CHIP Project
@ Rijksmuseum Amsterdam

Cultural Heritage Information Personalization

Eindhoven University of Technology, the Netherlands
Lora Aroyo, Natalia Stash, Yiwen Wang & Paul De Bra

Telematica Instituut, the Netherlands
Rogier Brussee, Lloyd Rutledge

Rijksmuseum Amsterdam, the Netherlands
Peter Gorgels
Experience Art: What you want, Anytime, Anywhere

Be Your Own Curator
Power to the people!

- Allow your users to participate
  - annotate, tag, comment, share
  - be their own curators
  - mix with experts
- ‘Observe’ your users continuously
  - in vivo & in vitro
- Include user perspective in collection maintenance
  - Don’t duplicate
The context

- Continuous Access to Cultural Heritage (CATCH) Dutch national program
  - Improving Web-based & cross-collection access to cultural heritage

- 10 projects
- 9 cultural heritage institutions
- 11 academic partners
- Computer scientists work in musea
CHIP project

- Cultural Heritage Information Presentation & Personalization

- Cultural Heritage host: Rijksmuseum Amsterdam

- Goal: Personally engaging museum Website

- Scientific Goal: Interactive User Profiling, Personalized Presentation & Navigation
Rijksmuseum Web Site

- E-ticketing
- E-shop
- News
- Courses
- Virtual tours
- Collection browse

visits

RMA Website

My Rijksmuseum

Metadata
Data Model

Uses / Updates

User Model

RMA Collection
CHIP Demonstrator

- Exploring several concepts for:
  - **User interaction**
  - Information visualization
  - **Semantics-driven recommendations**
  - User profile presentation

- Analyzing and extending Rijksmuseum data:
  - Introduce **structure** to existing vocabularies
  - **Add art-historic styles** information
  - Use external **vocabularies**
Interactive User Profiling (1)

- **Dialog** with the user based on museum collection
- Users **ratings**
- Results stored in **User Profile**
Interactive User Profiling (2)

- Simple User Profile
- Visible all the time
- Transparency
- User control

Your Profile

Topics I Like
- Artists (3)
  - Terborch, Gerard, II
  - Johannes Vermeer
  - Rembrandt van Rijn
- Period & Location (2)
  - Amsterdam, 1775 to 1800
  - Delft, 1625 to 1675

Themes (15)
- Figures (women)
- Woman
- Genre painting
- Rendering of texture
- Composition

Neutral Topics
- Themes (7)
  - Overpainting
  - Restoration
  - Infrared reflectography

- Self portraits
- Mary Magdalene

Topics I Dislike
- Themes (4)
  - Militia paintings
  - Guilds
  - Militias
  - Power

Artworks I Rated (42)

See skipped artworks...
CHIP Personalized Interface to the Rijkmuseum Collection

- browser
- recommender
- tour wizard
- user guide
- log out (anonymous user)
- project home page

Interactive Dialog

User Profile

Recommended Topics

Recommended Artworks
Recommendations (1)
Old Woman Reading a Lectionary (So-called Portrait of Rembrandt's Mother)

**Artist**
- Dou, Gerrit

**Year of creation**
- c. 1630

**Period & Location**
- Leiden, 1600 to 1650

**Material**
- Oil paint

**Dimensions**
- 71 x 55.5 cm

Gerard Dou painted this old woman in great detail. He was particularly accurate in his rendering of the various materials: the different types of fur in the cap and the collar, the structure of the paper, the cotton and the velvet, the gold of the brooch. Dou delicately depicted the skin of the face and hand, and even the capitals in the book are legible. Gerard Dou's minutely detailed style earned him the name fijnvelder. He developed his method of painting in the studio of Rembrandt, his teacher. Dou was admired in his own day for the accuracy of his fijnvelder paintings.

See related artworks ...
Sources for Recommendations

- **Semantic relationships** between art works
  - by the same or related creator
  - in the same or related style
  - in the same or related period or location

- **Statistical analysis** of the collection
  - most occurring artist in the collection
  - most occurring themes
  - most representative artworks for the collection
Personalized Museum Tour: The vision

**CHIP Personalized Tour Wizard**

1. **Art Icons**
   Each art icon represents a time period.

2. **Timeline Bar**
   This is divided into several chronological segments.

3. **Special Themes**
   - Rembrandt 400
   - Really Rembrandt?
   - Rembrandt’s drawings
   - Fashion DNA special
   - Rembrandt-Caravaggio

4. **World Map**
   This is divided into several geographical regions.

5. **Constraints/Steps**

6. **Tour**

7. Changes in any element is propagated.
Personalized Museum Tour:
Demo 0.1

CHIP Personalized Interface to the Rijkmuseum Collection
browser | recommender | tour wizard | user guide | log out (lor) | project home page

Search
Terborch, Gerard, II
Reset

Artworks by Artist
"Terborch, Gerard, II"
- Girl in Peasant Costume. Probably Gesina, the Painter's Half-Sister
- Woman with a Mirror
- The Ratification of the Treaty of Munster, 15 May 1648
- Gallant conversation; known as 'The Paternal Admonition'
- Helena van der Schalcke (1646-1671)

Gallant conversation; known as 'The Paternal Admonition'
Add to my selections

Museum eye
My tour selections
- Portrait of Two Figures from the Old Testament, known as 'The Jewish Bride'
- Titus van Rijn in a Monk's Habit
- Faust
- Self Portrait at an Early Age
- Janornish Lamenting the Destruction of Jerusalem
- The Love Letter
- Woman Reading a Letter
- Gallant conversation; known as 'The Paternal Admonition'

Artist: Terborch, Gerard, II
Year: c. 1654
Personalized Museum Tour: Demo 0.1

Your tour on the Rijksmuseum map
Behind the Scenes

- Rijksmuseum data
  - ARIA (750 artefacts, Website-targeted)
  - Adlib (50,000 artefacts, Curator-targeted)

- External Vocabularies
  - Getty AAT: Styles & Periods
  - Getty ULAN: artists
  - Getty TGN: locations
  - Iconclass: Topics & Themes
Title: The company of Frans Banning Cock preparing to march out, known as “the Nightwatch”

Artist: Rembrandt van Rijn
Date of Creation: 1642
Current Collection: Rijksmuseum Amsterdam
Material: oil on canvas
Dimensions: 363 x 437 cm
The Night Watch

The Night Watch, the most famous painting in the Rijksmuseum, actually has another title: the 'Company of Frans Banning Cocq and Willem van Ruytenburch'. The picture is a militia painting: a group portrait of a division of the civic guard. Rembrandt depicted the group of militiamen in an original way. He did not paint them in neat rows or sitting at their annual banquet, rather, he recorded a moment: a group of militiamen have just moved into action and are about to march off.

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

Year
1642

Artist
Rembrandt Harmensz. van Rijn

Technique
Oil on canvas

Dimensions
363 x 437 cm

Object number
SK-C-5
**List of Keywords:**

14 hits also see: attendant, body-guard, gosler, guarding

- [iconclass Libertas edition](#)
- guard-room
- Guardia

**iconclass Libertas edition**

<table>
<thead>
<tr>
<th>Notation:</th>
<th>Go To</th>
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<th>Look up</th>
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**Context of: 45B31**

<table>
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<th>Society, Civilization, Culture</th>
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<td>warfare, military affairs</td>
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<tr>
<td>45B</td>
<td>the soldier, the soldier's life</td>
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<td>45B31</td>
<td>military service</td>
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**Children**

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<th>KEY</th>
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<td>changing the guard</td>
</tr>
<tr>
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<td>in the guard-room, 'korte-guard'</td>
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<tr>
<td>45B313</td>
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<tr>
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<td>attacking the sentry</td>
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**Systematic References**

- 71O37 fixes 62.6: the watchmen on the walls of Jerusalem

**Keywords**

- society
- civilization
- culture
- occupations
- military affairs

**Quick Links to Main Categories:**

- [iconclass Libertas edition](#)
- Bildindex - Foto Marburg
- Mammals Image Atlas
- KB Illuminated Manuscripts
- RKD Den Haag
- IMAGO CPAC Sebina

**Search for illustrated examples of notation 45B31 in:**

- Bildindex - Foto Marburg
- Mammals Image Atlas
- KB Illuminated Manuscripts
- RKD Den Haag
- IMAGO CPAC Sebina

**Keywords**

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- [iconclass Libertas edition](#)
Note: Rembrandt was one of the most popular artists of the 17th century in Europe. Today, he is also one of the most popular artists of all time. He is known for his oil paintings, over 1000 drawings, and around 300 etchings. Rembrandt was a master of chiaroscuro, a technique of strong contrasts of light and dark, and of capturing the human condition and experience in human and biblical history. His works include many self-portraits, biblical scenes, and scenes from classical mythology. He was a master of etching and printmaking. Rembrandt was a respected teacher, who had many students. He was a man of many talents and skills and was considered to be a teacher in his own right.

ID: 500011051

Roles:
- artist (preferred)
- draftsman
- printmaker
- etcher
- painter
- teacher

Gender: male

Birth and Death Places:
- Born: Leyden (South Holland, Netherlands) (inhabited place)
- Died: Amsterdam (North Holland, Netherlands) (inhabited place)

Events:
- active: 1631-1669 Amsterdam (North Holland, Netherlands) (inhabited place)

Related People or Corporate Bodies:
- Bol, Ferdinand (Dutch history and portrait painter, 1616-1680) [500013764]
- Dou, Gerrit (Dutch painter and draftsman, 1613-1675) [500115513]
- Drost, Willem (Dutch painter, printmaker, and draftsman, ca. 1630-after 1680) [500009474]
- Dullaert, Heyman (Dutch painter and poet, 1636-1684) [500021474]
Note: Refers to the style and period of architecture, visual art, decorative art, music, and literature of western Europe and the about 1590 to 1750. The style is characterized by balance and wholeness, often with an emphasis on spectacle and emotional tendency toward contrasts of light against dark, mass against void, and the use of strong diagonals and curves.
Note: Located on over 90 islands in the IJ arm of the IJsselmeer. Early inhabitants built dikes on both sides of Amstel River to prevent flooding, and a dam was built between the dikes in 1270. Chartered in 1306, became affluent in the 15th century due to trade with Baltic seaports, and was the financial center of the world by 1 century. United Dutch East India Company was founded in 1602, followed by the West India Company in 1621. Capital of the Batavian Republic under Napoleon, later of the kingdom of Holland, and became part of the French Empire in 1810. Under German occupation from 1940-1945. Center of the world’s diamond trade.

Names:
- Amsterdam (preferred, C,V,N,English-P,Dutch-P)
- Amstel-dam (H,V,N)
  ........... documented in 13th cen., meaning “dam on the Amstel [river]”
- Amsteldam (H,V,N)
- Amstelledamme (H,V,N)
- Amstelodamum (H,O,N)
- Amsteladamum (H,O,N)
- Amsterdanum (H,O,N)
- Amsterodanum (H,O,N)
- Amstelerdamum (H,O,N)
- Amstelredanum (H,O,N)
- Amstelredemense oppidum (H,O,N)

Place Types:
- inhabited place (preferred, C) ........... there possibly was a Roman settlement in the area; modern town probably originated as a fishing village in 13th century
- city (C)
- capital (C) ........... nominal capital of The Netherlands, though government is located in 's-Gravenhage
Artists who worked in Baroque style

Descriptive Note: Refers to the style and period of architecture, visual art, decorative art, music, and literature of western Europe is characterized by balance and wholeness, often with an emphasis on spectacle and emotional content, and a tendency toward the use of strong diagonals and curves.

Aelst, Willem van Andele, Andele Asselyn, Jan Ast, Balthasar van der Avercamp, Hendrick Baburen, Dirck van Backer, Jacob Adriaensz Berchem, Nicolaes Berckheyde, Gerrit Adriaensz. Beyeren, Abraham van Bol, Ferdinand Bollongier, Hans Terborch, Gesina Bosschaert, Ambrosius, the younger Jan Dirksz Both Bray, Jan de Brekelenkam, Quiringh van Bruggen, Hendrick ter Buytewech, Willem Pietersz. Campagna, Girolamo Claesz, Pieter Codde, Pieter Jacobs Coorte, Adriaen Delen, Dirck van Dyck, Floris Claesz. van Dou, Gerrit Dyck, Anthony van Eeckhout, Gerard van den
Baroque style

teacher of: Gerrit Dou

style: Baroque

teacher of: Nicolaes Maes

self-portrait

militia

teacher of: Ferdinand Bol

place: Amsterdam, 1625 to 1650
User Studies

- Continuous user-centered design
- 1st Phase: Summer 2006
  - Initial usability test
  - Target group defining (museum visitors)
  - Effectiveness for experts & general audience
- 2nd Phase: April 2007
  - Second usability test
  - Navigation patterns
  - Requirements for personalized tour:
    - in-house experts
    - museum visitors
    - art students
Technology for the People!

- Basic Semantic Web technology
  - ready for deployment
- Little semantic metadata
  - can do a lot
- Web 2.0 facilities
  - involve community of experts & general audience
  - personalization, myArt
- Shared vocabularies & open standards
  - move away from custom-made flashy web sites
SLAVE 2.0
WE ARE ENSLAVED BY OUR OWN TECHNOLOGY
MEN HAVE BECOME THE TOOLS OF THEIR TOOLS
HENRY DAVID THOREAU

IF IT KEEPS UP MAN WILL ATROPHY ALL HIS LIMBS BUT THE PUSH BUTTON FINGER
FRANK LLOYD WRIGHT

Leonardo da Vinci advised his future readers in the late 1480’s to study the science of machines to reduce the burden (struggle) on humanity.

We have reached the era in which we can’t live without our technology. Our modern lives depend on the use of computers, mobile phones, handheld computers and GPS navigational systems. These tools have a specific importance nowadays. Each of these technological advancements has made our daily activities more efficient and convenient. We now can reach another environment and a reliable state of mind.

As human beings, we have the ability to adapt to various environments and situations. But is this adaptation part of our evolution, or is it completely against human nature? Shouldn’t our tools be able to adapt to us, instead of us to them?

FEBRUARY 23RD 2007
LOEK HERMANS AUDITORIUM

TU/e
RIJKS MUSEUM
AMSTERDAM
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  - Peter Gorgels, Xenia Henny, Tom van der Meer, Renate Meijer, Dick Rijken

- e-culture project:
  - Tumbling Walls & Building Bridges
  - Friday: 10:00 – 11:00
  - in room Olympic

- STITCH project
Links

☐ Demo URL:
  ■ http://www.chip-project.org/demo/

☐ CHIP Web Site:
  ■ http://www.chip-project.org/

☐ Online User Test:
  ■ http://www.chip-project.org/demoUserStudy2/