Multimedia Production with a Content HUB Environment.

Media Engineering for Mobile Computing Courseware.

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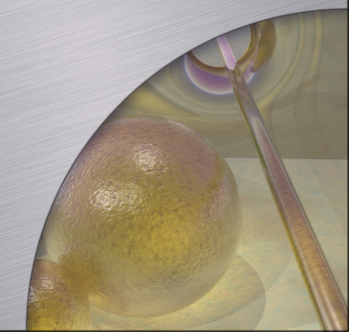
IDAACS • 2007-09-07

BACKGROUND

1



Content HUB

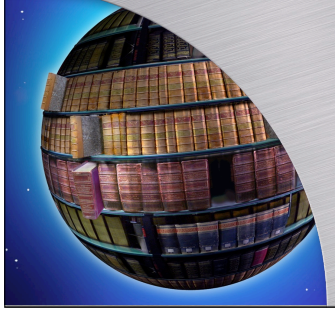
2

APPLICATION

3

MEDIA REPOSITORY

4



BACKGROUND

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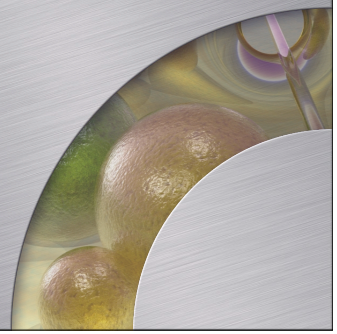

BACKGROUND

- Research and Teaching in Computer and Information Sciences, e.g. Media Content Production and -Management
  - Project Group »vbc.studiolab« TU Univ. of Technology + FHTW Univ. of Applied Sciences
    - Content-Development for MBI-/CS-Courses

IKAROS

http://www.IKAROS-PROJEKT.de

Virtual Global University

COMMETRIX

application fields

- analyze social network dynamics
- map electronic communication
- search expert network maps
- find hidden communities
- find important actors
- observe merging networks

visit: www.commetrix.de

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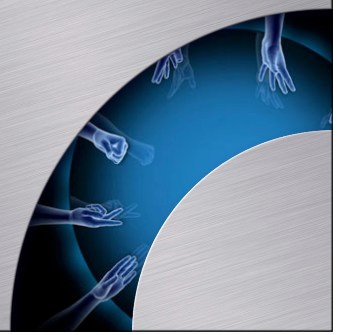
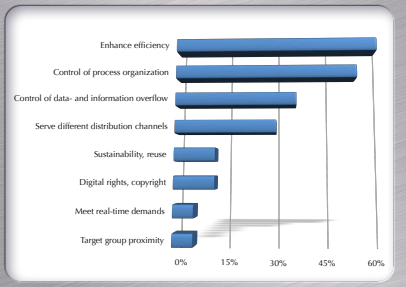
CONTENT HUB

2



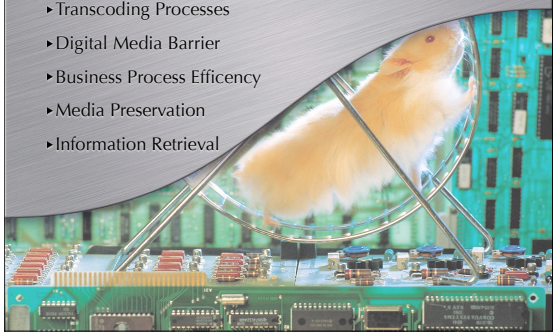
Challenges in Media Production sector



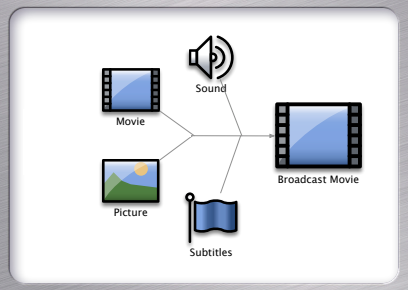
ILM-Study TUB/FHTW Berlin 2/2007

Media Content Transformation

- Transcoding Processes
- Digital Media Barrier
- Business Process Efficency
- Media Preservation
- Information Retrieval

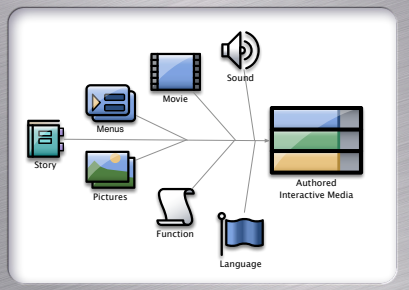


Demarcation



Broadcast Movie Production

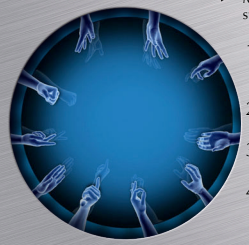
Demarcation



Interactive Media Production

Research and development focus

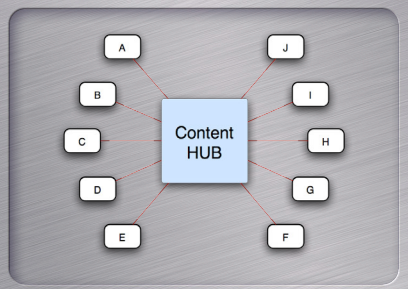
Concept of Generic Content Transformation (GCT)



- Most of multimedia content from authoring systems follows similiar principles

1. Text and media **assets** are stored frame based in connection with vector representation;
2. A limited amount of **functions** for navigation and interaction is used;
3. Time-based media assets are embedded with similiar control functions;
4. Other **functionality** is mostly represented in textual code structures, stored as software routines like scripts

Vision:
Generic Transformation for Media Content



APPLICATION

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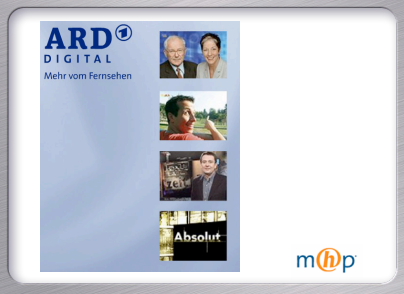
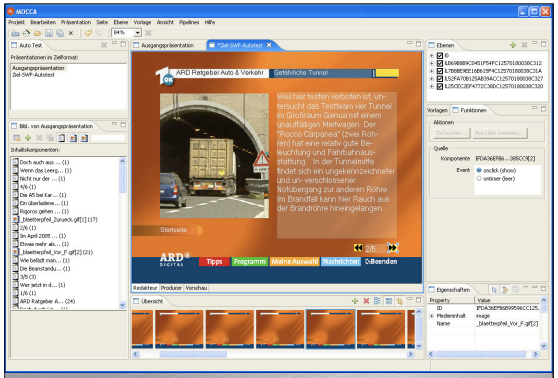
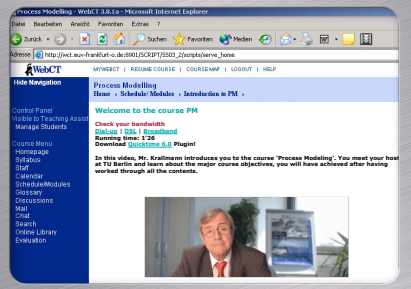
GCT-Project 1: MHP Transformer





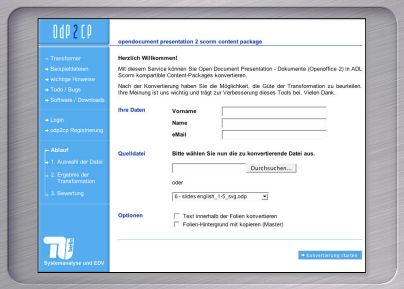
http://www.moccaonline.de

GCT-Project 2: Rapid SCORM production



resulting course presentation

ODP online Transformer



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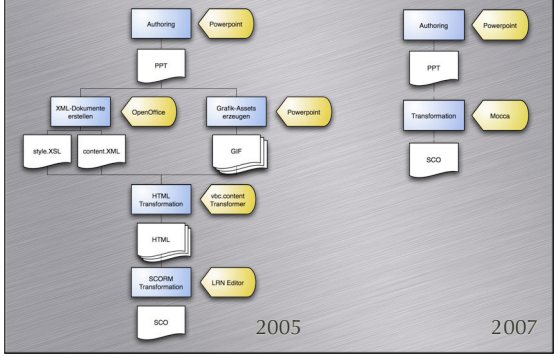
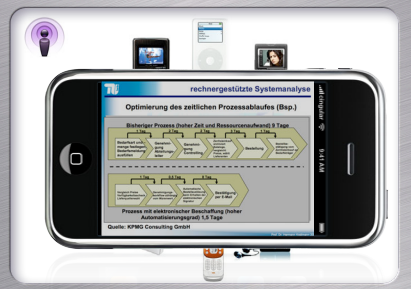
SCORM production process



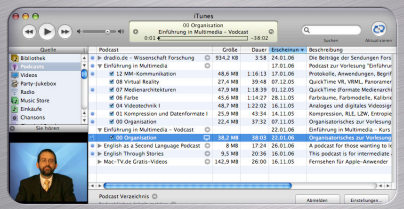
2005 2007

GCT-Project 3: Mobile Learning

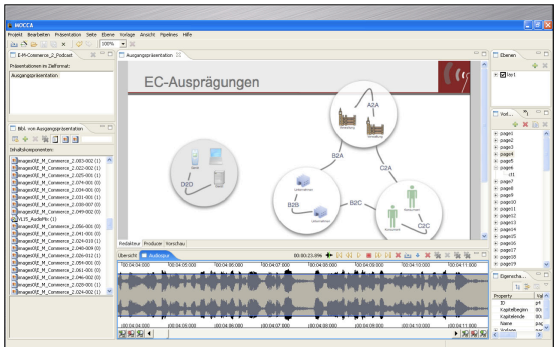


Learning on the go

GCT-Project 3: Mobile Learning



Podcast as additional Learning Media Channel



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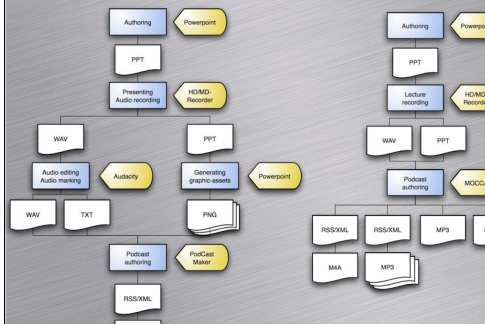
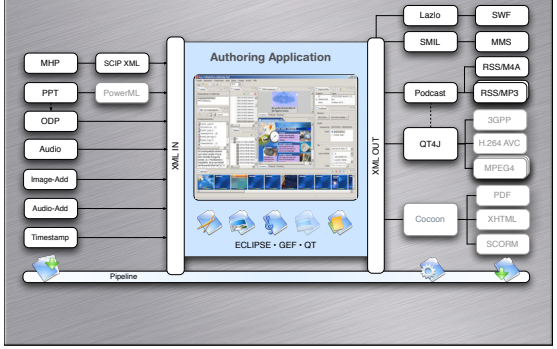
Podcast Production process



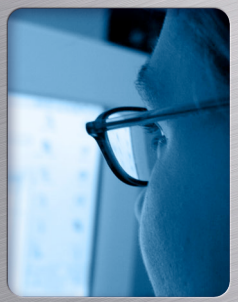
11/2005 8/2007

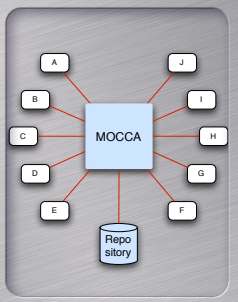
MOCCA Desktop Architecture



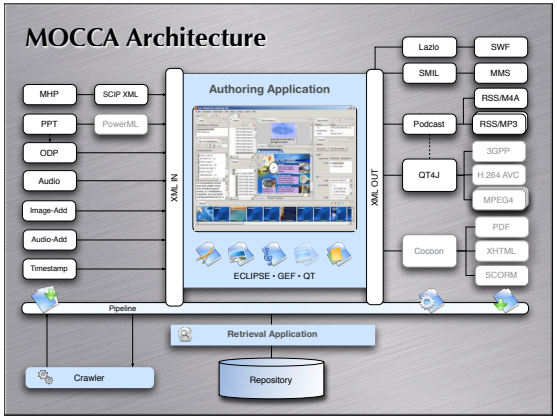
MOCCA MEDIA REPOSITORY

GCT-Projekt 4: Content Repository

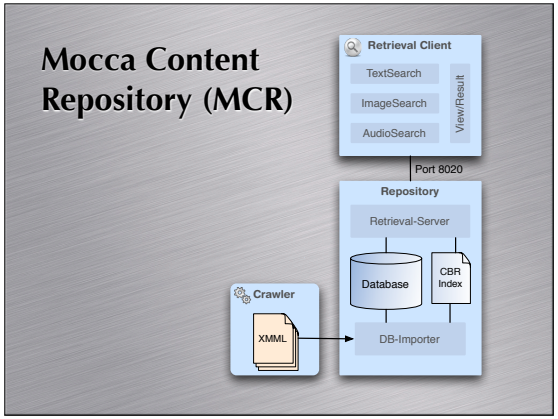




MOCCA Architecture

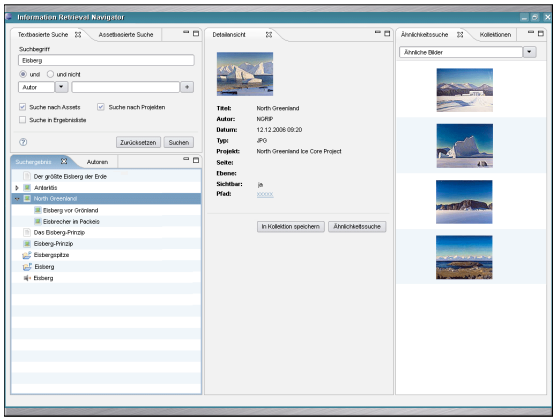


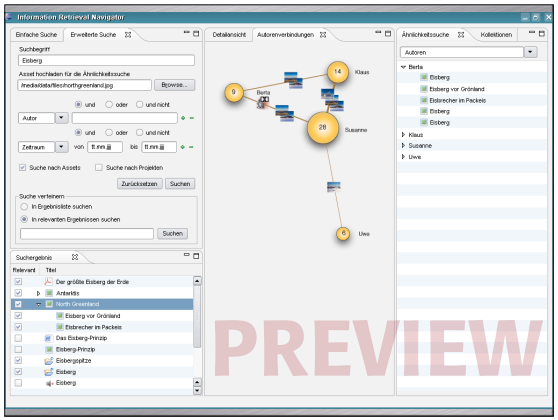
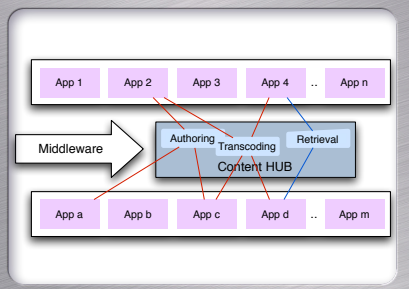
Mocca Content Repository (MCR)



MCR • Retrieval-approaches

- Search for media assets and project data
  - Use of full text in authored project data
  - Basic: Generic XMML data structure
  - Fully automated transcoding into Enterprize Repository with a crawler engine
- CBR for detection of
  - Media asset variants (better quality, part detection)
  - Similiar/related Image- and Audiodata
- Visualization of search results





Enterprize environment