

Digital Change Management

Lecture 1: Introduction to Digital Change Management

Prof. Dr. Sven Laumer

Schöller Endowed Chair for Information Systems (Digitalization in Business and Society)

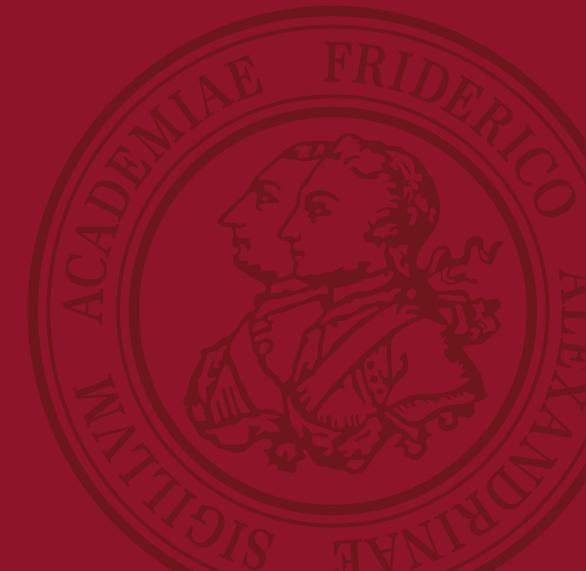


Digital Change Management

Lecture 1: Introduction to Digital Change Management

Learning Objectives: Students are able to...

- ... to explain what digital change or IT-driven change is
- ... to explain the difference between digital change projects and classic IT-projects
- ... to discuss why change management is important when it comes to digitalization, digital transformation or IT-driven implementation

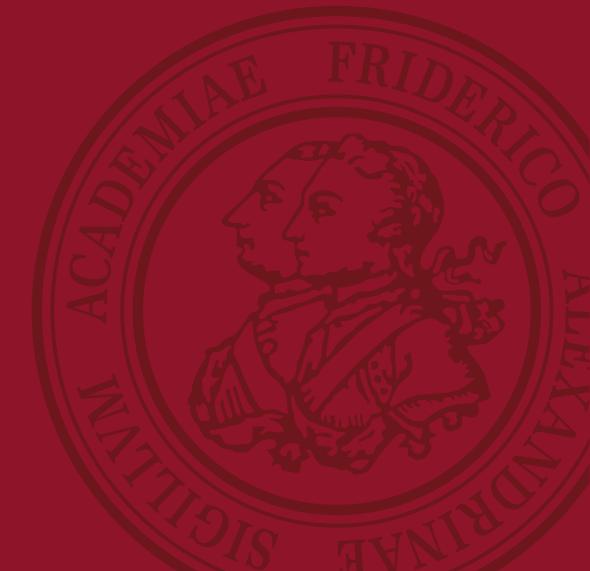


Digital Change Management

Lecture 1: Introduction to Digital Change Management

Lecture Overview

1. **Digitalization: Fundamentals**
2. Digital Change: Case Studies and Definition
3. Digital Change Projects vs. IT Projects
4. Digital Change Management



1.1 Digitalization vs. Digitization

► **Definition**

- ▼ Digitalization refers to the practice of taking processes, content or objects that used to be primarily (or entirely) physical or analog and transforming them to be primarily (or entirely) digital. (Fichman et al. 2014)
- ▼ Digitalization is the process of introducing digital technologies, which essentially deal with changes caused by information technologies. (Hess 2013).

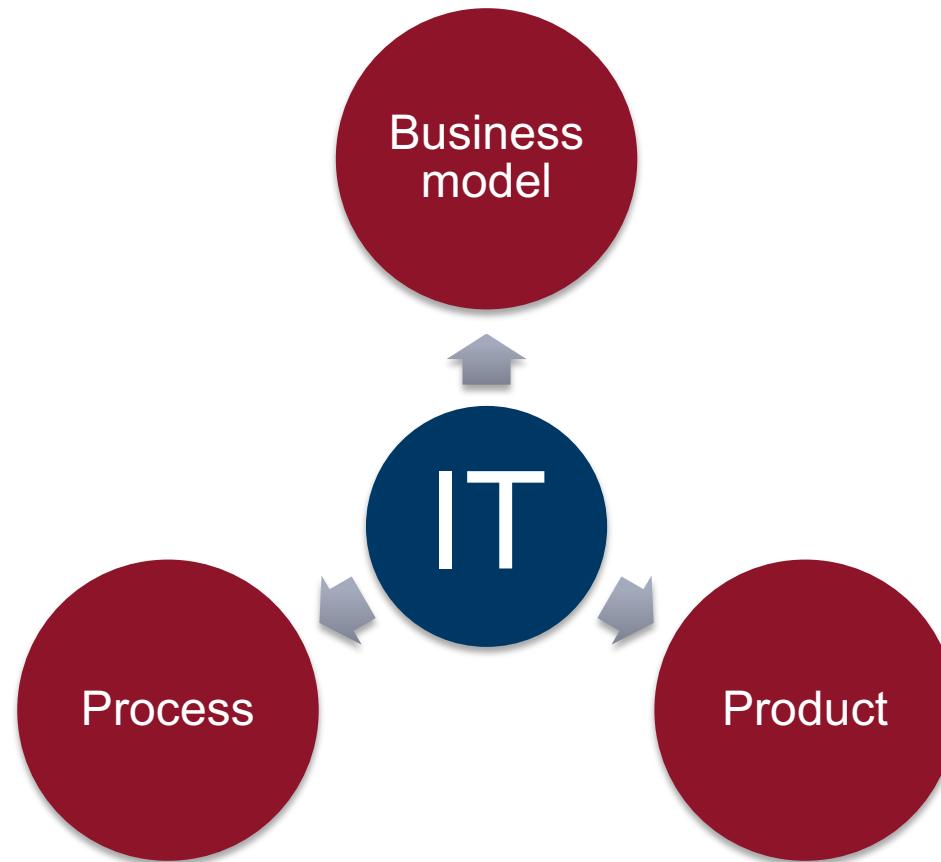
► **“Digitization”**

- ▼ ...is the technical process of converting analog signals into a digital form, and ultimately into binary digits, and is the core idea brought forward by computer scientists since the inception of the first computers (Tilson et al. 2010; Hess 2016).

► **“Digitalization”**

- ▼ The term digitalization has been coined to describe the manifold sociotechnical phenomena and processes of adopting and using these technologies in broader individual, organizational, and societal contexts

1.2 Digital Transformation



- ▶ There are three types of digital innovations.

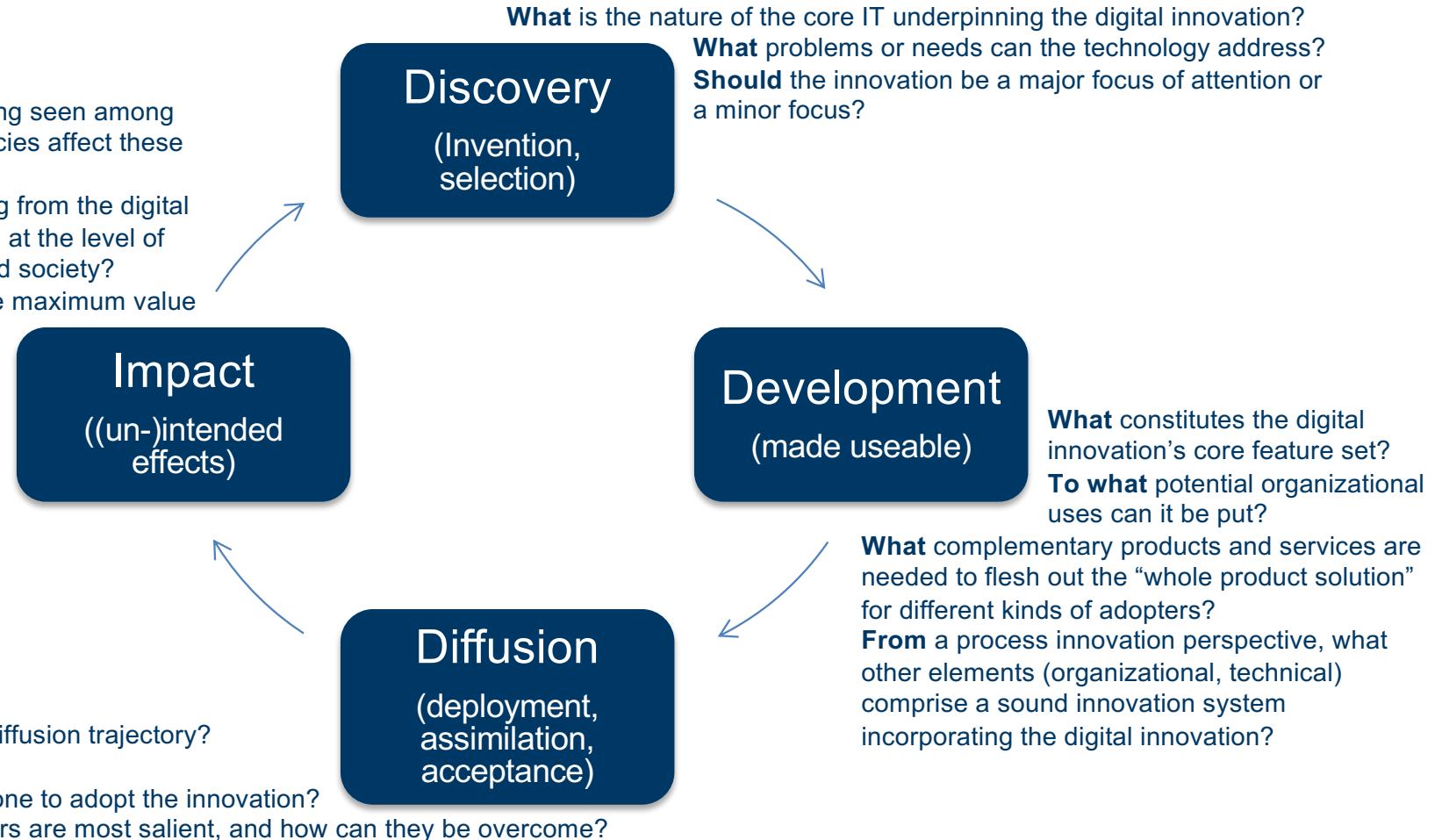
Source: Fichman et al. 2014

1.2 Digital Transformation

What sorts of impacts are being seen among adopters, and what contingencies affect these impacts?

What transformations resulting from the digital innovation are being observed at the level of individuals, firms, markets, and society?

How can adopters appropriate maximum value from the innovation?



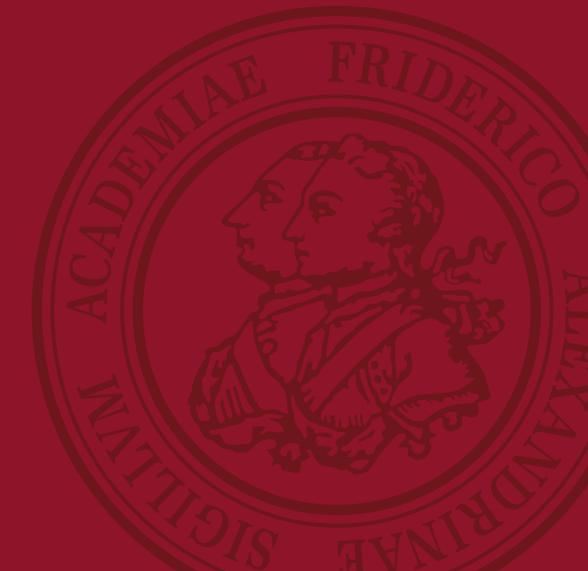
Source: Fichman et al. 2014

Digital Change Management

Lecture 1: Introduction to Digital Change Management

Lecture Overview

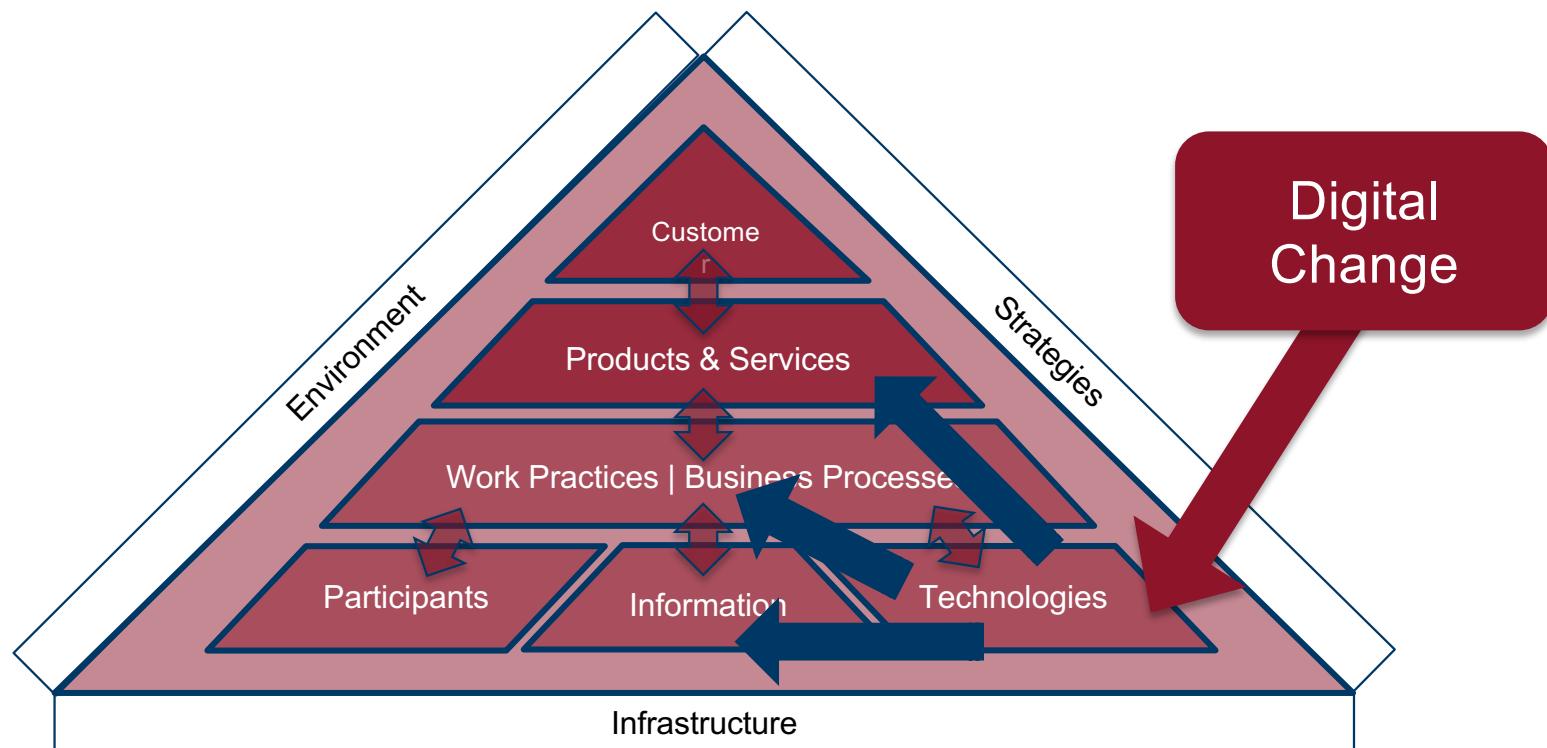
1. Digitalization: Fundamentals
2. **Digital Change: Case Studies and Definition**
3. Digital Change Projects vs. IT Projects
4. Digital Change Management



2.4 Digital Change

▶ Definition

- ▼ A digital change is a change in a work system or parts of a work system related to the work practices of the people (participants) involved in generating products or services for external or internal customers using information and technology.



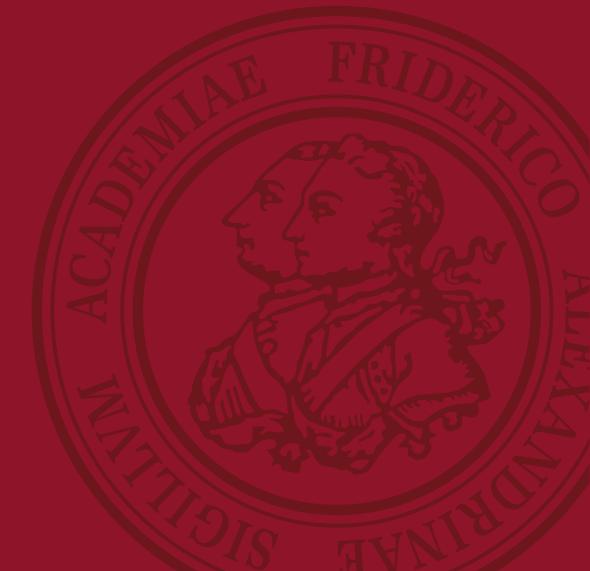
Source: Alter 2013

Digital Change Management

Lecture 1: Introduction to Digital Change Management

Lecture Overview

1. Digitalization: Fundamentals
2. Digital Change: Case Studies and Definition
3. **Digital Change Projects vs. IT Projects**
4. Digital Change Management



3.1 Introduction

► IT-project?

► Digital-Change project



3.2 IT Projects

- ▶ A project is defined as “**a collaborative enterprise that is carefully planned to achieve a particular aim**”. (Oxford English Dictionary)
- ▶ The ‘project’ – a temporary organizational structure led by a project manager who is expected to produce an outcome (e.g., a working system) that meets stated specifications on time and within budget.
- ▶ **IT project management, which focuses on**
 - ▼ functionality
 - ▼ reliability
 - ▼ costs,
 - ▼ time schedule



Source: Wikipedia (<http://en.wikipedia.org/wiki/Project>)

3.3 Digital-Change (IT-driven Change)

- ▶ **Digital-Change differs from typical IT-projects**
 - ▼ The major risk in Digital-Change—that people will not use information technology and related work practices—is not thoroughly addressed by the discipline of **IT project management**, which focuses on project cost, project schedule, and solution functionality.
- ▶ **Consequently, the probability that the "IT solution" is misaligned with important aspects of a work system, is very high.**



Source: Markus 2004

3. Digital-Change Projects vs. IT Projects

3.4 Comparison

	IT Projects	Digital-Change Projects
Target outcomes	Technology performance , reliability, cost of operation and/or maintenance	Improvement in organizational performance , processes performance , work groups performance , etc.
The solution	New IT	New IT-applications, often in conjunction with complementary organizational changes
Basic approach	The ‘ project ’ – a temporary organizational structure led by a project manager who is expected to produce an outcome (e.g., a working system) that meets stated specifications on time and within budget	Typically, an IT-project combined with other projects or tasks ; in an effective digital change management there are various change initiatives including an IT-project; Examples of others are: business process restructuring, change in reward systems, job redesign, training, etc.

Source: Markus 2004

3. Digital-Change Projects vs. IT Projects

3.4 Comparison

	IT Projects	Digital-Change Projects
Key success factors	<p>Project manager</p> <p>Technology</p> <p>Supplier</p>	<p>Departmental managers</p> <p>internal or external consultants</p> <p>Coordination with IT project</p>
Role of managers	<p>Oversight</p> <p>approve, fund, and possibly initiate the project</p>	<p>Leadership</p> <p>initiate projects, know the possibilities of IT for processes and tasks, design and monitor projects</p>
Role of IT specialists	<p>Leadership (Essential)</p> <p>to perform the project management role and most of the project labor; to coordinate with business managers and with vendors and external consultants</p>	<p>Cooperation (Essential)</p> <p>to work together with managers and other specialists to design a Digital-Change in which the IT part meshes with other changes to achieve desired objectives; to lead and staff the IT-project</p>

Source: Markus 2004

3. Digital-Change Projects vs. IT Projects

3.4 Comparison

	IT Projects	Digital-Change Projects
Role of other specialists	Technology providers and consultants can take on various tasks	Internal human resources specialists (human resources, industrial engineering, strategic planners, etc.), External management and technology consultants and technology providers can play a key role.
Example	Replace an outdated management reporting software with data warehouse and analysis tools to reduce the time required to create ad hoc reports upon request from executives.	Substantial savings in purchasing by restructuring the procurement function (centralising the contract process with suppliers of key deliveries and consolidating purchases to achieve high discounts at headquarters) combined with the introduction of new procurement software that enables headquarters to monitor compliance with consolidated purchasing contracts by business units.

Quelle: Markus 2004

Digital Change Management

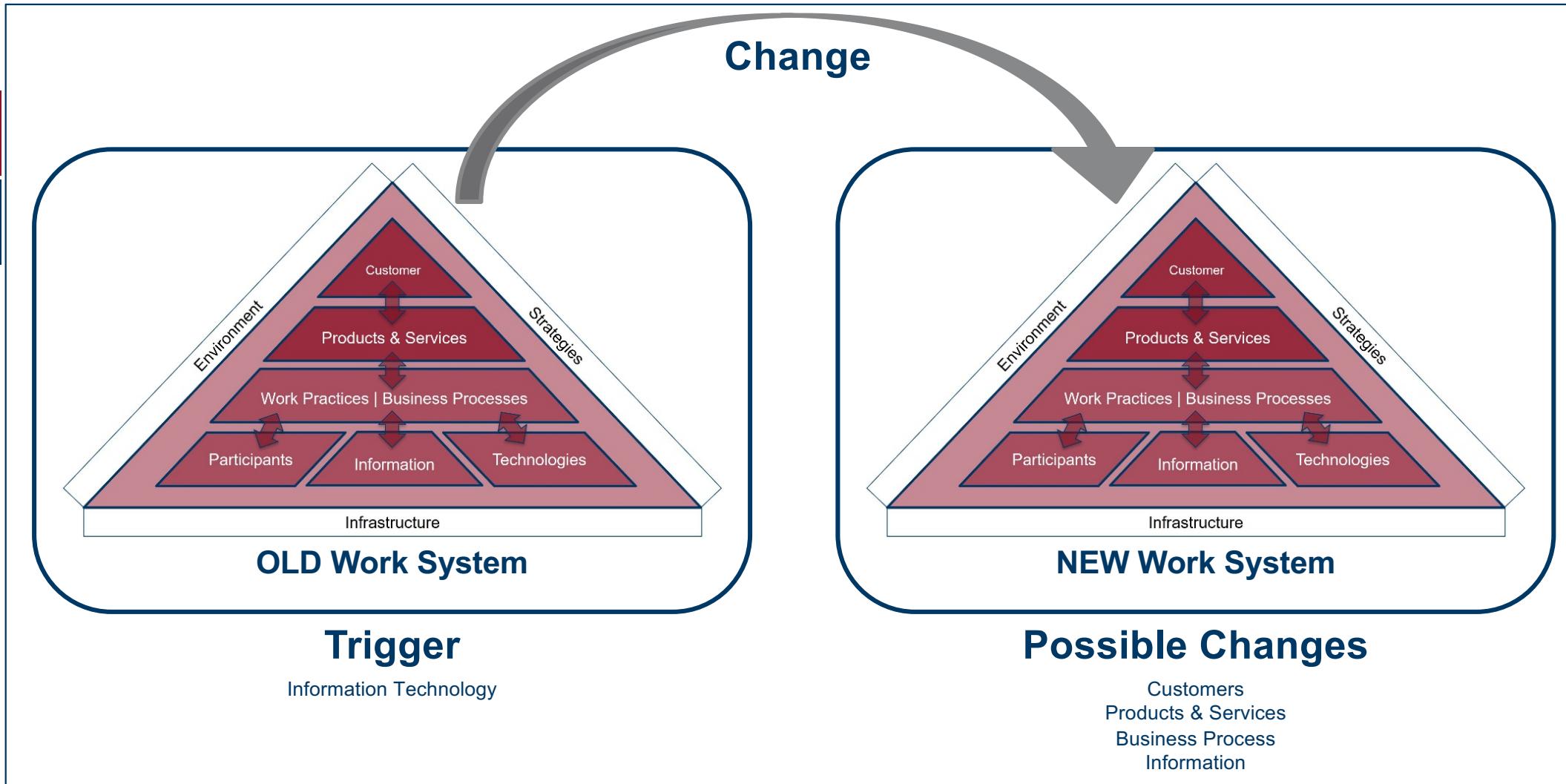
Lecture 1: Introduction to Digital Change Management

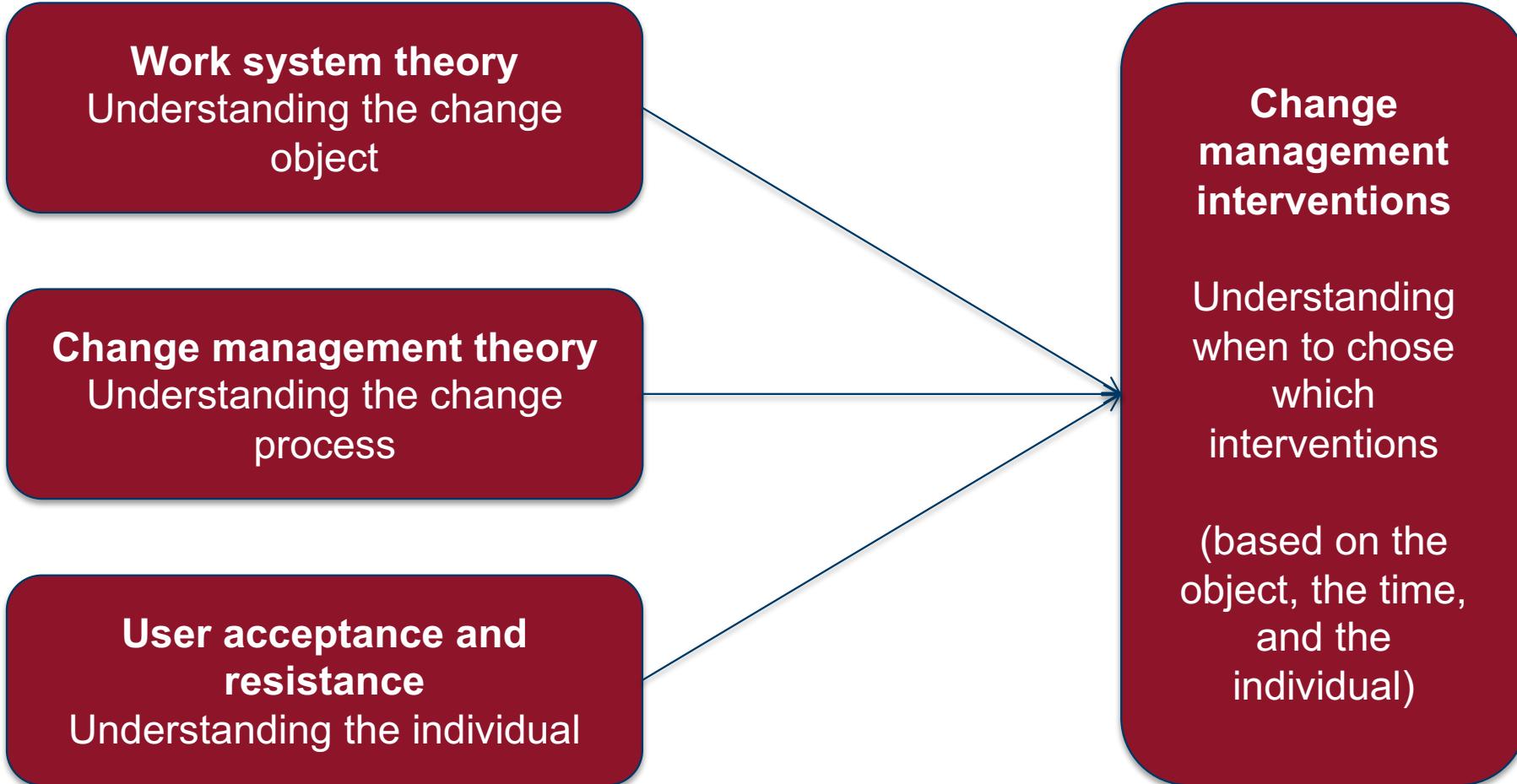
Lecture Overview

1. Digitalization: Fundamentals
2. Digital Change: Case Studies and Definition
3. Digital Change Projects vs. IT Projects
4. **Digital Change Management**



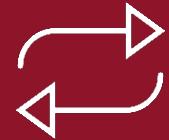
4.1 Digital Change of Work Systems





Recap

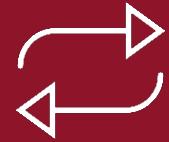
Introduction to Digital Change Management



- ▶ **Digital Change:**
 - ▼ IT-induced changes in products, business processes and business models
- ▶ **Digital-Change-Projects**
 - ▼ not only IT-projects
- ▶ **Change Management for successful constituting Digital-Change-Projects**

Recap Questions

Introduction to Digital Change Management



- ▶ **What is digital change?**
- ▶ **What are the differences between IT-projects and Digital-Change projects?**
- ▶ **Why is change management important when implementing information systems in organizations?**

► Recommended Reading

- ▼ Markus, M. L. 2004. "Technochange management: using IT to drive organizational change," *Journal of Information Technology* (19:1), pp. 4–20.

► Further Readings

- ▼ Alter, S. 2003. "18 reasons why IT-reliant work systems should replace "the IT artifact" as the core subject matter of the IS field," *Communications of the Association for Information Systems* (12:23), pp. 366–395.
- ▼ Alter, S. 2006. *The Work System Method: Connecting People, Processes, and IT for Business Results*: Work System Press.
- ▼ Alter, S. 2008. "Defining information systems as work systems: implications for the IS field," *European Journal of Information Systems* (17:5), pp. 448–469.

Digital Change Management

Prof. Dr. Sven Laumer

Schöller Endowed Chair for Information Systems (Digitalization in Business and Society)

Institute of Information Systems, School of Business and Economics, at Friedrich-Alexander-Universität Erlangen-Nürnberg

M: sven.laumer@fau.de | T: 0911 5302-96476

P: Fürther Str. 248, 90429 Nürnberg

V: Building 248 (33), 33.1.17

W: www.digitalization.rw.fau.eu

