Platforms in manufacturing – Emergent themes related to organizing business with platforms.

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Platform Value Now focuses on understanding the fast emerging platform ecosystems, their value creation dynamics and requirements of the supportive institutional environment.
Key messages of this presentation:

1. “Command and control” has been the dominating organizing paradigm in platforms

2. State-of-the-art research leans toward decentralization and value sharing.

3. Holistic perspective is needed to leverage the situation
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Platform – everyone’s favorite term with so many definitions.

- Uber, AirBnB, Amazon, Alibaba → Multi-sided marketplaces
- Android, iOS → Industry platforms
- Tekla BIM, VAG, Boeing → Supply chain integration platforms

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Prevailing perspective to organizing business with platforms

Governance paradigm
Vertical and horizontal control and integration

Value appropriation model
Ownership of critical components, legitimacy, and architectural control

PLATFORM VALUE Now
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State-of-the-art platform discussion has started to challenge the "command and control" perspective.
Growing customer anger towards "new data-driven ownership models"

WE CAN’T LET JOHN DEERE DESTROY THE VERY IDEA OF OWNERSHIP

IT’S OFFICIAL: JOHN Deere and General Motors want to eviscerate the notion of ownership. Sure, we pay for their vehicles. But we don’t own them. Not according to their corporate lawyers, anyway.

In a particularly spectacular display of corporate delusion, John Deere—the world’s largest agricultural machinery maker—told the Copyright Office that farmers don’t own their tractors. Because computer code snakes through the DNA of modern tractors, farmers receive “an implied license for the life of the vehicle to operate the vehicle.”

It’s John Deere’s tractor, folks. You’re just driving it.
“Service Democracy” movement, enabled by combining IoT, AI, and blockchains

IoT and Blockchain Prototypes Already Created

Back in January 2015, IBM revealed its ADEPT proof of concept. The project, in partnership with Samsung, tethers blockchain technology and IoT. The two companies tested smart contracts with Ethereum and low-cost solutions to automate devices. IoT framework has particular challenges though, which IBM believes blockchain tech could benefit. ADEPT looks at the ability to scale, trust, cost, authentication, and interoperability.

IBM’s report titled “Device Democracy” explained:

“The expected proliferation of hundreds of billions more places is at the threshold of a transformation sweeping across the electronics industry and many others. Yet, the dream of a smart, safe and efficient future is threatened by subscription fees, ubiquitous advertising and intrusive surveillance. — Our study shows that a low-cost, private-by-design “democracy of devices” will emerge that will enable new digital economies and create new value while offering consumers and enterprises fundamentally better products and user experiences.”
Organizational research from the last 15 years finally goes into practise...

Small and independent cells.

We’ve found that the best quality work comes from small teams in which every single member is passionate about what they do. Often times when teams become bigger, processes, bureaucracy and even politics emerge, and the work just isn’t fun anymore. That’s why we wanted to create an organizational model made up of very small teams, or “cells” as we call them. Supercell is a collection of these cells. Each game comes from a cell, and they all operate extremely independently and have complete control over their own roadmap. Our organizational model is optimized for speed and passion, not for control.
... also in manufacturing!
A new school of platform discussion is emerging viewing platforms as complex adaptive structures.

“command & control” -based platforms

complex adaptive platforms
Complex adaptive structure approach to platforms

- Platforms aim for continuous change and adaptability
- Linux, Wikipedia, Supercell, SSAB → Platform organizations

Decentralized governance structure.
Value is by definition shared meritocratically among all platform stakeholders without major power accumulation
But isn’t decentralization bad for money making??
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Leveraging the extremes with a holistic perspective.
Holistic framework of different platforms

eco-system scale

a few firms

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Holistic framework of different platforms

- Core: Protected resource (technology, data, etc.)
  - Centralized
  - Builds lock-ins and inertia
  - Leverages market pockets (short-lived)
  - Optimized for profits and power

- Core: Shared intent
  - Decentralized
  - Sharing of resources and capabilities
  - Prefers survivability over short-term profits
  - Optimized for adaptability

“command & control” -based platforms

complex adaptive platforms

PLATFORM VALUE Now
Holistic framework of different platforms

- eco-system scale
- a few firms

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Eco-system scale

A few firms

Platforms: Intel, Predix, Predix, Uber, Apple, Volkswagen, Boeing
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Platforms Value Now
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Holistic framework of different platforms

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“command & control”-based platforms

possibility for high profits, but risk of low adaptability in rapidly changing environment

complex adaptive platforms

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Holistic framework of different platforms

- **Eco-system scale**
  - “Command & control”-based platforms
  - Complex adaptive platforms

- **A few firms**
  - High adaptability, but very challenging value appropriation

**PLATFORM VALUE** Now
Leveraging the extremes.
Holistic framework of different platforms

Hybrid strategies combine platform organization (survivability) and platform offerings (short-term profits)!

“command & control”-based platforms

Ecosystem scale

A few firms

Complex adaptive platforms

Platform value Now
Holistic framework of different platforms

- hybrid strategies combine platform organization (survivability) and platform offerings (short-term profits)!
- "command & control"-based platforms
- complex adaptive platforms
- adaptable organization
- profits from app offerings

eco-system scale

a few firms
Holistic framework of different platforms

- "command & control"-based platforms
- Complex adaptive platforms
- A few firms
- Eco-system scale

Hybrid strategies combine platform organization (survivability) and platform offerings (short-term profits)!

Profits from the controlled app marketplace

Adaptability of the SDK developers

Platform Value Now
Holistic framework of different platforms

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- "command & control"-based platforms
- hybrid strategies combine platform organization (survivability) and platform offerings (short-term profits)!
- "command & control"-based platforms
- "command & control"-based platforms
- complex adaptive platforms
- complex adaptive platforms
- adaptability from open material intelligence community

Illustrative example on how SSAB’s steel material could be integrated to industrial platforms

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Alternatives:

1. Maximize profits
2. Strive for survivability
3. Leverage the extremes with a hybrid strategy
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More readings...

More information

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