

Teolliset digitaaliset alustat - onko niitä?

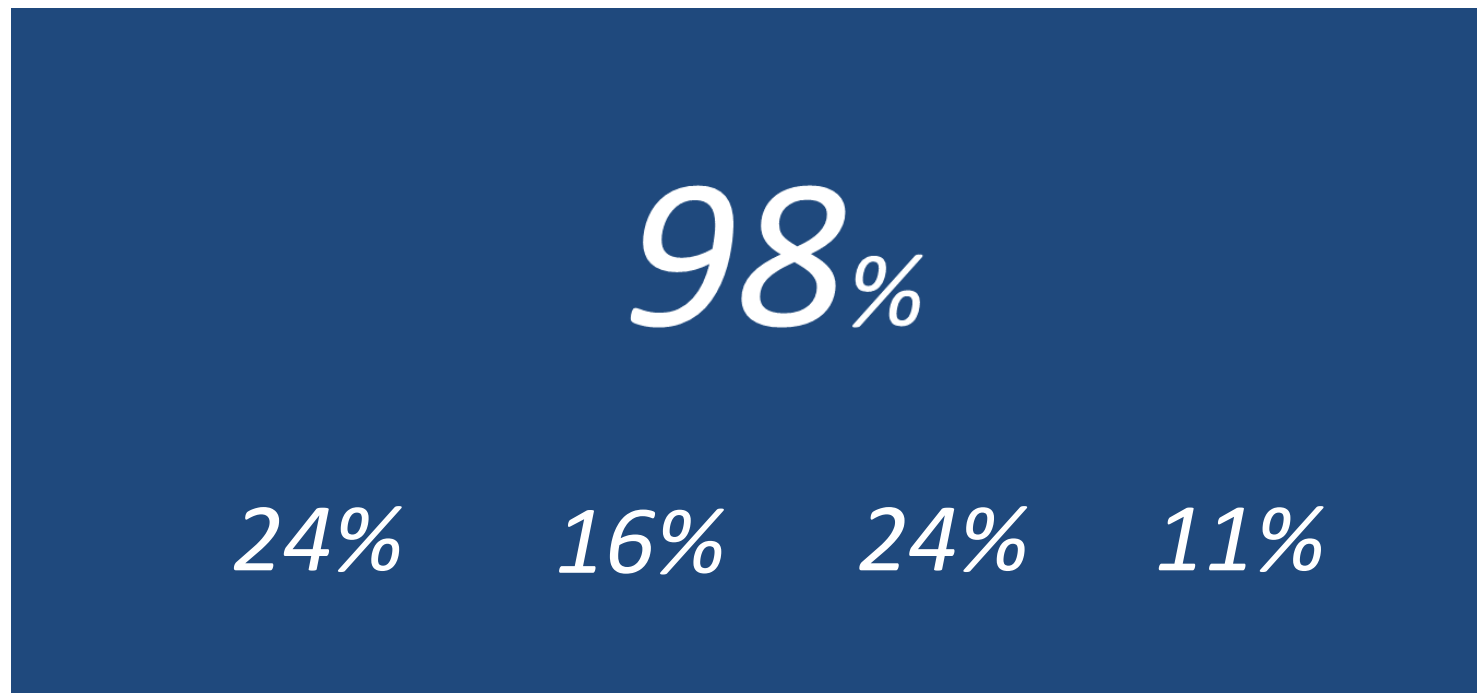
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November 23, 2017



Reshaping Business with Data ("Wide Data")



Source: ETLA 2015

November 23, 2017



Reshaping Business with (“Wide Data”)

Case: Ownership of Data?



40% 60% 24%

Reshaping Business with Data ("Wide Data")

3%

*of companies' data meets basic
quality standards (min. 97% correct)*

Source: HBR 2017

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Reshaping Business with AI

~39%

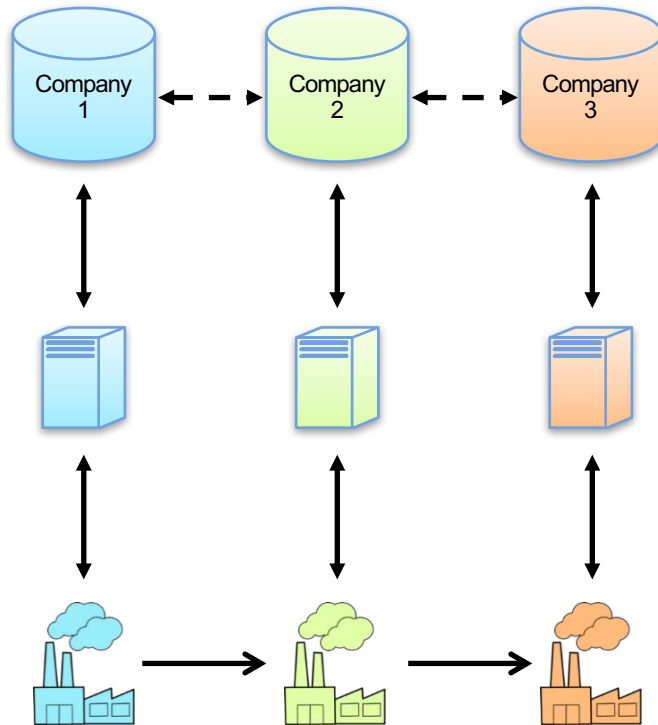
companies have an AI strategy in place

Source: MIT 2017

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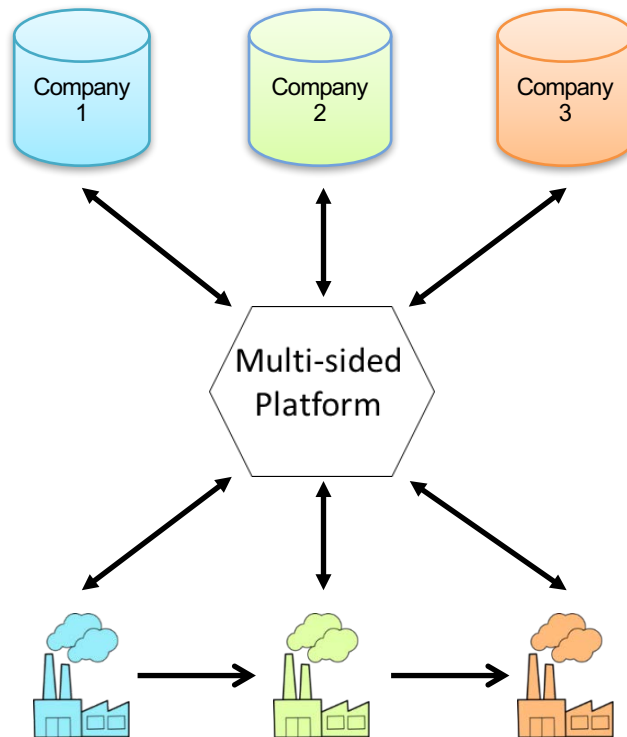


Industrial Platforms - No shared platform



Information asymmetries in data are likely to occur between the companies over time.

Platforms - Centralized platform control



Companies not in control of the platform (and data) become the underdogs in value capture potential.

Digital Platforms

Frameworks upon which actors, across industry boundaries, can undertake a range of innovation activities, often forming entire ecosystems (defacto standards) for value creation and capture

Attributes of multi-sided markets

- 1. It serves two or more types of customers*
- 2. Contacts between the various types of customers generate direct and indirect network effects and*
- 3. A platform is necessary to transmit these effects between the parties.*

Technical boundary resources

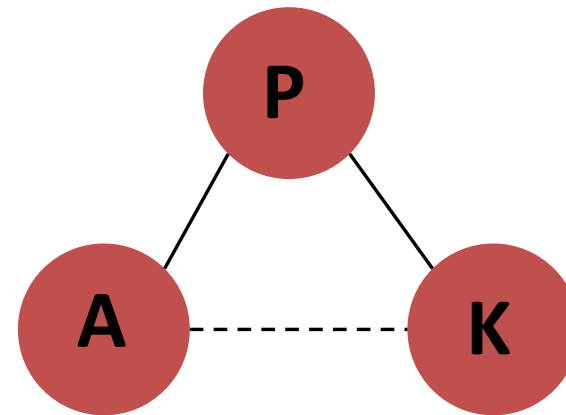
Multilayered technological compatibility

- 1. Application programming interfaces (APIs)***
- 2. Application contracting interfaces (ACIs)***
- 3. Software development kits (SDKs)***
- 4. Functional scripts (e.g. Game Industry)***

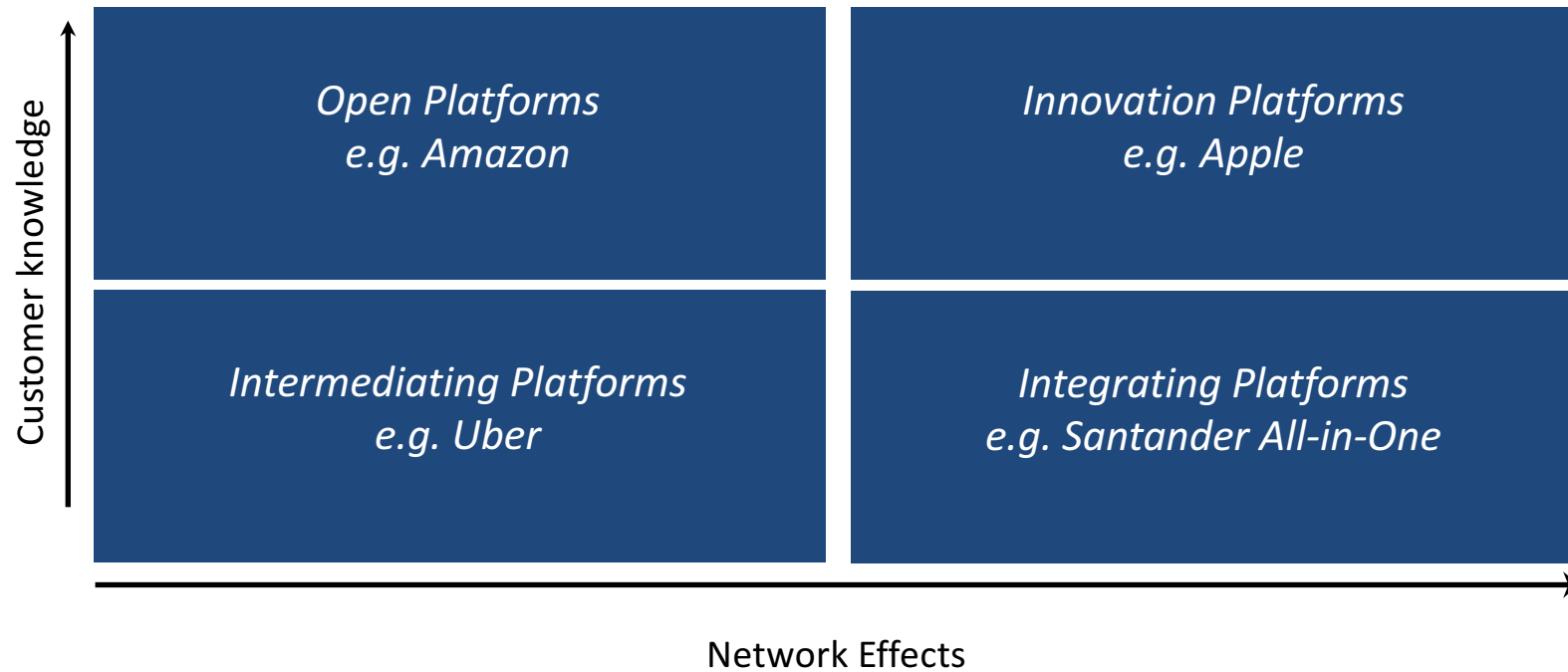
Social (co-operational) boundary resources

Agreements between platform owner and complementary asset providers

- Agreements on rights
 - Agreements on intellectual property rights
- Shared earning logic
- Open data (for 3rd party)
- Instructions and documentation (incl. User experience)



Typology of Digital Platforms



Who owns data? Who shares data?

The biggest profits are earned when platforms (data) are made accessible to complementary third-party technologies, products and services that create value for the end customer

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“The car industry runs on multi-decade cycles: things that are ‘in ten years’ are quite predictable, but when tech people say ‘in ten years’ that’s on the boundary of speculation and sci-fi”

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20% (vs. 5%)

companies have incorporated AI in some (extensively) offerings or processes

Source: MIT 2017

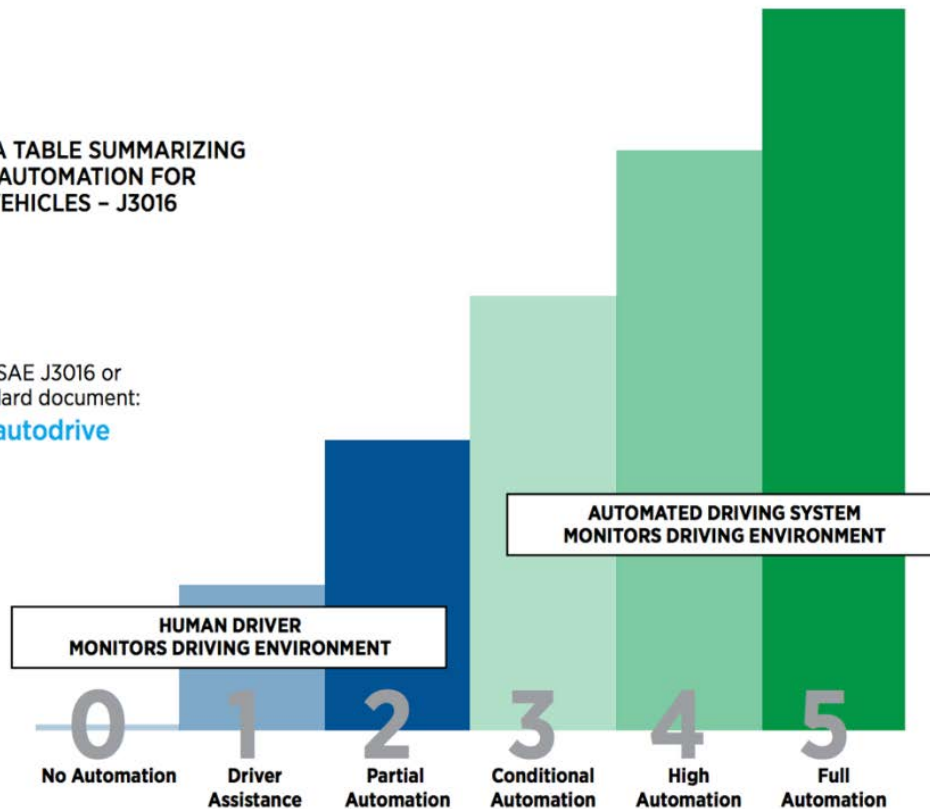
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▶ OVER FOR A TABLE SUMMARIZING LEVELS OF AUTOMATION FOR ON-ROAD VEHICLES – J3016

Learn more about SAE J3016 or purchase the standard document:
www.sae.org/autodrive



Level 1 automation: some small steering or acceleration tasks are performed by the car without human intervention, but everything else is fully under human control

Level 2 automation: like advance cruise control or original autopilot systems on some Tesla vehicles, the car can automatically take safety actions but the driver needs to stay alert at the wheel

Level 3 automation: still requires a human driver, but the human is able to hand some “safety-critical functions” off to the vehicle under certain traffic or environmental conditions. This poses some potential dangers as the major tasks of driving are transferred to or from the car itself, which is why some car companies (Ford included) are interested in jumping directly to level 4

Level 4 automation: a car that can drive itself almost all the time without any human input but might be programmed not to drive in unmapped areas or during severe weather. This is a car you could sleep in.

Level 5 automation: full automation in all conditions

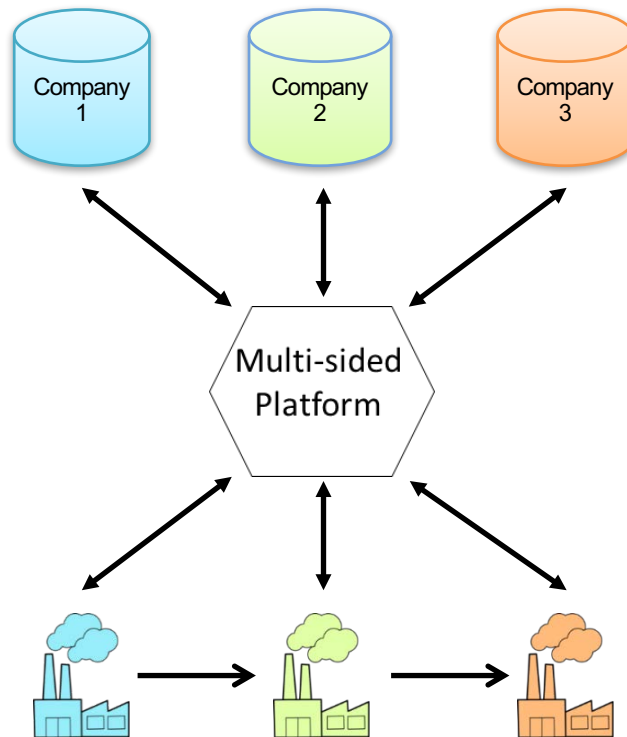
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“AI Can Be Made Legally
Accountable for Its Decisions”

Source: https://www.technologyreview.com/s/609495/ai-can-be-made-legally-accountable-for-its-decisions/?utm_source=twitter.com&utm_medium=social&utm_content=2017-11-15&utm_campaign=Technology+Review

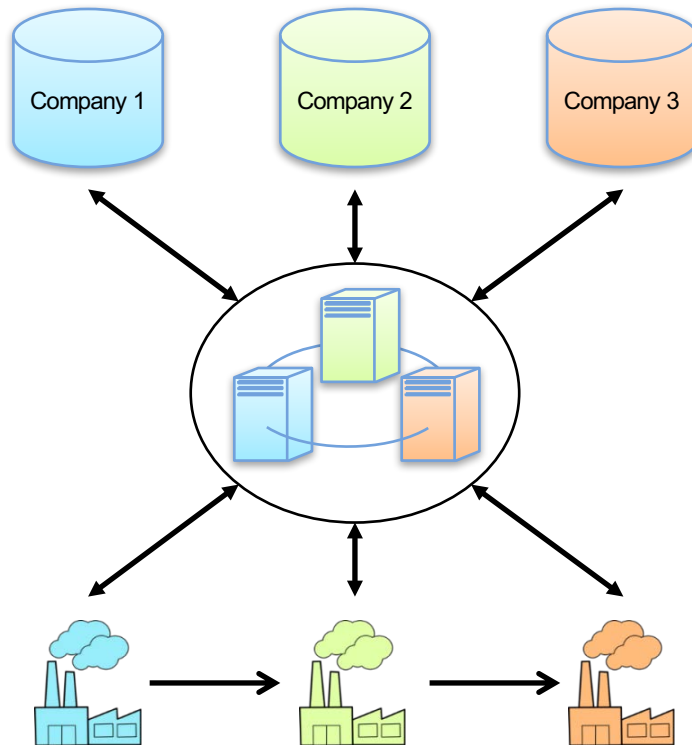


Centralized platform control



*Applications: e.g.
Speech Recognition,
Food
recommendations,
Customer retention,
and Face recognition*

Industrial platform control



*Industrial platforms
can make better use
of much larger shared
data sets*

*-> "Major opportunities
for Automation (AI)?"*

Industrial platform control – Bottlenecks

Knowledge gap

Old ICT-architectures

No emergency

The benefits are hard to identify

Data ownership

Reshaping Business with Industrial Platforms

The Key: Understanding the critical interdependence between platforms, data and automation(AI)