



Image-based Navigation in Multimedia Archives

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- *Bring digital cultural and scientific resources closer to their users.*
 - semantic search
 - syntactic similarity \neq semantic relevance
 - especially for images
 - can be solved using semantic technologies
 - visualizing background information helps understand the content of information objects
 - who, when and where made an image?
 - who is on the image?
 - ...
- *Create a flexible, reusable technology of **visual contextualisation** for images.*
 - working technology at project end
 - should be applicable on different systems / application domains
 - eurohistory.net, photo12.com, ...



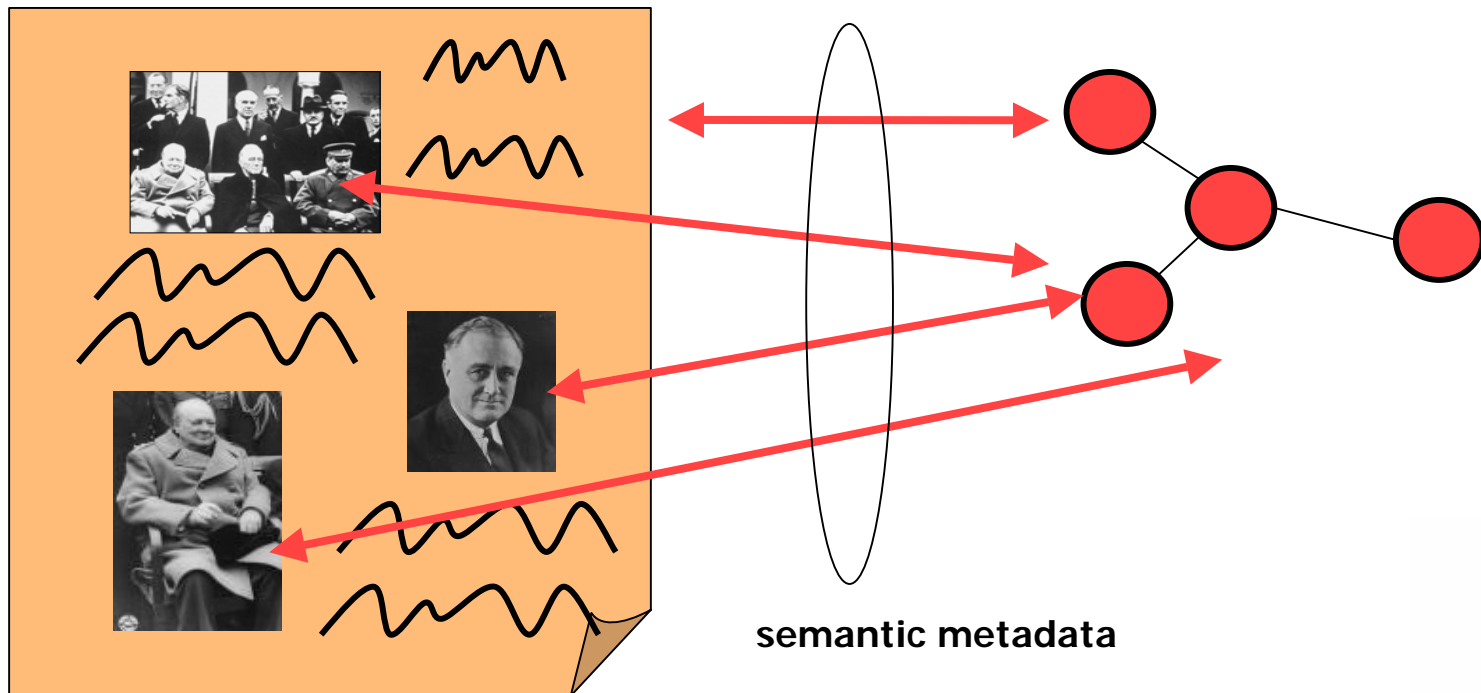
IMAGINATION - Important facts

- Start date: May 2006
- Duration: 36 Months
- Budget: 365.5 PM, 3.8M EUR
- Partners
 - FZI, Germany (coordinator), semantic technologies, ontology development
 - Fraunhofer IIS, Germany, image recognition
 - RIDemo, Latvia, web user interface
 - JSI, Slovenia, text mining
 - Photos12, France, content provider
 - NTUA, Greece, image segmentation
 - disy, Germany, SW architecture, metadata management
 - BSMC, Italy, content provider



Main questions

- Question #1: How to create semantic metadata?
 - idea: combine text mining, image segmentation, image recognition and semantic technologies
 - use semantic metadata as a bridge among the technologies
 - exploit the physical context of the resources



Main questions (2)

- Question #2: What do we use semantic metadata for?



The picture was taken on
February 4 1945
[more pictures on the same day](#)

The picture was taken in
Yalta
[more pictures on Yalta](#)

The picture is about the Yalta
conference
[more pictures about the Yalta Conference](#)
[browse Yalta Conference in the ontology](#)

This is Franklin D. Roosevelt
[more pictures about Roosevelt](#)
[browse Roosevelt in the ontology](#)



Roosevelt in general

- childhood
- most famous pictures
- ...

VS.

Roosevelt in context

- Yalta conference
- with Stalin, Churchill
- ...

■ Determine context

- User profile
 - automatically collected
 - user interaction
 - search history
 - explicit preferences

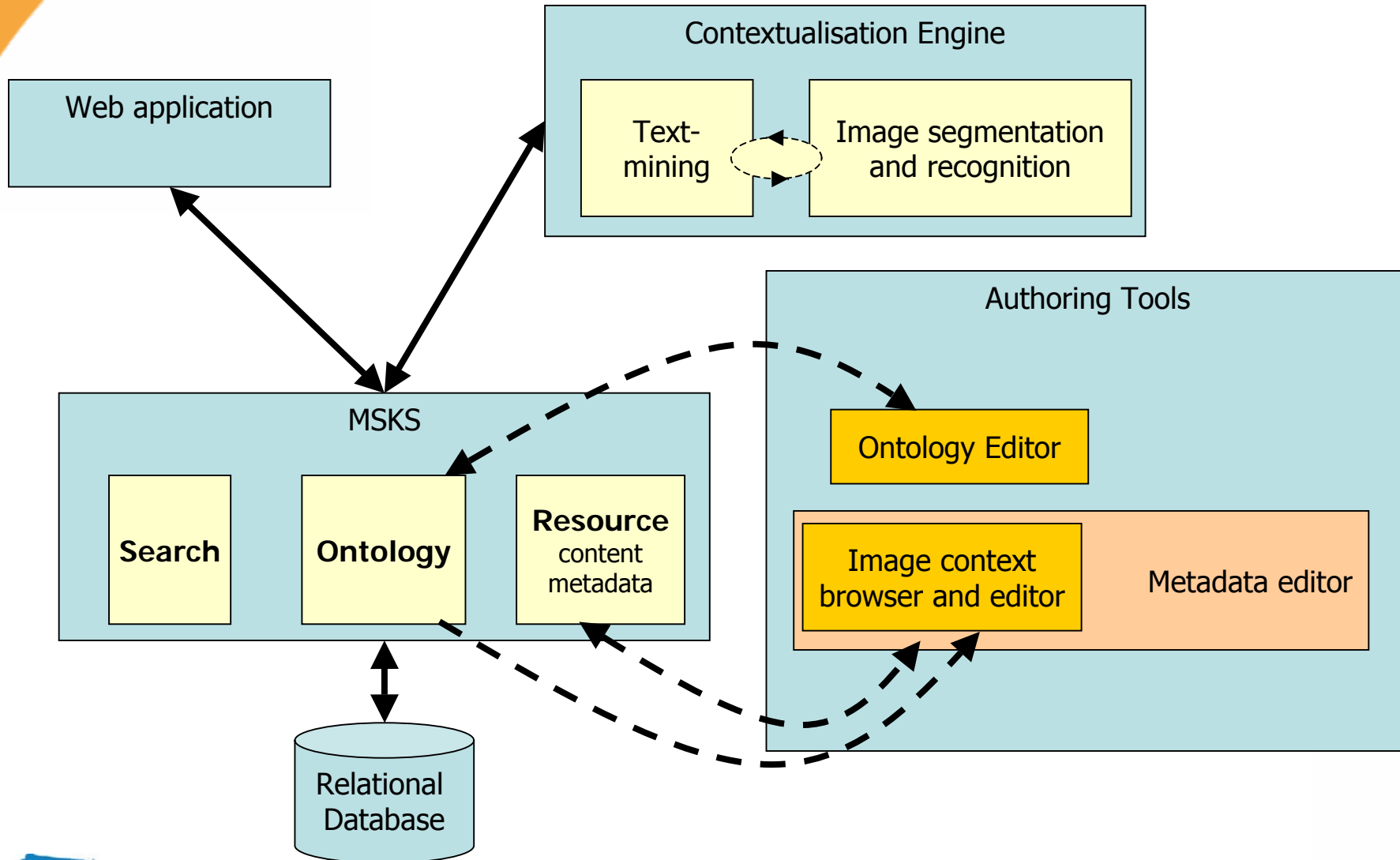
- Actual resource

■ Challenges

- user-friendly context
 - avoid to be too intelligent
 - possibility to (selectively) switch on and off
- context evolution
 - user interests evolve



Architecture



Workflow



user



interact



Metadata

Access & Interaction

Preparation

Web GUI

generate and embed metadata



Controversies over Yalta

1 The Yalta Conference is often cited as the symbol of [Stalin's betrayal](#) at the beginning of the [Cold War](#). There seems to be a fairly common [opinion](#) about Yalta. If only Roosevelt had demonstrated more will, more resolution, the postwar map of Europe would have been transformed and eastern Europe would have been spared the miseries of Stalinist rule. Some also argue that the failure was not in the Yalta Agreement itself, but in Western Allies' belief that Stalin's dictatorship could be tamed. Neither Roosevelt nor Churchill leded — officially, at least — to Stalin the right to control [Eastern Europe](#). When Roosevelt asked U.S. Secretary of State [Edward R. Stettin](#) to get a lawyer to consult with him over the wording of the Polish boundary settlement, [Churchill](#) labeled [Stettin](#) as "the Yalta Agreement guaranteed free elections for Poland, Lithuania, Latvia, and Estonia, yet it is hard to comprehend how the Western Allies could have knowingly followed Stalin's promise, given the USSR's behaviour in the [Czechoslovakia](#), its hostility to [British](#) [agreements](#) in [Greece](#) and its persecution of [Jews](#). [European](#) members engaged in the [Operation](#). The USSR's intentions were clearly visible in the [Tehran](#) [Sessions](#) which took place near the same time as the Yalta Conference.

2 There's some truth to this criticism, which is a variant of the "good cop" view of history. But the harsh realities, including the de facto period of military occupation, placed serious constraints on the ability of Roosevelt and Churchill — as well as Stalin's — to exact major diplomatic concessions.

3 There is no convincing evidence that by the time of the Yalta Conference, the Western Allies had the will to wage a second critical war in central Europe. Even before the existing conflict ended, the British and French were far more focused on recovering their lost colonies than on the future of eastern Europe. The invasion of France, the Low Countries and Germany itself had been very costly to the U.S. and the UK, and the French had limited ability in 1945 to provide military support for anti-Stalin offensives in the east. British resources of manpower were exhausted and the U.S. had already begun to transfer troops, including the entire [East](#), to the Pacific. Strategic needs before the end of the European war were [vital](#) to the U.S. and the U.K. for a military confrontation among the former allies. They might have not been the same in the East. Twenty-seven million Russian soldiers had died to defeat Germany and Stalin had ambitions to extend Soviet control to eastern Europe. Despite its staggering losses, the Soviet Union was emerging from the war with a modern, mechanized army and air force that were only rivaled by the U.S. These circumstances made it very unlikely that Stalin would yield to the [1st](#) [demands](#) of people — the primary war aim articulated in the [Atlantic](#) [Charter](#) — or that Western politicians would support a new war to push the Russians east of the [Caucasus](#).

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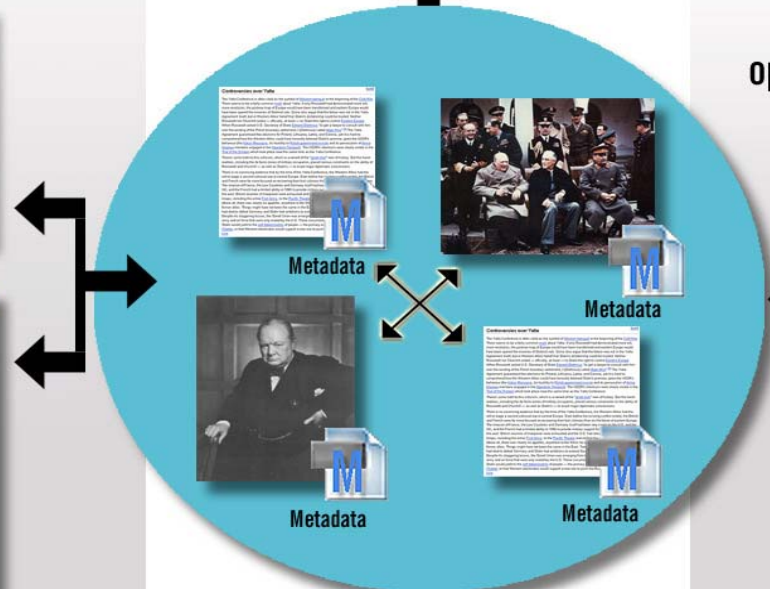
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use



optionally verify and edit



domain experts

Knowledge Base



Thank you!

