

Info Day

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Searching for information

Main impairments of present approach

- For an effective search you need an expression of the concepts near to the one used in the reachable collection of documents/files/streams (restriction to non audio-visual expressions)
- The reachable sources of information are dynamically changing in location, grain and significance - unknown at the end.

A step forward: Semantics and classification

- Hierarchical structure for the categorization of the content
- Semantic-based taxonomy of audio-visual digital content and automatic links
- Personalization of the information received based on user's history and preferences

Main objectives

- Discovering information you didn't know you had (within your accessible sources)
- Avoiding duplicate efforts within large organizations where independent groups "reinvent the wheel"
- Not repeating the same mistake
- Demonstrate relationships
- Reduce complexity of information search and speed up the search



Main Focus of Research

Architectures for delivering services in open, dynamic environments

- Subscribers with the ability to express their interest in any class of information or a pattern of complex, personalized information
- Publisher to notify information that matches subscriber (registered) interest
- Internet-based and large scale data information

Subscription languages, that give users the ability to express their interest by specifying predicates

- Publications are matched to subscriptions on the basis of their (audio-visual) content
- The users can subscribe to logical combinations of elementary events and are notified about composite pattern of events
- Audio-visual Content-based publish/subscribe communication paradigm
 - Introduction of a subscription scheme based on the actual content of the considered events
 - Events are not classified according to some pre-defined external criterion (e.g., topic name), but according to the properties of the events themselves

Approaches

Global data storage infrastructure

- Distributed Hash Table as an internet data infrastructure that provides and shares content
- Extended search of distributed content across a wide-area environment
- Certified information sharing

Clustering of the subscriptions

- Mechanisms for dynamically grouping similar profiles into clusters
- High-level information delivery services based on profiling