



Blockchain Enlightenment and Smart City Cryptopolis

CryBlock 2018

1st Workshop on Cryptocurrencies and Blockchains for Distributed Systems
Munich Germany, June 15, 2018

Slides: <http://slideshare.net/LaBlogga>

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Melanie Swan, Technology Theorist



- Founder, Institute for Blockchain Studies
- Philosophy Department, Purdue University, Indiana, USA
 - Singularity University Instructor; Institute for Ethics and Emerging Technology Affiliate Scholar; EDGE invited contributor; FQXi Advisor

Traditional Markets Background



Economics and Financial Theory Leadership



New Economies research group
<https://www.facebook.com/groups/NewEconomies>

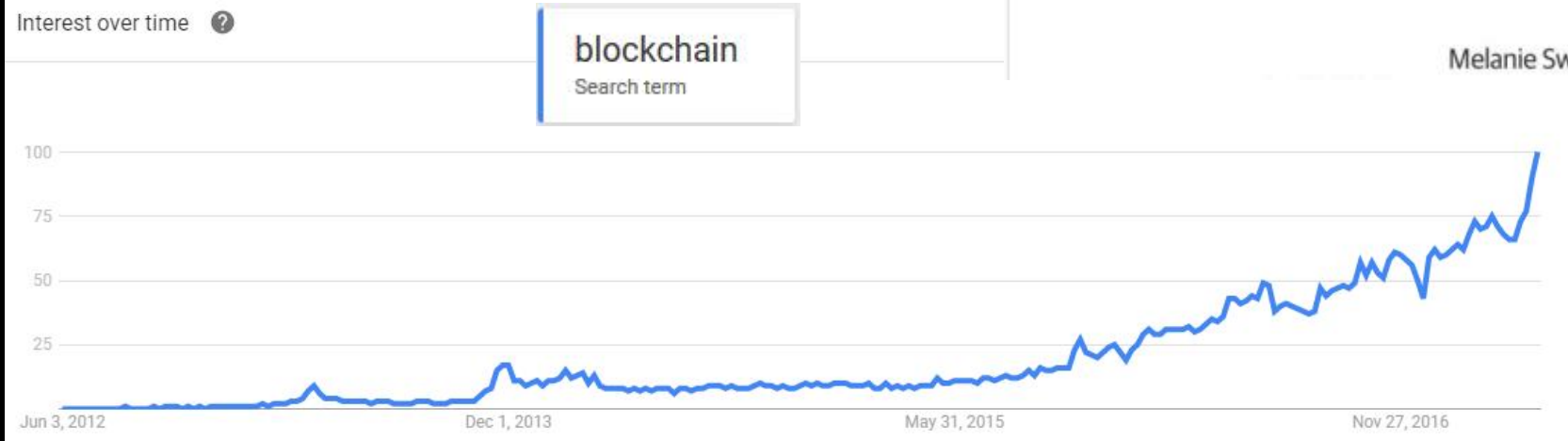
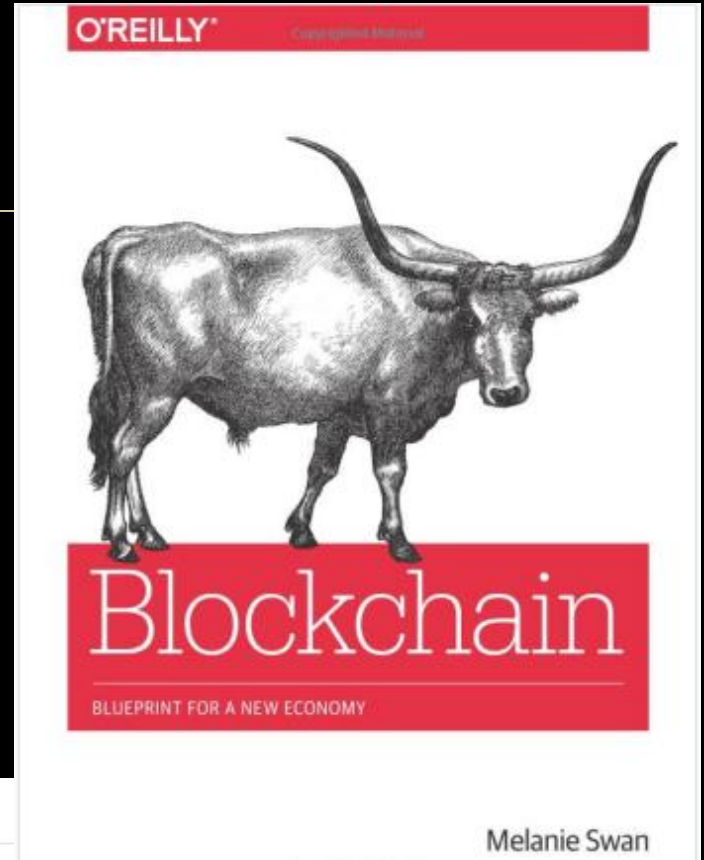


Blockchain

- *To inspire us to build this world*

Blockchain Theory 101
Basic description of blockchain and its applications
4.2 (11)
Created by Melanie Swan
English

udemy



Blockchain Research Program

- Pure research
 - Apply quantitative methods from physics (renormalization/path integrals), complexity science (entropy), and deep learning to blockchain analysis
- Applied research
 - Economics: *algorithmic trust*, a network mechanism that moderates credit availability and facilitates blockchain markets to Nash equilibria more quickly than classical markets
 - Payment channels, debt, net-settled capital, programmable risk, integrated business ledgers, blockchain health economics
- Social theory
 - Smart City Cryptopolis and Blockchain Enlightenment
- Advanced conceptual research
 - Blocktime, BCI cloudminds, Brain as a DAC, biocryptoeconomy

Thesis

This paper argues that to reconceive and more empoweringly enact relationships with authority, a new sensibility is required, that of the cryptocitizen. This is the skillset of determining oneself as an economic and political agent in the world of digital network technologies. In the cryptopolis smart city of the future, one goal could be enabling the flourishing of a multi-species society of machine, algorithm, and human.

Cryptocitizen Sensibility

- Self-responsibility-taking
- Questioning and designing economic systems, political systems, future of work, living communities
 - Governance services vs. being governed
 - Industries already restructured
 - News media, entertainment, stock-trading, health services
 - Industries that could be restructured
 - Money, payments, economics, governance and legal services, education

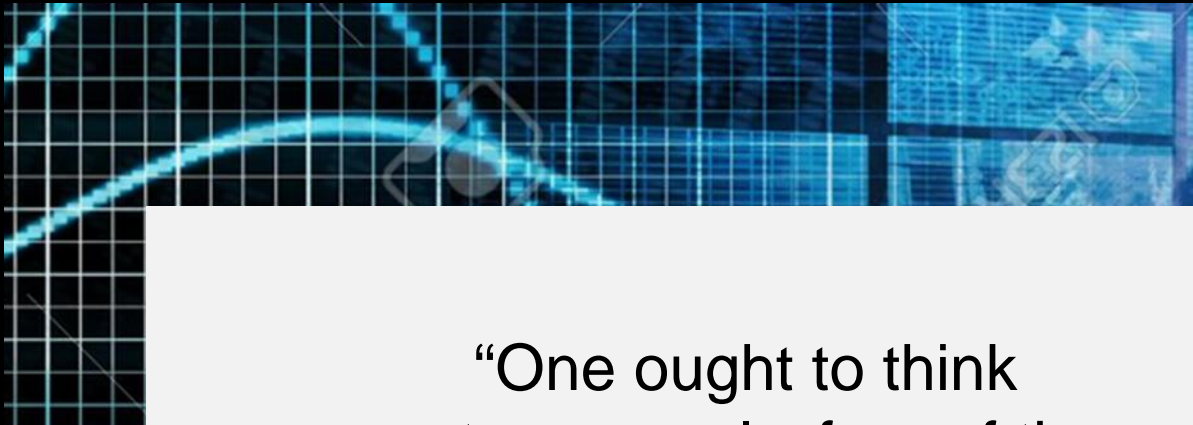


What is the problem?

1. Rethinking authority
2. Rebuilding societal trust
3. Reinventing the role of institutions in the digital era
 - Smaller footprint
 - Algorithmically-based

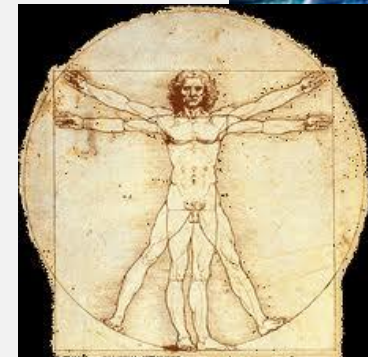
What is the problem?

1. Rethinking authority



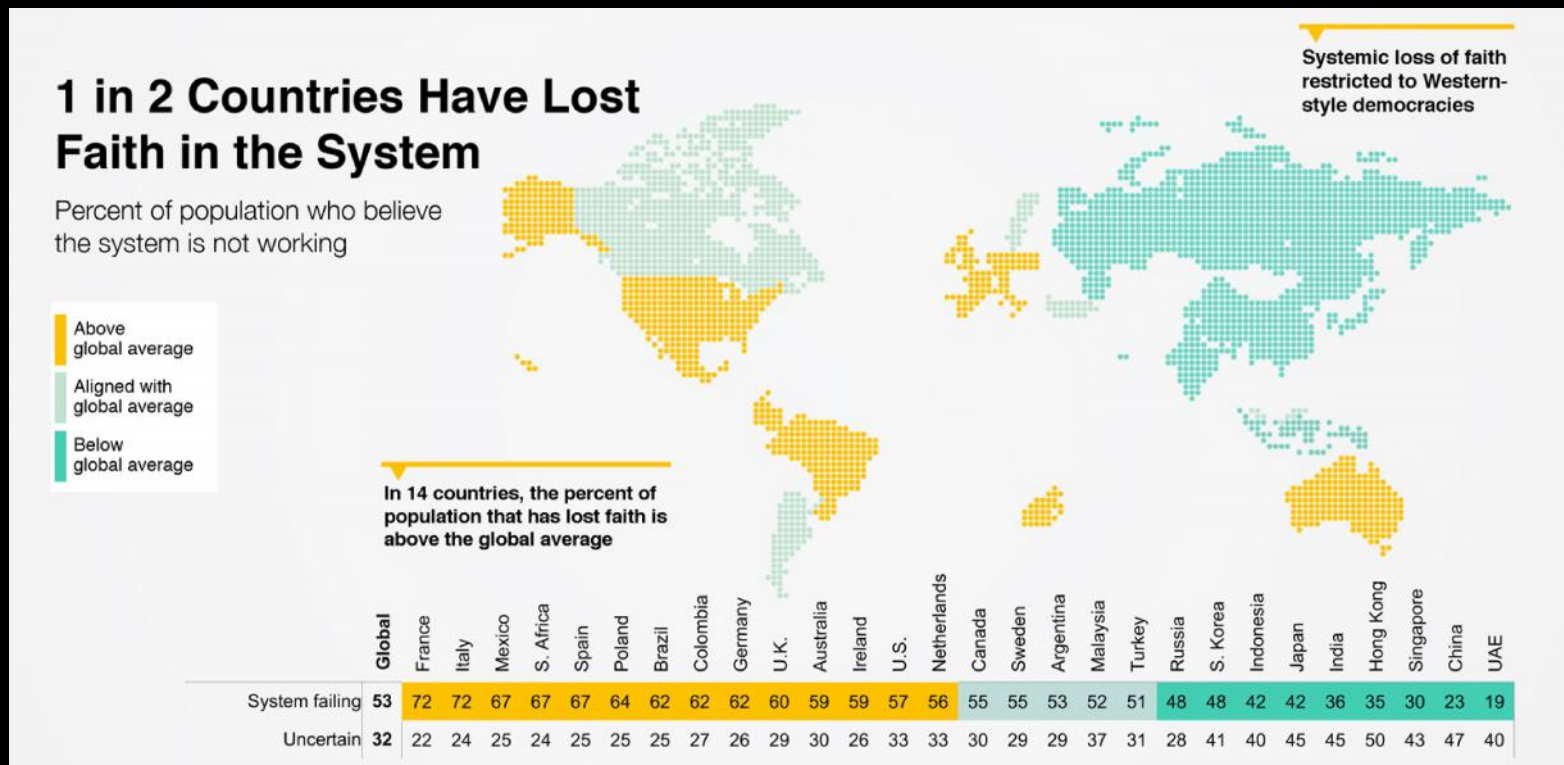
“One ought to think autonomously, free of the dictates of external authority”

- *Immanuel Kant*



What is the problem?

2. Rebuilding societal trust



What is the problem?

3. Reinventing the role of institutions in the digital era

- Smaller footprint, Algorithmically-based

Historical

Building



Church

Crown



Columbus's VCs: Ferdinand and Isabella

Contemporary

Building - Website



Bank



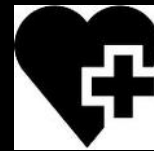
Government



Police



DMV



Healthcare



Academia



Corporation



Church



Law

Future

Building – Website – Credential



Farther Future

Data pillars: library of all society's memory and public records



Blockchain solutions

1. Rethinking authority

- Cryptoenlightenment
- Multiple self-designed political-economic system participations

2. Rebuilding societal trust

- Algorithmic trust as a new form of social capital

3. Reinventing the role of institutions in the digital era

- Government as Service Provider (GaSP)
- Opt-in governance
- Governance blockchains (public service applications)

Smart City Cryptopolis

1. Economic self-definition through participation
2. Civic responsibility of the cryptocitizen
3. Social theory of dignity (invite difference)
4. Future of work (Maslow smart contracts)

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23 12 35

23 5 12 2

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information
internet: static
information

social internet:
engage with
content

token internet:
participate in the
community economy



district0x
A network of decentralized markets and communities. Create, operate, and govern. Powered by Ethereum, Aragon, and IPFS.



participation.

Cryptocitizen Sensibility; Cryptosustainability

The Cryptocitizen in Society

Civic Duty

Ancient Greek Statesman



The sense of duty of
the citizen to serve
the republic

Civic Collaboration

Self-directed Cryptocitizen



The sense of meaning and
purpose in participating in
community sustainability

Societal Approaches to Difference



Encourage

Invite
Celebrate
Preserve

Open-ended possibility



Extinguish

Sublate
Assimilate
Ignore
Refuse

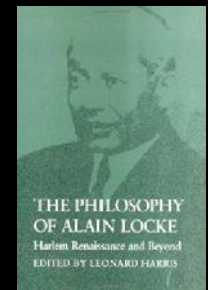
Baseline eradication



Dignity



- Leonard Harris
 - Dignity is an inalienable good (intangible social good)
 - Dignity is a resource that we create (not a universal principle or right)
 - Problems can arise in treating the collective level (honor-granting or degradation)



- Maeve Cooke
 - Dignity is particularity not difference (avoid Honneth's struggle to the death for recognition of difference)
 - Recognition is a dynamic relation based on particularity and authenticity



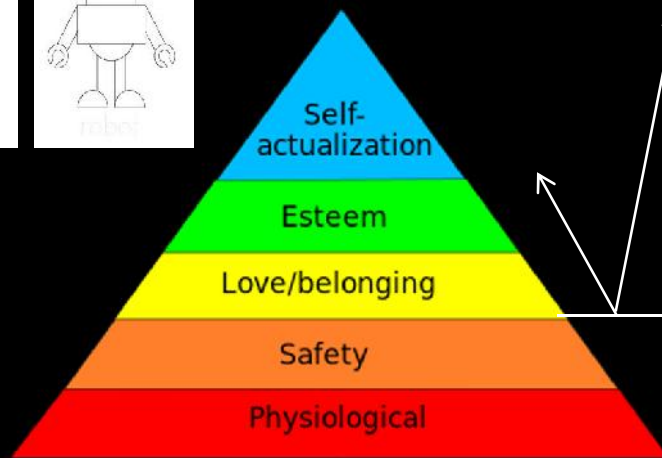
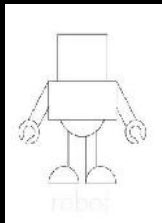
Future of Work

Technological Unemployment

- Definition: jobs outsourced to technology
 - Estimate: Half (47%) of employment is at risk of automation in the next two decades – Carl Frey, Oxford, 2015
 - Global driverless-car market \$42 billion by 2025 – BCG, 2015
 - Transportation = 10% GDP – US DOT, 2002
 - Why are there still so many jobs in a world that could be automating more quickly? – David Autor, MIT, 2015



Flourishing of human, algorithm, and machine



Thrive
(extend baseline)

Survive
(reach baseline)

Human-Robot Relation

2.0: Interdependence and mutual care-taking, inspiration, and support
“Yes-and Bot”

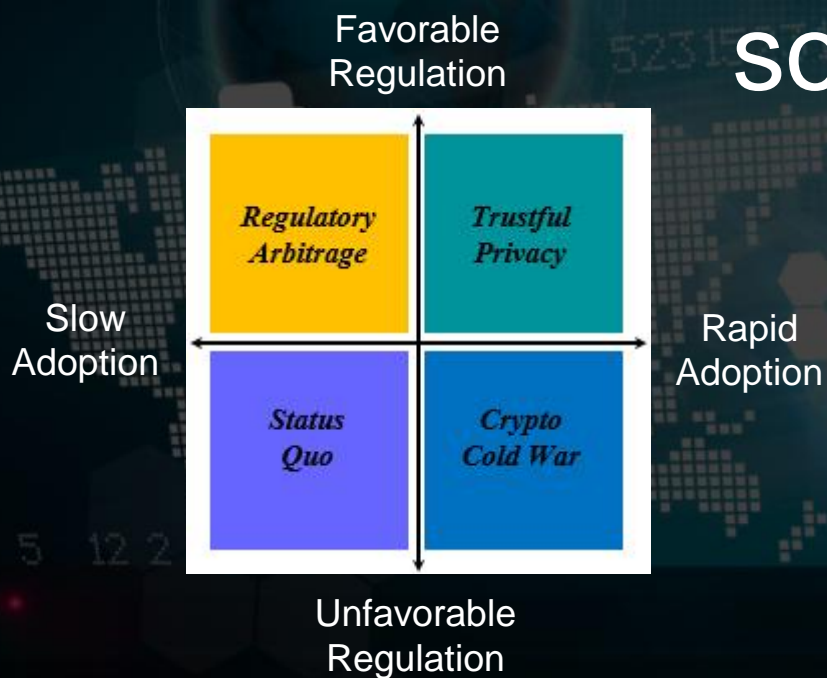
1.0: Master-slave power dynamic

- The most rewarding human-robot relationships will be those that evolve from master-slave power dynamics to those with reciprocity, mutual recognition, interdependence, learning, and care-taking
- Effects: robots help produce intangible social goods and solve human Identity crisis by facilitating higher Maslow levels

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tech: scalability.
political: regulation.
social: adoption.

Future Scenarios



risks.

Thesis

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