IoT Market Trends & Business Model Innovation

Panel Session

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Figure 1  Five Levels of IT-Enabled Business Transformation

High

Business Scope Redefinition

Business Network Redesign

Evolutionary Levels

Business Process Redesign

Internal Integration

Revolutionary Levels

Localized Exploitation

Evolutionary Levels

Range of Potential Benefits

Low

Low

Digital Transformation, 1994

IT-Enabled Business Transformation: From Automation to Business Scope Redefinition

Venkatraman, N

Sloan Management Review; Winter 1994; 35, 2; ABI/INFORM Global

pg. 73
Does the Internet of Things only turns “the world into data” (Ashton, 2005) or does it also allows turning “data into its physical image in the world”? 

“Digital First” ➔ Information systems used to reflect the real world, now it is the opposite!
“Internet in the car” vs “Car in the Internet” (Mikusz et al., 2017)

- cars are becoming increasingly augmented with digital technology and connected with their environment, which enables innovative services besides the traditional functionality of cars
Digital Transformation and Business Model Innovation (BMI)

• Digital Transformation is “the ability to reimagine the business digitally” (Kane et al., 2014)

• Since IT, or DTs (Digital Technologies) are never the core product or service of companies (except, of course, for tech companies), Digital Transformation is essentially about Business Model Innovations

• BM and BMI constructs are fundamentally about the architecture of the firm's value creation, delivery and capture mechanisms

• BMI relates to “designed, novel, and non-trivial changes to the key elements of a firm's business model and/or the architecture linking these elements” (Foss & Saebi, 2018)
Consumer IoT and BMI

• In manufacturing context (e.g. “manufacturing 4.0”) this idea of physical and virtual mixing is already understood (e.g. CAD/CAM, MES, smart robots, 3D printing) although not necessarily easy

• In consumer IoT context this is harder to achieve because adoption depends on creating additional value to users, motivating them to engage and building new relationships/partnerships/ecosystems to allow product/service delivery

• Consumer IoT and BMI are intrinsically interconnected ➔ looking into the Business Value of IoT means looking into different ways of delivering products and services (for example new forms of servitization and monetization)
The “killer app” for consumer IoT?

- Design (Product/Service Innovation)
- Business Model Innovation
  - Network Effects / Critical Mass
  - Information Systems Impacts (e.g. Analytics)
  - Innovation in Revenue Source/Model
  - (Real) Additional Value (The “Fridge Dilemma”)
THANK YOU

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