System Development and Project Organization (BSUP)
Paolo Tell

Recap

Main Areas

- Software Project Management

- Agile Software Project Management

- Working with Teams

- Working with Distributed Teams

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Software Project Management

- **<u>Software Project Management</u>**
  - Why is SPM important?
  - What is a project and its characteristics
  - Project lifecycle
    - Initiation, planning, executing, monitoring, controlling, and closing
    - Project lifecycle versus development lifecycle
    - SPM versus PM
  - Method/Process, Plan, Methodology, Practice, and Product

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Initiation and Planning

- Software Project Management
    - Why is SPM important?
    - What is a project and its characteristics
    - Project lifecycle
        - **Initiation, planning**, executing, monitoring, controlling, and closing
            - Company organization models
            - Roles
            - Activity network diagrams, Gantt charts, and critical path
            - The project manager role
            - The business case or feasibility study
            - Lean canvas
            - Step-wise project planning
        - Project lifecycle versus development lifecycle
        - SPM versus PM
    - Method/Process, Plan, Methodology, Practice, and Product

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Software Processes

- Software Project Management
  - Why is SPM important?
  - What is a project and its characteristics
  - Project lifecycle […]
  - **Method/Process**, Plan, Methodology, Practice, and Product
    - History, definition, and evolution
    - Waterfall
    - Spiral model
    - Incremental/iterative
    - Prototyping
    - Agile methods
    - Rich processes (e.g., RUP)

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Agile SPM

- Software Project Management […]

- **<u>Agile Software Project Management</u>**
  - History
  - Why agile from and SPM perspective?
  - Agile methods and techniques
  - Impediments to agile adoption
  - Agile KPIs or how to measure success
  - Freedom through structure
  - Creating a nicer environment and minimizing wasted opportunities
  - Scrum
  - Estimation

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Scrum

- Software Project Management […]

- Agile Software Project Management
  - […]
  - **<u>Scrum</u>**
    - Framework
    - Scrum and change
    - Roles, ceremonies, and artifacts
    - User stories
    - The 3Cs of user stories
    - Backlog grooming
  - Estimation

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Estimation

- Software Project Management […]

- Agile Software Project Management
  - […]
  - Scrum […]
  - **Estimation**
    - Estimate size, derive duration
    - Velocity and capacity
    - Burn-down charts and burn-up charts
    - Elapsed time versus ideal time
    - Poker planning
    - Levels of planning
    - Planning in practice
      - Confidence interval
      - Different approaches based on the situation

- Working with Teams

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Working with Teams

- Software Project Management […]

- Agile Software Project Management […]

- **Working with Teams**
  - Sourcing and shoring arrangements
  - The 3Cs collaboration model
  - Cooperation, collaboration, communication, coordination, and awareness
  - Tools for teams
  - Communication dichotomies and computer-mediated communication
  - Communication theories. Media richness theory and task/technology fit would be my pick, but feel free to explore the others as well
  - Mintzberg's coordination mechanisms
  - Awareness in CSCW

- Working with Distributed Teams

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Working with Distributed Teams or Global Software Development

- Software Project Management […]

- Agile Software Project Management […]

- Working with Teams […]

- **<u>Working with Distributed Teams</u>**
  - Why GSD?
  - Type of distribution
  - Virtual teams
  - Challenges of GSD
  - Culture
  - Hofstede's dimensions
  - Impact of distances and GSD
  - How to alleviate the effect of distances

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Literature

From the Book
- Chapter 1
- Chapter 2
- Chapter 3
- Chapter 4
- Chapter 6
- Chapter 11
- Chapter 12

From the Literature
- "The New New Product Development Game" by Takeuchi and Nonaka. Harvard Business Review, January 1986.
- Brooks, F. P. J. (1987). "No Silver Bullet Essence and Accidents of Software Engineering". Computer, 20(4), 10–19.
- Nerur, Sridhar, RadhaKanta Mahapatra, and George Mangalaraj. "Challenges of migrating to agile methodologies." Communications of the ACM 48.5 (2005): 72-78.
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