com

The Current Reality of AI

Which is the easier way to make a buck: figuring out a better way to exploit somebody, or making a better product? With the new AI, it looks like the answer is finding a better way to exploit somebody.

People worry that computers will *get* too *smart* and take over the *world*, but the real *problem* is that they're too *stupid* and they've *already* taken over the *world*.

Compounding Societal Factors

- Lack of Transparency
  - Intentional & "Unavoidable" Black Boxes

- Lack of Accountability
  - Anonymity &
  - "Too Big To Fight" and/or "Too Big To Fail"

- Lack of Truth/Weaponized Narratives

- Perceived Lack of Usable Definitions of Morality

Accept responsibiltiy for your actions.

Be accountable for your results.

Take ownership of your mistakes.

Digital Wisdom Projects

▶ **Sprouts (formerly 50PH14)** - Engineering a Safe Artificial Entity w/ Human-Level Intelligence by Crowd-sourcing a Moral "Seed AI"

▶ **Whately** - Debate-mapping on the Blockchain to Solve Wicked Social Problems via Collaborative Modeling & Argumentation

  ▶ Starting with a comprehensively safe/moral AI motivational system

▶ **GAIaBC** – A **G**overnance **AI a**nd **B**lock**C**hain Eco-System to Host and Fund Whately & Sprouts

  ▶ **Virtual World/Model** populated by

  ▶ **Blockchain-based composite entities** powered by

  ▶ **SEC-compliant funding (Reg CF, Reg D and Reg A)**

Scalability (Sufficient to Support Micro-transactions & Heavy Voting)

Cryptocurrencies Transaction Speeds Compared to Visa & Paypal

VISA
VISA 24,000

ripple **1,500**

PayPal **60**

BitcoinCash 193

litecoin **56**

DASH **48**

ethereum **20**

bitcoin **7**

1000 transactions
100 transactions
20 transactions

Company
Transactions
per second

howmuch

Visa's average usage is "only" 1700 tps

but

micro-transactions & voting

will quickly

increase requirements
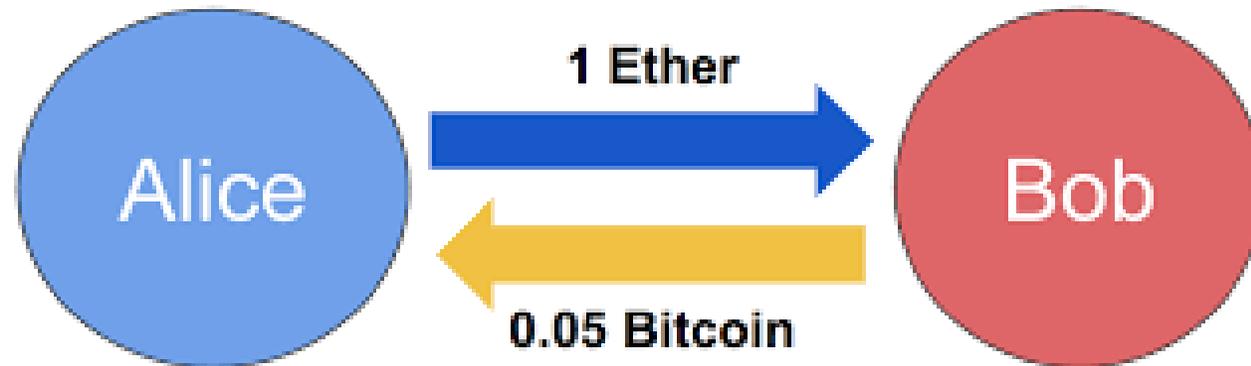
by orders of magnitude

Scalability Solutions

- ~~Don't use network wide free for alls to determine who writes blocks~~

- ~~Move some transactions off-chain (Lightning/Raiden)~~

- ~~Move some transactions to child chains (Plasma)~~

- ~~Split the network into identical sub-chains (Sharding)~~

- Develop an ecosystem of diverse but inter-operable chains
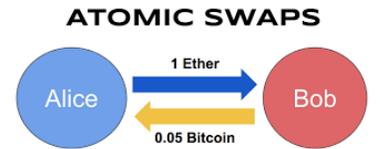
Generic Ecosystem Requirements

▶ Every blockchain must support a Universal Atomic Swap Protocol

　▶ Most sharding is easily implemented with just this and a sub-chain address directory
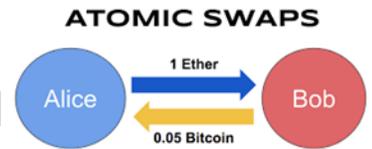
ATOMIC SWAPS

Alice — 1 Ether → Bob

Bob — 0.05 Bitcoin → Alice

Generic Ecosystem Requirements

ATOMIC SWAPS

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▶ Most blockchains should do only one thing (and do it well)

    ▶ Outsource functions that many blockchains need (e.g. adjudication, contracts) to specialists

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► ∴ The ecosystem needs a Universal Description, Discovery and Integration Directory

► Any smart contracts must be in a non-Turing-complete functional language

   ► With a proof assistant for contract analysis and verification

Governance Ecosystem Requirements

Requirements

- Enforced membership and/or interaction requirements for blockchains
  - bonding, escrow and insurance should all be options in the UDDI directory

- Know Your Customer/Anti-Money Laundering requirements for users
  - prevents Sybil attacks

Vote early and vote often.
- Al Capone -

- A 100% stable utility token 100% backed by escrowed reserves

- A solid governance system to resolve issues like the DAO
  - an ecosystem cannot easily fork (and even fissioning would be ugly), but
  - the ecosystem must be able to coherently act when a member forks

Thank You!

Who wants to join us?