Development of Organisational and Business Models for the Long-term Preservation of Digital Objects

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Agenda

• Objectives
• Approach
• Process Model
• Business Model
• Model Integration and Individualisation
• An illustration of some modelling elements on a running system
Challenges

Digital objects represent added value

We need to secure the availability for the long term

Long-term preservation of digital objects and metadata is an absolute necessity

- The number of digital objects is growing fast
- Infrastructures change rapidly
- Funds run dry
About 39 million files in September 2008

about 6 million files in September 2005 at the Bavarian State Library
We need to build

innovative, reliable, and sustainable

organisational and business models
We need . . .

- General Guidance
- Recommendations
- Decision Support
- Roadmap for further research, development, and funding
The Study

Development of Organisational and Business Models for the long-term preservation of digital objects from digitisation projects

• Duration: 1 year – 2008
• Partners: Bavarian State Library Munich, University of Federal Armed Forces, Munich
• Funded by the German Research Foundation
Methodological Approach

Current State
- Business Modelling
- Business and Context
- Future Visions for Information Provision
- Process Modelling
- Digitisation and LTP in Memory Organisations

Procedures
- Literature Review and Adaption
- Questionnaire Literature Review
- Planned National Workshop
- Literature Review and Adaption

Results Individualisation
- Generic Business Model
- Process Oriented Business Model specific to Digitisation and LTP in Memory Organisations
- Generic Process Model

- Organisational Models and Business Plans
- Suggestions for Future Research, Development, and Funding

Development of Organisational and Business Models for Long-Term Preservation of Digital Objects
Generic Business Model

Business Modelling provides means for
- informal and formal descriptions that represent various aspects of business, including purpose, offerings, strategies, infrastructure, organisational structures, trading practices, and operational processes and policies.
- checking implemented or planned systems.
Generic Process Model

Domain
Know How

- provides an overview of activities that are controlled by objectives

Tasks
- are needed to transform tasks
- describe responsibilities

Organisational Structure

- is basis for

Procedural Organisation

- is basis for

Resources

- makes benefits visible
- visualise hierarchical groups

Task Performers

Managed Information

Static Structures

Dynamic Structures

Spatio-temporal Aspects

Quantitative Aspects

Generic Process Model
Generic Process Model

Process Modelling provides means for
- analysis of operations
- definition, structuring, and integration of business processes
- design of process chains
- allocation of process responsibilities and resources
- process improvement and process management.
Partial Models of the generic Business Model

- market model - incl. demand and competition
- product offer model
- production model
- distribution model
- utilisation model
- procurement model
- operating model
- capital model – incl. financing and revenue

Partial Models of the generic Process Model

- value-added chain model
- role and organisational chart model
- objective model
- data model
- information model
- event-driven process chain model
- product tree model
- process selection matrix model

Holistic and Integrated View

Process Oriented Business Model specific to Digitisation and LTP in Memory Organisations

Model Integration

Finances

Legislation

Technology

Individualisation

Organisational Models and Business Plans
Benefit for Your Specific Organisation

Individualisation

Organisational Models and Business Plans

provides an overview of activities that are controlled by business goals

Process Governance

Compliance Management

Corporate Social Responsibility
Benefit for Your Specific Organisation

Benefits in the context of Digitisation and LTP

- establishing and operating a trustworthy digital archive
- design of a comprehensible risk management and quality management for information preservation
- description clear outsourcing scenarios
- definition of procedural requirements for information technology
- estimation of a liability risk for decision makers.
An illustration of some modelling elements on a running system

Production and Distribution at the BSB

**Production**
- Digitisation
- Ingest
- Harvesting
- Upload

**Distribution**
- Authentication
- Library Archiving and Access System
- OPAC
- World Cat
- Search Engines
- Digital Collections

**Access**
- User
- Delivery

**Storage and Preservation**
- Storage System

**Description:**
This diagram illustrates the production and distribution process at the BSB (Bibliothek für Sozialwissenschaften). It highlights key stages such as digitisation, ingestion, harvesting, and upload, along with the distribution process involving OPAC, WorldCat, search engines, and digital collections. The diagram also shows the storage and preservation stages, emphasizing the lifecycle of digital objects from creation to access.
Outcomes

Expected Results
- General guidance, recommendations, and decision support for high-quality business plans and organisational structures/models
  - holistic approach
  - economical, technological, and legal aspects are integrated
  - flexibility
    - generic elements are provided
  - controlling complexity
    - engineering/reengineering methods are used
    - established and standardised modelling practices are applied
  - familiarity and efficiency
    - prior work is reused and adapted
- More precise formulation of further research, development, and funding

Current State of Our Study
- First application of our approach
- Major reference models are already adapted, e.g., OAIS, DSEP
- Questionnaires are currently analysed
- Final report is scheduled for Q1/2009
Project Team

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