



UNIVERSITAS GADJAH MADA
FACULTY OF ECONOMICS
AND BUSINESS

Digital Platform Analysis & Discussion

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Outline



Digital Economy & Digital Technology

The Rise of Digital Platform

Impact and Consequences

Challenges and Dilemma

Digital Platform Aristocracy

Proposed Suggestions

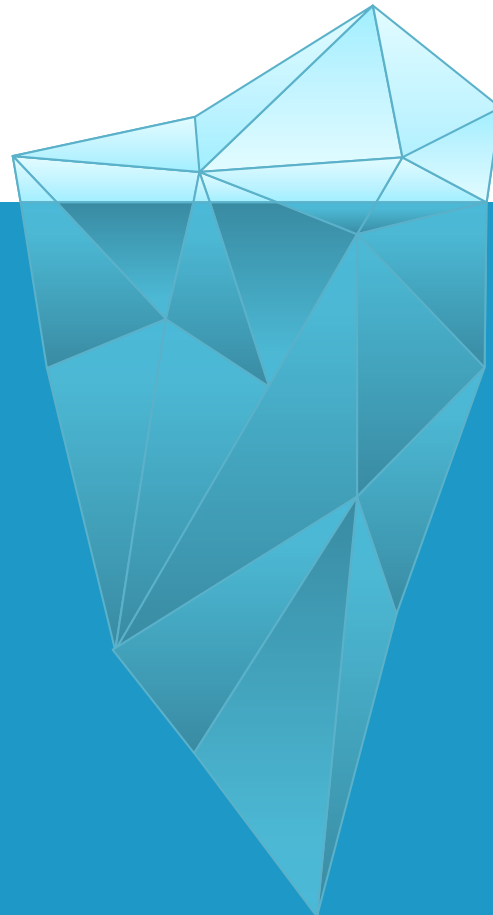
Digital Economy



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digital economy
offers different
kind of promise

- Physical material
- Digital artifact
 - Malleable, editable, open, transferable, ambivalent
(Kallinikos et al., 2013; Yoo et al., 2010; Zittrain, 2008)



hope

fairer and more
comprehensible society

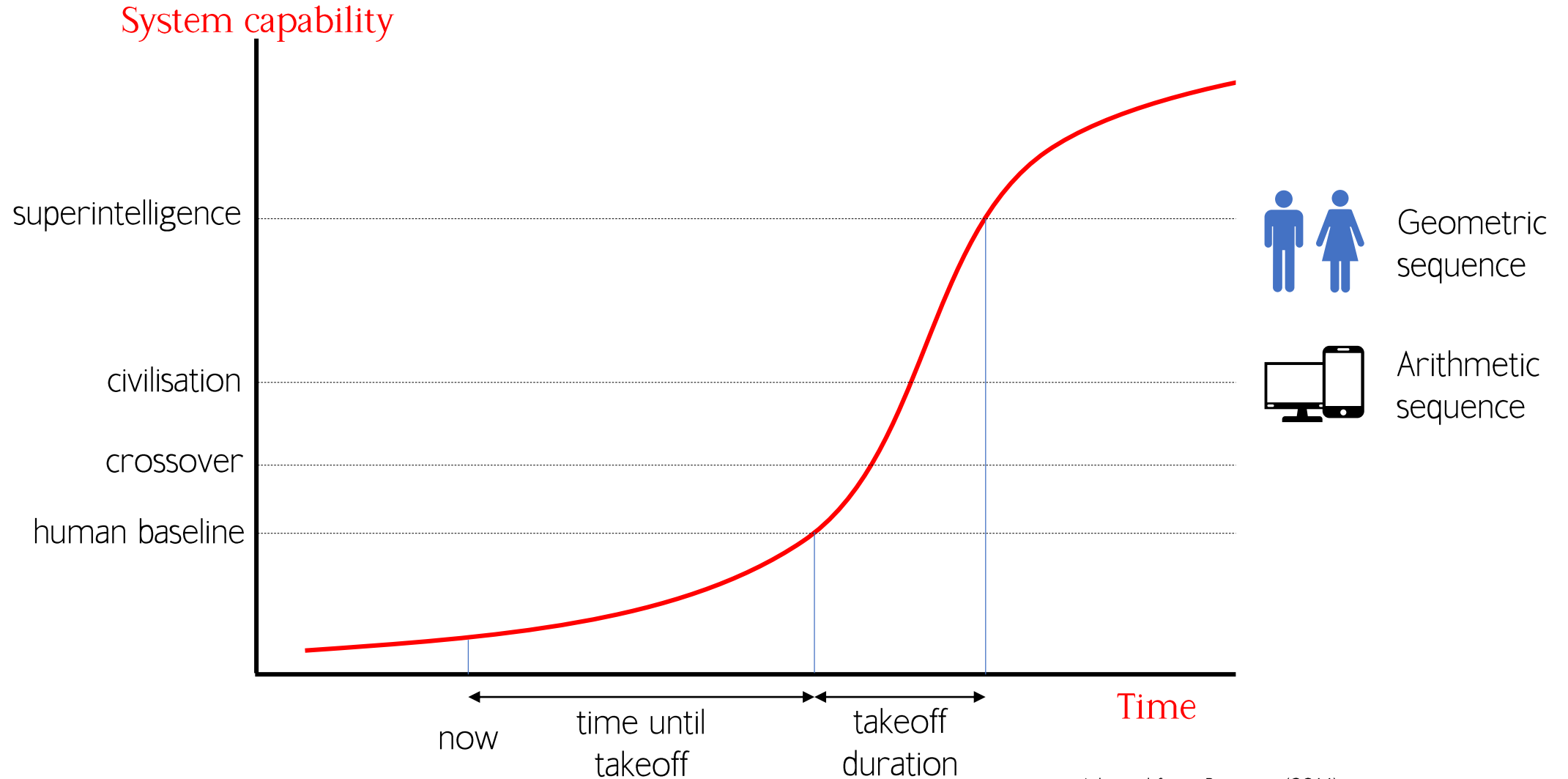
despair

dangerously unstable,
unfair, and unproductive

Pathway to Singularity

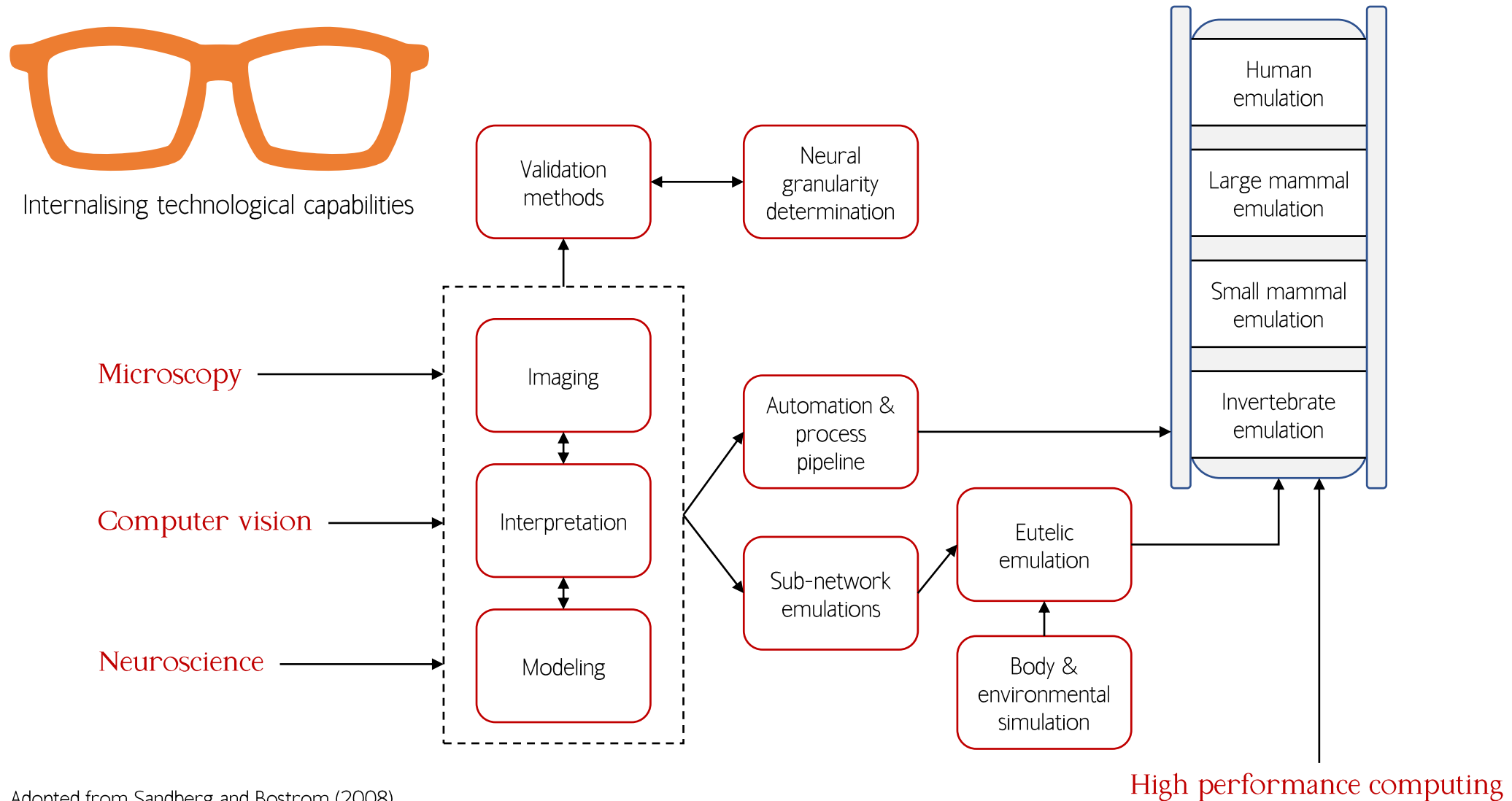


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Adopted from Bostrom (2014)

Human Emulation Roadmap



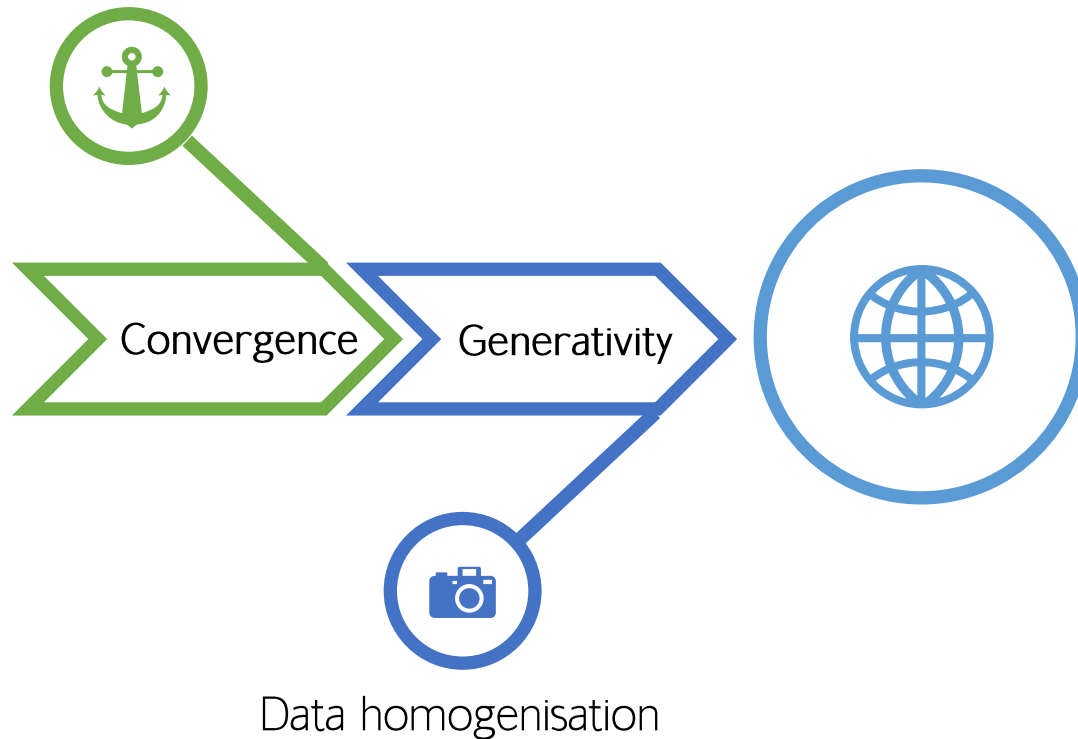
Adopted from Sandberg and Bostrom (2008)

Digital Technology



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Reprogrammability



Digital Technology:

- Reprogrammability
- Data homogenisation

(Yoo et al., 2010)



- Convergence
- Generativity

Resulted in:

- Digital technology platform
(Gawer, 2009; Gawer & Cusumano, 2002; Tiwana et al., 2010)
- Distributed innovation
(Lakhani & Paretta, 2007; Sawhney & Prandelli, 2000)
- Combinatorial innovation
(Arthur, 2009; Baldwin & Clark, 2000; Schilling, 2000)

Digital Platform



Platform is a building block, providing an essential function to a technological system — which acts as a foundation upon which other firms can develop complementary products, technologies, or services. (Gawer, 2009)

- The concept of facilitated business exchanges is nothing new. We have always had platform businesses—Champagne fairs in medieval times (bazaar) are an early example (Tucker, 2018)
- Firms now innovate by creating platforms, rather than single products (Yoo et al., 2012)
 - Become loosely coupled organisations
 - To support its different functions
 - Add different capabilities to take advantage of shared data resources

The Rise of Digital Platform



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Network Externalities

The effects on a user of a product or service of others using the same or compatible products or services. Positive network externalities exist if the benefits are an increasing function of the number of other users. Negative network externalities exist if the benefits are a decreasing function of the number of other users. (Shapiro & Varian, 1999; Liebowitz & Margolis, 1994)

Technology Affordances

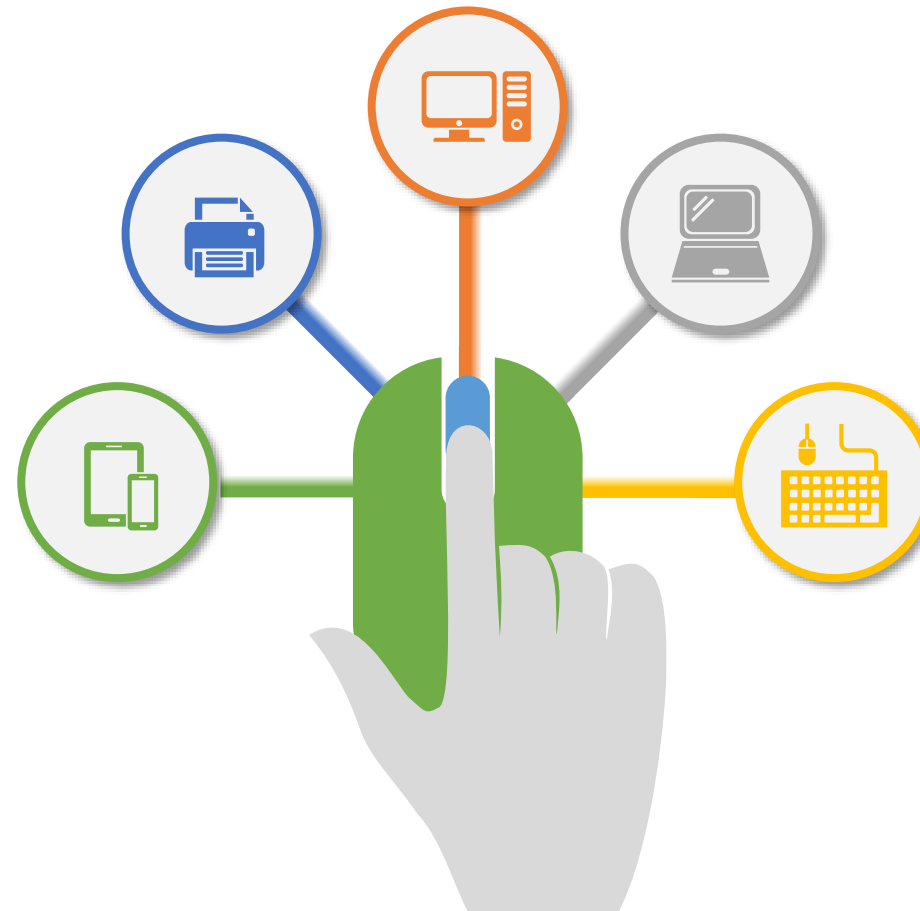
Refers to new technologies and what tasks users can possibly perform with technologies at their disposal. These possibilities and permissions emerge during the interaction process between user and the technological artefact. (Majchrzak & Markus, 2012)



Impact and Consequences

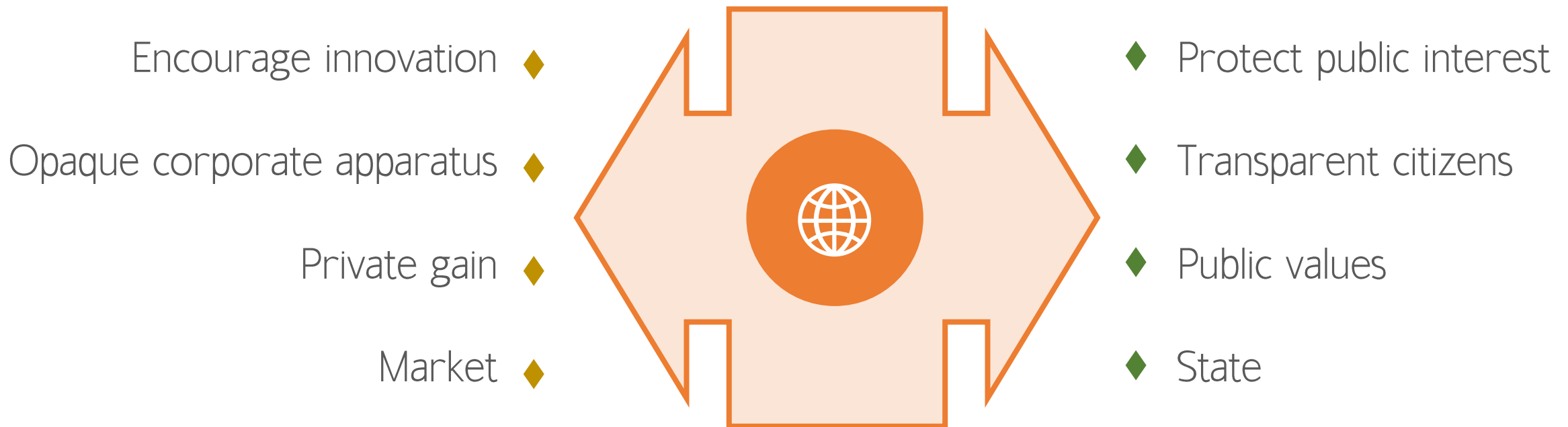
Firms are struggling to balance
between generativity and control

More data sharing and
distributed processes
across organisational
boundaries



Innovation activities
increasingly becoming
horizontal to achieve
efficiency

Challenges and Dilemma



Digital Platform Aristocracy



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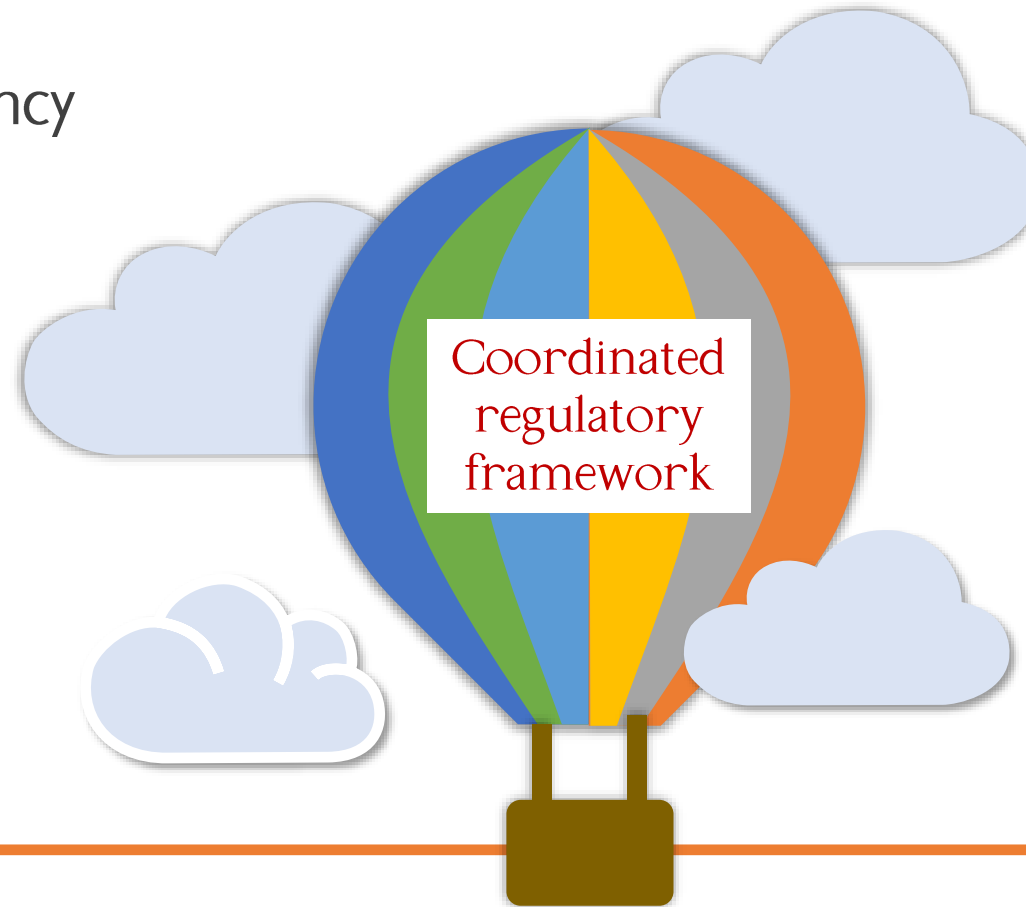
Common accusations

- Digital innovations are market driven and dominated by profit-maximising motives
 - Shadowy partnership among high-profile start-ups and companies
 - Unmonitored, uncontrollable, and concentrated power among those dominant players
-
- Digital platform is exercising (and capitalising) its power over the internet
 - It becomes the most dynamic, profitable, and important part of the information economy
 - Direct state intervention is **necessary** to assure that smaller players get a fair share

Proposed Suggestions

Qualified transparency

- Opaque technologies are leaving users in the dark
- Public disclosure of the reasons for the algorithmic change



Intelligible society

- Total information awareness campaign
- Educated citizenship through integrated programmes
- Empower experts



(digital) consumer watchdog
Independently and collectively organised

expert-based government agencies
Computer scientist, programmer, data analyst, etc.



Toward Transparency Solution



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A Spectrum of Disclosure

	Depth of disclosure	Scope of disclosure	Timing of disclosure
Preserving secrecy	Shallow and cursory	To small group of outside experts	Delayed for months, years, or decade
Providing transparency	Deep and thorough	To the general public	Immediate

Adopted from Bostrom (2014)



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Thank you