Process approach in elearning

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Presentation summary

- Context
- Motivation
- Learning processes
- Goals of my Phd.
- MEDUSY project
- Problems and pitfalls

Context

Classic learning approach

- Students sit in classroom, taking notes
- Speaker is important
- Chalk and blackboard do the trick
- Books, books and books

- Works well for theory inputs
- Theory have to be understood, no hands-on needed

- Simple and do not demand any extra equipment
- Students have to concentrate and really study

Context (cont.)

Distant elearning

- Students sit at home behind their PCs
- They read online documents
- They fill online questionaries, tests ,quizes
- They watch videos

- Works only for simple learning content
- Lot of effort on elearning content designer
- Quality of acquired knowledge is usually poor
- Nonsense?

Context (cont.)

Blended learning

- Combines classical approach with elearning
- Classwork is usually higly interactive
- Classwork is tight with elearnning activities
- Elearning influence classwork significantly

- Works well for technical education where hands-on part is important

- Course structure and organisation is quite complex
- Good planning is important

Context (cont.)

Business process

- Defined sequence of steps generating a value
- Steps can be manual or automated tasks
- "Executable workflow diagram"

BPM - Business process management

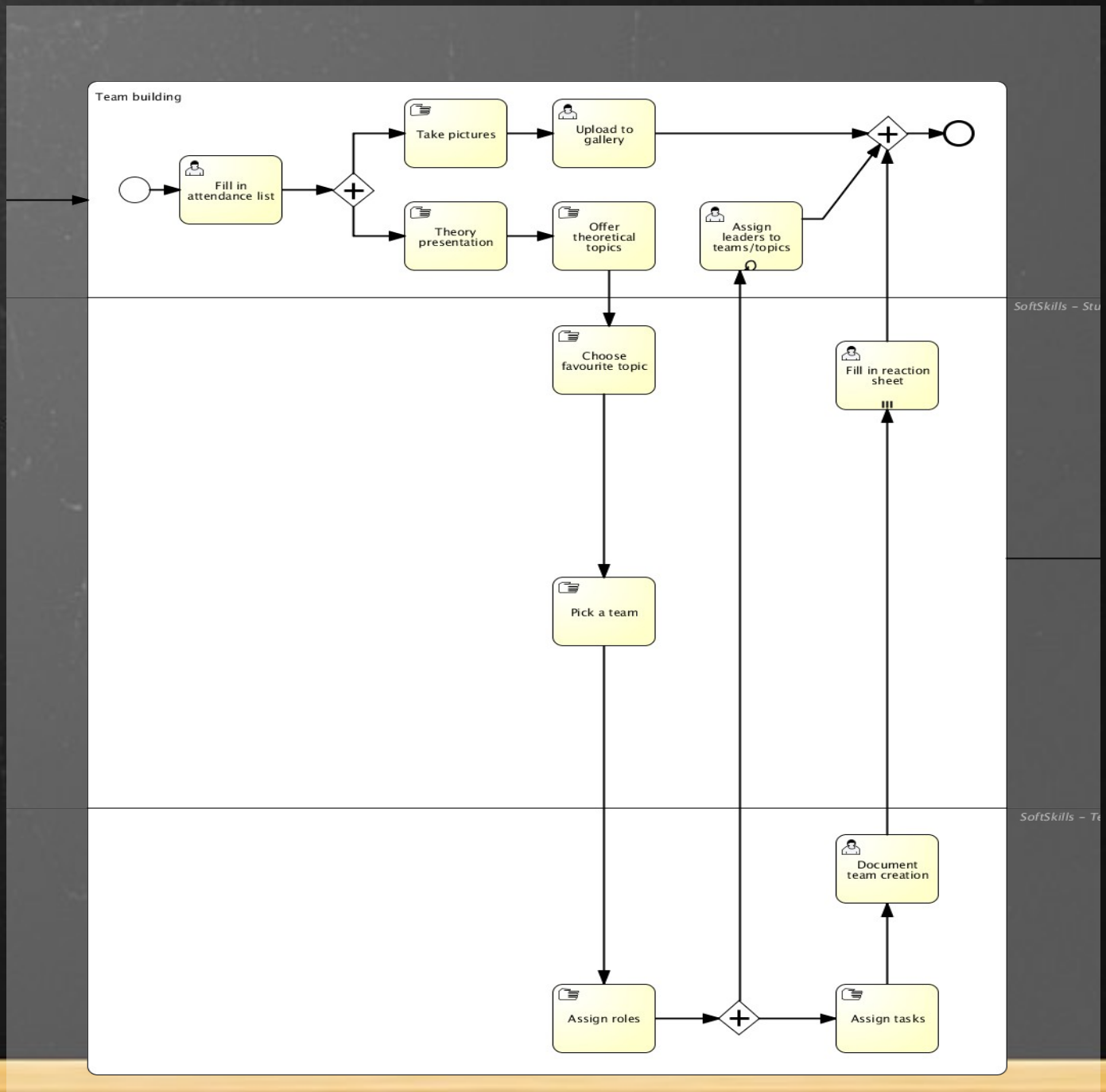
Consists of

- Modelling
- Automated execution
- Monitoring and optimization

of business processes

Learning processes

Example:



Motivation

- Good blended learning course is complex workflow
- Today's LMSes purely content-based
- Lot of services on web can be leveraged
- Lot of things can be automatized
- More and more technical tasks needed
- We do not want to plan also long-term education process

- Good learning management =
  - Good control over learning process
  - Space for improvements

Motivation (cont.)

Education of IT professionals

- Technologies evolve quicky
- IT professionals have to learn constantly
- Hands on technolgy is very important
- Various technical tasks necessary
- Long term education planning is important
- Management should have control over employees education

Goals of my Phd.

- Leverage process aproach in elearning context
- Provide guidelines how to apply this approach

  Create environment (tools) for
  - Modeling
  - Execution
  - Monitoring

  of learning processes

- Create repository of common learning patterns
- Create enviroment for long-term education management

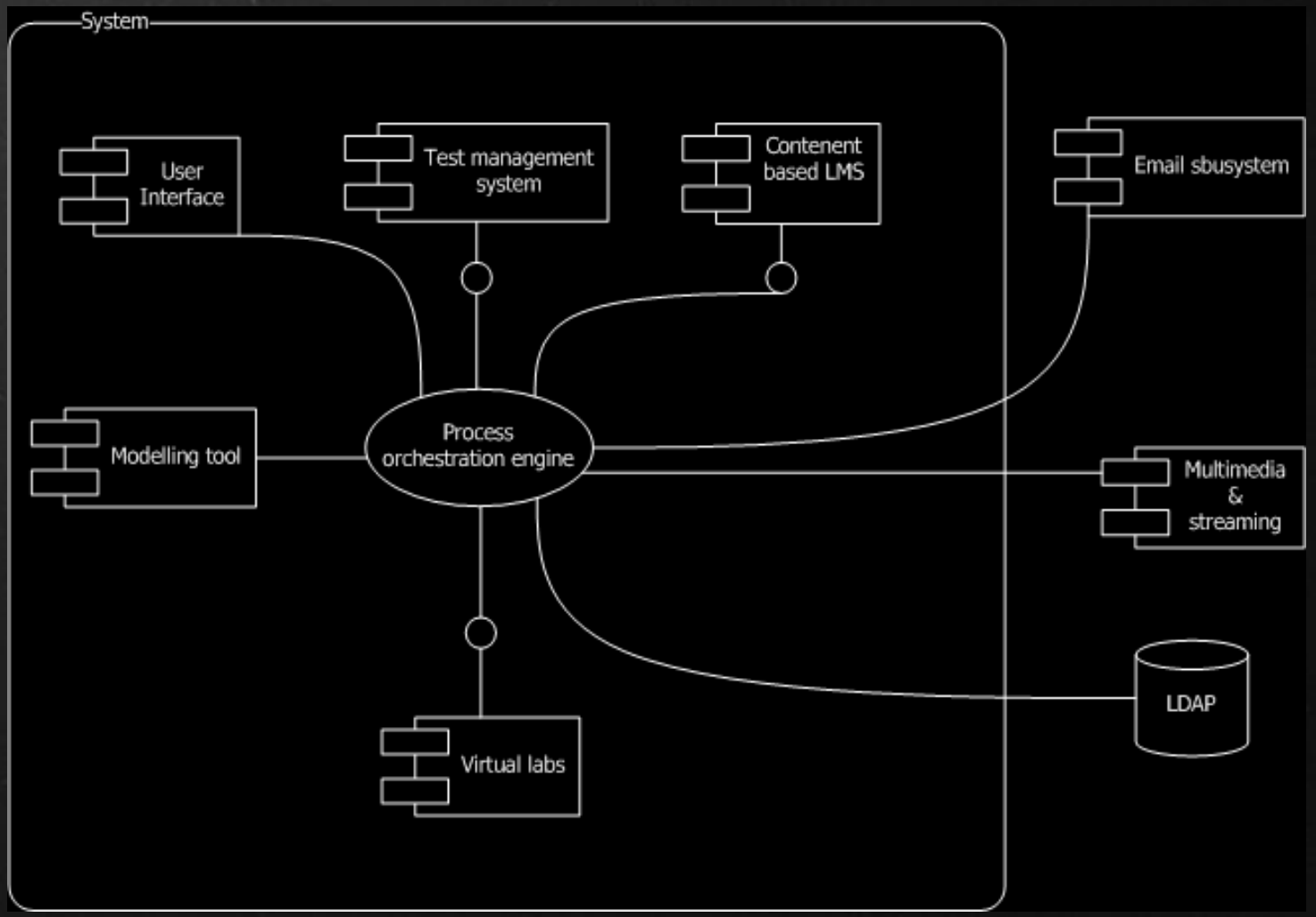
MEDUSY project

- Open source project
- Hosted @ sourceforge
- Done within industry partenerhip with RedHat
- Done within OPVpK of Doc. Matyas

- http://www.medusy.sf.net

MEDUSY project (cont.)

Rough architecture:



MEDUSY Project

- Current status:
  - Analysis, rich documentation and int. prototype done
- Process modelling & execution
  - BPMN 2.0 (Web 2.0 modeller,BPMN 2.0 engine)
  - Learning patterns as custom subprocesses
- Used services
  - Classic LMSes - mostly Moodle - WS over SOAP
  - Virtual labs
  - Suddenly IS MUNI does not provide any WS :(

Problems and pitfalls

- Open Source BPM software is not yet matured
- Lecturers and teachers are conservative :)
- Aditional effort have to be spend on modelling
- Elearning services have to be developed
- Knowledge management importance not clear to eveybody

Thanks for attention

Questions?