

# Put Your Head on a Blockchain-

## Strategies for Emergent Technologies in Business and Society

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# WELCOME!

1. Introductions
2. The Plot
3. Epic & Emergent

## Break

1. Strategies for emergent technologies and change –
2. Blockchain?
3. Some Admin & Next class

# Who are we?



# Getting to know each other:

Introduce yourself in a form of a question  
(also tell us your name and what you  
study).

Think of what question would follow each  
introduction. Write it down.

# What is this course about?

## The Plot:

From (1) **hype** to what's real today to (2) **imagining** (utopias/dystopias) to (3) instances where we all need to **make an informed decision under uncertainty/ambiguity.**

How do we do it?

**See Syllabus.**

# A Thought Experiment:

“Will the increasing use of digital technologies and data, or **digitization**, bring about an **end to time and temporality** in organizations and with what consequences for organizational and societal change?”

Assumptions:

- (1) We have no shared time. (Your time is different from mine and we cannot agree on what time it is.)
- (2) Past and present have no consequences for the future (no inter-temporality).

What would such a digital world be like?

# Some potential aspects of such worlds?

The baseline: Temporal commons

Scenario 1: Virtual worlds

Scenario 2: Digital Transaction registers

Scenario 3: Digital Winter

“Our world is very likely a simulation.”



Source: Nick Boström, Oxford University



# Gameful engagement? – How to fix “broken” reality:

1. Reality is **too easy**: Games challenge us with unnecessary obstacles.
2. Reality is depressing: Games focus our energy and **engage** our emotions.
3. Reality is hopeless: Games eliminate our **fear of failure** and improve our chances for success.
4. Reality is unambitious. Games help us define **awe-inspiring goals** and tackle seemingly impossible social missions together.
5. Reality is disorganized and divided. Games help us make a more concerted effort – and over time, they give us collaboration superpowers.
6. Reality is stuck in the present. Games help us **imagine and invent the future together**.

SUPERSTRUCT



play the game.  
*invent the future.*



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Welcome to Superstruct—the world's first  
massively multiplayer forecasting game.  
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WHAT IS  
SUPER  
STRUCT?

EXPLORE  
THE WORLD  
OF 2019

LOG-IN  
NOW

JOIN  
THE  
GAME

## DON'T MISS:

- QUARANTINE
- RAVENOUS
- POWER STRUGGLE
- OUTLAW PLANET
- GENERATION EXILE
- THE SUPERSTRUCT WIKI
- THE FACEBOOK GROUP
- SUPERSTRUCT FORUMS
- SUPERSTRUCT CHAT
- CLASSIFIEDS
- THE COMMUNITY OUTPOST
- RECONSTRUCT
- EARN BADGES NOW!
- THE STORY SO FAR

### Superstruct: The Final Threat



THE FINAL THREAT



XRAVENOUS



XQUARANTINE



XPOWER STRUGGLE



XGENERATION EXILE



XOUTLAW PLANET



XHOW TO PLAY

NEW!



XHOW TO PLAY II



# An example of Superstructure – “The Common Purpose Engine”:

The Common Purpose Engine Posted Thu, 10/02/2008 - 07:09 by Dark Optimism

- Large-scale problems do not require large-scale solutions. They require small-scale solutions with a large-scale framework.
- Issue: Address inter-related challenges of food and energy production, climate change and the disintegration of community bonds, for starters!
- Superstructure idea: Countries need to drastically reduce carbon emissions. The Common Purpose Engine provides the framework and incentive for this to happen while guaranteeing that the sum of these efforts is sufficient to meet the 2010 Accord emission targets.
- Superstructure needs. Online programming experts, energy company executives, scientists and energy experts, politically engaged activists, government representatives, pioneers with ingenious local solutions...



# New collaboration scale:



# Game: Epic & Emergent

- Epic process for emergent discoveries?
- More details in class as to how to participate and shape the game.



# What does emergent mean?



# Strategies for emergent technologies and change –

1. **Iterate and improvise** (lean methodologies; fail fast etc.
2. Lot of **small changes that add up** to a bigger transformation (punctuated equilibrium). (Once when most people are in facebook, that becomes the social media.)
3. **Imitation** – when something new becomes established by the thought leaders, everyone wants to copy and imitate/adapt (isomorphism).

# Strategies for emergent technologies and change – (cont.)

1. **Path dependence:** Small steps that are not necessarily even seen very important lead toward a path. (A decision to procure a “fat” chip for Nokia phones made it difficult to quickly adapt to thin models.)
2. **Visionary leadership.** Someone works hard for a goal (like Elon Musk and electronic cars).



Why is she here?



# “Voyages to Strange New Worlds”

According to the American Association for the Advancement of Science, a group of astronauts traveling to Mars must have a leader, a social secretary, a storyteller, and a mixture of introverts and extroverts.

However, the most important role seems to be that of a clown.

A clown is not only funny but also smart and knows the each group member well enough to defuse tensions that might arise during the long flight and close contact.

Source: The Economist, Feb 23, 2019

# And what about the blockchain?

What experiences do you have with blockchain?

# Summarize blockchain.

-- A protocol for producing  
consensus on a current status --

# Uses so far:

- Transactions, efficient and/or indisputable (banking, insurance)
- **Logistics** documentation (IBM & Maersk – TradeLens)
- **Asset registries** (land, property)
- Micropayments (e.g. music, “metered Internet”)
- **Proofs of origin** (e.g. diamonds; food, e.g. Food Trust)
- Smart IoT (e.g. Slock.it)
- **Digital identity** (e.g. Sovrin, Onfido)
- Self-executing/automated contracts (e.g. digital inheritance)
- In-built services (wages with taxes automatically withdrawn)
- **Cryptocurrencies** (bitcoin, Ethereum, etc)
- Central-bank launched cryptocurrency (Fedcoin, DCEP)
- **Fund raising** (ICOs)
- Liquidity-enhancing **tokens** (e.g. utilities)
- Decentralized data storage (e.g. Storj.io)
- New organizational forms (DAOs, Dapps...)



# The Origins?

“The Times 03/Jan/2009  
Chancellor on brink of second  
bailout for banks.”

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# What was a purely electronic peer-to-peer cash a solution for?

“... February 11, 2009, Internet posting, Nakamoto wrote:

“The root problem with conventional currency is all the trust that’s required to make it work. The central bank must be trusted not to debase the currency, but the history of fiat currencies is full of breaches of that trust. Banks must be trusted to hold our money and transfer it electronically, but they lend it out in waves of credit bubbles with barely a fraction in reserve. We have to trust them with our privacy, trust them not to let identity thieves drain our accounts.”

Beyond distrusting bankers,

...does the technology - now  
called blockchain - have some  
other strategic uses?



# Three perspectives (to be cont.):

1. Creating a hybrid or crypto-anarchist “deterritory”;
2. Enabling corporate and state digital strategies;
3. Imagining and designing new socio-economic spaces.



# Will you put your head on a blockchain?

“To push the antigovernment button is not to teleport us to Eden. When the interests of government are gone, other interests take their place. Do we know what those interests are? And are we so certain they are anything better?”

Lawrence Lessig

# Some admin issues:

- Be present and contribute.
- Grading:
  - Team-based performance – presentations & materials: 50% (including a team project)
  - Peer evaluation in teams and Individual assignments (50%)
- Visitors bring important expert perspectives. Think of 2-3 questions that you wish to ask each one.

# Class Expectations:

1. Play.
2. Read.
3. Work project.
4. Peer review.
5. Contribute in a generative way.

# Learning goals:

1. Capable of identifying emergent technologies, and accompanying change, ...
2. Imaginative and generative of the potential...
3. Yet equally able to examine impact in business and society critically...
4. While understanding of the opportunity and responsibility of agency...
5. And capable of arguing for your point of view.

# Next class:

## HYPE?

- With a Presentation by Akseli Grym, Bank of Finland : "Cryptocurrencies -- what are we really talking about?"
- Read about blockchain and cryptocurrencies (see Syllabus).