Business Process Management and Flexibility

Barbara Re, PhD

Lecturer - Contacts

Barbara Re, PhD

Computer Science Division

2 floor (Ludovici Palace)

barbara.re@unicam.it

@barbara_re

https://www.linkedin.com/in/barbarare

Who I am?

Education

▶ Bachelor and Master Degree in Computer Science

▶ PhD in Information Science and Complex System

Some Experiences

▶ I was visiting PhD at the Information School of University of Washington working with Dr. Hans J (Jochen) Scholl

▶ I was visiting Phd at the School of Business of University of Applied Sciences North-western Switzerland FHNW working with Prof. Knut Hinkelmann

Current Position

▶ Assistant Professor at University of Camerino

My Interests

Topics

▸ Applied Formal Methods

▸ Business Process Management: from Modelling to Analysis

▸ Flexibility in Process Aware Information Systems

▸ Methodologies and Technologies for Smart Government and Ambient Assisted Living development

Some Projects Experiences

▸ Learn PAd (Model-Based Social Learning for Public Administrations) EU FP7 ICT project

▸ OCP (Open City Platform) MIUR project

▸ PAss (Private Assisted House) Regione Marche project

What about you?

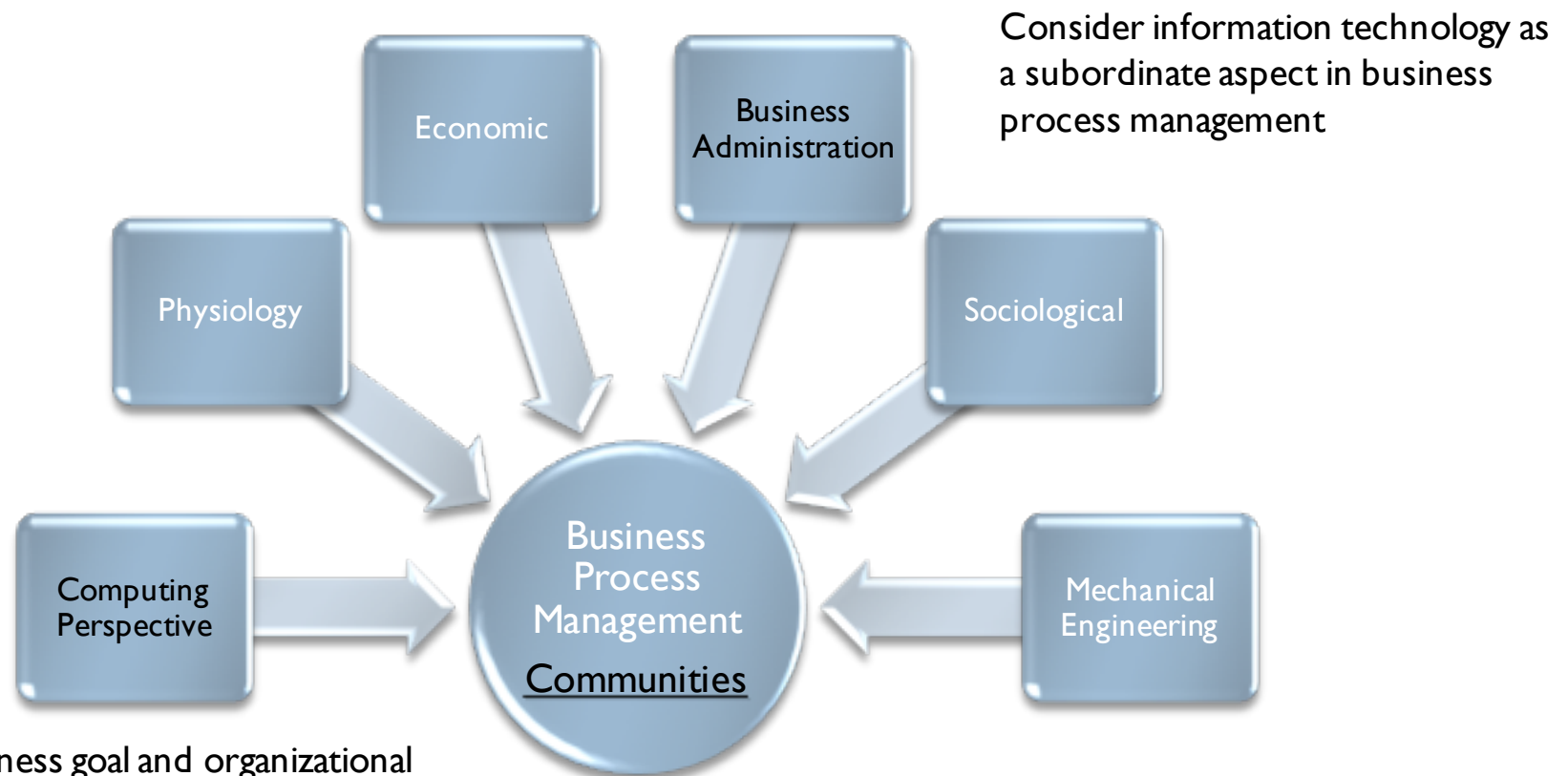# Business Process Management and Flexibility

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Course Objective

▸ The course presents essential notions behind **Business Process Management** focusing on the different phases of **business process life-cycle**.

▸ The course introduces relevant principles for **process modelling** using the **BPMN language**, and it focuses on techniques for **process analysis** (i.e. formal verification).

▸ The course presents the importance of modelling techniques in **enabling process flexibility** (i.e. process **configuration**, **exception handling**, **ad-hoc process** changes).

▸ The course focus on the so-called **"process-aware" information systems** to better understand the impact of business process **modelling** both **in static and dynamic environment** i.e., instead of constructing/code these systems by scratch they are **assembled**, **configured** or **generated** using a **model-driven approaches.**

Learning Outcome

▶ Understand the importance of Business Process and Business Process Management

▶ Gain some familiarity with business process terminology

▶ Be able to model business processes in static and dynamic environment and to apply the most common techniques for Business Process analysis

▶ Be familiar with process execution and process-aware information systems

Focus

Different educational background and interests are in place

Consider information technology as a subordinate aspect in business process management

Consider business goal and organizational regulations as terms that do not deserve much thought, but require the appropriate level o abstraction

Syllabus

- Introduction to Business Process Management
  - Process Everywhere
  - Business Process Model and Instances
  - Business Process Life-Cycle
  - Classification of Business Process

- Business Process Modelling
  - Conceptual models and abstraction mechanisms
  - Control Flow Patterns
  - Business Process Modelling Notation 2.0
  - Modelling Understandability Guidelines

- Business Process Analysis
  - BPMN formalization(s)
  - Safeness and Soundness
  - Data Flow Correctness
  - Process Compliance
  - Verification into practice

- Process-Aware Information Systems
  - Perspectives on a Process-Aware Information System
  - Pre-specified vs. Knowledge-Intensive Processes
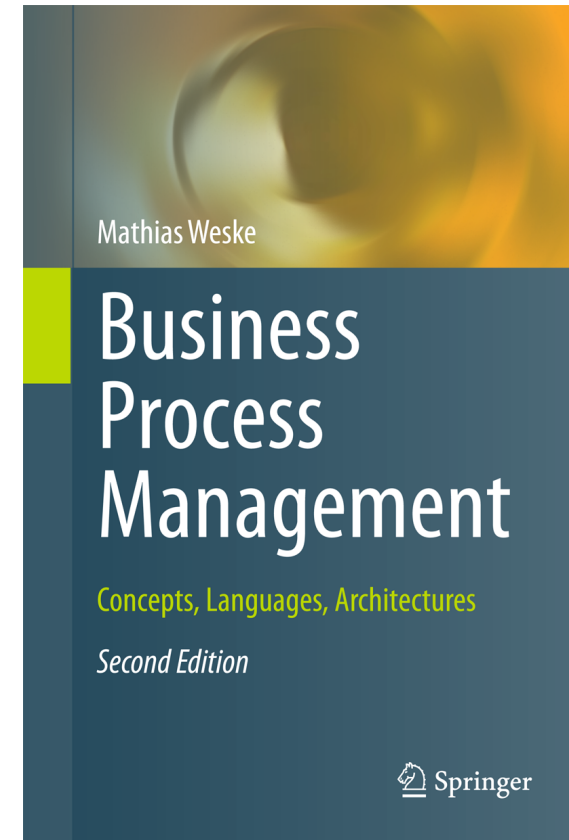 - Variability, Looseness, Adaptation, Evolution
  - Flexibility-by-Design

Reference Textbook (I)

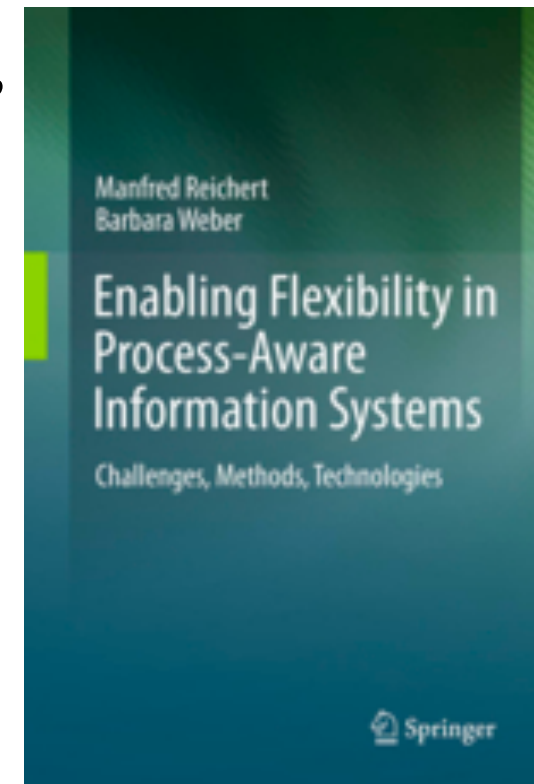▸ Dumas, Marlon, et al. Fundamentals of business process management. Heidelberg: Springer, 2013.

Reference Textbook (II)

▶ Business Process Management.
Concepts, Languages, Architectures.
Weske, Mathias 2007, XIV, 368 p. 265
illus.. ISBN: 9780321155559.

Reference Textbook (II)

- Reichert, Manfred, and Barbara Weber. Enabling flexibility in process-aware information systems: challenges, methods, technologies. Springer, 2012.

Manfred Reichert
Barbara Weber

Enabling Flexibility in Process-Aware Information Systems

Challenges, Methods, Technologies

Springer

Further materials

▶ Business Process Model And Notation (BPMN) Version 2.0 - http://www.omg.org/spec/BPMN/2.0/

▶ BPMN 2.0 by example - http://www.omg.org/spec/BPMN/20100601/10-06-02.pdf

▶ Research papers selected during the course (all of them are already/will be available on the web-site)

Teaching and Learning Methods

▶ **42 h - lecture and exercise sessions**

  ▸ Tuesday: 14:00 pm – 16:00 pm

  ▸ Thursday: 09:00 am – 11:00 am

  Eventually Some Stop!

  (Carrier Day)

▶ **Private study: reading and exploring**

All Relevant Information Available on the Wiki

http://didattica.cs.unicam.it/doku.php?id=didattica:magistrale:bpmf:ay_1718:main#slides_and_materials

Assessment

Writing Examination on the topics of the syllabus

- ▸ Open or multiple-choice questions + Exercise
- ▸ 2 h

Date (https://didattica.unicam.it/Home.do)
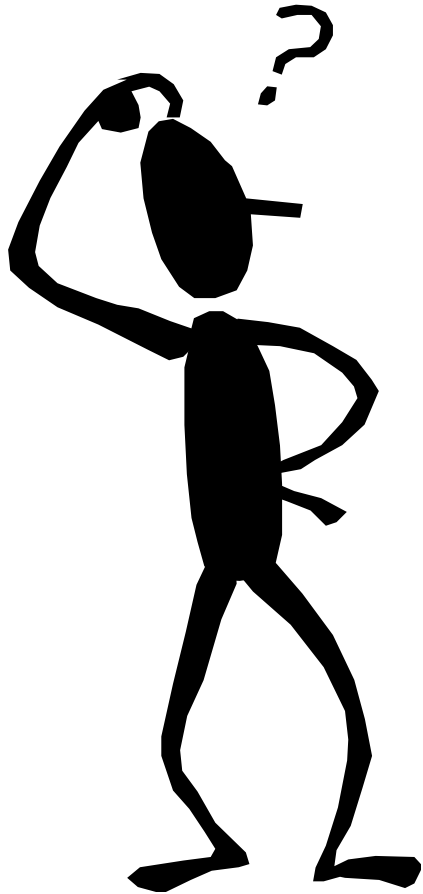
- ▸ 30/01/2018 - 11:30
- ▸ 13/02/2018 - 11:30
- ▸ 27/02/2017 - 11:00
- ▸ 05/06/2017 - 11:30
- ▸ 26/06/2017 - 11:30
- ▸ 17/07/2017 - 11:00
- ▸ 11/09/2018 - 11:00
- ▸ 28/09/2018 - 11:00

Students Registration

https://goo.gl/Er7vJq

Questions?