The Agile Enterprise - aligning business and IT
Aligning business and IT using **practical theories**:  
1. What is the value of IT for an agile organization?  
   – **IT Governance**  
2. Which organizational capabilities are required for realizing this agile organization?  
   – **Enterprise Ontology**  
3. How can IT support an agile organization?  
   – **Normalized Systems**
IT Governance

Management processes and structures safeguarding the value of IT for business
“Effective IT governance is the single most important predictor of the value an organization generates from IT.” - Weill and Ross, Harvard Business Press, 2014
Kodak – IT Governance Issues

1. Kodak was so blinded by its success that it completely missed the rise of digital technologies.
2. Kodak invented the technology but didn’t invest in it.
3. Kodak mismanaged its investment in digital cameras, overshooting the market by trying to match performance of traditional film rather than embrace the simplicity of digital.
4. The real disruption occurred when cameras merged with phones, and people shifted from printing pictures to posting them on social media and mobile phone apps.
IT Governance wrap-up

- Disciplines to assist decision-makers with increasing technology dependence…
  - IT management (more operationally-oriented)
  - IT governance (more strategically-oriented)
- Which provide decision structures and processes to face new challenges and opportunities
  - E.g., COBIT framework
Enterprise Ontology

Which capabilities do we need to realize the envisioned value?
Ontological Abstraction

- forma level (notational correspondence)
- informa level (cognitive correspondence)
- performa level (social correspondence)

- expose commitment
- formulate thought
- evoke commitment
- educe thought
Transaction Pattern

1. Customer asks for an act (preparation phase)

2. Performer agrees to do it (negotiation phase)

3. Performer fulfilling the work and report it done (performance phase)

4. Accountant accepts report and declares satisfactions (acceptance phase)

Source: McKinsey
Ford's Accounts Payable Process Was Slow and Cumbersome Until...

More than 500 accounts payable clerks matched purchase orders, receiving documents, and invoices and then issued payment. Mismatches were common.
Ford’s Accounts Payable Process Was Slow

**A00**
buyer

**A01**
seller

**A02**
payer

**A03**
shipper

**T01**
purchase completion

**T02**
purchase payment

**T03**
purchase shipment

More than 500 accounts payable clerks matched purchase orders, receiving documents, and invoices.
Ford Reengineered the Process. Now It’s Fast and Efficient.

The new process cuts head count in accounts payable by 75%, eliminates invoices, and improves accuracy. Matching is computerized.
Enterprise Ontology wrap-up

- **Abstractions** based on scientific theories...
  - Ontological acts
  - Transaction patterns
- Result in implementation-independent, **stable models**...
  - Even when faced with obliterating change
  - Which focus on **human responsibilities and competences**
- Which act as a **foundation for innovative implementation**.
Normalized Systems

How to support our organizational capabilities with digital technologies?
Software agility

• Supporting software systems should support agility, not prevent it.
• The main issue: evolvable modularity.
• Normalized Systems prescribes principles and patterns.
Software agility

1st sprint: Data element descriptors
2nd sprint: SAP WSDL integration
3rd sprint: GUI customization
4th sprint: Change impact testing
Software agility

Anthropomorphism

Invoice
- Nr
- Date
- ...

Struct Invoice
- Nr
- Date
- ...

access control

persistence

remote access

encapsulate
Normalized Systems wrap-up

- **Evolvable modularity** is needed to support an agile organization
- Normalized Systems provides **principles and patterns** to support changing cross-cutting concerns…
- As a result, focus can be on supporting **changing functionality** for the agile organization.
Wrap-up: Blockchain

Aligning business and IT in the face of disrupting technologies
Outline - Blockchain

What is the value of blockchain technology for our company?

– “What is the core product we bring to market?” – IT Governance.
– “Which competences do we need to develop for this core product?” - Enterprise Ontology.

Find us online
www.antwerpmanagementschool.be/business-meets-it

facebook /antwerpmanagementschool

@AntwMgtSchool

linkedin /company/Antwerp-Management-School

Or contact us
Danny Lauwers
danny.lauwers@ams.ac.be
+32 3 265 47 68