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8 August 2018

OECD

Digital Transformation – OCED “Going Digital” Project

Contact :

Tel:
Email:

Digital Transformation

- OECD "Going Digital" Project -

Wonki Min

Professor, SUNY Korea

Chairman, OECD Committee on Digital Economy Policy

Key Concepts

Digitisation is the conversion of analogue data and processes into a machine-readable format.

Digitalisation is the use of digital technologies and data as well as interconnection that results in new or changes to existing activities.

Digital transformation refers to the economic and societal effects of digitisation and digitalisation.

Digital technologies are radically changing our lives!

2005

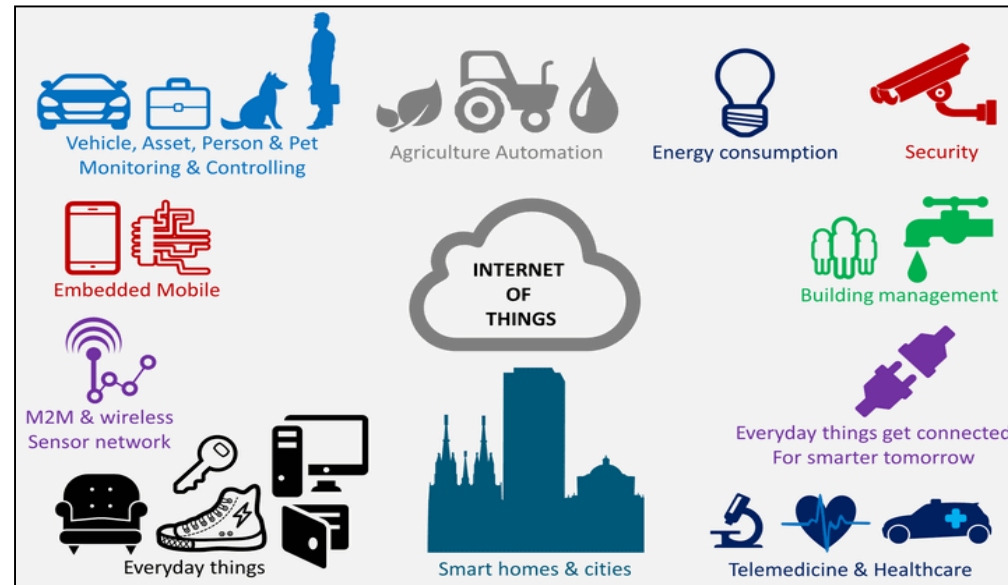


2013



Use of an ecosystem of digital technologies...

- Enables a new wave of digital transformation that:
 - Builds on digitisation and interconnectedness (the Internet)
 - Is more than the sum of its parts
 - And includes technologies such as:
 - Cloud computing
 - Internet of Things
 - Big data
 - Robotics
 - 3D printing
 - Artificial Intelligence
 - Distributed ledgers
 - ...



... is a game-changer providing new opportunities and enabling new business models

I can afford this house,
by renting it out.



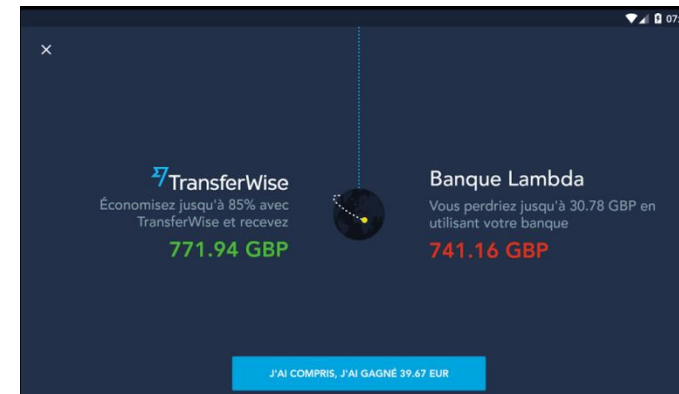
I don't need a car,
I need mobility.



With drones, I can get deliveries anywhere.



I don't need a bank,
I can use a platform.



Disruptions in the market

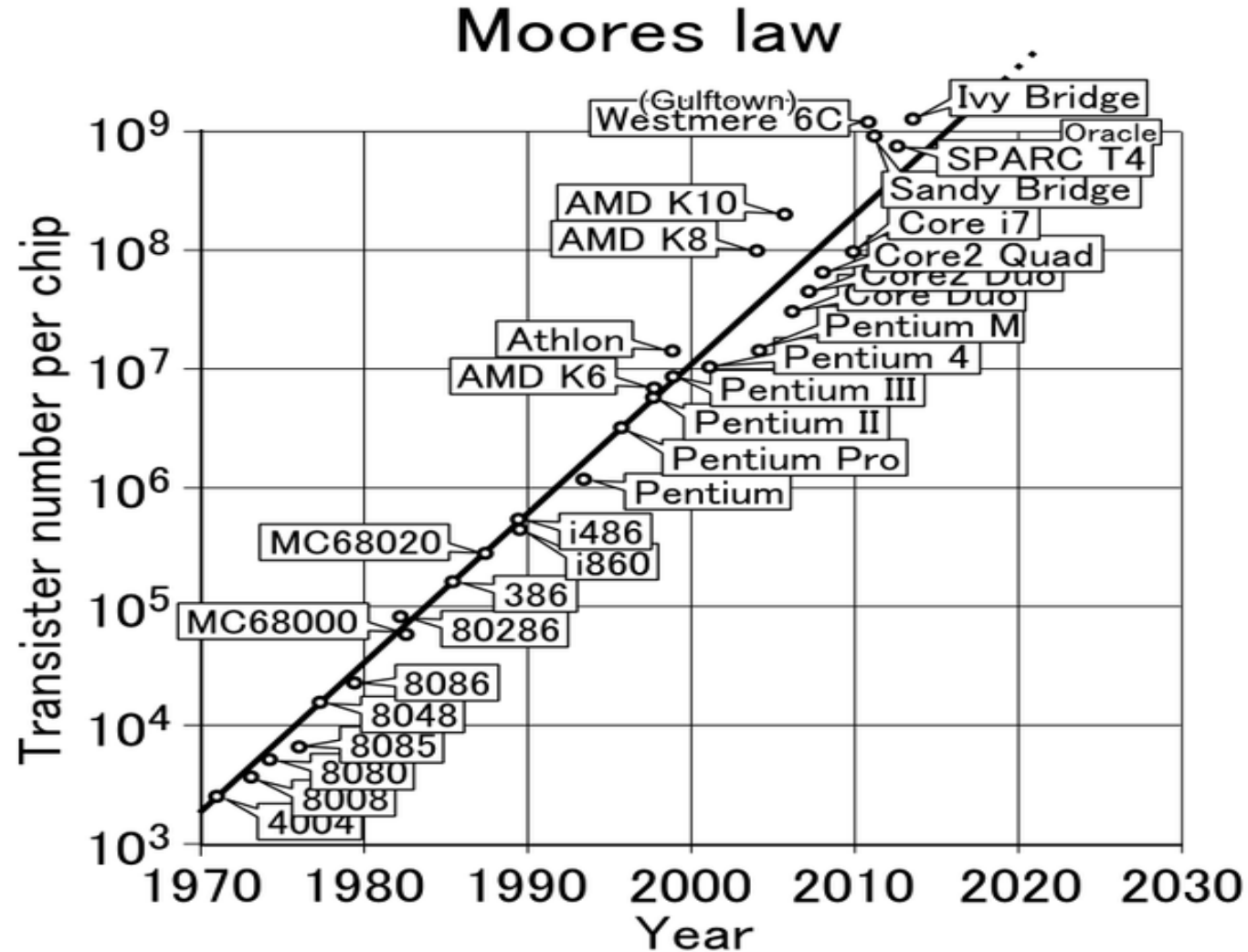
Losers



Winners



Data: A fundamental driver

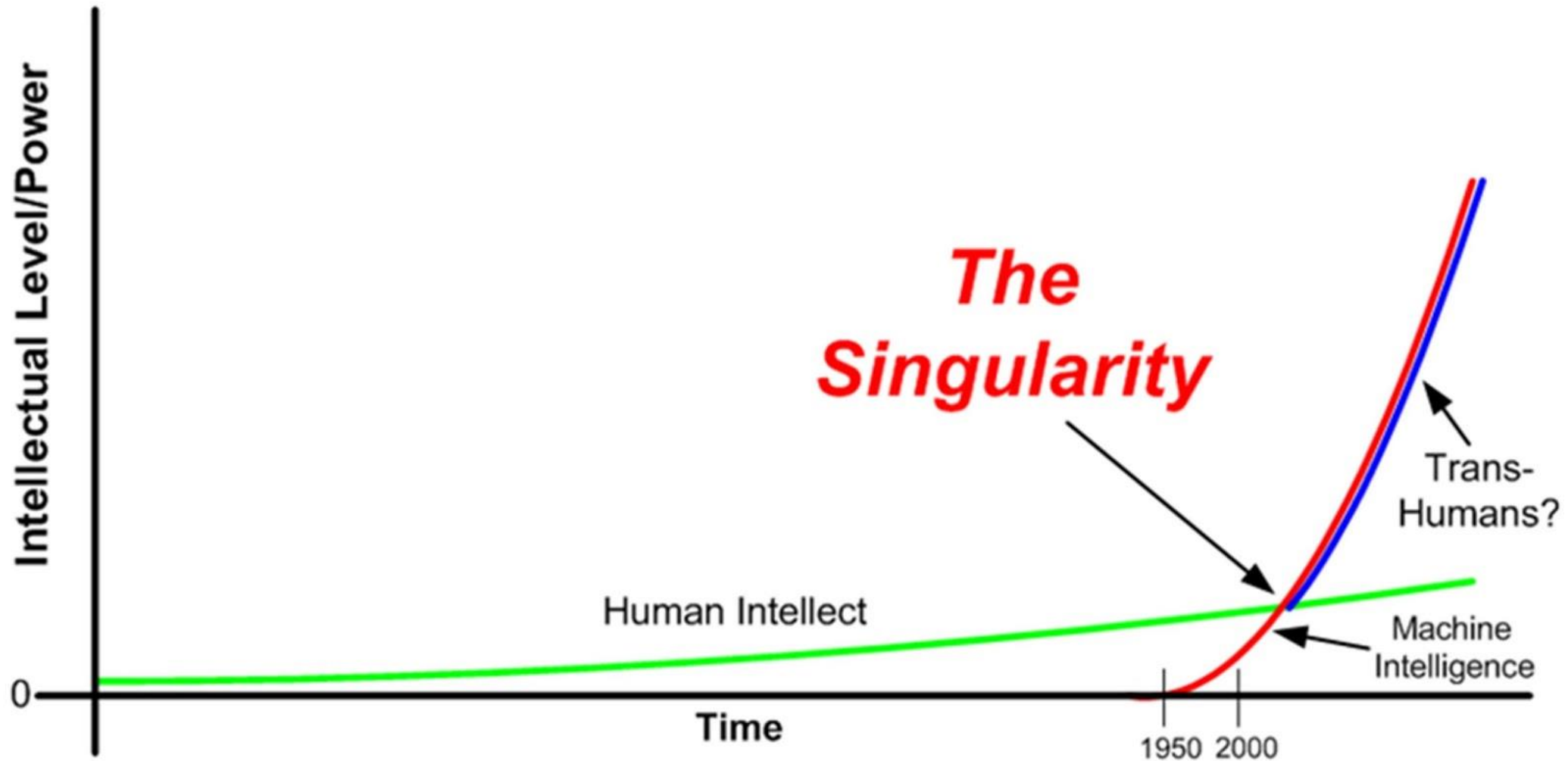


Digital Privacy and Security

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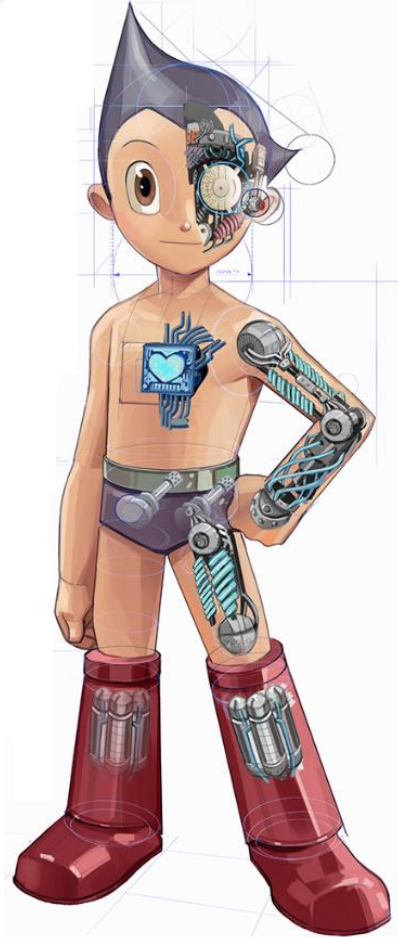


Technological Singularity!

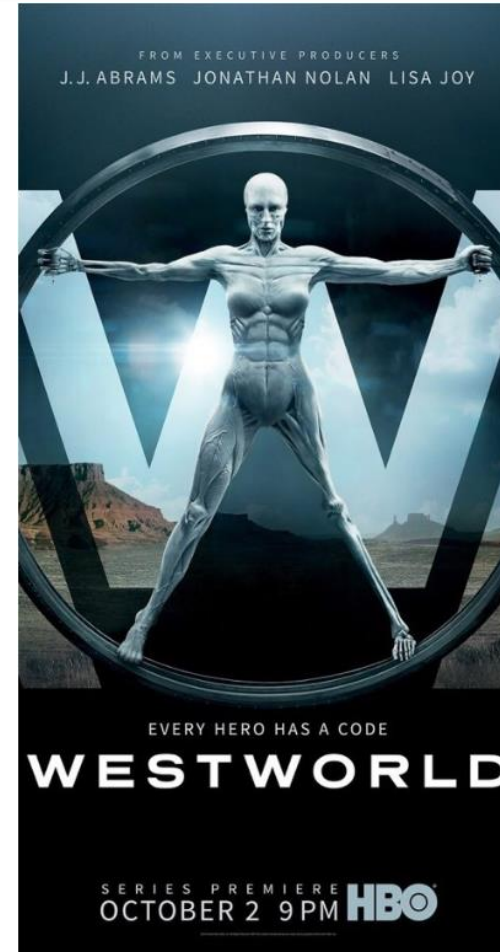


What's next?

Astro Boy (1952)

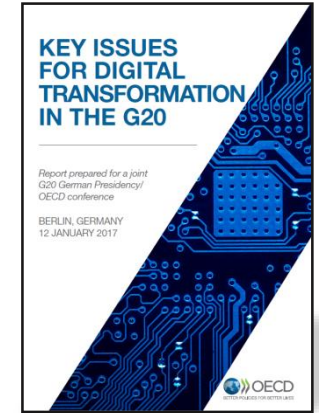


Westworld (2016)



Going Digital Launch on 12 January 2017 in Berlin

- Joint OECD-German G20 Presidency Conference



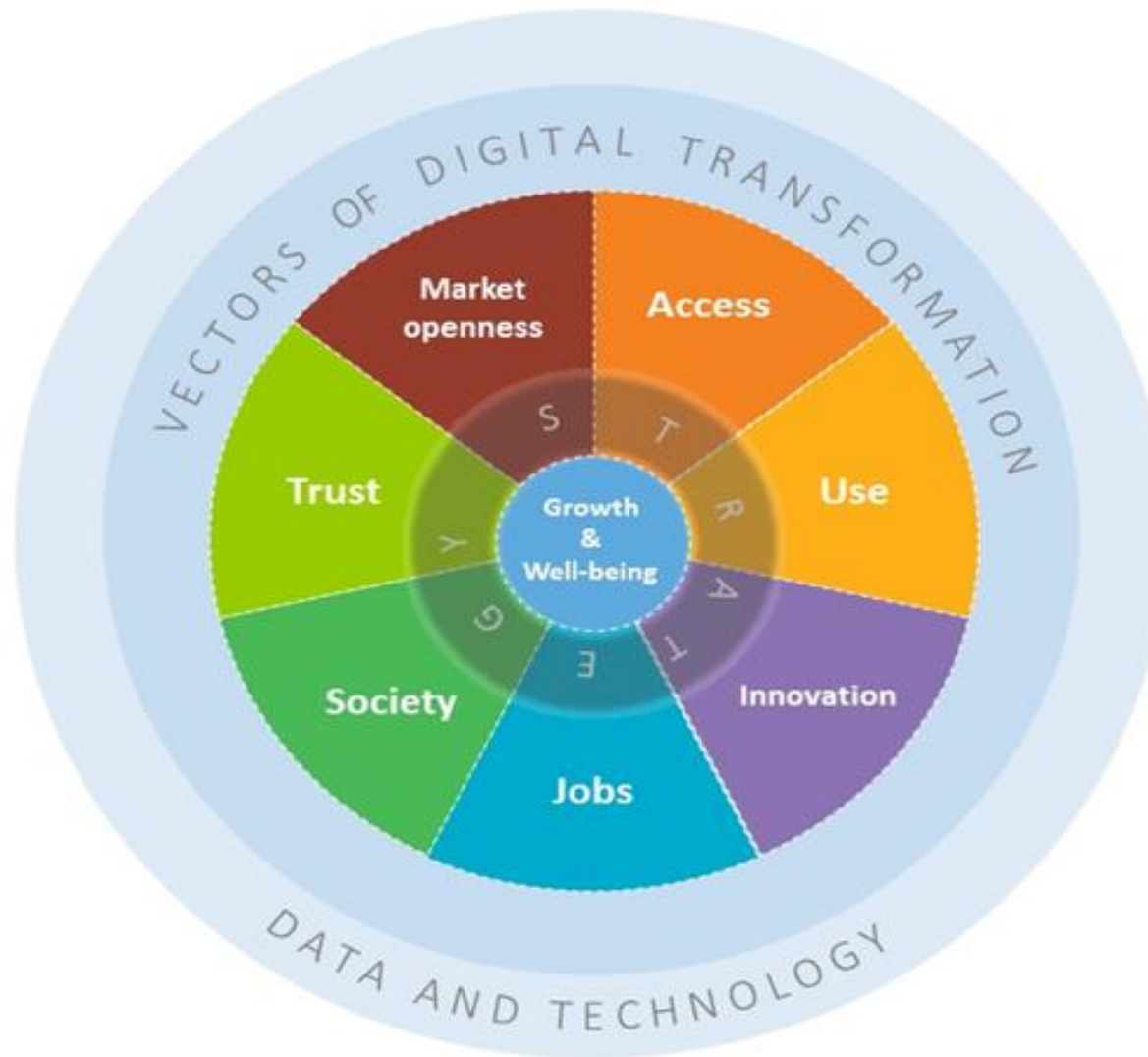
Going Digital includes horizontal analysis

...

- **Understanding** digital transformation through a “vectors” approach
- **Responding** to digital transformation through the development of an integrated policy framework
- **Exploring** transversal issues:
 - Digital security
 - Policy design
 - Strategic foresight



Moving Beyond Policy Silos: An Integrated Policy Framework



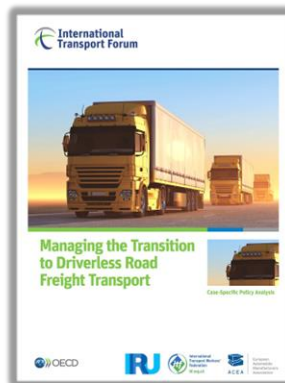
Main Policy Issues:

1. Access
2. Use
3. Innovation
4. Jobs
5. Society
6. Trust
7. Market Openness

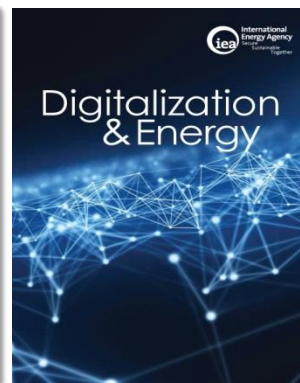
Leading to an Integrated Strategy for Growth and Well-being

...and work across the OECD focused on specific policy areas...

- Over **80 projects**, including more than 70 reports and 15 workshops
- Projects reflect the range of policy domains participating in the project, e.g.:



Transport



Energy



Competition



Tax



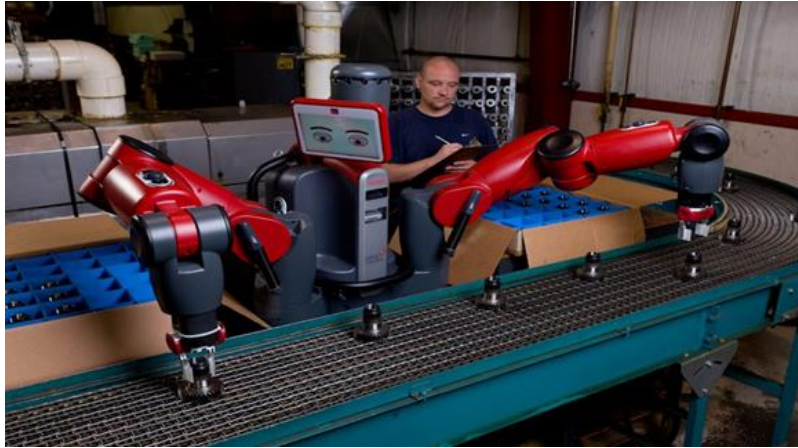
Labour &
Skills



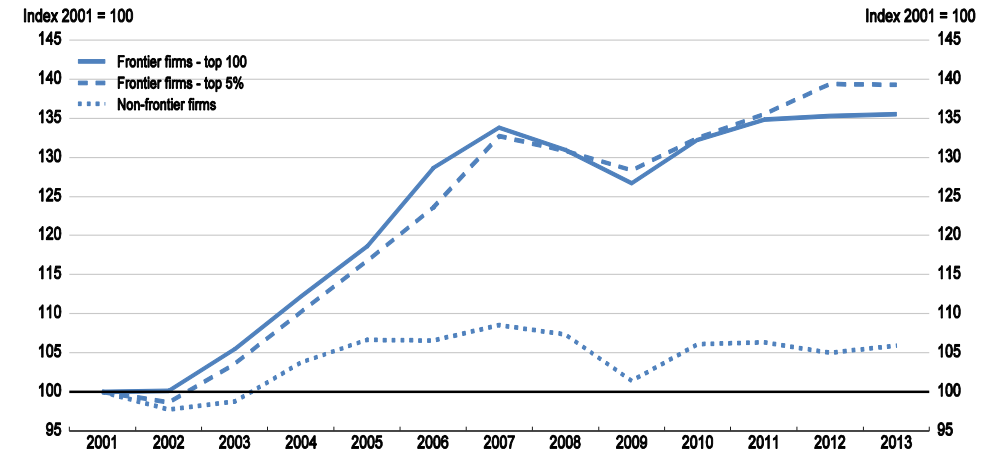
Digital
Economy

And many others...

...as well as in-depth work on some key policy questions



Jobs, skills and the nature of work



Productivity, competition & market openness



Well-being & inclusion



Measurement

7 Vectors of Digital Transformation

**Scale, scope
and speed**

Scale without
mass

Panoramic
Scope

Speed:
Temporal and
Intertemporal
dynamics

**Ownership,
assets and
economic
value**

Intangible
assets and the
new forms of
value creation

**Relationships,
markets and
eco-systems**

Transformation
of space

Empowerment
of the edges

Platforms and
eco-systems

Scale without mass

Firms and organisations are increasingly scaling without mass...



Coursera: 2000+ courses,
24m users, 30 languages



Whatsapp: 300m users,
50b message/day, 55 employees

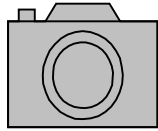
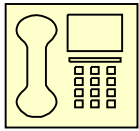


Wikipedia: 40+m articles
in 300+ languages,
15b+ views/month, 280 staff

Challenges policies aimed at “small” businesses, *de minimus* activity.
Allows a global reach with no footprint, challenges notions of sovereignty.

Panoramic Scope

Reduced transaction and co-ordination costs



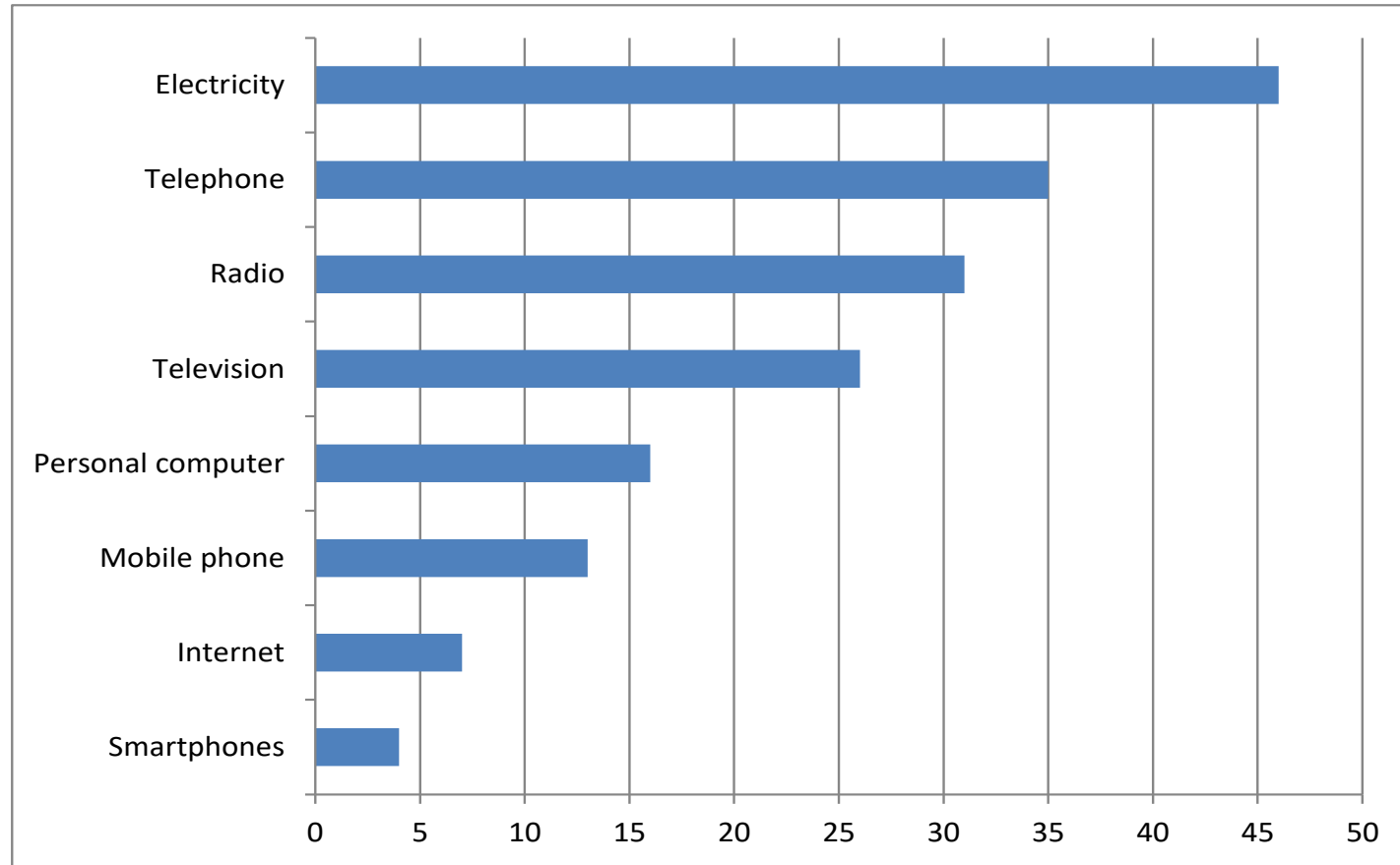
amazon



Challenges policies based on traditional sectoral/product lines, rise of multi-sided business models or legacy conceptions of the roles of particular actors.

Speed: Temporal dynamics and Intertemporal Dynamics

Years until used by 25% of US population



Challenges legacy policies and slow policy making -
speed may promote policy “arbitrage” strategies

Intangible capital and the new forms of value creation



**Rolls Royce:
Power by the-
hour**

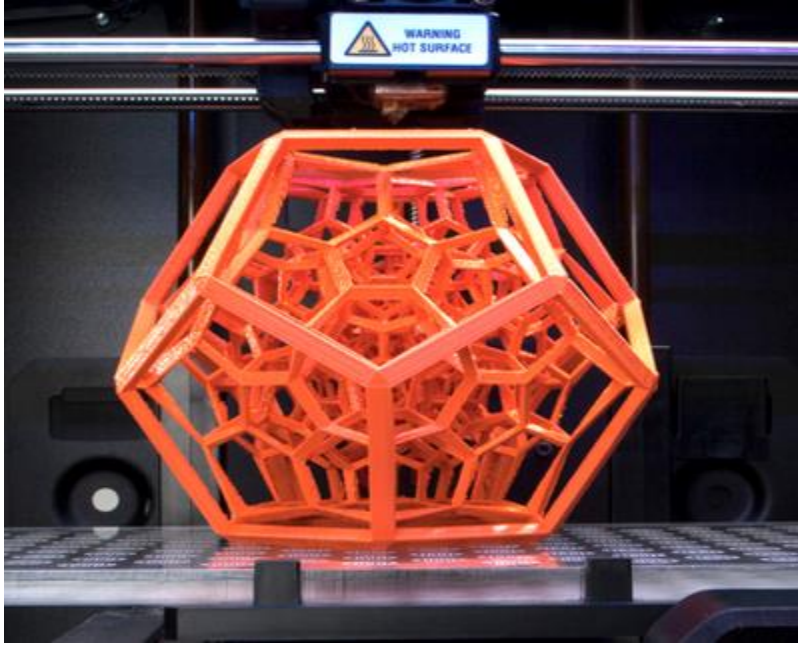
**New Holland:
Precision Land
Management**



**AWS:
Cloud Computing**

Challenges policies directed at capital, e.g. tax incentives or accounting rules, trade policy (goods vs services).

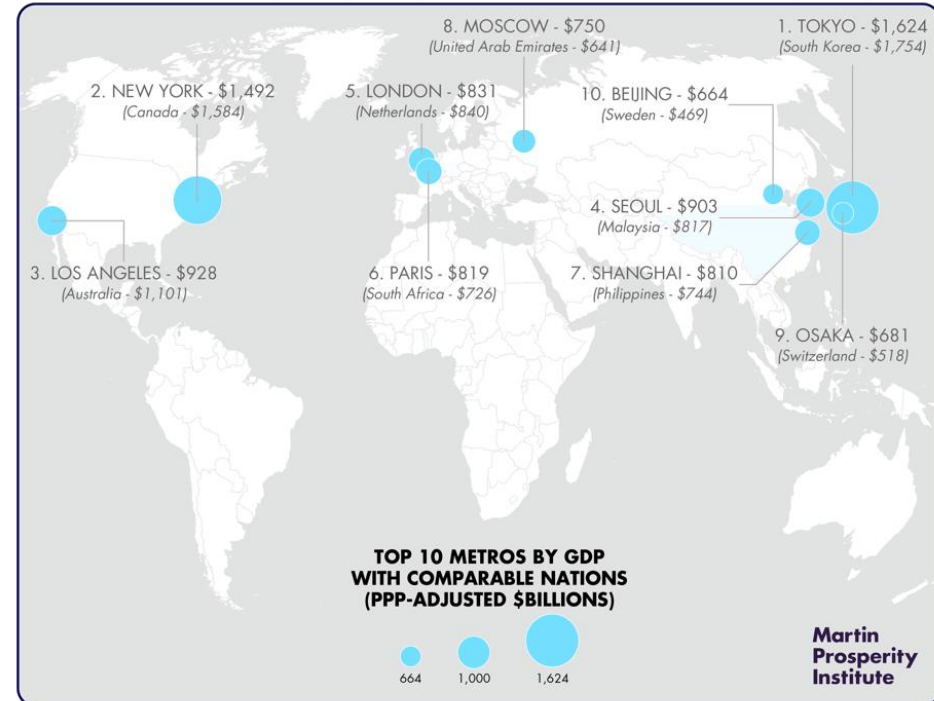
Transformation of space



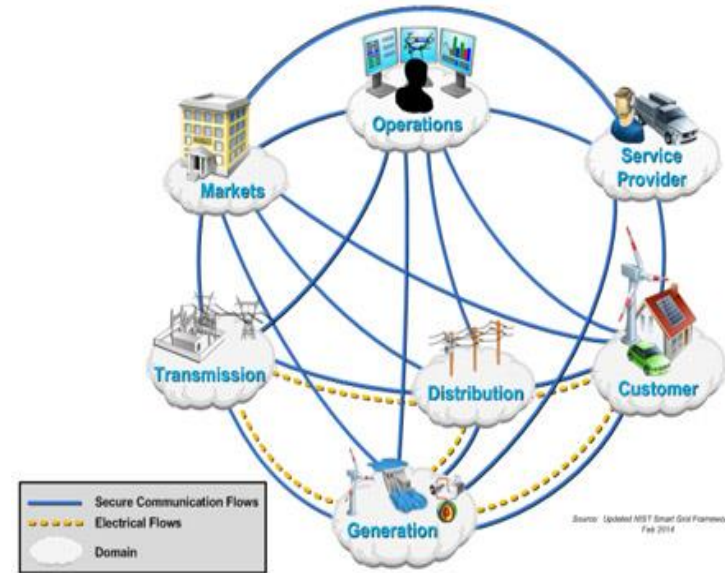
Challenges policies based on location (e.g. labour markets, consumer policy, data protection, tax policy, etc.).

The world is both large and small...

...agglomeration benefits some economies more than others



Empowerment of the edges



Empowered and networked edges can increasingly circumvent traditional gatekeepers or hubs, challenging policies that used to rely on central points (e.g., security, privacy, government services, etc.)

Platforms and eco-systems



New intermediaries and new interlocking systems challenge legacy regulations and policies designed for traditional business models and markets.

Overarching messages

- Digital Transformation holds **immense opportunities** to improve people's lives and boost economic growth. But governments and stakeholders must **shape it** to ensure its benefits.
- The Internet cuts across national borders and changes conventional notions of location, distance, and jurisdiction, **requiring stronger international and multi-stakeholder co-operation**.
- Privacy in a data-driven economy requires **interoperable strategies that strike a balance** between the benefits of reuse & sharing of data, and concerns for privacy, security & intellectual property.
- **Reducing digital divides** along many dimensions, including access, geography, gender, age, and level of education, are essential to ensuring an **inclusive and people-centered approach**.
- **Governments have an opportunity to be remade** by digital transformation to improve efficiency, enable innovative policy design, and expand citizen and stakeholder engagement.

Key outputs and milestones

- Thematic **stand-alone reports**
- Interim **report** to the **2018 OECD MCM**
- Range of **flagship reports** with a digital focus: Digital Economy Outlook, STI Scoreboard, Employment Outlook, Skills Outlook
- Final **synthesis report** and **measurement publication**
- High-level **conference** planned for 11-12 March 2019
- Beyond the book:
 - **Roundtables** and national discussions to help develop national digital strategies
 - One or more OECD **Council Recommendations** related to the digital transformation (e.g. on data sharing and re-use);
 - Work towards a **Going Digital Toolkit Portal** that would provide tools and good practices for the digital age



Going Digital Interim Report:

<http://www.oecd.org/mcm/documents/C-MIN-2018-6-EN.pdf>

Going Digital website: <http://oecd.org/going-digital>

Twitter: @OECDinnovation

Subscribe to the STI newsletter: www.oecd.org/sti/news.htm

Thank you