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Systemic design and its discontents: Designing for emergence and accountability

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Systemic Design & Its Discontents

Designing for Emergence and Accountability

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RSD7 — Relating Systems Thinking & Design conference
Turin, Italy, 25 October 2018

To support design process for positive change-making, leading to flourishing,

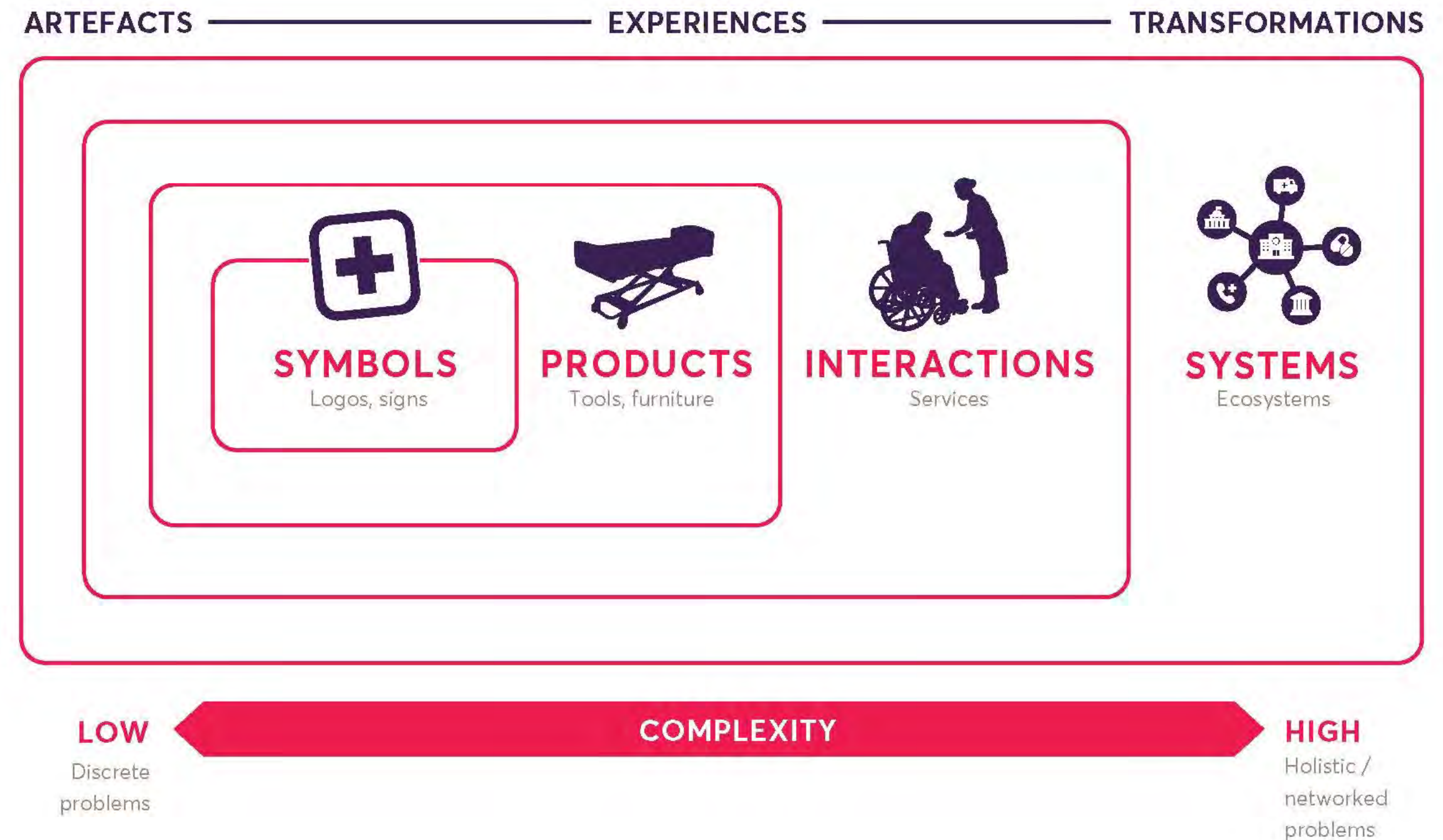
How might we lead systemic design to more *self-awareness, accountability, maturity?*

This paper calls for systemic design to acquire more *psychology, sociology, ethics*

Why systemic design?

‘Systems thinking...might be redesigned as a discipline’
–Jones, 2009

‘Systemic design is not a process, but a new space for **harnessing dynamic complexity** as a generator of innovation and value creation.’
–Ryan, 2016



Harnessing dynamic complexity: **Designing for Emergence**

Novel forms arise (morphogenesis) through interaction of agents in a complex system—physical, biological, economic, social, hybrid.

Such patterns puzzle us with properties not present in the agents nor to analysis.

Van Alstyne & Logan, 2016

Designing for Emergence

A framework for integrating systemic design theory and practice;

Guiding people in making things with communities making change;

A human-centred, systems-savvy, wholistic mindset and skillset.

‘For true creativity and innovation to take place, we propose that design must harness the process of emergence; for it is only through this bottom-up and massively iterative unfolding process that...services are successfully developed, introduced, and diffused’

—Van Alstyne & Logan, 2007, Designing for Emergence and Innovation: Redesigning Design.

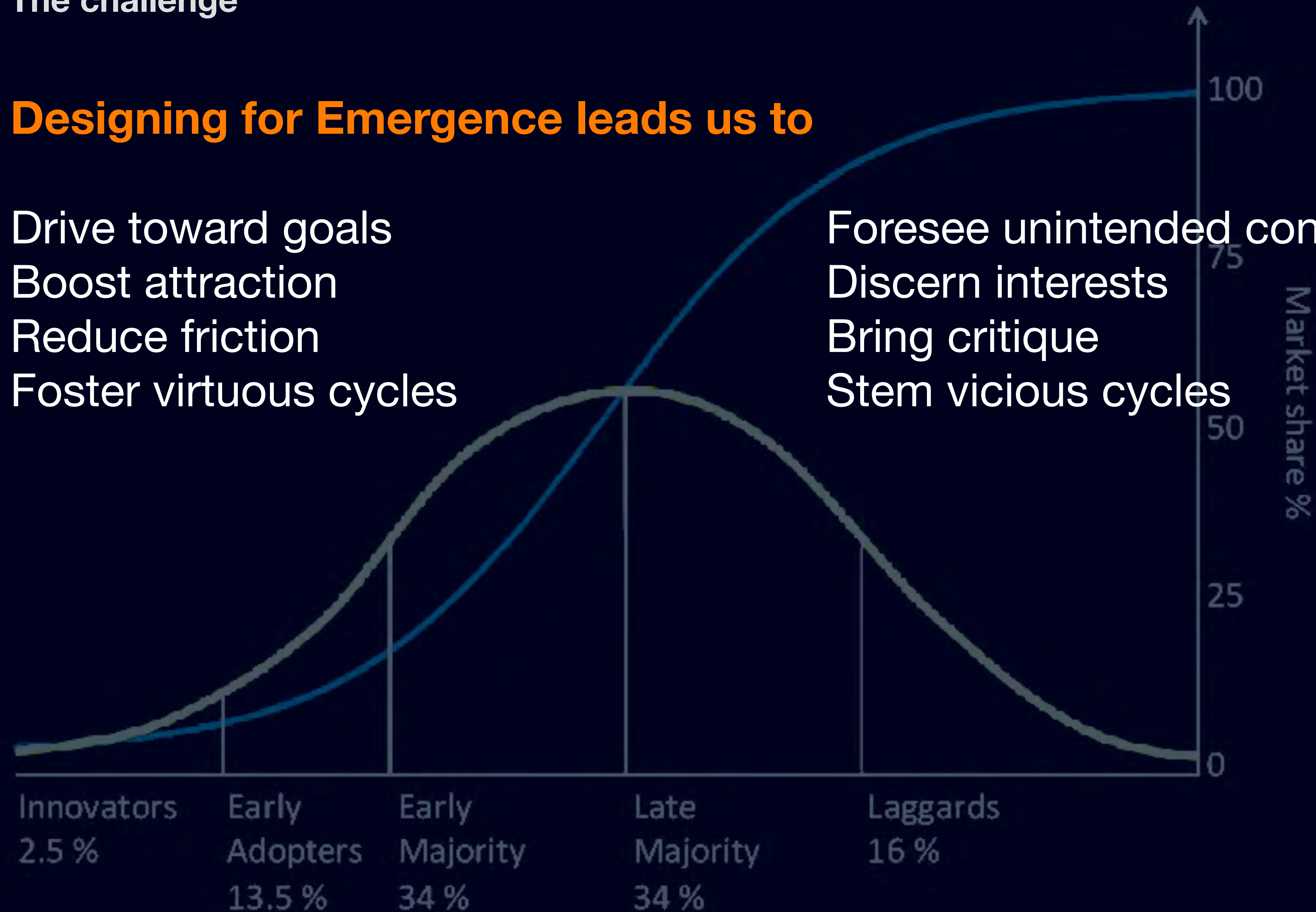
See also Van Alstyne & Logan, 2016

The challenge

Designing for Emergence leads us to

Drive toward goals
Boost attraction
Reduce friction
Foster virtuous cycles

Foresee unintended consequences
Discern interests
Bring critique
Stem vicious cycles



The challenge

Emergence brings the wanted

New ecosystem niches
Brand awareness
Viral campaigns
Cultural memes
Innovation as empowerment

And the unwanted

Invasive species
Group think
Propaganda
Moral panic
Innovation as disruption

Designing for Emergence and propaganda

Edward Bernays, nephew of Freud, developed & used group psychology techniques. He found that emotions like fear brings results while rational facts drive persuasion much less.

Called 'father of PR', Bernays used this strategy to 'solve problems' like how to sell cigarettes to women, calling them 'Torches of Freedom' to associate them with liberation.

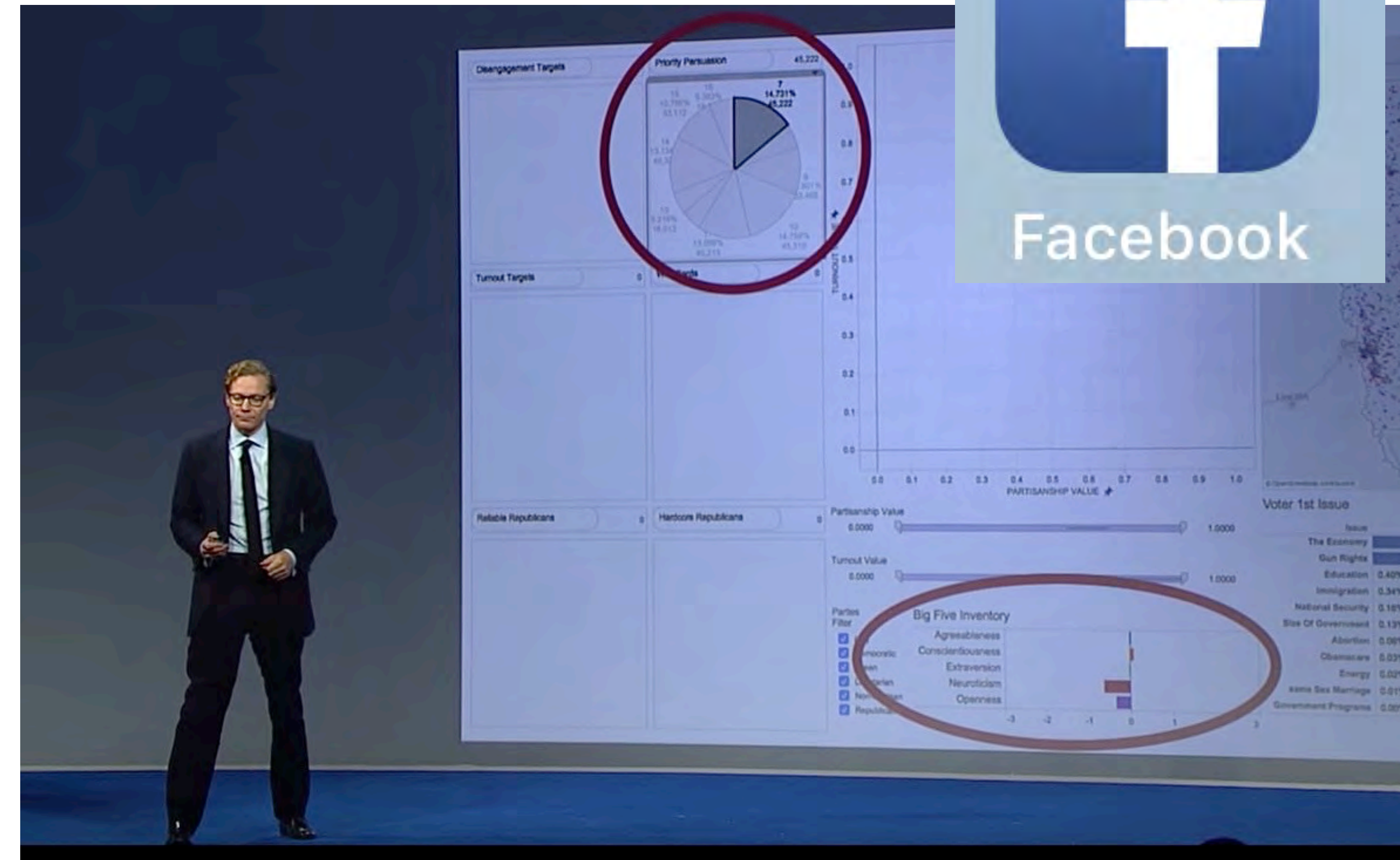


Designing for Emergence and behaviour change

UK firm Cambridge Analytica acquired data for some 50 million Facebook users and built psychographic profiles for microtargeting ads based on users' dispositions and even vulnerabilities.

Grassegger, H., & Krogerus, M. (2017). The data that turned the world upside down. *Vice Motherboard*, 28.

Cadwalladr, C., & Graham-Harrison, E. (2018). Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach. *The Guardian*, 17.



Ex-CEO Alexander Nix:
'Election candidates were puppets in our hands'

Multiple points of failure and fear, uncertainty, doubt (FUD)

Regulatory	Campaign finance Policy levers Privacy laws	Apply donation limits to new media? Inflection points imply what reform? Data release opt-in (EU) vs opt-out (US)
Platform	Business model Data defaults	Which is the product: news or users? Give app makers ‘friend’ data?
User–Citizen	Media literacy EULA–consent Attention economics	Can I trust this information? Do I understand this click agreement? Can I afford to opt out / switch?

Further cases

Philippines election result

Curato, N. (2017). Flirting with authoritarian fantasies? Rodrigo Duterte and the new terms of Philippine populism. *Journal of Contemporary Asia*, 47(1), 142-153.

Brutal dictator boosted by Free Facebook

China's social credit system

Chorzempa, M., Triolo, P., & Sacks, S. (2018). China's Social Credit System: A Mark of Progress or a Threat to Privacy? (No. PB18-14).

Centralized citizen reputation score

Sidewalk Toronto development

Wylie, B. (2018). Report from Executive Committee on Sidewalk Toronto. Plus a Word About Consent, Consultation, and Innovation. *Medium*, January, 30.

Data rights debate for model community

Whose work is informing these problems?

Regulatory	Electoral reform Choice architecture	Lessig, <i>Republic, Lost</i> Sunstein & Thaler, <i>Nudge</i>
Platform	Business model Persuasion	Jones & Upward, <i>Flourishing Enterprise</i> Fogg, <i>Persuasive Technology</i>
User–Citizen	Capacities Attention economics	Leadbeater, <i>Pro-Am Revolution</i> Kimbell, <i>Service Innovation Handbook</i> Crawford, <i>The World Beyond Your Head</i> Wu, <i>The Attention Merchants</i>

Whose work is missing from this list?

Tensions and key questions

For regulators

How can transparency and corporate social responsibility be reconciled with '**disruption ethics**' (e.g., 'move fast & break things')?

Taplin, J. (2017). Move fast and break things: How Facebook, Google, and Amazon cornered culture and undermined democracy. New York: Little, Brown and Company.

For professionals

Now that **behaviours, biases, attitudes & algorithms** are grist for the mill, what new competencies & regimes of accountability does design require?

For citizen / users

How might we cultivate a new generation with '**social data literacy**'?

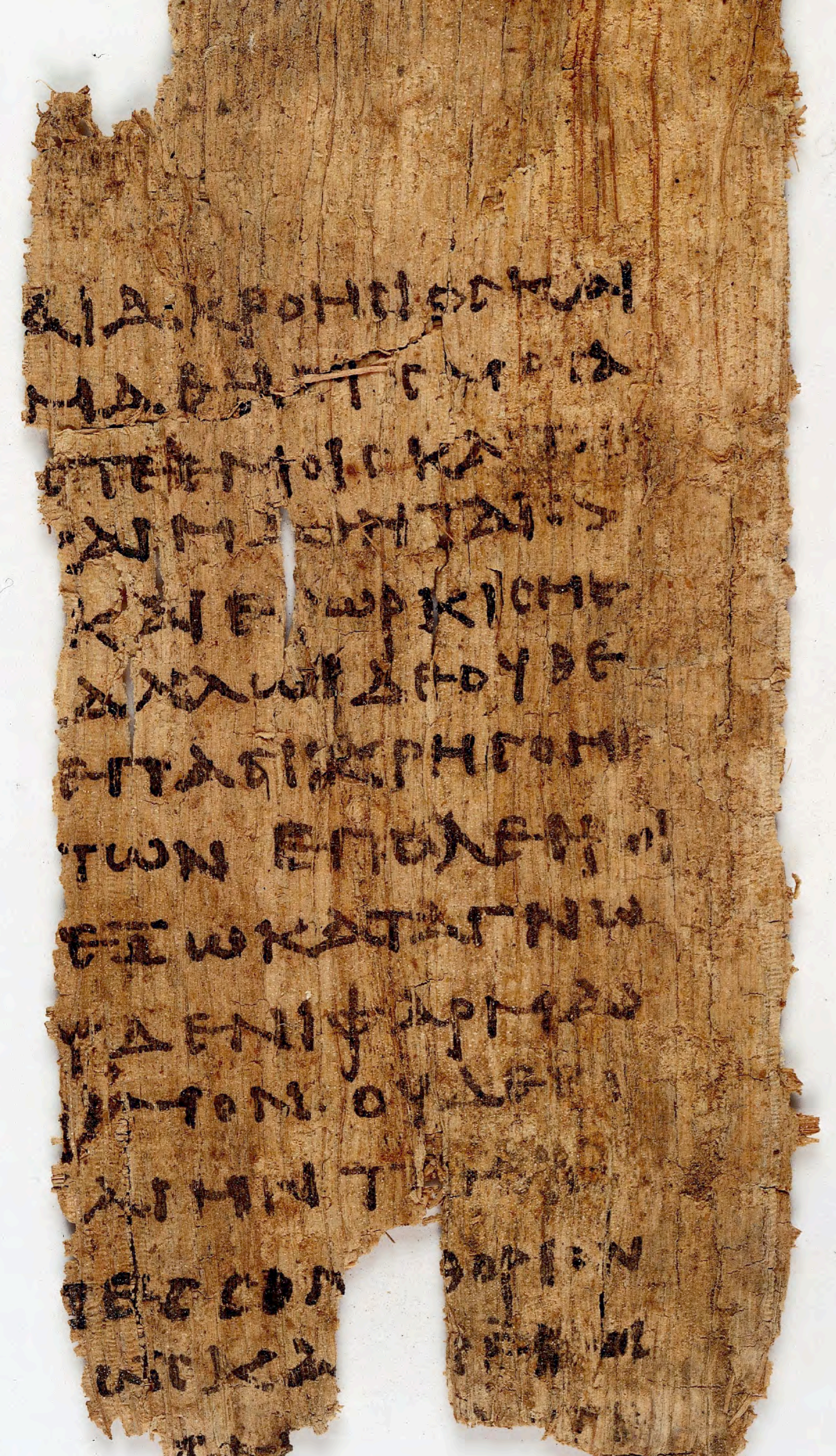
A Systemic Design Code of Ethics ?

Do we need our own Hippocratic Oath?
What key points do we need & envision?

Many of us guide our work with a version
of the Serenity Prayer:

**Grant us the serenity to accept the things
we cannot change, the courage to
change the things we can, and the
wisdom to know the difference.**

–US theologian Reinhold Niebuhr
Used by Alcoholics Anonymous, 1940s–present



Educate for social data literacy

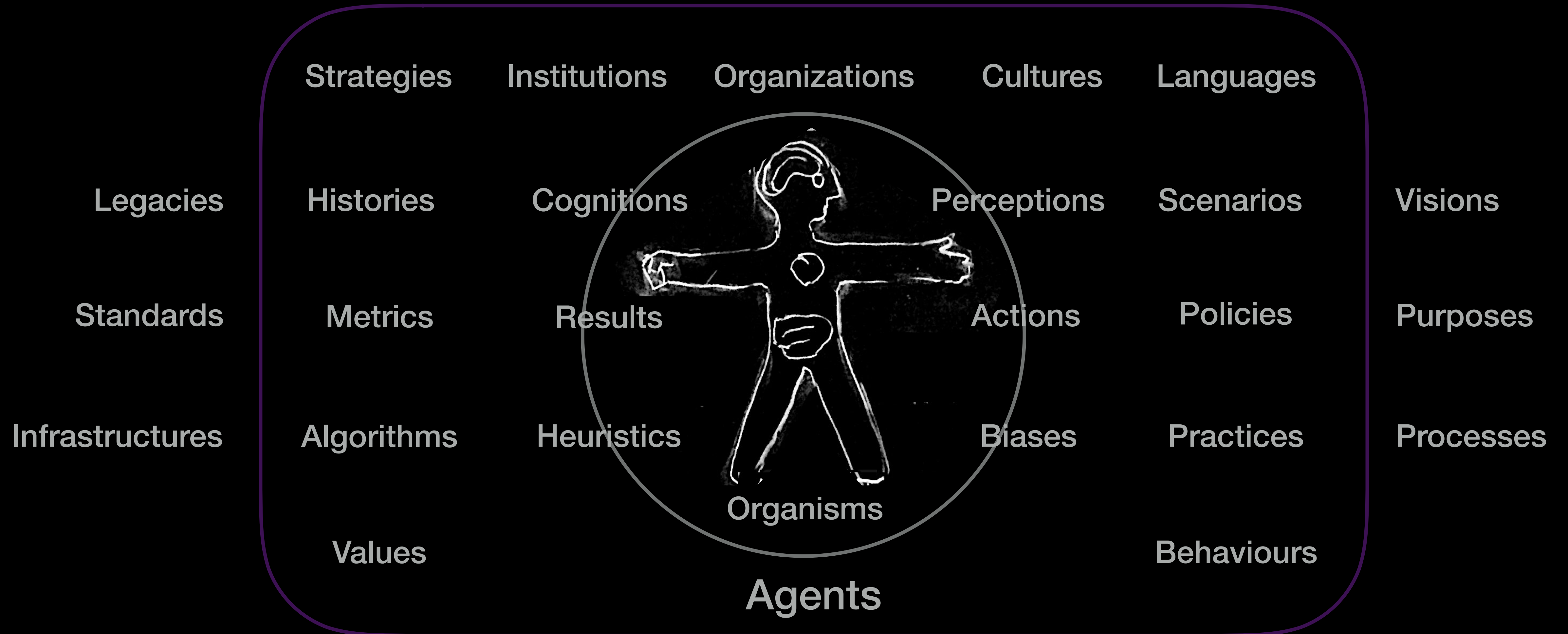
Can we teach a new generation critical and ethical competencies such as how to spot fake news?

Italy's speaker of the House Laura Boldrini says yes & Italy is now teaching media literacy in eight thousand Italian high schools.

Livesay, C. (2017). Italy Takes Aim At Fake News With New Curriculum For High School Students. National Public Radio (US). Retrieved from <https://www.npr.org/2017/10/31/561041307/italy-takes-aim-at-fake-news-with-new-curriculum-for-high-school-students>



Designing for Emergence: the new design space



Designing for Emergence: **design principles**

Relinquish total control.

—author, Kevin Kelly

What's missing from this list?

Balance creativity & stability.

—systems & sustainability scientist, Fritjof Capra

Be proud parasites & hackers.

—sci fi author, IP activist, Corey Doctorow

Give up strong derivability.

—synthetic biologist, Norman Packard

Thank you!

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