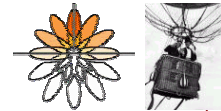
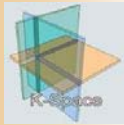


Creating Meaningful Presentations

Lynda Hardman
Jacco van Ossenbruggen

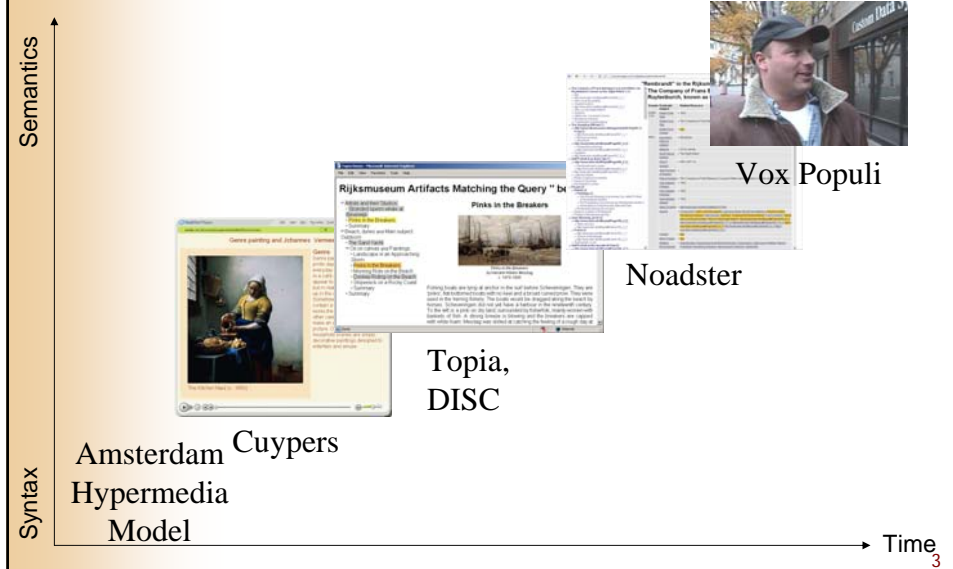
Semantic Media Interfaces
CWI, Amsterdam
<http://www.cwi.nl/~media>



Introduction

- Overview of our research activities:
 - Creating meaningful presentations from query results
 - Part of the K-Space, Passepartout and Multimedia-N
- Main theme of our work:
 - The role that **explicit discourse** information plays in the *personalized generation process*
 - The difference between:
 - a *list* of retrieval results ordered *most relevant first* and
 - a *presentation* that has *structure* interpretable by the end user, giving the collection *sense of belonging to same presentation*

From syntax to semantics



Existing approaches in presenting query results

- No explicit discourse (only domain semantics):
 - Noadster - clusters from domain semantics
 - Topia - preselecting concepts in domain semantics
 - Museo Suomi, /facet (facet browsers) – selection based on domain semantics
- Deriving some aspects of discourse:
 - Giving meaning to clustering process
 - Assigning different weights to clusters => ordering
 - Influence the way people perceive information

Semantic Web browsing

- Noadster
- Generalised semantic web browsing
- Integrating global and local browsing

- Lloyd Rutledge, WWW 2005



http://homepages.cwi.nl/~media/2005/06/06/roaibot/rembrandt.html

"Rembrandt" in the Rijksmuseum

The Company of Frans Banning Cocq and Willem van Ruytenburch, known as the 'Night Watch'

Domain	Predicate/Subject	Related Resource
Dublin Core	Dublin Core Date	> 1642
	Dublin Core Title	> The Company of Frans Banning Cocq and Willem van Ruytenburch, known as the 'Night Watch'
	Dublin Core Creator	> Rijn
ARIA	Exposition	> RM-M224-
	Place of Artefact	>
	Material	> Oil on canvas
	Short Title of Artefact	> The Night Watch
	Size of Artefact	> 363 x 437 cm
	Style/Period of Artefact	>
	Title of Artefact	> The Company of Frans Banning Cocq and Willem van Ruytenburch, known as the 'Night Watch'
	Year/Artefact Created	> 1642
	Year/Artefact Finished	> 1642
	Year/Artefact Started	> 1642
Altis Location	> http://www.telin.nl/rdf/topia#Atlas157849	
Aspect	> Composition Here come the guards! Light and shade Moved and battered Original location Rendering of texture Rijksmuseum Symbols Troublesome foreshortening True to tradition Liberty new: a moment in time! Who is in the Night Watch? http://www.telin.nl/rdf/topia#Frame583_2_2 http://www.telin.nl/rdf/topia#Frame583_11_2 http://www.telin.nl/rdf/topia#Frame583_13_2 http://www.telin.nl/rdf/topia#Frame583_1_1 http://www.telin.nl/rdf/topia#Frame583_3_2 http://www.telin.nl/rdf/topia#Frame583_10_2	
Creator	< Rijn	
Main Creator	> Rijn	
Related	> Arquebusiers Arquebusiers hall Brush technique Composition Light source Millias Patrons	
Encyclopedia	> Portraiture Rendering of texture Rijksmuseum collection Symbolism	

- The Company of Frans Banning Cocq and Willem van Ruytenburch, known as the 'Night Watch' [10]
 - Rijn
 - [http://www.telin.nl/rdf/topia#Frame583_1_1](#)
 - Here come the guards
 - Original location
 - [http://www.telin.nl/rdf/topia#Frame583_2_2](#)
 - Who is in the Night Watch?
 - Symbols
 - Liberty new: a moment in time!
 - Rendering of texture
 - Troublesome foreshortening
- The Sampling Officials [7]
 - [http://www.rijksmuseum.nl/images/aria/SK/Org/SK-C-6.org](#) [5]
 - [http://www.telin.nl/rdf/topia#Frame587_1_1](#)
 - Background facts
 - Movement
 - [http://www.telin.nl/rdf/topia#Page587_4](#) [2]
 - Preparatory drawings
 - [http://www.telin.nl/rdf/topia#Frame587_4_2](#)
 - Signature
 - [http://www.telin.nl/rdf/topia#Frame587_5_2](#)
- Self Portrait at an Early Age [7]
 - [http://www.telin.nl/rdf/topia#Page380_6](#) [2]
 - Rembrandt and Lievens
 - [http://www.telin.nl/rdf/topia#Frame380_6_2](#)
 - [http://www.telin.nl/rdf/topia#Frame380_1_1](#)
 - Light and shade
 - Points of light and scratches
 - Famous Dutchman
 - Rembrandt in Leiden
- People [6]
 - Reliefs [4]
 - Paintings [3]
 - Old Woman Reading a Lictionary (So-called Portrait of Rembrandt's Mother)
 - The Prophetess Anna (known as Rembrandt's Mother)
 - Rembrandt as Shepherd with Staff and Flute
 - Rembrandt drawing at a window
 - Study for a statue of Rembrandt
 - Portrait of Rembrandt van Rijn
- Isaac Blessing Jacob [6]
 - [http://www.telin.nl/rdf/topia#Page158_4](#) [2]
 - Other versions
 - [http://www.telin.nl/rdf/topia#Frame158_4_2](#)
 - Frame [3]
 - [http://www.telin.nl/rdf/topia#Frame158_1_1](#)
 - School of Rembrandt
 - [http://www.telin.nl/rdf/topia#Frame158_2_2](#)
 - Rembrandt's circle
- Self Portrait as the Apostle St Paul [6]
 - [http://www.telin.nl/rdf/topia#Frame158_1_1](#)

Inferring document structure

- Topia
- Rijksmuseum ARIA database -> RDF
- Clustering on results of query
- Presentation showing "table of contents" and current focus

- Lloyd Rutledge
ACM Hypertext 2003




Inferring document structure

Topia Demo - Microsoft Internet Explorer

Rijksmuseum Artifacts Matching the Query " beach "

- Artists and their Studios
 - Stranded sperm whale at Beverwijk
 - Pinks in the Breakers**
 - Summary
- Beach, dunes and Main subject: Outdoors
 - The Sand Yacht
 - Oil on canvas and Paintings
 - Landscape in an Approaching Storm
 - Pinks in the Breakers**
 - Morning Ride on the Beach
 - Donkey Riding on the Beach
 - Shipwreck on a Rocky Coast
 - Summary
 - Summary

Pinks in the Breakers



Pinks in the Breakers
by Hendrik Willem Mesdag
c. 1875-1885

Fishing boats are lying at anchor in the surf before Scheveningen. They are 'pinks', flat-bottomed boats with no keel and a broad curved prow. They were used in the herring fishery. The boats would be dragged along the beach by horses. Scheveningen did not yet have a harbour in the nineteenth century. To the left is a pink on dry land, surrounded by fisherfolk, mainly women with baskets of fish. A strong breeze is blowing and the breakers are capped with white foam. Mesdag was skilled at catching the feeling of a rough day at

Explicit Discourse

– Fixed discourse:

- DISC – uses annotated multimedia repository + domain ontology and discourse knowledge
- discourse knowledge = set of rules (genre, narrative units...)



– Dynamic discourse:

- VoxPopuli: argument generation in video



– Role of structured progression

9

Fixed Discourse

- DISC
- Rijksmuseum repository of media items
- Semantic graph is not enough
`Rembrandt married-to Saskia`
also need discourse structures for deriving grouping, ordering and priorities
- Biography template created
`painter is-a profession`


- Stefano Bocconi, Joost Geurts
ISWC 2003



RealOne Player

media.cwi.nl/cocoon/cuypers/aria/selectform-process

Rembrandt Harmensz. van Rijn



Self Portrait (1628)

Clair-obscur (French) and chiaroscuro (Italian) both mean 'light-dark'. Both terms are used to describe strong contrast of light and dark shading in paintings, drawings and prints. Although the effect had already been used for many years, the term only came into fashion in the late sixteenth century. Originally, the word came from Italy. The painter Caravaggio (1573-1610) made chiaroscuro his trademark. He was a master at painting illuminated scenes in dark settings.

11

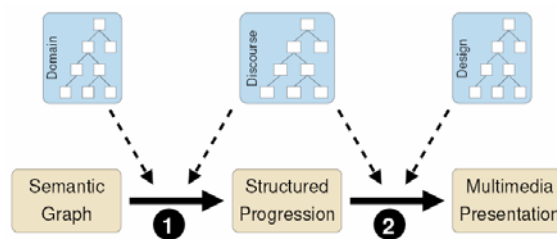
Dynamic Discourse

- Vox Populi: Argument generation in video

Question		Interviewee		Opinion		
Why did they do what they did? What do you think of the casualties among civilians? What do you think of the Afghanistan war? What are the consequences of the war? What are the roots of the problem? What do you think about the Anthrax?		Cameron Parking Guard at Stamford Lawyer in Harward		War in Afghanistan - Pro		Position
Age	Education	Employment	GeoLocation	Race	Religion	Sex
Middleage Old Teenager Young	HighEducated LowEducated MediumEducated	HighIncomeJob LowIncomeJob MiddleIncomeJob Retired Student	NotUSA USA	AmericanIndian Asian Black Hispanic White	Atheist Christian Muslim	Female Male
Age	Education	Employment	GeoLocation	Race	Religion	Sex
Middleage Old Teenager Young	HighEducated LowEducated MediumEducated	HighIncomeJob LowIncomeJob MiddleIncomeJob Retired Student	NotUSA USA	AmericanIndian Asian Black Hispanic White	Atheist Christian Muslim	Female Male
Strategy		Bandwidth	Intercut	Caption		
<input type="radio"/> None <input checked="" type="radio"/> Create Clash <input type="radio"/> Create Support <input type="radio"/> Vox Populi		<input type="radio"/> Low Bandwidth <input checked="" type="radio"/> Medium Bandwidth <input type="radio"/> High Bandwidth	<input checked="" type="radio"/> True <input type="radio"/> False	<input type="radio"/> On (can cause problems) <input checked="" type="radio"/> Off		
Done		Reset				

Role of structured progression

- Mono-media cases (text or video sequences):
 - ordering for the fragments and present them
- Presentations that use combinations of media,
 - Semantics of domain and discourse need translation to *hierarchical structures* that can be expressed through *layout*, *navigational links* or *temporal info*.
- Intermediate format is required:



13

Conclusions

- From projects described we have learned:
 - distinguish stages in process
 - separate discourse knowledge
 - Fixed and Dynamic discourse
 - mappings between domain & discourse knowledge
- Scientific challenges remain:
 - Making (MM) discourse and design knowledge explicit
 - Expressing re-usable semantics of media assets
 - Architectures for multimedia presentation generation

14

Acknowledgments

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 - the European *ITEA Passepartout project*,
 - Dutch *BSIK MultimediaN e-Culture project*

