

# Digital Revolution IV

## - Utopia -

Giordano Bruno 28 italienischer Philosoph 1548 – 1600

„Es gibt kein Vergangenes, das man zurücksehnen darf, es gibt nur ein ewig Neues, das sich aus den erweiterten Elementen der Vergangenheit gestaltet, und die echte Sehnsucht muß stets produktiv sein, ein Neues, Besseres zu schaffen.“

Referenz: <https://beruhmte-zitate.de/autoren/giordano-bruno/>

# Kai-Fu Lee

My original dream of finding who we are and why we exist ended up in a failure. Even though we invented all these wonderful tools that will be great for our future, for our kids, for our society, we have not figured out why humans exist. What is interesting for me is that in understanding that these AI tools are doing repetitive tasks, it certainly comes back to tell us that **doing repetitive tasks can't be what makes us humans**. The arrival of AI will at least remove what cannot be our reason for existence on this earth. If that's half of our job tasks, then that's half of our time back to thinking about why we exist. **One very valid reason for existing is that we are here to create**. What AI cannot do is perhaps a potential reason for why we exist. One such direction is that we create. We invent things. We celebrate creation. We're very creative about scientific process, about curing diseases, about writing books, writing movies, creative about telling stories, doing a brilliant job in marketing. This is our creativity that we should celebrate, and that's perhaps what makes us human.

[https://  
www.edge.org/](https://www.edge.org/)

# Topics

- Digital Revolution
  - Scale: Numbers Please
  - Disrupting Business
  - Disrupting Jobs
  - Disrupting Politics
  - Disruptive Internet?
  - Platforms
  - Peer-to-Peer strikes back?
- Developments
  - Forces
  - Algorithms
  - Money
  - Jobs
- Scale, Complexity and Dynamics: Making Sense
  - The Big Picture
  - Explanations
  - Change Factors
  - How to think the future
- Utopia
  - Autarkism
  - Micro-Nations
  - Micro-Societies
  -

Lo Tech Autarky

# The Quest for Independence

## Autarkie - Leben in Freiheit

Schritt für Schritt zur eigenen Stromversorgung



Ein Praxis-Handbuch von  
Franz Spreitz & Lukas Pawek

Kunden, die diesen Artikel gekauft haben, kauften auch

Seite 1 von 16



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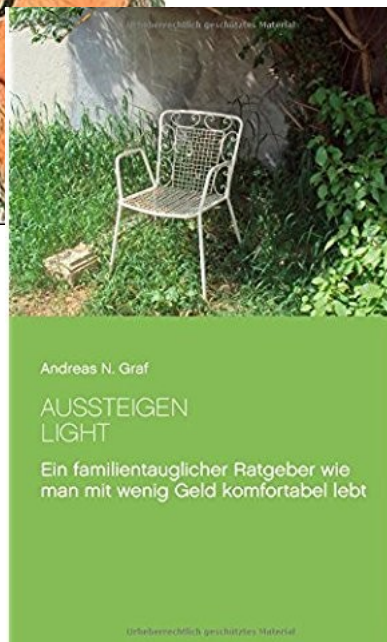
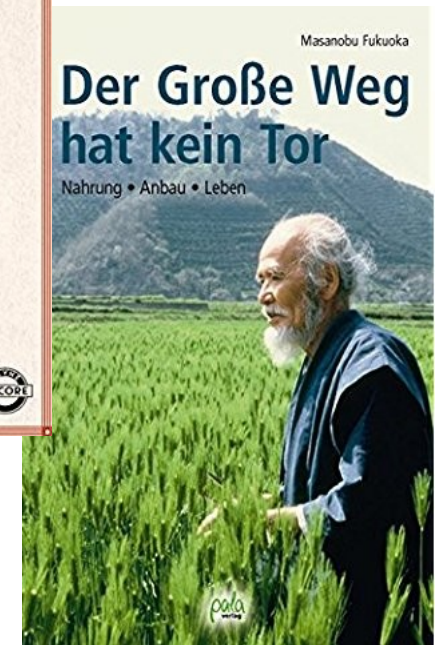
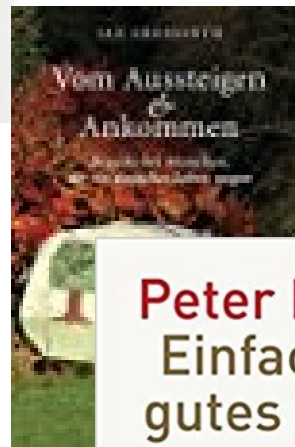
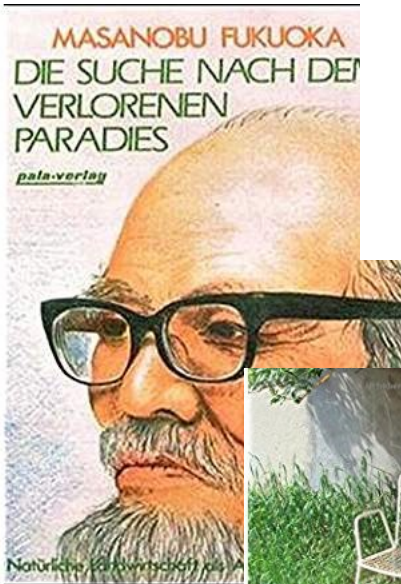
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Urban gardening, renewable energy, own water, e-mobility, alternative meds, maker scene, genetic engineering, alt. Coins (sel), Reichsbürger, micro-houses, new village movements, sharing (work, housing, children..), repair shops, CCC, open source, linux,



# Drop Out



# Taken Hostage



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<https://www.thedrive.com/news/39158/farmers-are-having-to-hack-their-own-tractors-just-to-make-repairs>

Or they turn to older, simpler equipment....

# Why Self-Sufficiency/Autarky?

- Cycle of obsolescence requires endless upgrades
- Semi-intelligent systems require monitoring
- TCO high due to failures and progress
- Dependencies high due to access vs. Possession
- Rent-to-own is exploitative
- A general feeling of „virtualness“ of things (money, law, politics)
- TTIP: Globalized control through economic giants



# The Lesson behind TCO



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Who will program your router when you get old? Who will fix your broken Windows update? Who can configure your smart home devices? How much will maintenance of all your IT-stuff cost? How much will planned obsolescence cost you over the years? Why do you suddenly get a smart meter installed?

Is technology just like that or is it made to benefit only the corporations? How could a technology made for humans look like?

# Correlated Risk

„Because the wellspring of risk is dependence, aggregate risk is a monotonically increasing function of aggregate dependence. We call that on which we most depend “critical infrastructure(s).” Because dependence is transitive, so is risk. That you may not yourself depend on something directly does not mean that you do not depend on it indirectly. We call the transitive reach of dependence “interdependence,” which is to say, correlated risk“

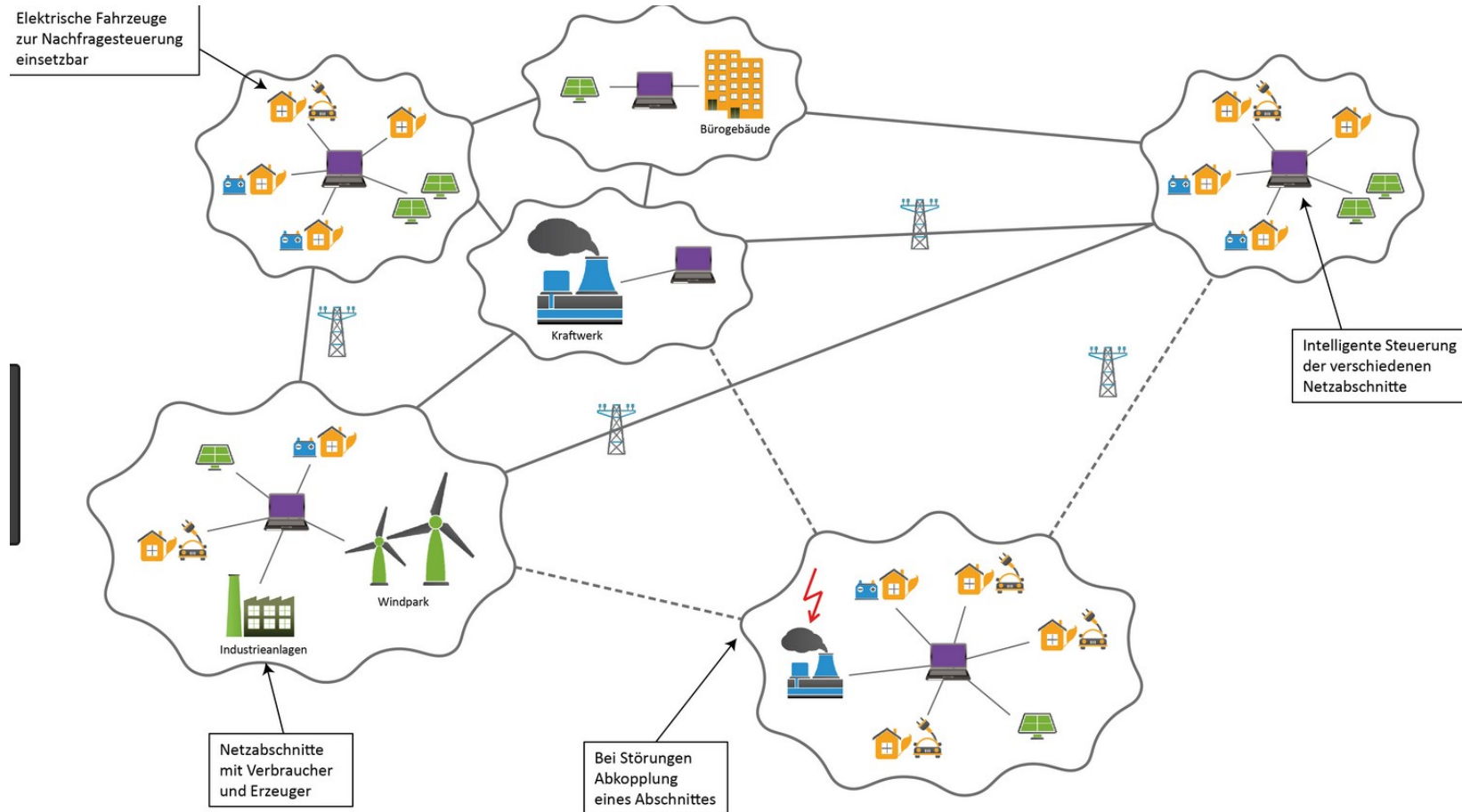
Daniel e. Geer, Jr., A Rubicon, Aegis Series Paper No. 1801

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# Hi Tech Autarky

Urban gardening, renewable energy, own water, e-mobility, alternative meds, maker scene, genetic engineering, alt. Coins (sel), Reichsbürger, micro-houses, new village movements, sharing (work, housing, children..), repair shops, CCC, open source, linux,

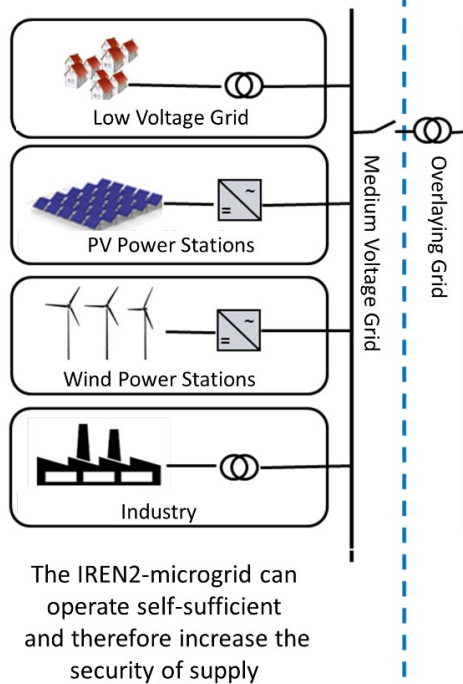
# Micro Grids



ZHAW. Damage borders, physical control flow vs. Central control. Needed: global optimum

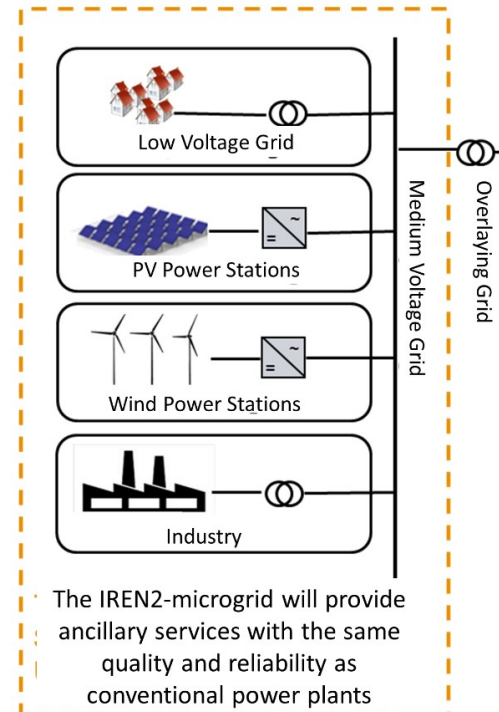
# Use Cases of the IREN2 microgrid

## Islanding of a grid section



- Realization of an island grid with a high penetration of renewable energies
- Testing the island grid operation
- Demonstrating the black start capabilities of an inverter dominated island grid
- Intentional islanding and resynchronization

## Provision of ancillary services



- Identification of relevant ancillary services (e.g. provision of balancing or reactive power)
- Demonstration of the provision of ancillary services of distributed energy resources, which are installed in the distribution grid
- Transferability to other regions



# Micro-Nations: Sealand



©Navigator Film, Gerald Kerkletz

From: „Empire Me – Der Staat bin ich.

Feudal systems are popular with micro-nations because they simplify government (no political system needed). Frequently financed through tax exemption models.

# Micro-Societies



From: „Empire Me – Der Staat bin ich.  
Alternative ways of living. Drugs/Spirituality/Sex/Own Money or „New Village“  
ideas. Mostly low-tec approaches to avoid dependencies. Clashes with the state.

# Towards Micro-Societies

- Increasing wealth, digital communication and technological progress allow the formation of alternative micro-societies with their own media and laws.
- „State“ slowly disappears and is replaced by interacting NGO's or AI.
- Or societies violently disintegrate due to capitalistic pressure

# Security and Interdependencies I

Because the wellspring of risk is dependence, aggregate risk is a monotonically increasing function of aggregate dependence. We call that on which we most depend “critical infrastructure(s).” Because dependence is transitive, so is risk. That you may not yourself depend on something directly does not mean that you do not depend on it indirectly. We call the transitive reach of dependence “interdependence,” which is to say, correlated risk.

the unacknowledged correlated risk of cyberspace is why cyberspace is capable of black swan behavior

For fat-tailed variables, the mean is almost entirely determined by extremes. If you are uncertain about the tails, then you are uncertain about the mean.

Complexity hides interdependence(s), ergo complexity is the enemy of security

We already know that optimality and efficiency work counter to robustness and resilience and vice versa. 4 We already know that a “control” strategy fails worse than a “resilience” strategy. Quenching cascade failure, like quenching a forest fire, requires an otherwise uninvolved area to be cleared of the mechanisms of transit, which is to say it requires the opposite of interdependence.

# Security and Resilience

Where failures come from intentional actions by sentient opponents, redundancy adds to risk rather than subtracting from it because redundancy replicates vulnerability to sentient action but not to random events. To thwart the outcomes that follow sentient opponent actions, diversity of mechanism is required. Cascade failure is not quenched by redundancy but by the provision of required function via alternate mechanisms that do not share common modes of failure, that is to say mechanisms that do not interdepend and thus do not contribute heavy tails to the distribution of failure probabilities.



# Sustainability and the GUT

Gepffrey West, The Future of the Planet: Life,  
Growth and Death in Organisms, Cities and  
Companies, with Geoffrey West  
[https://www.youtube.com/watch?  
v=zyJJPuKF814](https://www.youtube.com/watch?v=zyJJPuKF814)

The choice of an imagined future is always a matter of taste. West chooses sustainability as the goal and the Grand Unified Theory as the means to achieve it. My taste is the opposite. I see human freedom as the goal and the creativity of small human societies as the means to achieve it. Freedom is the divine spark that causes human children to rebel against grand unified theories imposed by their parents.

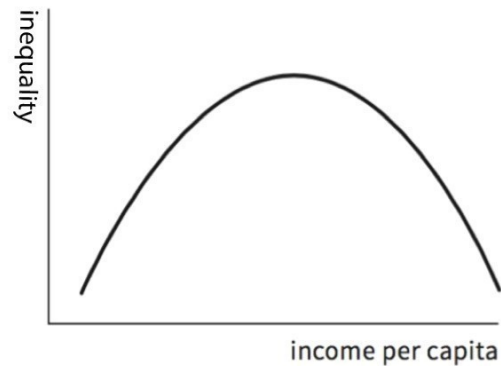
Freeman Dyson, <http://www.nybooks.com/articles/2018/05/10/the-key-to-everything/#fnr-2>

# Economic Theories

# Inequality

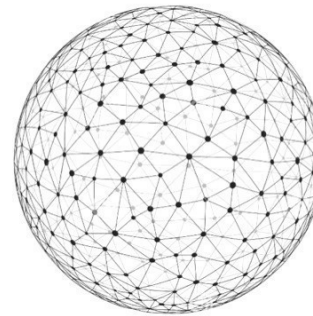
## How to tackle inequality

20<sup>th</sup> century



It's got to get worse before it gets better  
– and growth will make it better.

21<sup>st</sup> century



Don't wait for growth to even things up  
because it won't. Be distributive by design.

<https://www.weforum.org/agenda/2017/04/the-new-economic-model-that-could-end-inequality-doughnut/>

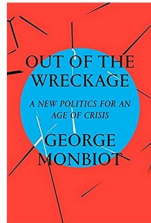
„Instead of focusing foremost on income, 21st-century economists will seek to redistribute the sources of wealth too – especially the wealth that lies in controlling land and resources, in controlling money creation, and in owning enterprise, technology and knowledge. And instead of turning solely to the market and state for solutions, they will harness the power of the commons to make it happen.“

Kate Raworth, Doughnut Economics: Seven Ways to Think Like a 21st Century Economist.

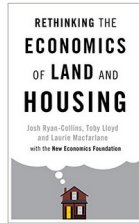
# Economic literature page 1 of 14...

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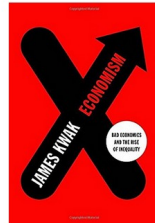
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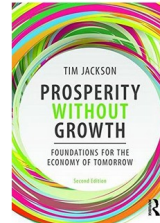
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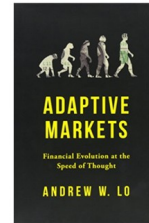
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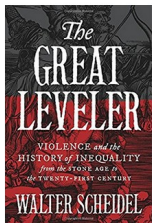


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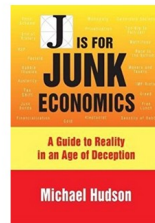
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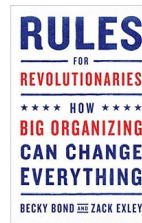
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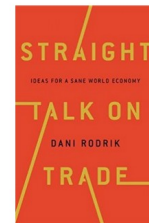
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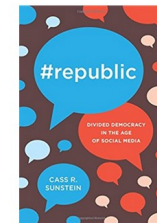
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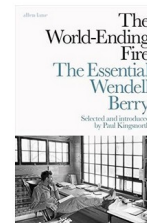
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„The key concept is a doughnut to represent the economy. In very simple terms the doughnut has a hole in the middle which shows a shortfall in "social foundations" and the area outside of the doughnut shows our overshooting of the world's "ecological ceiling". Both these two core concepts are self-evident in today's economies. The author holds this doughnut up as a basis for re-structuring our approach to economics. That is as about as deep as the book's theory gets. The problems are vast the solutions are complex and I applaud anyone trying to solve them. That being said we all need to be honest and call out mediocrity when we see it.

The accolades on the cover of this book compare the author to Keynes, in a word this is laughable!

This book offers nothing on how to influence policy, what measures to replace GDP with, or practical ways to reduce inequalities. It mainly, and to my mind quite arrogantly, points out that old economics and economists are no longer relevant (especially Simon Kuznets). No coherent vision is formed and neither is any strategic framework presented.“ Laurie Nealeon 26 December 2017, comment on amazon.com

# Political Movements

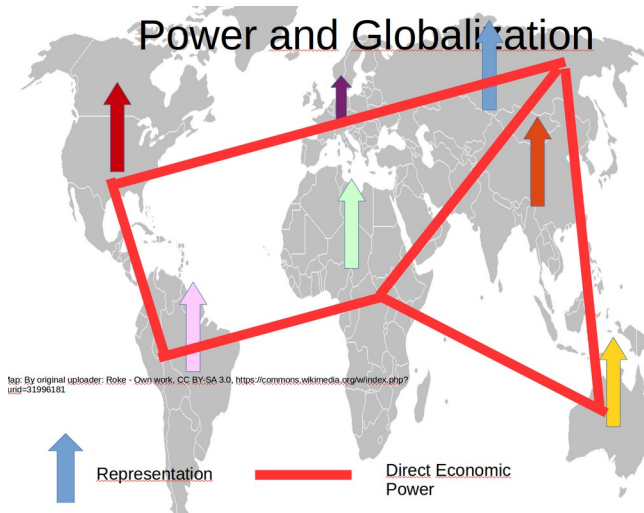


# The Language of Progress

- 15-hour workday
- Basic income for everybody
- No more borders
- Print more money
- People decide on income levels
- Direct democracy
- ...

Rutger Bregman, Utopia for Realists

# Populism/Trumpism

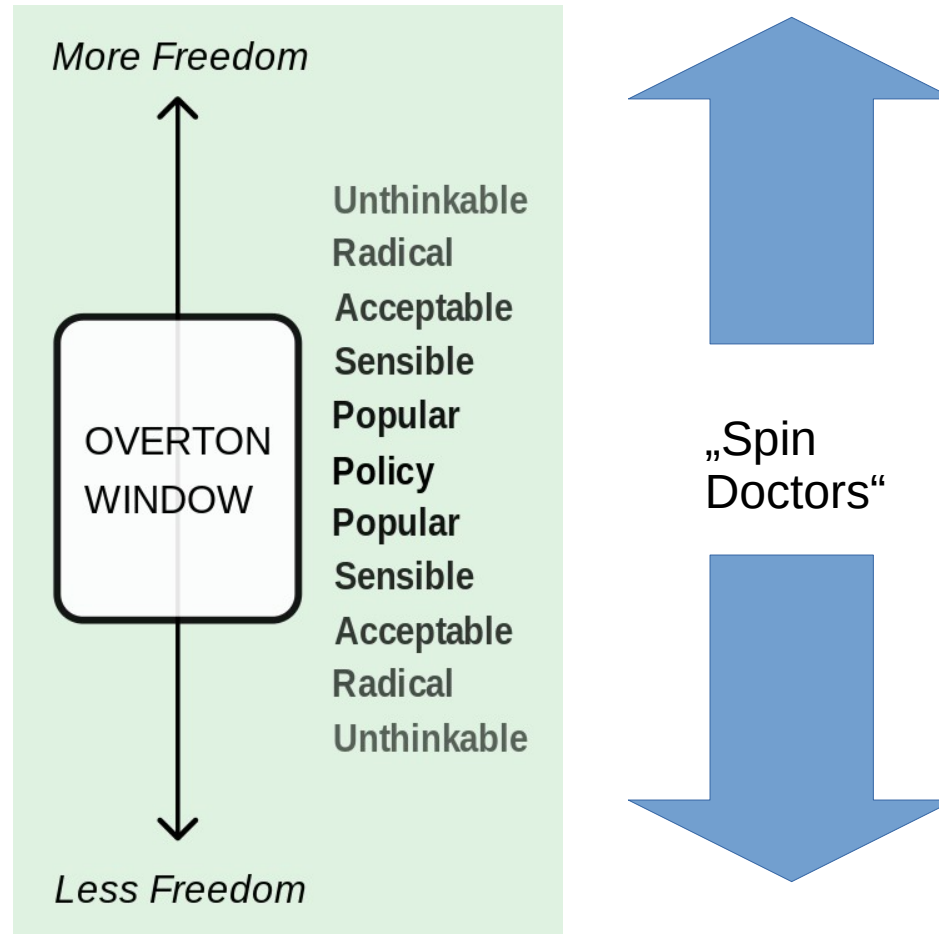


Populism is caused by huge asymmetries within societies and their interactions. The connection to Neo-liberalism is no coincidence as the populists accuse other nations for the existing asymmetries within a society – thereby hiding the effects of neo-liberal strategies.

# Clintonism/Merkelism aka Western Representative Democracy

- Falling apart
- No common ground
- No changes („alternativlos“)
- Media (Berlusconi, Fox, Murdoch ...)
- TTIP/EU etc.: Power even more indirect and removed from citizens

# The Overton Window



By Hydrargyrum [CC BY-SA 2.0 (<https://creativecommons.org/licenses/by-sa/2.0>)], from Wikimedia Commons

# Autonomy/Direkt Democracy



# Technology

- Long Warranties
- No social filtering
- Transparent
- Repairable
- Recyclable
- Sustainable
- Standard Interfaces

# Fusion



The Player Pianos pt. II (All Strings Attached - EP6)

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**Ólafur Arnalds** 🎵  
Published on Mar 14, 2018

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Some of you wanted to know more about my robots. Here's how playing the piano becomes playing with the pianos.

[https://www.youtube.com/watch?  
time\\_continue=1&v=d1zMWVWQ1PM4](https://www.youtube.com/watch?time_continue=1&v=d1zMWVWQ1PM4)

Literature

Erik Brynjolfsson, Andrew McAfee: The Second Machine Age. Plassen, Kulmbach 2014. 400 Seiten, Fr. 32.90, E-Book 25.-.

Nick Bostrom: Superintelligenz. Szenarien einer kommenden Revolution. Suhrkamp, Berlin 2014 (erscheint 8.11.). 480 Seiten, Fr. 41.90.

Kevin Kelly, The Inevitable. Understanding 12 Technological Forces That Will Shape Our Future

A Montuori, Systems Approach  
California Institute of Integral Studies, San Francisco, CA, USA

A. Maurits van der Veen, The Dutch Tulip Mania: The Social Foundations of a Financial Bubble, October 2012

Scaling Agile @ Spotify  
with Tribes, Squads, Chapters & Guilds  
Henrik Kniberg & Anders Ivarsson

What Google Learned From Its Quest to Build the Perfect Team

New research reveals surprising truths about why some work groups thrive and others falter.

By [CHARLES DUHIGG](#) Illustrations by JAMES GRAHAM FEB. 25, 2016

[https://www.nytimes.com/2016/02/28/magazine/what-google-learned-from-its-quest-to-build-the-perfect-team.html?rref=collection%2Fbyline%2Fcharles-duhigg&action=click&contentCollection=undefined&region=stream&module=stream\\_unit&version=search&contentPlacement=1&pgtype=collection](https://www.nytimes.com/2016/02/28/magazine/what-google-learned-from-its-quest-to-build-the-perfect-team.html?rref=collection%2Fbyline%2Fcharles-duhigg&action=click&contentCollection=undefined&region=stream&module=stream_unit&version=search&contentPlacement=1&pgtype=collection)

Peter , Demonetization of everything

The Venus Project – Resource Based Economy

Demonetizing Everything: A Post Capitalism World | Peter Diamandis | Exponential Finance,

<https://www.youtube.com/watch?v=3cXPWyP0BBs>

<http://basicincome.org/research/research-depository/>

<https://www.heise.de/autos/artikel/Klartext-Elektrische-Landlust-3968651.html>

„Empire Me“ Film