A process oriented approach towards open university management software

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Dr. Uwe Hübner
Agenda

- how to get mutual understanding “what does the university do”? (or the software)
- internationalization of process descriptions
- interface practice (web services, ETL ...)
- example: HISinOne
- business models for cooperations
HIS
Hochschul-Informations-System GmbH

• non-profit organization
• jointly owned by the Federal Republic and the Länder of Germany

IT for Higher Education (172)
Information technology for higher education

Research on Higher Education (68)
Studying, teaching, research, funding

Higher Education Development (47)
Buildings, resources, organisation
Situation and challenge

• many activities in Europe towards “new software for university management”
• is it possible to combine/integrate elements of these developments?
Is SOA the answer?

- each system brings own infrastructure:
  - technology, database and web services
  - mechanisms for customization and maintenance (upgrades ...)
  - complexity ++
  - performance --
First steps

• understand business processes
  – actors, products ...

• find their mappings in the software
  – workflows, dialogs, objects ...
Process descriptions

• BPMN – Business Process Modeling Notation 2.0
• UML – Unified Modeling Language 2.0
• … Manufacturer-specific
„Internationalization“ of process descriptions
Getting the code pieces together

• important: identify process chains with clean and „slim“ interfaces

• unidirectional information flow (if possible)

• frequency and the initiating event
  – source process triggers transfer
  – periodically at fixed times

• interworking options:
  – Web services
  – ETL
  – dedicated exports/imports
Web services

HISinOne

Web presentation

Service layer

Domain logic

Data integration

Persistence

Service-Provider Interface

Service-Consumer Interface

3rd Party

uses

uses

uses
ETL – Extract, Transform, Load

Pentaho Data Integration (kettle)
The „big picture“
Functional architecture of HISinOne
Business models for cooperations

• sustainability of the developments
• open source/community source
• fair participation in funding for future developments and continued service
Finally...

- Useful cooperations require more than sharing code
- share the understanding of the involved processes

contact: huebner@his.de