Digital transformation and Artificial Intelligence

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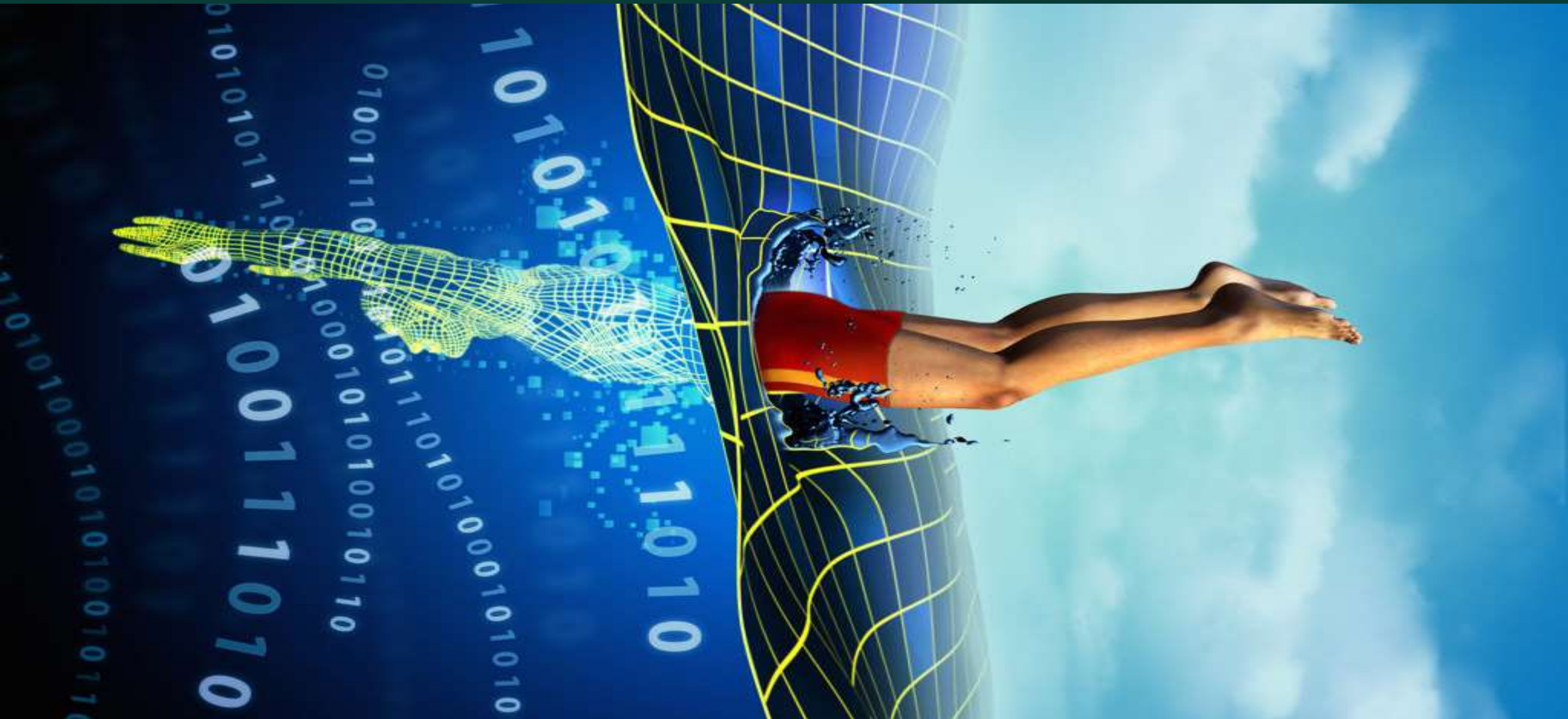
European Commission

Digital transformation refers to the profound changes taking place in the economy and society as a result of the uptake and integration of digital technologies in every aspect of human life



Artificial Intelligence as top technology for Transformation

Table 2:	Top 15 technologies of 2025
1	Artificial intelligence
2	Internet of Things/Smart Things
3	Robotics/Automation
4	Cybersecurity
5	Big data/analytics
6	Energy storage/Batteries
7	Blockchain
8	5G
9	Cloud
10	FinTech
11	Battery-less/energy harvesting
12	Augmented/mixed reality
13	Voice assistants/VPA
14	3D printing
15	Virtual reality

Source: IDATE DigiWorld

Partnership on Artificial Intelligence hopes to invite 'academics, non-profits and specialists in policy and ethics' to join. Photograph: Alamy

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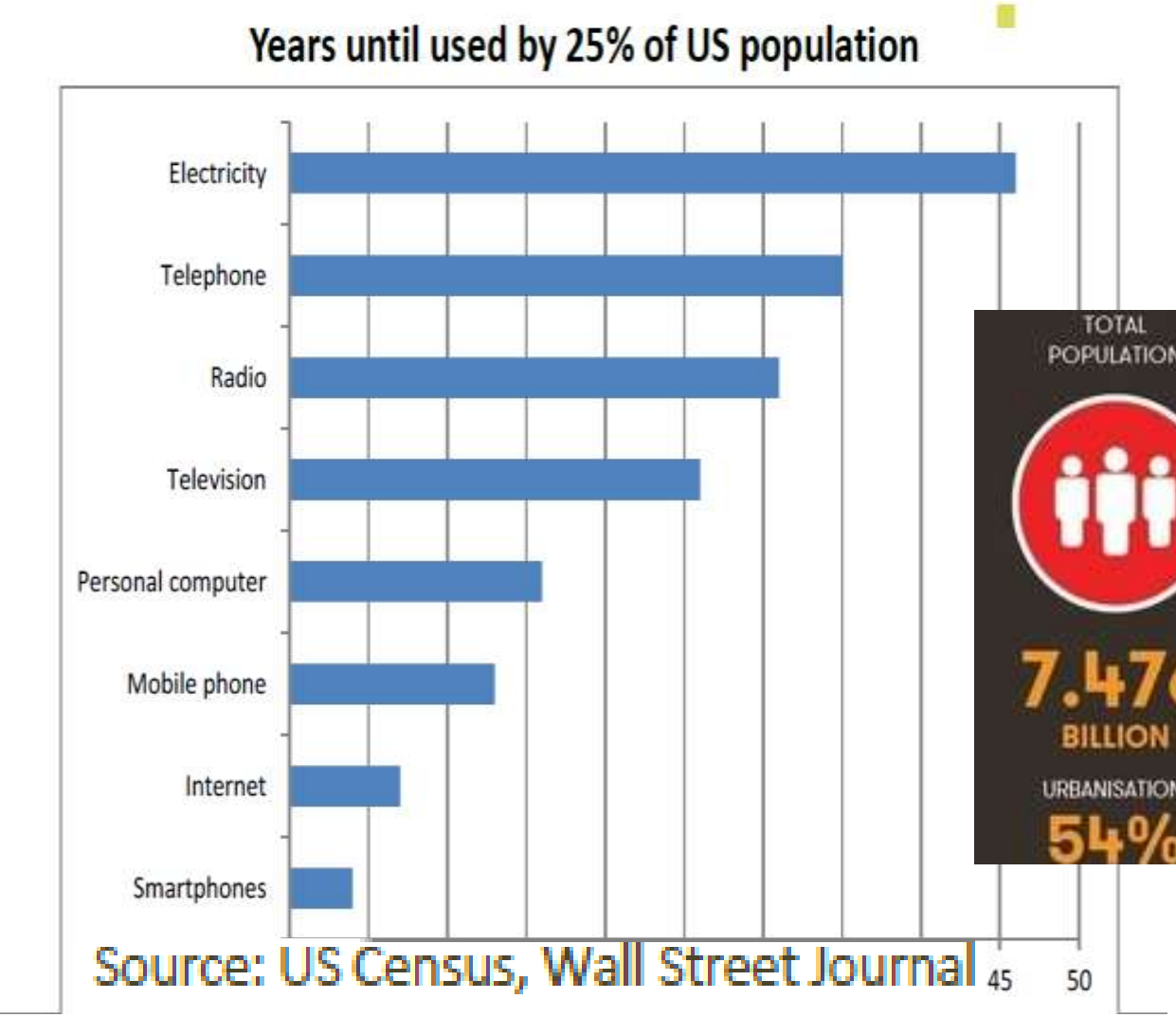
Unprecedented Speed and Pervasiveness



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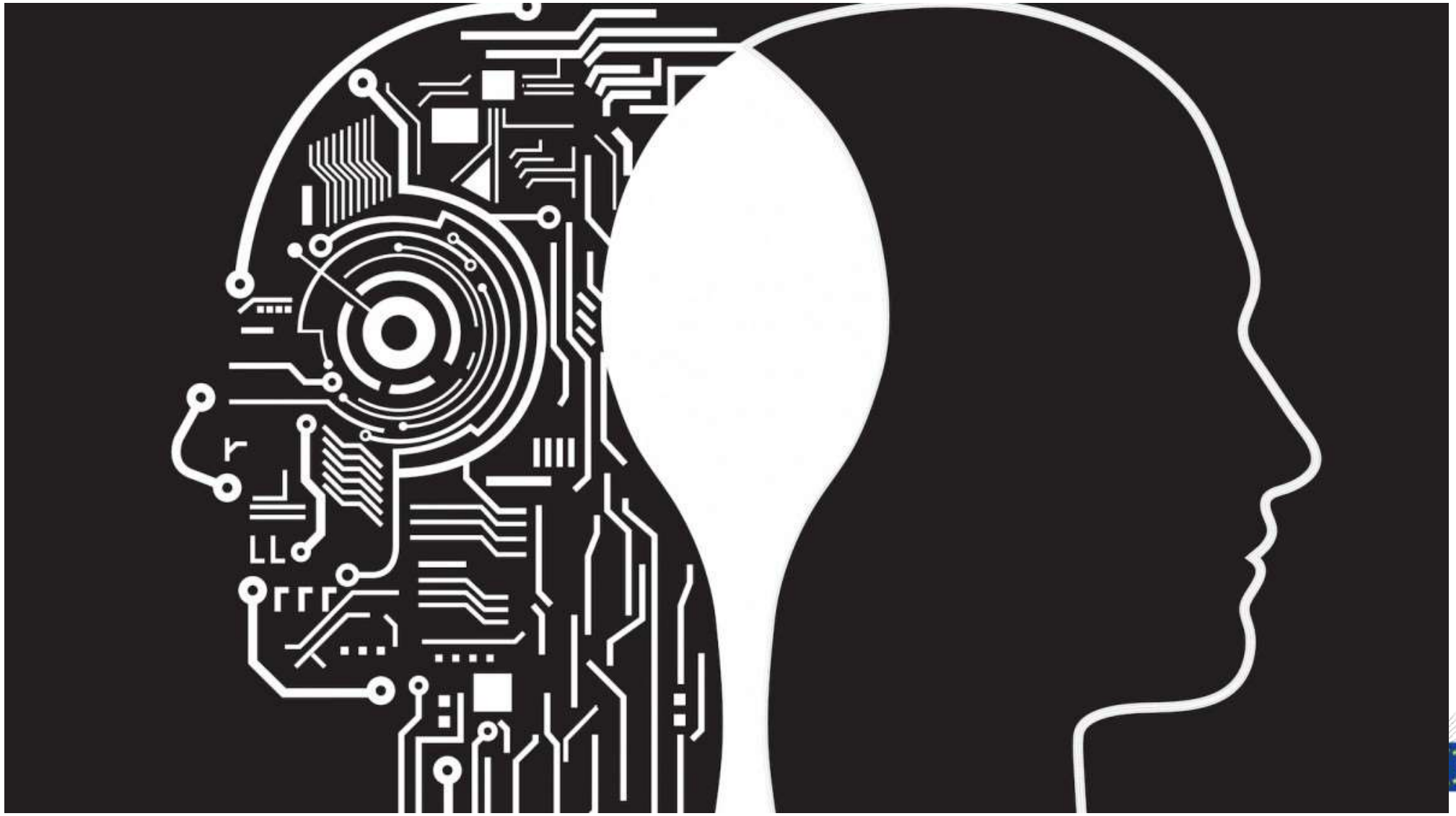
Artificial Intelligence Is Not Bias-Free



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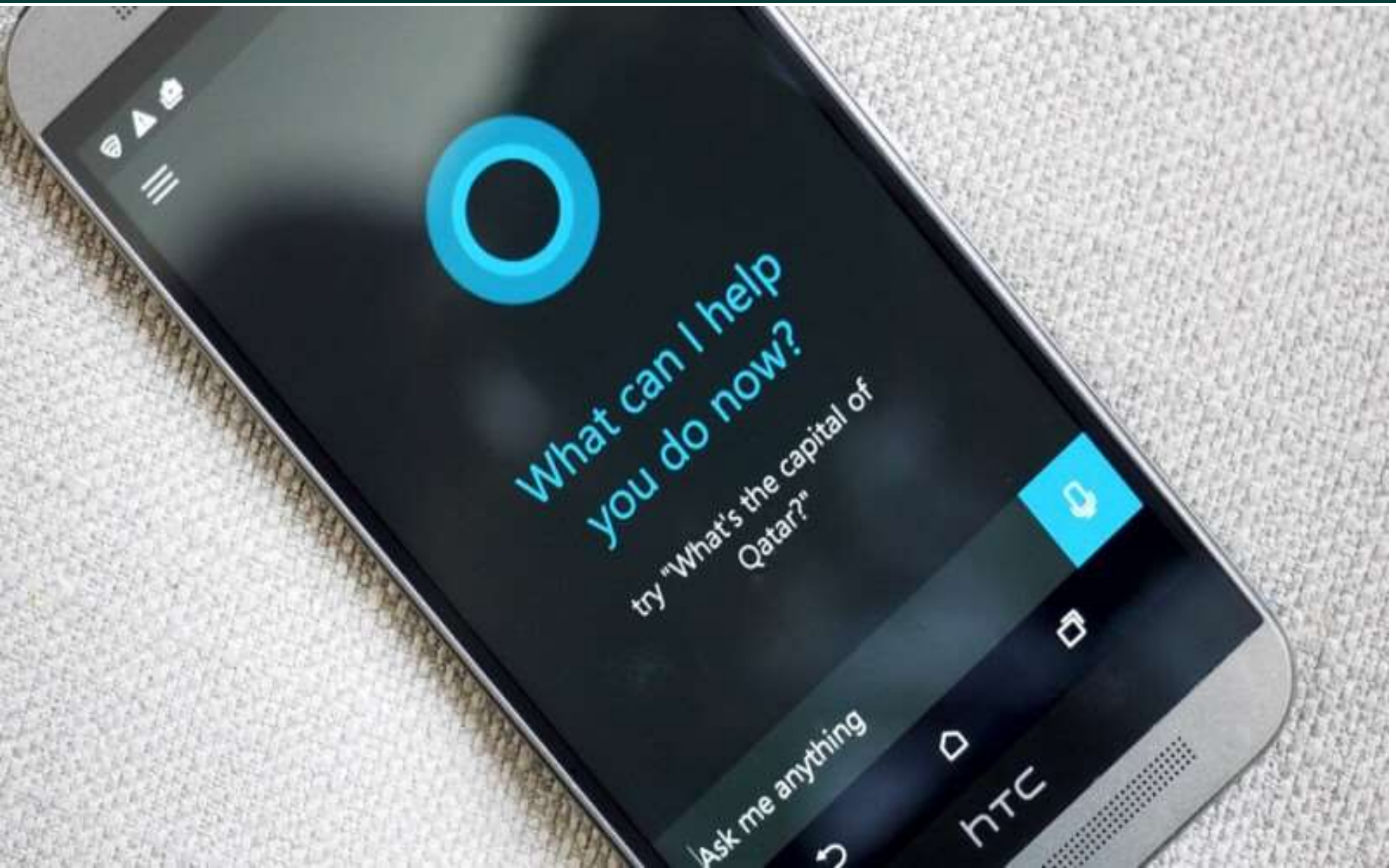
Rise of the machines



We don't know how personal assistant shape human behaviour

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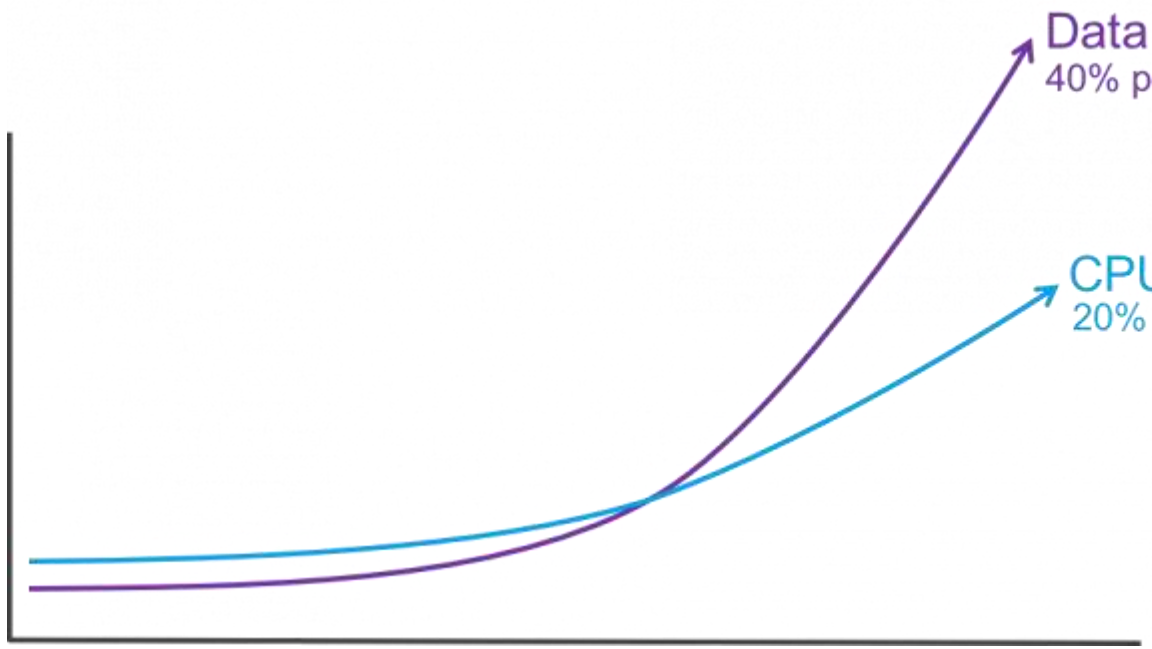
Data Vs Computing Power



Technological solutions emerge

- New powerful chips
- Edge and Fog computing
- Quantum computing …

General Purpose Microcontrollers + sensors

Dedicated AI accelerators + smart sensors

Silicon-Born-AI on single Chip

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Data is the new gold

https://greenbookblog.org/2015/02/11/data-the-new-gold-fever/

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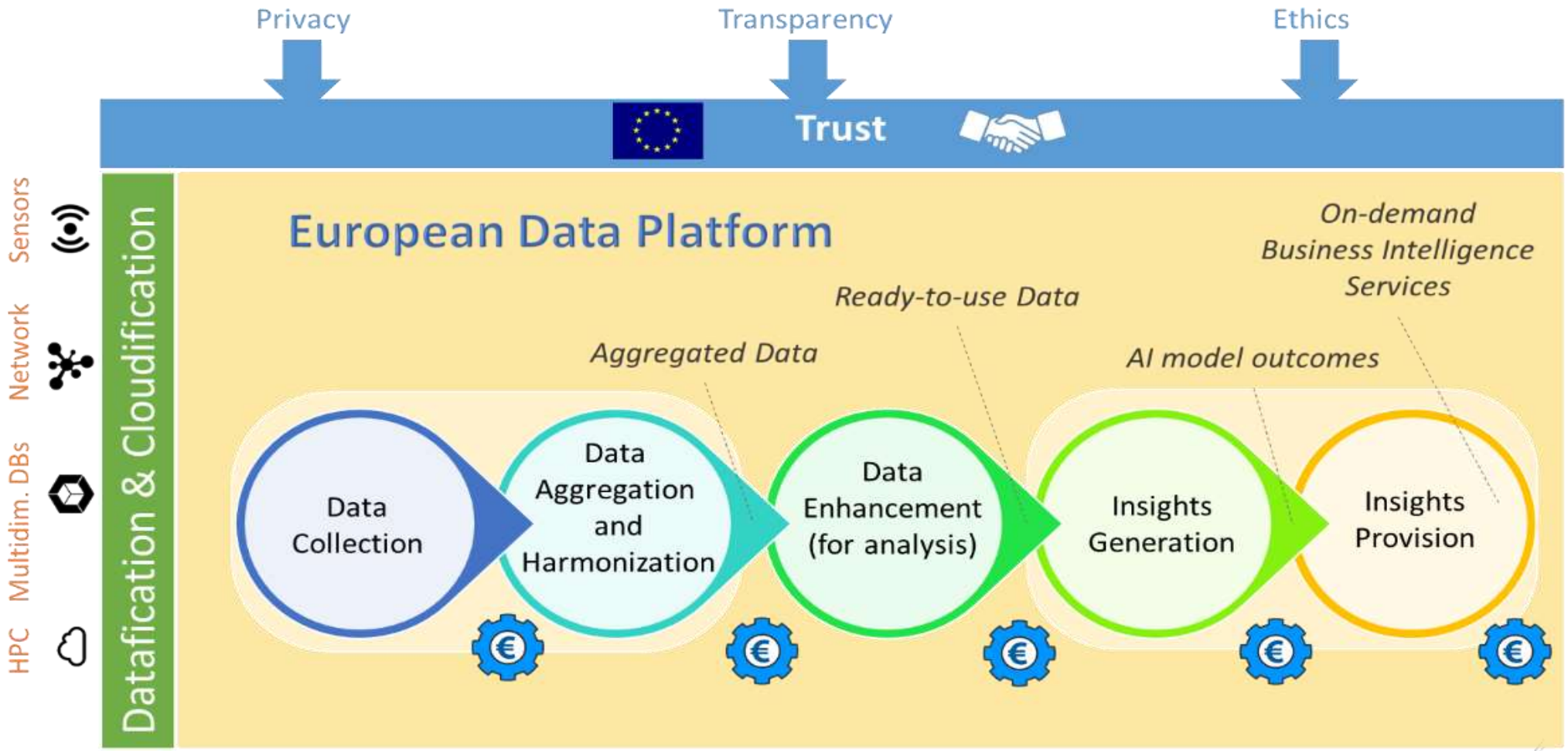
Datafication to enable the AI revolution



"**datafication**" process of transforming the information we generate into new forms of value or insights.

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Impact on skills, jobs & economy

Positive & negative

Uneven distribution

Polarisation within countries

Conclusions

1. AI is a big opportunity to improve our lives and shape the future
2. We should embrace the opportunities but not uncritically
3. A EU approach is needed
    1. No Member State can succeed alone
    2. Based on European values and ethical & inclusive by design
    3. Built on European areas of strength – robotics, connected & automated vehicles
    4. We need robust computing infrastructure and explore emerging new paradigm of computing distributed towards the edges
    5. We good quality data and learn from successful Internet companies on how to build data ecosytems
4. The future is not written yet

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Hiroshi Ishiguro: The Man Who Made a Copy of Himself

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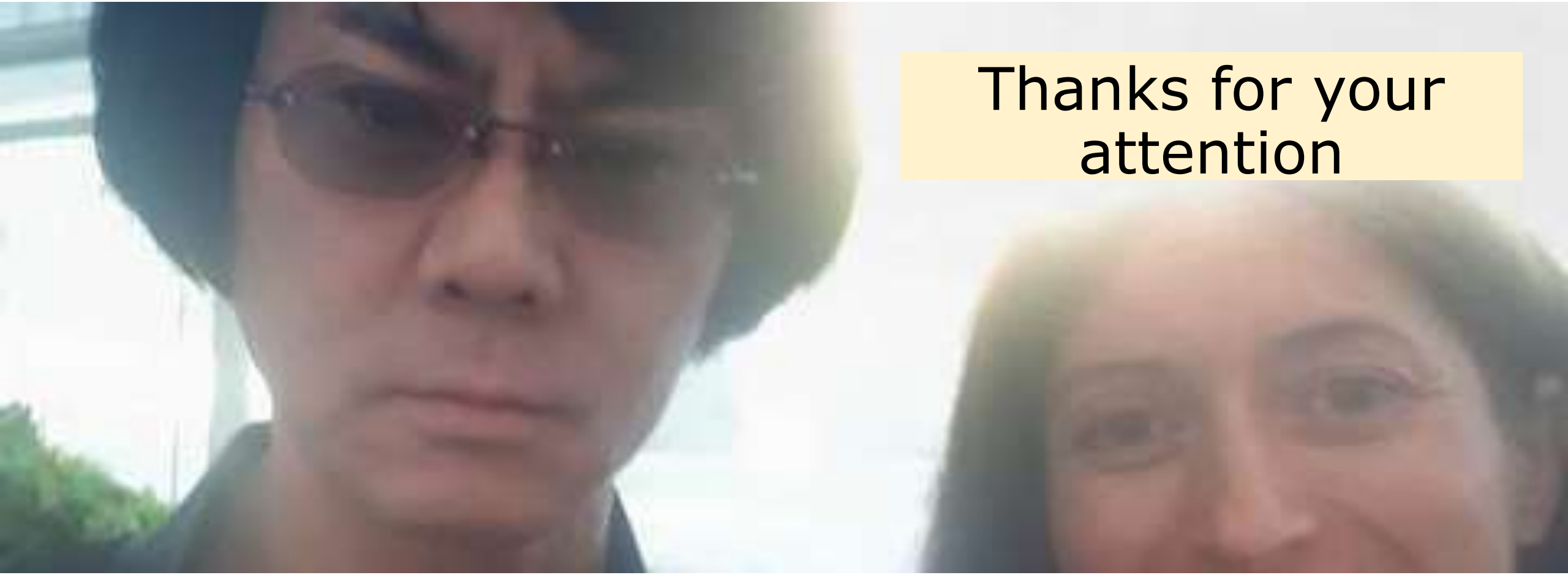
My colleague met Hiroshi Ishiguro or his copy?



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