Task-Oriented Search and Content Annotation for Media Production

Werner Bailer, Georg Thallinger **(JRS)**

Media Search Cluster Meeting

Brussels, Dec. 13, 2011

Motivation

- Media production and archiving workflows are changing rapidly

- Workflows need to be increasingly networked and distributed

- Media search in distributed large-scale repositories in the network (multilingual and heterogeneous)

- Off the shelf tools, able to adapt to users' tasks are needed

Objectives

- enable content holders to leverage scalable advanced distributed processing

- enable editorial staff in networked media production to seamlessly use content from distributed heterogeneous repositories

- make benchmarking of indexing and search methods an integrated part of the workflow
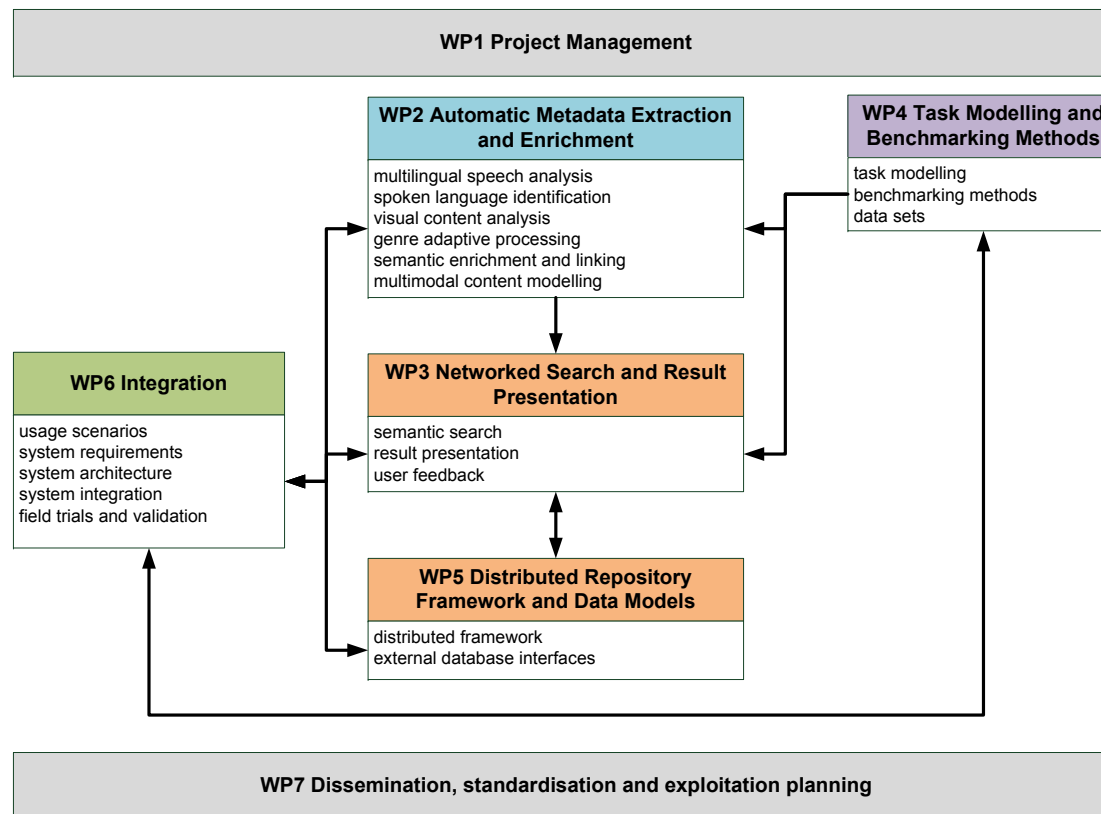
Research areas

- Multilingual speech metadata extraction
- Content-adaptive visual metadata extraction and enrichment
- Aligning and linking metadata
- Task-adaptive search & retrieval and user feedback
- User interfaces for annotation and result presentation
- Task models and benchmarking
- Scalable distributed repository framework for digital media production workflows

Projects facts

- Project start: Oct. 2011, duration: 30 months
- Funding: 3.574 MEUR

WP1 Project Management

WP2 Automatic Metadata Extraction and Enrichment

multilingual speech analysis
spoken language identification
visual content analysis
genre adaptive processing
semantic enrichment and linking
multimodal content modelling

WP4 Task Modelling and Benchmarking Methods

task modelling
benchmarking methods
data sets

WP6 Integration

usage scenarios
system requirements
system architecture
system integration
field trials and validation

WP3 Networked Search and Result Presentation

semantic search
result presentation
user feedback

WP5 Distributed Repository Framework and Data Models

distributed framework
external database interfaces

WP7 Dissemination, standardisation and exploitation planning

Consortium

- four leading research institutions

- a research group of a
  highly reputed university

- an innovative SME

- a leading services and technology provider
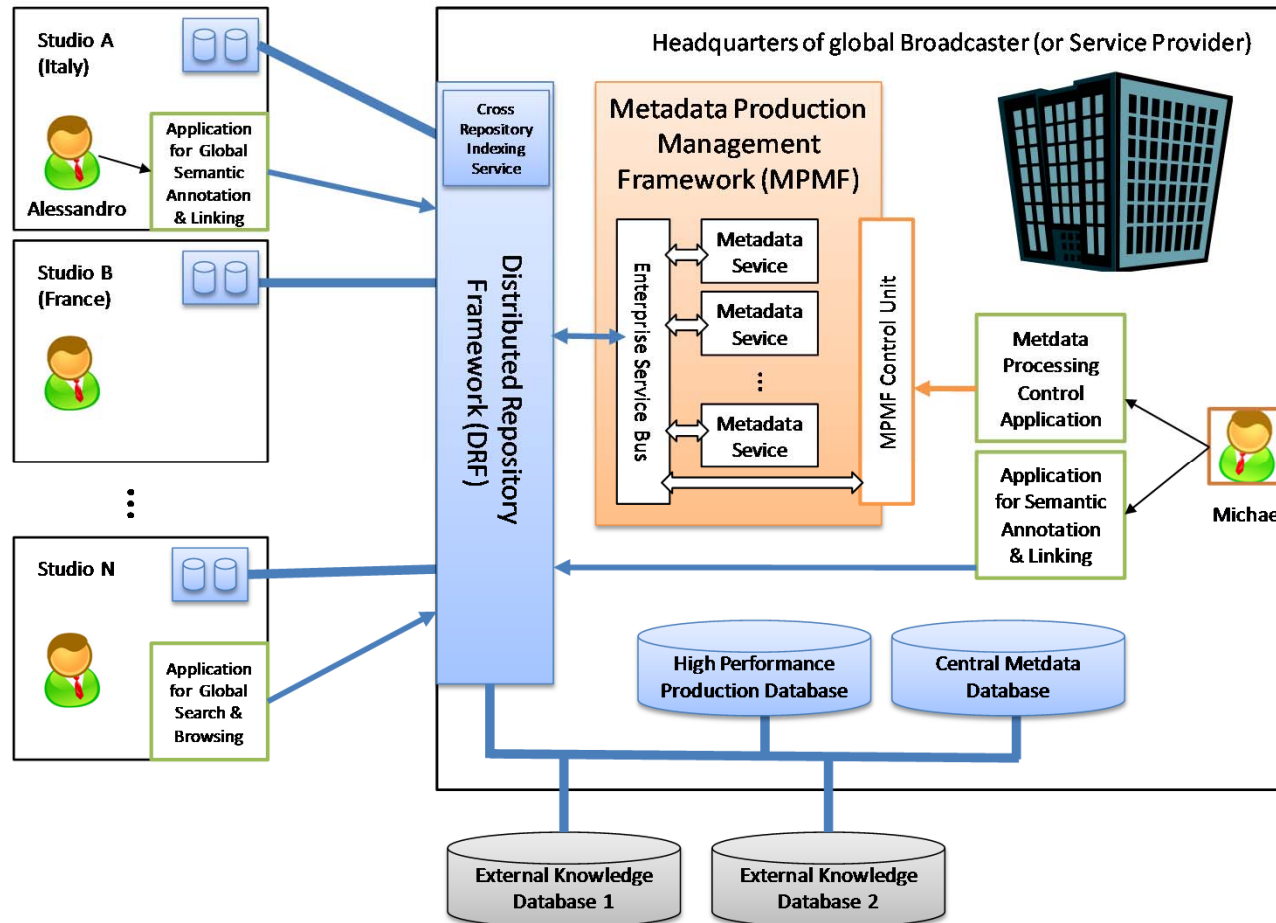
- two public service broadcasters
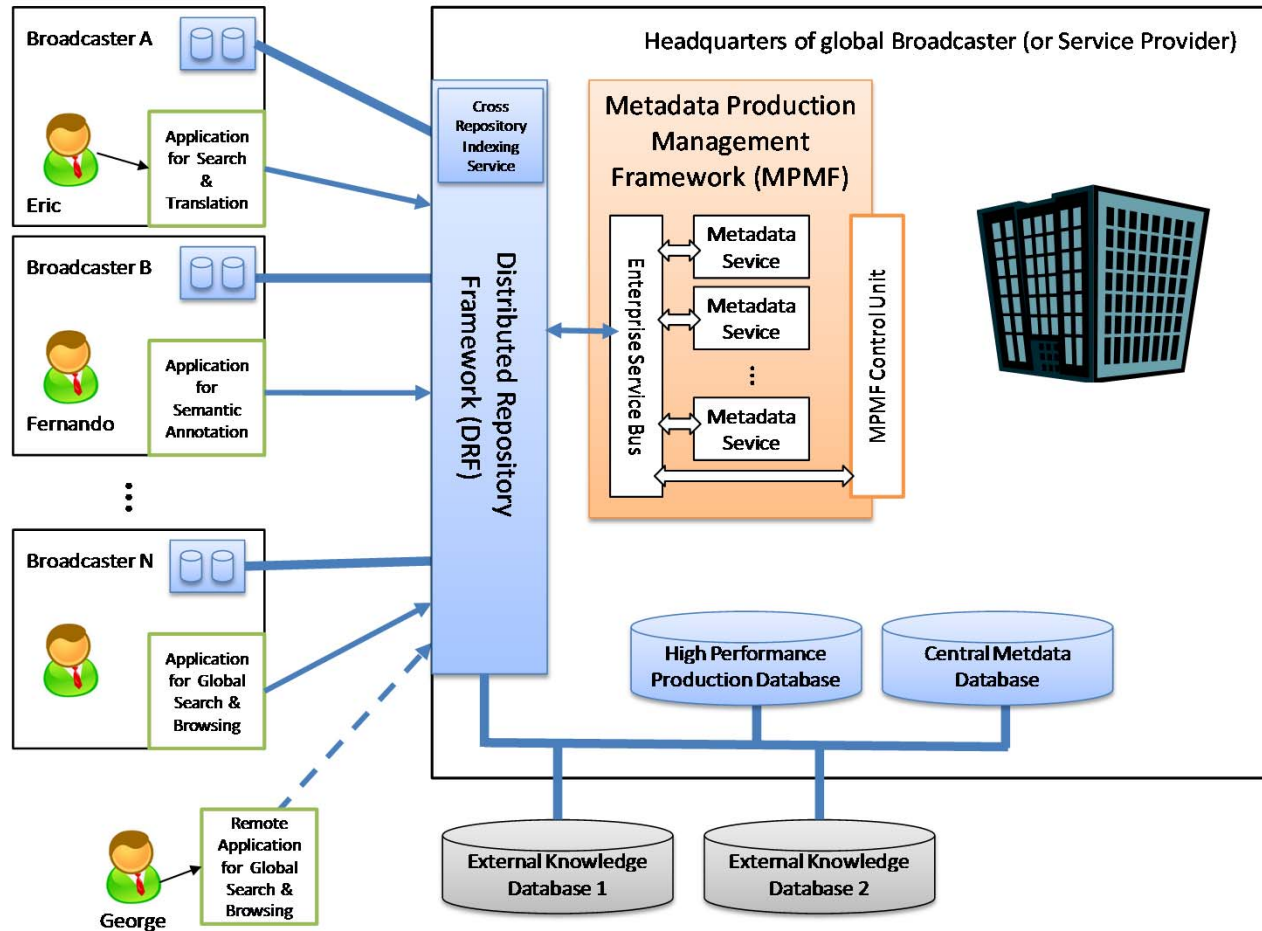
- the association of European broadcasters

Scenario 1 - Annotation

Scenario 2 – Search & Retrieval

Standardisation

- **EBU MIM/SCAIE**
  - EBU group on Automated Metadata Extraction
  - several TOSCA-MP partners are involved
- **FIMS**
  - Framework for Interoperable Media Services
  - EBU/AMWA task force for SOA in media production
  - http://wiki.amwa.tv/ebu/index.php/Main_Page
  - Phase 2 currently starting
  - Request for use cases & technical requirements (Jan. 15, 2012)
  - TOSCA-MP is preparing a submission on services for analysis, annotation and search

Benchmarking

- **Involvement of partners in benchmarking initiatives in 2011**
    - TRECVID (JRS), ImageCLEF (HHI), CLEF-IP (JRS),
      IWSLT (FBK, co-organiser), EVALITA (FBK)

- **TRECVID 2012**
    - TOSCA-MP submitted task proposal on multimodal linking/threading of news items – rejected
    - if the proposal for a revised instance search (INS) task by the FP7 AXES project is accepted, TOSCA-MP will contribute (content, evaluation guidelines, possibly annotation)

- **Video Browser Showdown @ MMM 2012**
    - VideOlympics for interactive known-item search
    - JRS co-organises
    - content set collected by EBU MIM/SCAIE, currently extended