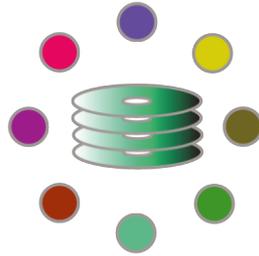


inEvent

Accessing Dynamic
Networked Multimedia Events



Presentation of InEvent

8th Networked Media Systems Concertation Meeting
Audio-Visual Media Search Cluster

Brussels, 13 December 2011

Andrei Popescu-Belis, Idiap Research Institute, Martigny (CH)

InEvent Partners

Partner n ^o	Participant organisation name	Short name	Country
1 (Coordinator)	Idiap Research Institute	IDIAP	CH
2	RADVISION LTD	RVSN	IL
3	IBM Israel – Science and Technology Ltd.	IBM	IL
4	Fraunhofer Heinrich-Hertz-Institute	HHI	DE
5	University of Edinburgh	UEDIN	GB
6	Klewel SA	KLE	CH



InEvent Management & Dates

- ▶ Project Coordinator:
 - Prof. Hervé Bourlard, Idiap Research Institute (CH)
- ▶ Deputy Project Coordinator:
 - Mrs. Einat Yellin, Radvision (IL)
- ▶ Administration:
 - Dr. François Foglia, Idiap Research Institute (CH)
Francois.Foglia@idiap.ch
Rue Marconi 19, 1920 Martigny, Switzerland
- ▶ STARTED NOVEMBER 1st, 2011 – FOR 3 YEARS
 - BUDGET: ~ 4 million € (~3 from EU)

<http://www.inevent-project.eu/>

InEvent Perspective: **HYPER-EVENTS**

- ▶ New approach to structuring, retrieving & sharing of large archives of multimedia recordings

Events
Multimedia
Networked
Dynamic
Accessing

Meetings, video-conferences, and lectures

Audio, speech, video, text, slides

Events can be linked to other events, structured along different dimensions (space, time, topic, purpose)

Event database changing over time

Index and retrieve event information, as *experience* or *insight*

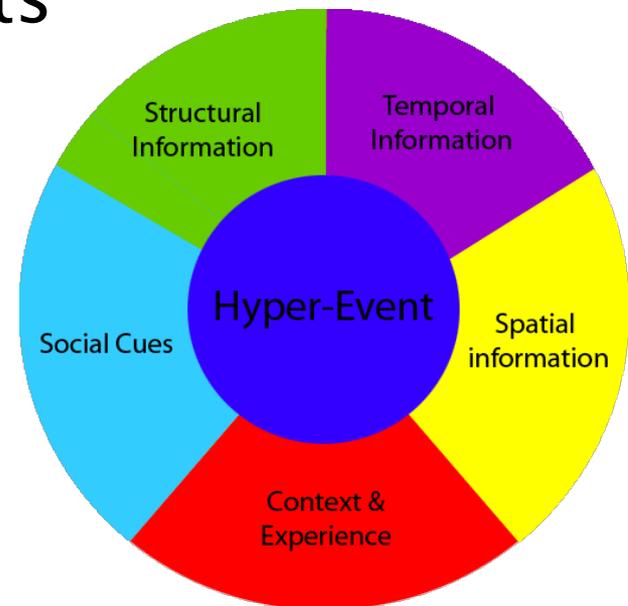
What are hyper-events?

- ▶ Series of communicative interactions unified by time, purpose, and place (physical or virtual)
 - Organized into hierarchical structures

- ▶ Complex data structures
 - Media: audio, video, notes, documents
 - Metadata [time-constant]: time, place, participants, relations to other hyper-events
 - Annotations [time-dependent]
 - Audio-based: transcript, diarization, topical episodes, etc.
 - Video-based: person detection, position, etc.
 - Multimodal: social signals
 - User-generated information (explicit and implicit)

From information extraction to *experience* enablement

- ▶ A multimedia archive is represented as a **collection of organized events**
- ▶ Users can choose how to experience or get insight into the events
- ▶ Key points
 - ▶ Vast amounts of multimedia data
 - ▶ Use **unified descriptions** of the hyper-events



Objectives of InEvent

- ▶ Automatically annotate and link hyper-events
 - Media, metadata, annotations
- ▶ Organize hyper-events based on metadata
 - Standardize archives
- ▶ Change the experience of navigating and accessing relevant media information
- ▶ Demonstrate the use of the novel structure
 - Scenarios from the two participating companies

Scenarios and evaluation

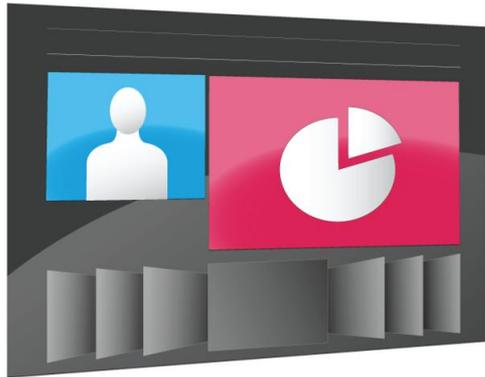
- ▶ User-oriented approach (Radvision and Klewel)
 - **lectures** and **meetings**: generic hyper-event hierarchies
 - episode < meeting < meeting series < project/company
 - episode < lecture < lecture series < conference/course
 - user comments and social bookmarking
 - search and recommendation based on hyper-events
 - integrating semantic and usage-based similarity
- ▶ Evaluation
 - benchmark: compare against text-based search (Y1)
 - increase in user satisfaction and overall usage (Y3)

InEvent Workflow



Search,
Navigation,
Collaboration

Meetings
Lectures
Media events



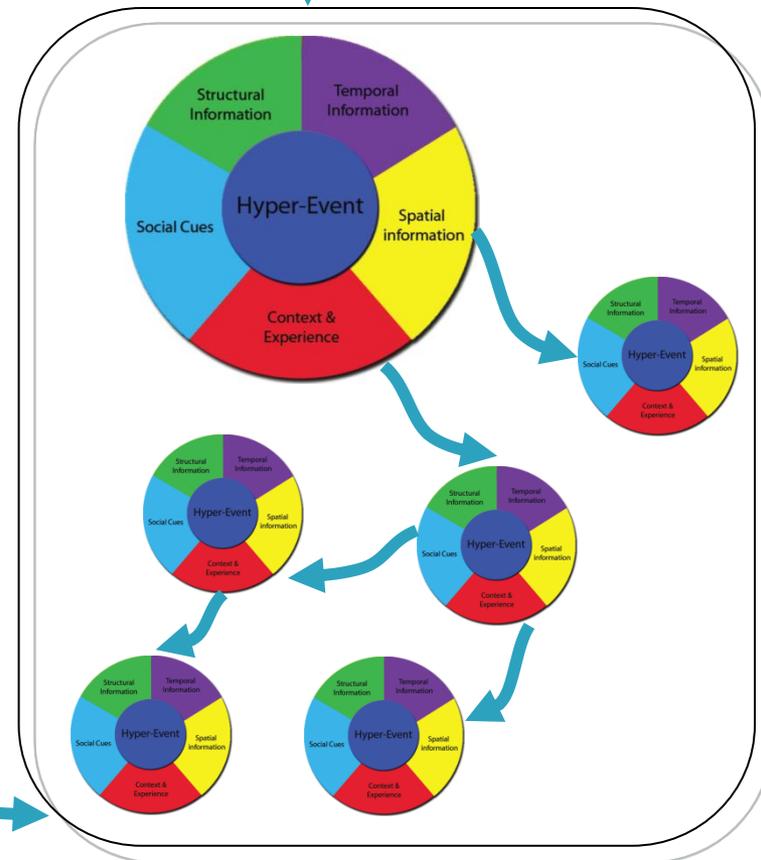
Capture

Analysis

Archival

Speech
Video
Documents
...

Structuring,
Indexing
Fusion,
Relations,
...



Main tasks and WPs

- 
- ▶ WP1 – Data capture and storage
 - Radvision, Klewel
 - ▶ WP2 – Analysis and metadata
 - U. of Edinburgh, HHI Fraunhofer, Idiap, IBM Research
 - ▶ WP3 – Assimilation and unified indexing
 - IBM Research, Idiap
 - ▶ WP4 – User requirements, interaction, applications
 - Klewel, Radvision, U. of Edinburgh, Idiap, IBM Research
 - ▶ WP5 – Dissemination and technology transfer
 - Radvision, Idiap
 - ▶ WP6 – Management
 - Idiap