



# Linked data and Ex Libris products

*Silke Schomburg – HBZ – Cologne - Germany*

*Ulrike Krabo – OBVSG – Vienna - Austria*

*Corey Harper – NYU - New York - USA*

*Lukas Koster – UvA – Amsterdam - The Netherlands*

*Axel Kaschte – Ex Libris - Hamburg*

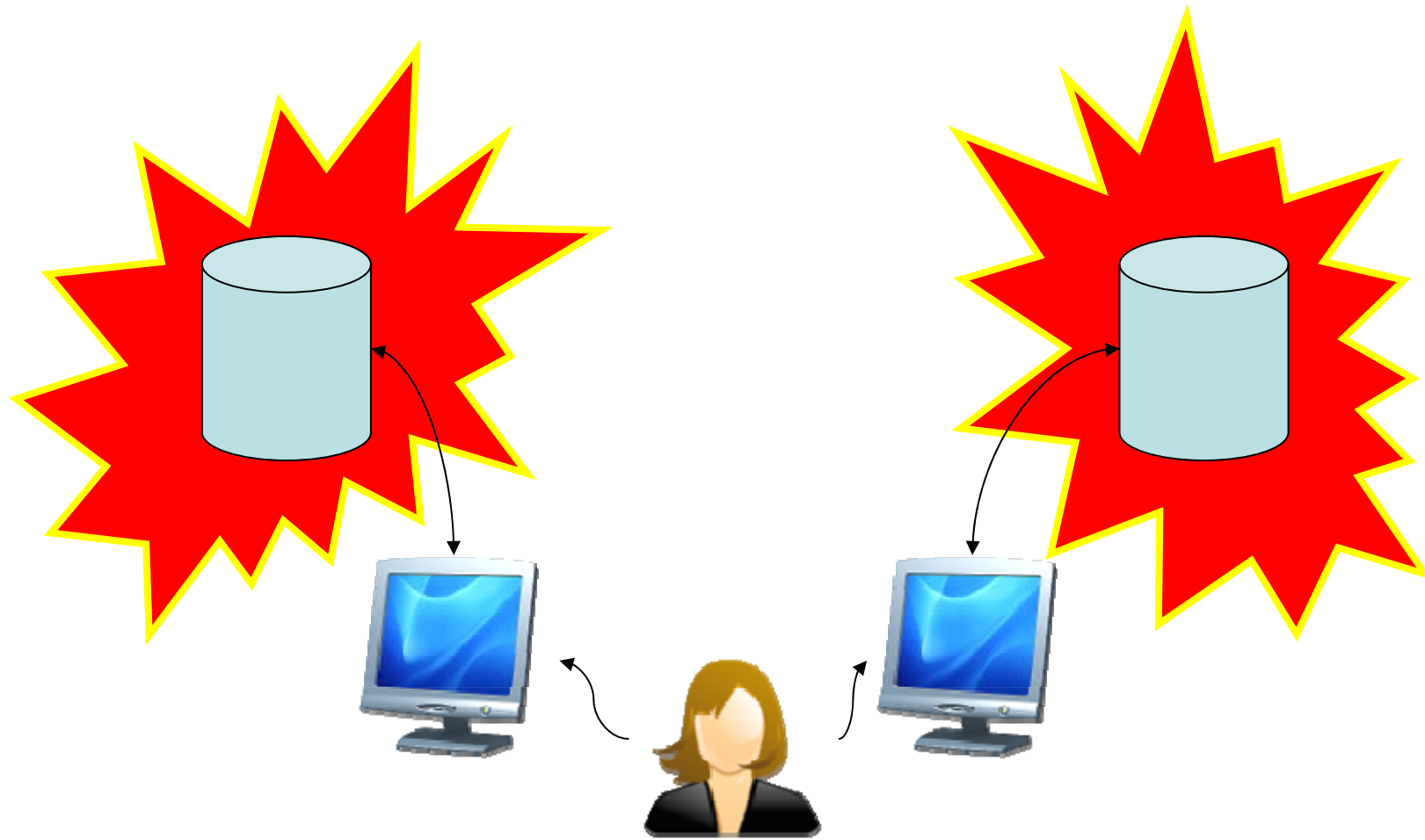


IGeLU 2011 September 12, 2011

# Agenda

- Introduction
- Cases
  - *Silke Schomburg* - HBZ Consortium
  - *Corey Harper* - New York University Library
  - *Lukas Koster* - University of Amsterdam Library
  - *Ulrike Krabo* - Austrian Library Consortium OBVSG
- Summary
- Ex Libris vision – *Axel Kaschte*
- Q&A/panel

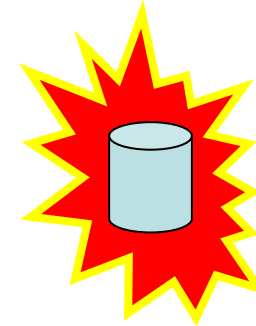
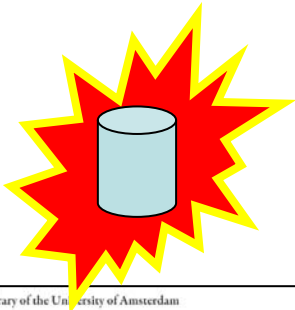
# Introverted systems



September 12, 2011

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# Introverted systems



Library of the University of Amsterdam  
Catalogue

Acquisitions | Eshelf | Search History | Results List

Search Advanced Search Browse

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Item 1 out of 21

Title	The night watch / [author: Gary Schwartz , photogr.: Department of Photography, Rijksmuseum ... et al.]
Series	Rijksmuseum-dossiers
Volume of	<a href="#">Rijksmuseum-dossiers</a>
Author/Creator	<a href="#">Schwartz, G. (1940-)</a>
Publisher	Amsterdam : <a href="#">Rijksmuseum</a> • Zwolle : <a href="#">Waanders</a>
Year	cop. 2002
Collation	48 p ill 26 cm
ISBN	9040095558 (Waanders)
Classification	<a href="#">21.02 geschiedenis van de schilderkunst</a>
Subj. headings G00	<a href="#">Nachtwacht, Rembrandt</a> • <a href="#">4.210 Nederland</a>
Subj heading person	<a href="#">Rembrandt, Harmensz. van Rijn</a>
	<a href="#">Check availability</a>
Location	Kunstgeschiedenis/Cult. Stud.
Permalink	<a href="http://permalink.opc.ura.nl/item/001965446">http://permalink.opc.ura.nl/item/001965446</a>

ahm collectie online research

Home Results Details Selection Search History Explanation standaard versie

Extended display Literature card Record 4 of 230

Refine search result Print Download

**The company of Captain Frans Banning Cocq and Lieutenant Willem van Ruytenburch, known as "The nightwatch", 1642**  
Rembrandt (1606 - 1669) (schilder)  
doek, olieverf  
hoogte 359 cm; breedte 438 cm  
signatuur/datering links onder: Rembrandt f 1642  
oud stadsbezit  
inv.nr. SA 7392

**Herkomst**  
Oud stadsbezit; kloveniersdoelen; bruikleen aan Rijksmuseum, 1808

**Keywords**  
schilden, portret, groepsportret, schuttersstuk, kloveniersdoelen, Frans Banninck Cocq, Jan Pietersen Bronchorst, Jan Brugman, Claes van Cruysbergen, Jacob Dircksen de Roy, Reynier Engelen, Barent Harmansen, Jan van der Heerde, Rombout Koning, Jan Keyser Adriaensen, Jan Leydeckers Clasen, Jan Ockersen, Willem van Ruytenburch van Vlaarding, Paulus Schoonhoven, Jan Cornelisen Visscher, Elbert Willemsen, Harman Wormskerk Jacobsen  
schilderijencollectie

Amsterdam Museum


Gebruik de volgende URL om deze pagina vanuit uw website te linken:  
<http://ahm.adlibsoft.com/ahmonline/advanced/dispatcher.aspx?action=search&database=ChoiceCollectieSearch&priref=36543>

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AMSTERDAM MUSEUM

# Introverted systems



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Acquisitions | E-shelf | Search History | Results List My Account | End Session | Help | Ask a question | 

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Add to E-shelf | Export

Item 1 out of 21 ◀ ▶

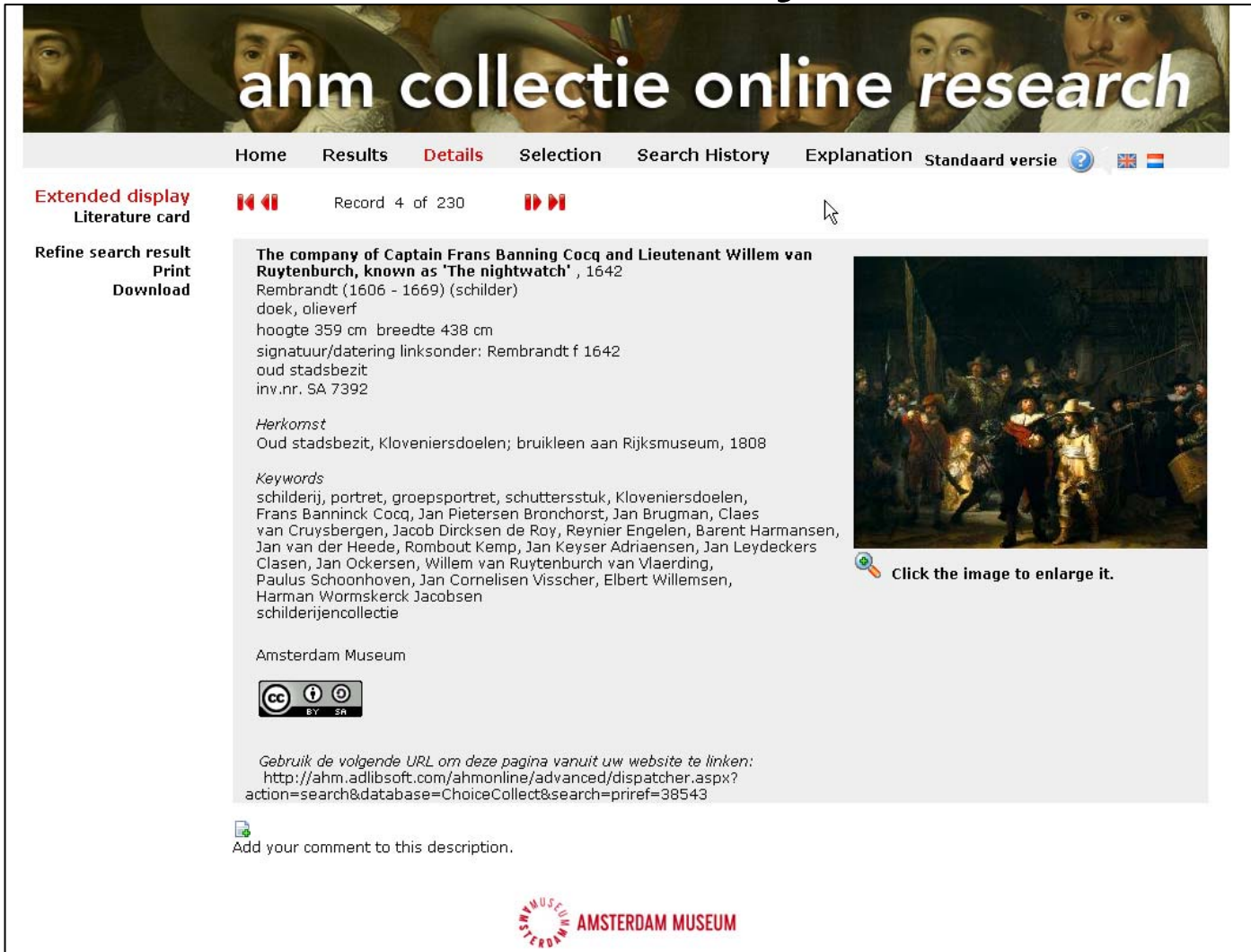
	
<b>Title</b>	The night watch / [author: Gary Schwartz ; fotogr.: Department of Photography, Rijksmuseum ... et al.]
<b>Series</b>	Rijksmuseum-dossiers
<b>Volume of</b>	<a href="#">Rijksmuseum-dossiers</a>
<b>Author/Creator</b>	<a href="#">Schwartz, G. (1940-)</a>
<b>Publisher</b>	<a href="#">Amsterdam : Rijksmuseum</a> • <a href="#">Zwolle : Waanders</a>
<b>Year</b>	cop. 2002
<b>Collation</b>	48 p ill 26 cm
<b>ISBN</b>	9040095558 (Waanders)
<b>Classification</b>	<a href="#">21.02 geschiedenis van de schilderkunst</a>
<b>Subj. headings G00</b>	<a href="#">Nachtwacht (Rembrandt)</a> • <a href="#">4.210 Nederland</a>
<b>Subj heading person</b>	<a href="#">Rembrandt Harmensz. van Rijn</a>
	<a href="#">Check availability</a>
<b>Location</b>	Kunstgeschiedenis/Cult. Stud. 
<b>Permalink</b>	<a href="http://permalink.opc.uva.nl/item/001665446">http://permalink.opc.uva.nl/item/001665446</a>

◀ ▶

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# Introverted systems



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Extended display Literature card

Record 4 of 230


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*Herkomst*  
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*Keywords*  
schilderij, portret, groepsportret, schuttersstuk, Kloveniersdoelen, Frans Banninck Cocq, Jan Pietersen Bronchorst, Jan Brugman, Claes van Cruysbergen, Jacob Dircksen de Roy, Reynier Engelen, Barent Harmansen, Jan van der Heede, Rombout Kemp, Jan Keyser Adriaensen, Jan Leydeckers Clasen, Jan Ockersen, Willem van Ruytenburch van Vlaerding, Paulus Schoonhoven, Jan Cornelisen Visscher, Elbert Willemsen, Harman Wormskerck Jacobsen  
schilderijcollectie


Amsterdam Museum




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<http://ahm.adlibsoft.com/ahmonline/advanced/dispatcher.aspx?action=search&database=ChoiceCollect&search=preref=38543>

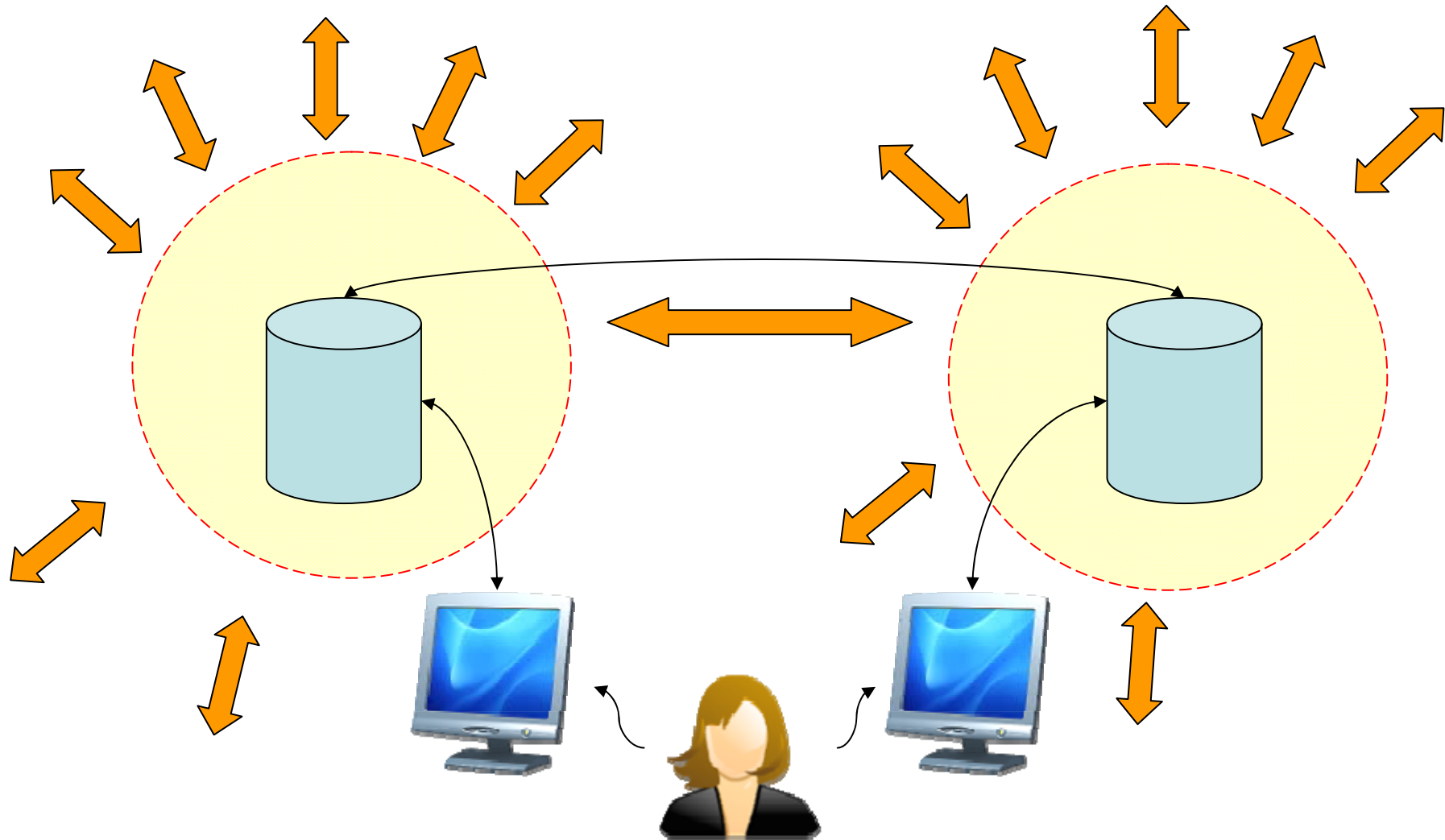
 Add your comment to this description.



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# Extroverted systems



September 12, 2011

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# Extroverted systems

The image displays two overlapping web interfaces. The top interface is the 'Library of the University of Amsterdam Catalogue', showing a search result for 'The night watch' by Gary Schwartz. The bottom interface is the 'Amsterdam Museum collectie online research' page, showing search results for 'Rembrandt' in the 'RKD artists' database. A red arrow points from the 'Add to E-shelf' link in the top interface to the 'Add to selection' link in the bottom interface, illustrating the integration of external data into the museum's system.

**Library of the University of Amsterdam Catalogue**

Acquisitions | E-shelf | Search History | Results List | My Account | End Session | Help | Ask a question

Search | Advanced Search | Browse

Add to E-shelf | Export

Item 1 out of 21

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**Series** Rijksmuseum-dossiers

**Volume of** [Rijksmuseum-dossiers](#)

**Author/Creator** [Schwartz, G. \(1940-\)](#)

**Publisher** Amsterdam : [Rijksmuseum](#) ; Zwolle : [Waanders](#)

**Year** cop. 2002

**Collation** 48 p ill 26 cm

**Amsterdam Museum collectie online research**

Home | Results | Details | Selection | Search History | Explanation | Standaard versie

Record 4 of 230

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schilderijencollectie

Amsterdam Museum

**Rembrandt**

3 hits in RKD collections & archives

1216 hits in RKD images

1868 hits in RKD library als onderwerp

**Name variations**

Rembrandt Harmensz. van Rijn

Rembrandt van Rijn

Rhijn, Rembrandt Harmensz. van Rijn, Rembrandt van

**Male/female/group**

male

**School**

Noord-Nederlands

**Place/date of birth**

Leiden 1606-07-15 - 1607

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# Linked Data

- Make introverted systems extroverted
  - Make implicit links explicit
  - Add links to/from other sources
  - Use URIs
  - Use RDF/Triples
  - Use Open License

# URIs

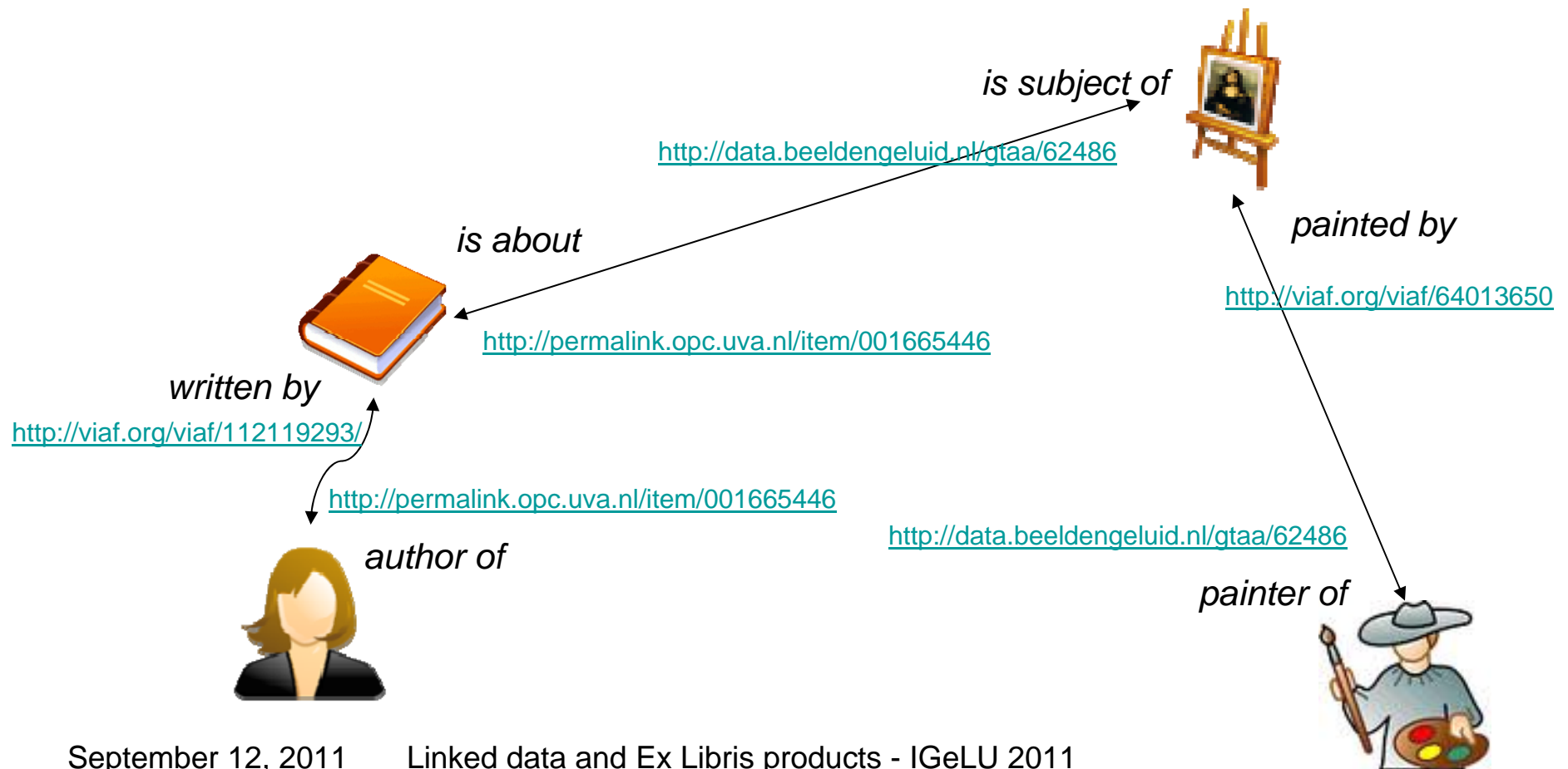
## Unique identifiers on the web

- Library catalogue holding:  
<http://permalink.opc.uva.nl/item/001665446>
  - *Hmmm “opc.uva.nl” .... “001665446” ?? Not really a ‘Cool URI’*
  - *“opc.uva.nl” ± system specific (ILS Catalogue)*
  - *“001665446” = internal Aleph ID*
- Rembrandt: <http://viaf.org/viaf/64013650/>
- The Nightwatch: <http://data.beeldengeluid.nl/gtaa/62486>
- Gary Schwartz: <http://viaf.org/viaf/112119293/>



# Triples

- Subject - Predicate – Object
- Thing – Relation - Thing



# RDF

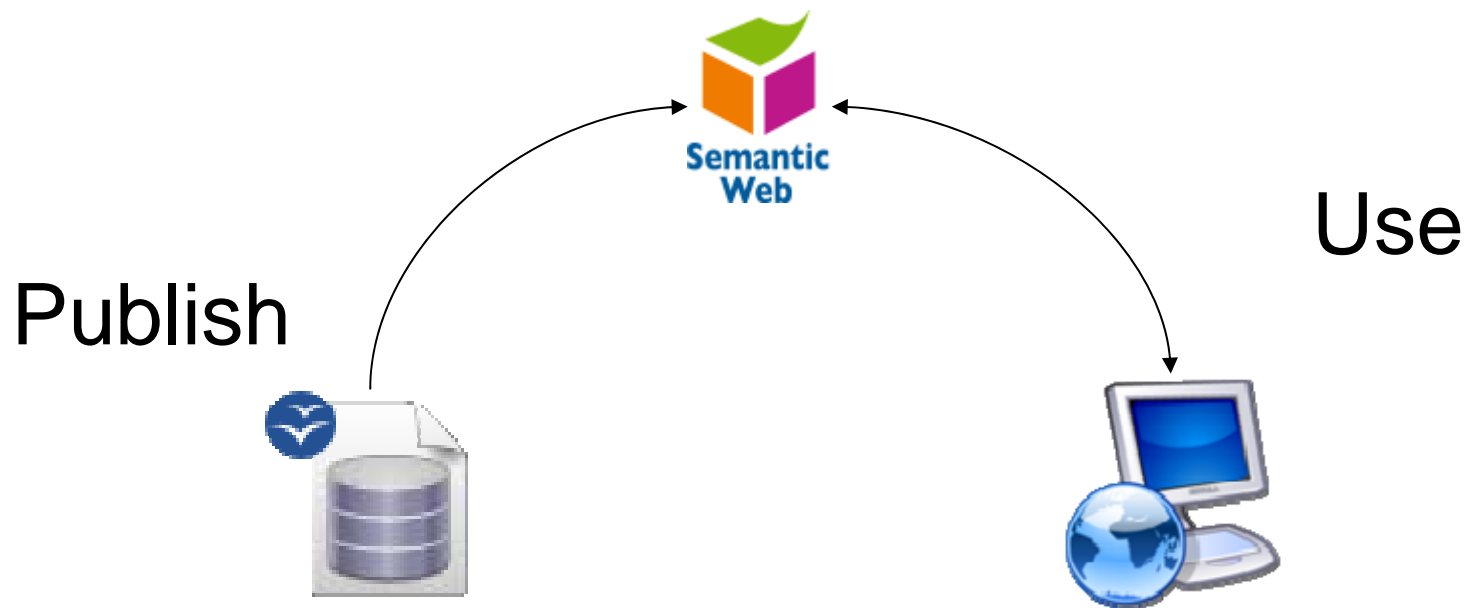
*“Resource Description Framework”*

Framework for describing triple data models  
Vocabularies/Ontologies

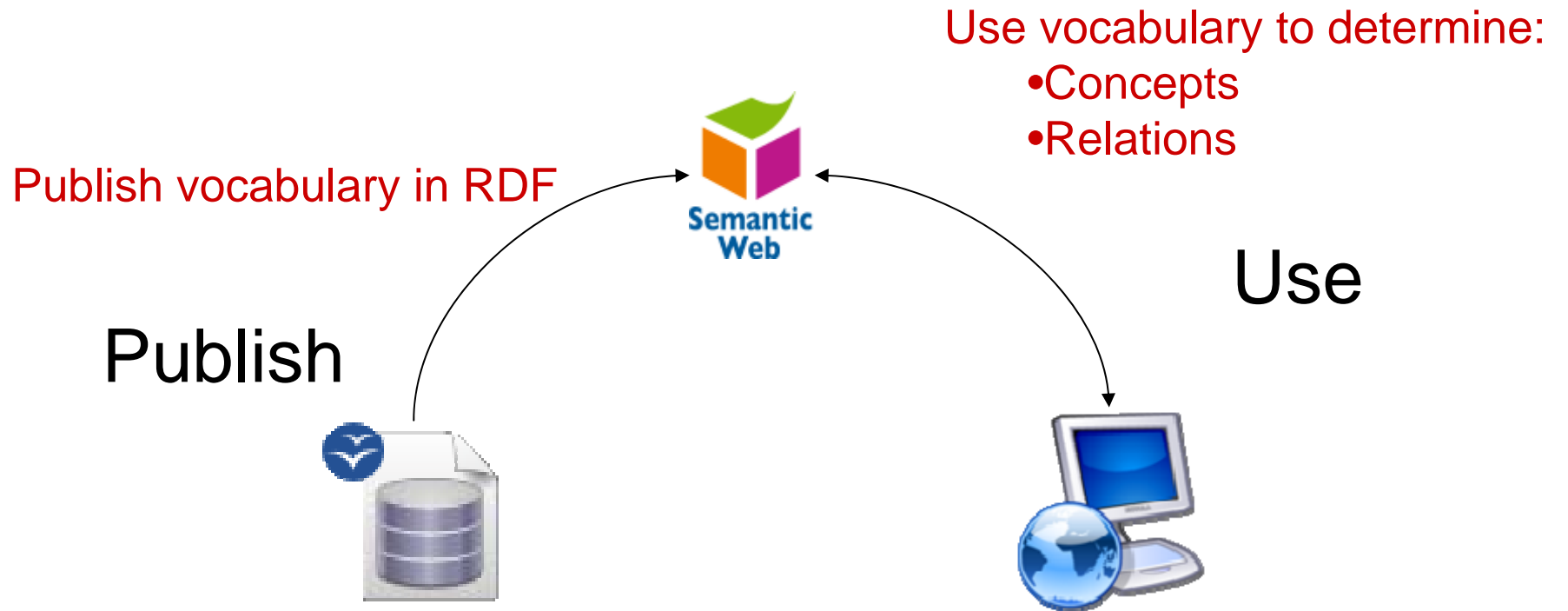
Reuse existing vocabularies:

- *SKOS* - subjects
- *FOAF* – persons
- ...

# Two sides



# RDF



# RDF

<http://openlibrary.org/works/OL2925360W.rdf>

## *Declaration of vocabularies:*

```
xmlns:rdf='http://www.w3.org/1999/02/22-rdf-syntax-ns#'  
xmlns:rdfs='http://www.w3.org/2000/01/rdf-schema#'  
xmlns:rdrel='http://RDVocab.info/RDARelationshipsWEMI/'  
xmlns:dcterms='http://purl.org/dc/terms/'  
xmlns:dcam='http://purl.org/dc/dcam/'  
xmlns:ov='http://open.vocab.org/terms/'  
xmlns:frbr='http://purl.org/vocab/frbr/core#'
```



# RDF

<http://openlibrary.org/works/OL2925360W.rdf>

```
<frbr:Work rdf:about="http://openlibrary.org/works/OL2925360W/">
  <dcterms:title>The Night watch</dcterms:title>
  <dcterms:creator>
    <rdf:Description rdf:about="http://openlibrary.org/authors/OL445755A">
      <rdf:value>Gary Schwartz</rdf:value>
    </rdf:Description>
  </dcterms:creator>
  <dcterms:date>2002</dcterms:date>
</frbr:Work>
```

```
<rdf:Description rdf:about="http://openlibrary.org/books/OL18479596M/">
  <rdrel:workManifested>
    "http://openlibrary.org/works/OL2925360W/"
  </rdrel:workManifested>
  <dcterms:title>The Night watch</dcterms:title>
  <dcterms:date>2002</dcterms:date>
</rdf:Description>
```

# Open Licenses

- Creative Commons
  - <http://creativecommons.org/>
- Open Data Commons
  - <http://opendatacommons.org/>
  - Open Database License (ODbL)
  - Database Contents License (DbCL) v1.0
  - Open Data Commons Attribution License
- Open Knowledge Foundation
  - <http://okfn.org/>

# W3C Library Linked Data Incubator Group

- Web:  
<http://www.w3.org/2005/Incubator/lld/>
- Draft report:  
<http://www.w3.org/2005/Incubator/lld/wiki/DraftReportWithTransclusion>
- Public mailing list:  
<http://lists.w3.org/Archives/Public/public-lld/>

# Linked Data in Library Systems

ExLibris

Aleph



Primo