

# Use cases for interactive multi-lingual multi-media information access?

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# Use Cases

- A goal oriented set of interactions between external actors and the system.
- Who does what? For what purpose? – without dealing with system internals.
- A *scenario* is an instance of a use case.
- *Not* a functional specification.

## Benefits of Use Cases

- Leave technology outside the specification,
- Allow targets to be tuned to perceived task.
- Low-footprint - easily discardable.
- Supports e.g. differentiation based on information seeking strategies.
- Aids us in the informed formulation of target notions to aim for and success criteria to evaluate by.
- Provides a common language to benchmark projects with different goals and starting points.



# Requirements for Use Cases

- Specify who *the actor* is.
- Specify the *goal* of the actor.
- Specify what sequence(s) of actions meet the goal.
- It is not considered necessary to specify platform, hardware etc...
- ... but we may if we wish!

# Do We Need Use Cases?

Question for today:

Might we want to have use cases for CLEF purposes?

View Consume at teller

Purchase Delivery for later consumption

Annotate Provide information

Edit

Record Monitor

# User background

Professional vs Novice System / Task / Domain

Language Native / Fluent / Novice / Just off the boat / At sea

History Returning customer / Preferences modelled / Drop-in client

User-data relationship Consumer / Producer / Editor / Owner / Vendor / Legislator

**Type** Text / Image / Audio / Video / Music ...

**Quality** Raw data (Rushes) / Edited (Archival) / Lo-fi (User provided)

**Metadata** Language / Authority / Source / Location / Timestamp ...



# Hardware and situation

**Platform** Desktop Computer / Theatre / Set-top box / Mobile device

**Data rate** Broadband, Low throughput, Bidirectional



**Query type** Content, Example, Metadata

**Session type** Browsing, adhoc, known-item retrieval, production, monitoring, editing ...

**Usage configuration** Single-user, Collaborative, Asynchronous, User-provided content

**Cost / Quality trade-offs**

- Quick and dirty** extra charge for rapid delivery?
- Careful and authoritative** Prepared to wait for a good answer?
- Inexpensive** Self-service, no warranty?

# Vanilla adhoc retrieval

Use case is implicit:

**History** One-shot customer with little, or no, history

**Budget** Low cost, business model based on advertising

**High speed** Immediate delivery - client supposedly in hurry.

**Quality** Self service. No warranties, but high precision: top of list about 50 per cent topically relevant.

**Coverage** High recall: retrieve long list (of noise)

**Competence of user** Self service. Make no assumptions.

Evaluation by  $p@20$ , MAP, ad revenue, and by kW.



## Making other use cases explicit

Will have ramifications for evaluation metrics.

## School pupil

Researching school assignment on an unfamiliar topic to write a half page essay.

History?

Budget?

Time constraints?

Quality?

Coverage?

Competence?



Looking for images for a text (written by someone else) on an unfamiliar topic.

History?

Budget?

Time constraints?

Quality?

Coverage?

Competence?



## Wikipedia reader

Looking to find if an issue treated in an encyclopaedic format is contentious or not.

History?

Budget?

Time constraints?

Quality?

Coverage?

Competence?



Looking for a second opinion on some consumer product.

History?

Budget?

Time constraints?

Quality?

Coverage?

Competence?



# News reader

Finding an interesting topic briefly treated in news flash and looking for more in-depth information on it.

History?

Budget?

Time constraints?

Quality?

Coverage?

Competence?



Viewing video clips to ascertain inappropriate information is not being transmitted, checking sources, duplicates, near-duplicates.

History?

Budget?

Time constraints?

Quality?

Coverage?

Competence?



## Make your use case explicit!

Talking about these things will facilitate

- inter-project comparison;
- evaluation in the form of benchmarking between projects;
- creation and evolution of new target notions for evaluation;
- placing your results in an appropriate application context.

## Conference coming up



- CHORUS Conference on multi-media search and access.
- Coordination activity of FP6 projects on multi-media retrieval.
- In Barcelona, this coming April.

