

RKD Research

The Digital Hub for Art Historical Research

Astrid Verheusen, Director of Business Operations

Reinier van 't Zelfde, Information Manager

RKD, Netherlands Institute For Art History

RKD NEDERLANDS
INSTITUUT VOOR
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RKD - Netherlands Institute for Art History

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RKD is a global leader in art-
historical knowledge of the Low
Countries

- Founded in 1932
- Collections are accessible digitally and in our reading room



Mission

The RKD provides *worldwide access to Knowledge, Research and Information* about *Dutch Art* in an international context, to *Museums, Academic Community* and the *General Public* alike.

Vision

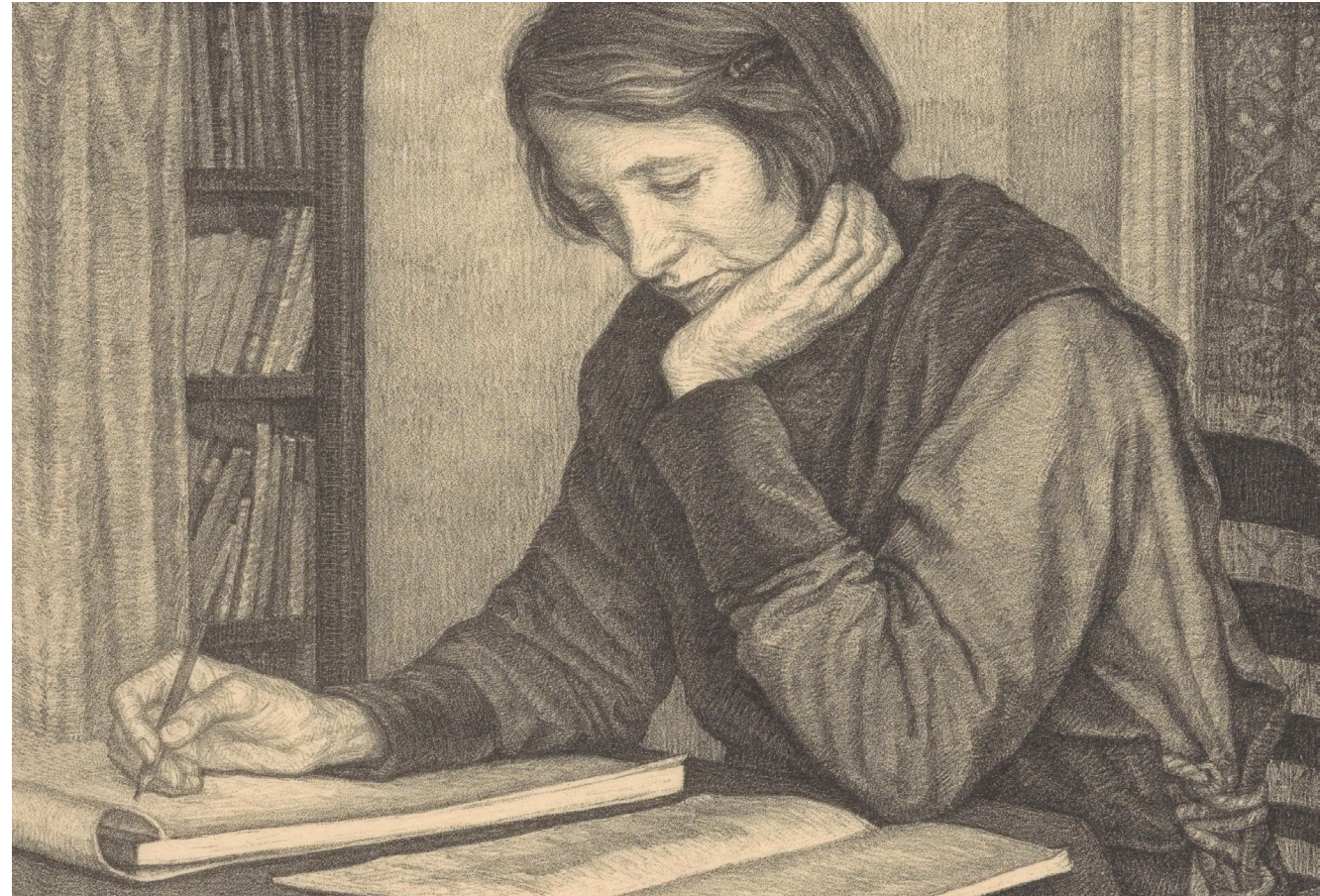
The RKD acquires, administers, researches, connects and presents art-historical knowledge and information for museums, the academic community and public alike. We actively strive to involve people in developments and proposals for future improvements in digital services, public outreach and digital sustainability. We are outward facing in the way we shape our mission.

RKD – Collection



RKD curates a vast national collection, including:

- Databases
- Archives
- A primary Library for Visual Arts in the Low Countries



Latest Acquisition: archive of correspondence by artist Sanne Bruinier

Facts and figures

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Archives

900 archives
over 2.5 kilometres



Library

500,000 volumes of
art historical reference material



Images

5 million digital images of art



Users, partners & funding



Users

- Academia
- Auction houses
- Galleries
- Dealers
- Collectors
- The Public

Partners

- Universities
- Museums
- Cultural institutions
- Private organizations

Funding

- The Ministry of Education, Culture and Science
- We preserve the **National Collection** and contribute to research, publications, and exhibitions

Located in the Hague

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RKD's Role in Data Accessibility and Integration



Key Function:

The RKD plays a crucial role in making its Data accessible and connecting it with other datasets in line with the **Dutch National Strategy for Digital Heritage**

How RKD achieves this:

- Digitization of Collections
- Providing Data as Linked Open Data
- Continuous Data Quality Improvement

RKD's Digital Transition

Transition to Digital Services: Shift from physical to digital services

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2022

Ministry of Education Review Recommendations

Ministry: “digitization is a **priority** because digitization offers opportunities for **increased audience reach**, innovation, education, and the preservation, management, and use of digital heritage.”

1. Develop a radical **Digital Strategy** for societal alignment.
2. Clarify and solidify **Public Function** and **Social relevance**.

RKD's Digital Transition

Transition to Digital Services: Shift from physical to digital services



2023

RKD's Response:

- Digital Strategy:
 - Clear definition of User Groups.
 - Introduction of Innovative Services, especially digital.
- Launch of RKD Research Platform:
 - Provides enhanced accessibility to Research Resources and Tools.



(Digital) Strategy

Core objectives



- The Knowledge Network and Platform within the Art Historical Knowledge Domain
- Easily **Accessable** for a wide Audience
- Transition: from 'analogue' to 'a combination of analogue and digital'
- **Scientific** and **Socially** valued Research
- **Strong Visibility** and **use** of Services among different Target Groups

(Digital) Strategy

Two-Track approach User Groups



user

starting point

follow-up research

digital only

light user

digital

only digital

digital first

heavy user

digital

digital
and/or
physical

(Digital) Strategy



RKD: The Digital Entry Portal to enable others to do unique research

*With its unique and most complete collection, the RKD is the Knowledge Institute and Point of Entry for research into the visual arts of the Netherlands in an international perspective by making unique parts of the collection **Digitally Accessible**, combined with **Innovative Tooling** (enabling new types of art-historical research).*

*The RKD focuses on both the **Art-loving Private Individual** (digital only) and the **Intensive Researcher** (digital first) with a two-track strategy. For the intensive researcher, community building initiatives are building a growing group of enthusiastic users and ambassadors of tomorrow.*

(Digital) Strategy

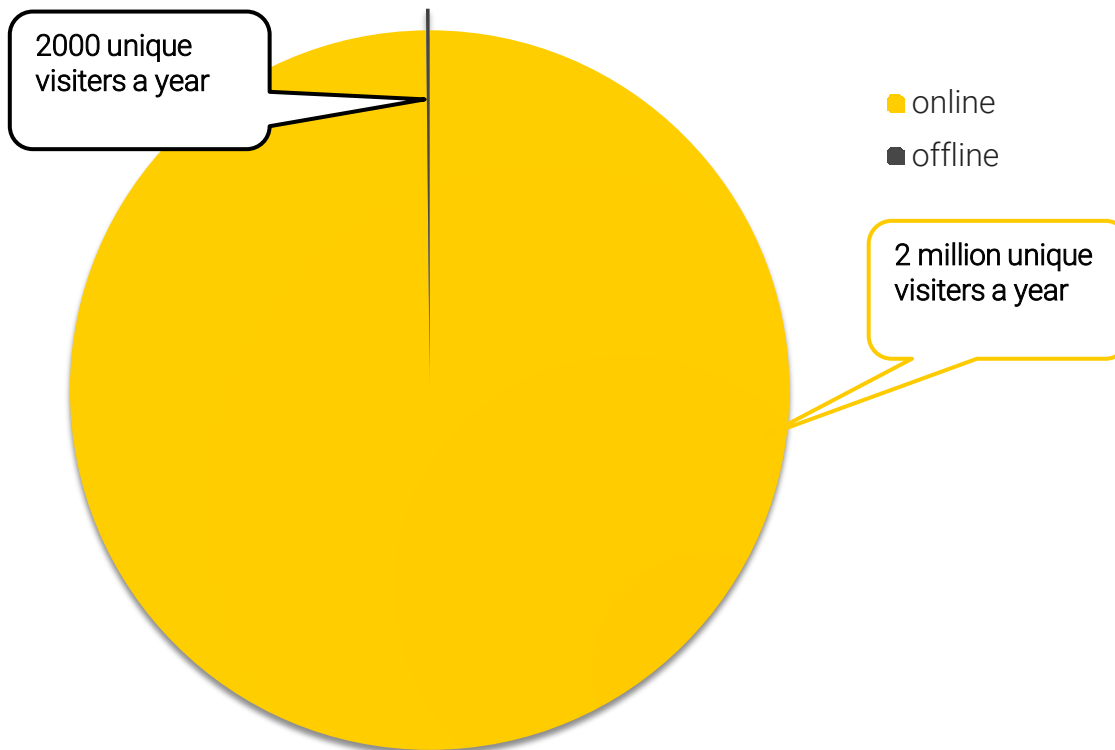


RKD: The Digital Entry Portal to enable Others to do unique Research

- Main Knowledge Institute and Entry Point for Visual Arts Research in the Netherlands
- Digitally accessible **unique Collection** combined with **Innovative Tools** enable **new Types of Art-Historical Research**
- Strategy targets both **Art-loving Private Individuals** (digital only) and **Intensive Researchers** (digital first)
- Community building initiatives foster a growing group of **enthusiastic users** and **ambassadors**

RKD – Visitors

Numbers of visitors with current
online databases



The difference between online visitors and study room visitors will only increase in the future.



The knowledge institute of the visual arts of the Low Countries

The RKD – Netherlands Institute for Art History offers museums, academic community and the public a wealth of collections, knowledge and publications for extensive research and inspiration



What are you looking for?

All databases



Manual RKD Research 

Search manual 

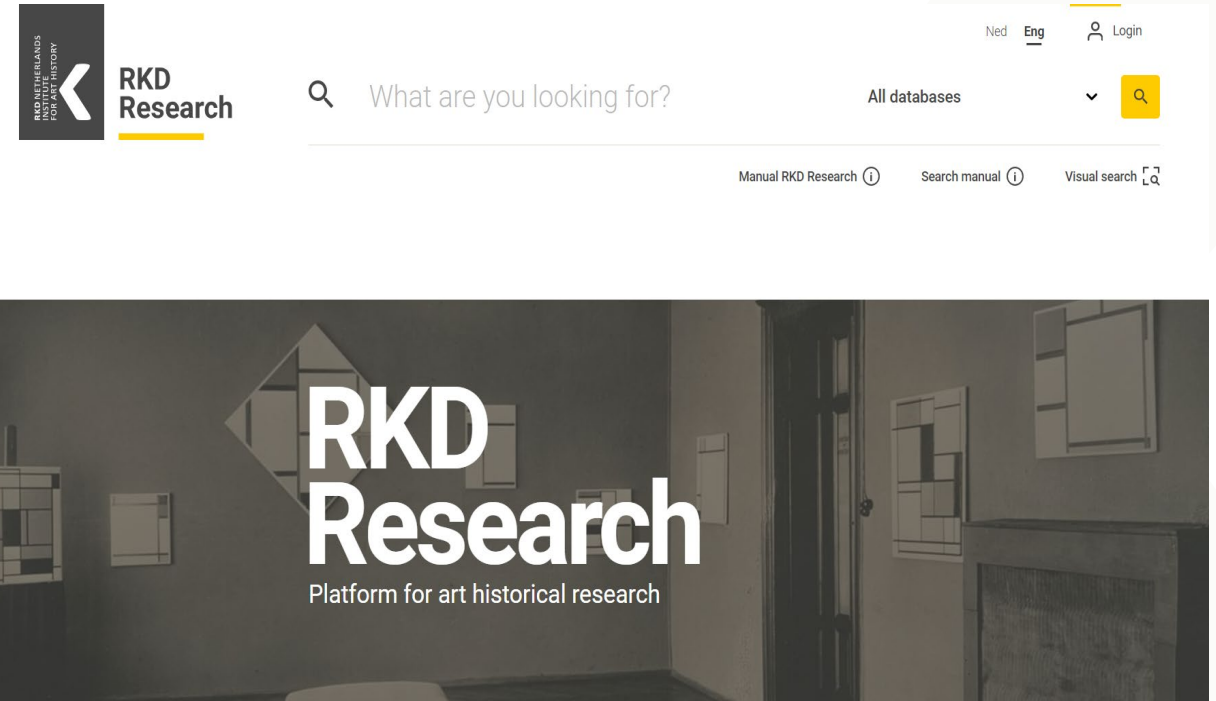
Visual search 

RKD Research

Platform for art historical research

December 2023: Launch RKD Research

- The RKD Research Interface provides access to RKD's art **History Databases**, including information on artworks, individuals, institutions, research results, and historical archives.
- Researchers can select, view, and compare images in a **Digital Workspace**, with access to five million art reproductions through a **Visual Search** facility.
- RKD Research complements other institutions' collections and is published as **Linked Open Data** for reuse and connectivity.





“Strategy is about choices:
You can’t be all things for all people.”

Philip Kotler

Ongoing challenges



1. Costs

In 2019, we received a **€1.5 million** interest-free **Loan** for digitizing 6 million images and developing the RKD Research platform, but the total costs were **€6.5 million**.

2. Business model

The Platform and Data are **free to use**, but a small fee is charged for the use of Innovative Tools, involving a partnership with a publisher that brought additional challenges.

Ongoing challenges



3. New Competences

- Dealing with **Suppliers**
- Making careful choices about your services (which services will you stop providing?)
- **Prioritize Resources**
- Balancing **Quality** and **Costs**

4. Linked Open Data

Creating **Linked Open Data** proved to be a challenge



RKD and Linked Open Data

Digital strategy

- '[...] the RKD is the Knowledge Institute and Point of Entry for research into the visual arts of the Netherlands [...]
- Publishing our own Data in Databases
- Connecting our Data to external Art Historical Sources -> by Linked Open Data

RKD Research

- All data in our databases are available as LOD (SPARQL endpoint)
 - Ontologies: CIDOC-crm (works of art, biographical information), RICO (archives), RDA (library), SCHEMA (biographical information), SKOS (thesaurus)
 - For Reuse and Connecting

Genealogy Lemckert » Vincent van Gogh (1853-1890)

[Details](#)
[Pictures](#)
[Immediate family](#)
[Sources](#)
[Suggestions](#)
[Context](#)

Personal data Vincent van Gogh ♂

- He was born on March 30, 1853 in Zundert, Noord-Brabant, Nederland 📍.
- He died on July 29, 1890 in Auvers-sur-Oise, Frankrijk, he was 37 years old.
- A child of Theodorus van Gogh and Anna Cornelia Carbentus
- This information was last updated on January 19, 2023.
- There is more biographical information available about Vincent van Gogh on [RKDartists](#) ↗

Household of Vincent van Gogh

Do you have supplementary information, corrections or questions with regards to Vincent van Gogh?

The author of this publication would love to hear from you!



Genealogy Lemckert » Vincent van Gogh (1853-1890)

Details

Pictures

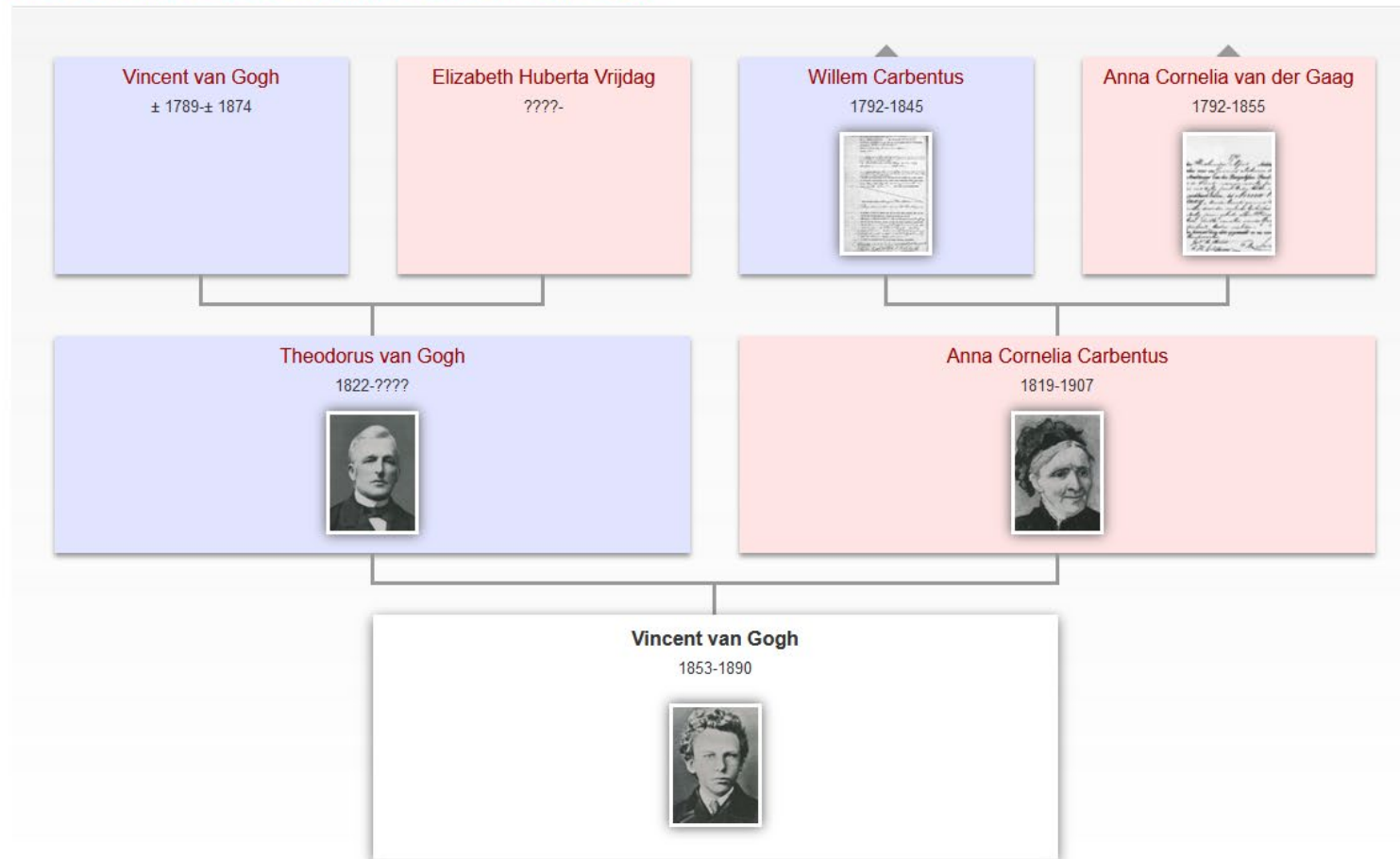
Immediate family

Sources

Suggestions

Context

Ancestors (and descendant) of Vincent van Gogh

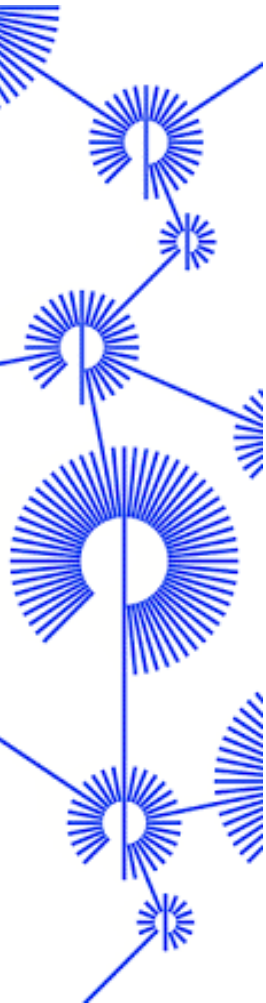


Digital Heritage Reference Architecture (DERA)



DERA

- Dutch Government stimulates the publication of **Heritage Data based Principles**
 - Make information connectable -> LOD
 - Persistent Identifiers
 - Open Standards -> Ontologies
 - Shared Terminology and Named Entity Sources -> Network of Terms



Searching shared thesauri, classification systems, and reference lists

[for managers of heritage collections](#)[for administrators of terminology resources](#)[for terminology resource providers](#)[for heritage software developers](#)[Search terms](#)[Look up term](#)

Search words

Terminology sources

[GraphQL Playground](#)
[Reconciliatie](#)[Privacy statement](#)
[Contact](#)

Follow the Digital Heritage Network via:



Cultural Heritage Agency
Ministry of Education, Culture and Science

The Network of Terms is the result of collaboration within the Digital Heritage Network, in collaboration with CLARIAH, and is managed and maintained by the Cultural Heritage Agency of the Netherlands.



Zoeken met woorden

Zoeken met URI

Zoekwoorden

rembrandt

Terminologiebronnen

RKDartists

Zoeken

Rembrandt, Kunsthandel (Rotterdam)

Alternatief label: Jong, Joh. de

Kopieer URI

Bekijk bij bron

Rembrandt

See also: Uylenburgh, Hendrick; Ruffo, Antonio; Goor, Cornelis Eysbert van; Ludick, Lodewijk van (I); remark: Cornelis Eysbert (Ghysbert) van Goor was the art agent who had Rembrandt's Aristotle delivered to Don Ruffo in 1654 (Moogewerff 1917, p. 135-139) • remark family relation: Son of Harmen Gerritsz. van Rijn (c.1568 - 1630) and Neeltje Willemsdr. van Zuijdtbrouck (c.1568 - 1640). Married in Sint Annaparochie on 22 June 1634 to Saskia Commerts Uylenburgh (1612-1642), together parents of Rumbartus (1635 - 1636), Cornelia I (1638), Cornelia II (1640) and Titus Rembrandtsz. van Rijn (1641-1668). Also father of Cornelia van Rijn (1654-ca. 1684). out of wedlock with Hendrickje Stoffels Jaegher (c.1626 - 1663).

Alternatieve labels: Rijn, Rembrandt van • Rembrandt van Rijn • Rhijn, Rembrandt Harmensz. van • Rembrant • Rembrandt Harmensz. van Rijn

Kopieer URI

Bekijk bij bron

Snel-Fotografie 'Rembrandt'

Alternatief label: Rembrandt, Snel-Fotografie

Kopieer URI

Bekijk bij bron

<https://data.rkd.nl/artists/66219>

Dataset description

https://data.spinque.com/ld/data/vangoghworldwide/rkd_collections/

URI	https://data.spinque.com/ld/data/vangoghworldwide/rkd_collections/		
Title	RKD Collections: Artworks by Vincent van Gogh		
Description	Data about artworks (paintings, drawings, prints) by Vincent van Gogh in several museum collections. Included in the Van Gogh Worldwide platform (https://data.spinque.com/ld/data/vangoghworldwide/). Modeled according to the Linked Art Data Model (https://github.com/vangoghworldwide/linkedart).		
License	https://creativecommons.org/publicdomain/zero/1.0/		
Distribution	genid-9c71a18695734df3a59b88d4c449ccf6-bc_0_df_81271_24		
	AccessURL	https://data.spinque.com/ld/data/vangoghworldwide/rkd_collections/data/export.nt	
	Format	application/n-triples	
	ByteSize	4756595	
Modified	2023-10-10T12:56:29+02:00		
Publisher	https://vangoghworldwide.org/		
	Name	Van Gogh worldwide consortium, represented by the Netherlands Institute of Art History (RKD)	

RKD and LOD sources



- **Connections between Records in RKD databases and external sources**
Like the Genealogie Online connection, but the other way around
- **Integrating Data from external LOD sources in the RKD Knowledge Graph**
Van Gogh Worldwide



What are you looking for?

RKDartists



Manual RKD Research ⓘ

Search manual ⓘ

Visual search [Q]

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Rembrandt

male / North Netherlandish
art collector, engraver
(printmaker), naturalia collector,
collector of ethnographica, etcher,
painter, draftsman

Works in RKDimages 544

Publications in RKDlibrary 845

Documents in RKDarchives 67

Works in external websites 1678

Biographies in external websites 12

Biographical

Name variations

Rhijn, Rembrandt Harmensz. van
Rembrandt van Rijn
Rembrandt Harmensz. van Rijn
Rijn, Rembrandt van
Rembrant

Nationality/school

NORTH NETHERLANDISH

Born

LEIDEN (CITY) 1606-07-15/1607

No date of birth or baptismal certificate is known. The first to mention a date of birth is Orlers in 1641 in the second edition of his 'Beschrijvinge der Stadt Leyden'. Orlers mentions July 15th, 1606 as Rembrandt's date of birth. Because in general Orlers is a reliable source, this information is trustworthy. However, there are two 17th century documents on the basis of which another date of birth can be suspected. In the notice of marriage from Rembrandt and Saskia van Uylenburgh from June 10th, 1634 the age of Rembrandt is stated as 26 years. This would mean that Rembrandt wasn't born in 1606 but in 1607 or even in 1608 (Strauss/Van der Meulen 1979, doc. 1634/2). The second document is a statement of authenticity of a painting by Paul Bril on September 16th, 1653. The age of Rembrandt is stated here as 'out omtrent



What are you looking for?

RKDartists



What are you looking for?

RKDartists



< Back

1 / 724

Rembrandt

male / North Netherlandish
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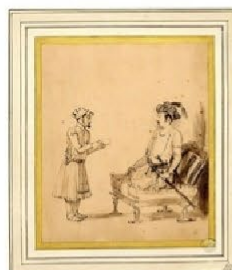
Works in RKDimages
Publications in RKDlibrary
Documents in RKDarchives

Works in external websites
Biographies in external websites

Works by Rembrandt in Wikidata (1654)



1655
commons:Rembrandt 2...
Daniel's Vision of the Four...
print
Rembrandt
Q:wd:Q111821799



1650
commons:Rembrandt - Emperor J...
drawing
Rembrandt
Q:wd:Q112619716



1634
commons:Bust of a Be...
Bust of a Bearded Old Man
painting
Rembrandt
Q:wd:Q112626371



1656
commons:School of Rembra...
Bearded Man in a Fur Hat (Prev...
painting
Gerbrand van den Eeckhout
Q:wd:Q112626733



commons:Rembrandt - Circle of - Abraham's ...
Abrahams offer
drawing
Rembrandt
Q:wd:Q110773704



commons:De Staalmeesters (Rembrandt) - Rijksmuseum
Syndics of the Drapers' Guild
Painting
Rembrandt
Q:wd:Q110802068

Works by Rembrandt in Rijksmuseum Amsterdam (35)

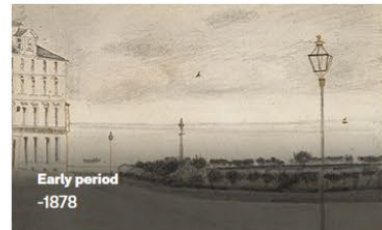




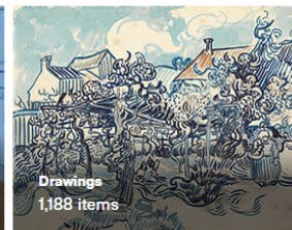
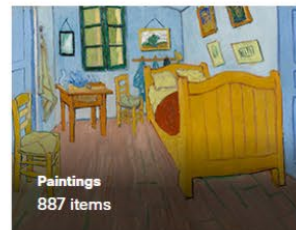
Resource for Vincent van Gogh's artworks

Explore artworks

Artworks by period



Artworks by object category



News

28 September 2023

[Change of management of Van Gogh Worldwide →](#)

07 August 2023

[User survey and new participants →](#)

21 February 2023

[News page Van Gogh Worldwide →](#)

Van Gogh Worldwide



All works of art by Vincent van Gogh aggregated in a knowledge graph

- Based on DERA principles
- Data directly derived from owners. **Owners** are responsible for **correct Data**
- No enrichment of Data in the aggregated set
- Data delivered in LADM standard, content is based on international open vocabularies like AAT and ULAN

Lessons learned

- It works. It is possible to create a knowledge graph based on these principles
- Data is not available in the VGW standard. We had to convince data owners to create a dump, api or SPARQL endpoint to provide the data
- Some **owners claim copyright** on the images of the works of art
- Some Institutes **refuse to share their Data Openly**

How to connect?



1. Find relevant connections and add them to the databases manually
2. Find relevant connections (semi-automatically)
 - *Chose a relevant LOD dataset*
 - *Define a search to derive the relevant connection*
For instance: give all works of art by an artist; eg Rembrandt

How to connect?

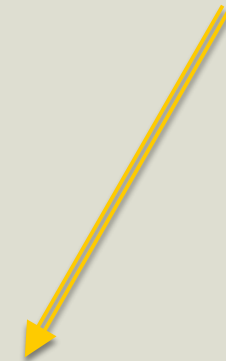
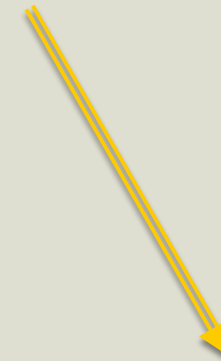


RKDartists is a Named Entity Source for Dutch heritage institutes, but not used internationally.

So, we need to align the RKDartists persistent identifier to the persistent identifier for creator in de LOD source

Persistent identifier
RKDartists

Persistent identifier
ULAN



Persistent identifier
Wikidata

(Wikidata contains many of these alignments)



```
1 SELECT DISTINCT ?item ?creatLabel ?titlLabel ?typLabel ?year ?img WHERE {
2   # find wikidata identifier for RKDartist identifier 66219 = Rembrandt
3   ?artist p:P650 ?statement0.
4     ?statement0 (ps:P650) "66219".
5
6   # find works of art in wikidata related to rembrandt as creator
7   ?item p:P170 ?statement1.
8   ?statement1 (ps:P170/(wdt:P279*)) ?artist.
9
10  OPTIONAL {?item wdt:P170 ?creat }
11  OPTIONAL {?item wdt:P1476 ?titl }
12  OPTIONAL {?item wdt:P571 ?dat }
13  OPTIONAL {?item wdt:P31 ?typ }
14  OPTIONAL {?item wdt:P18 ?img }
15  BIND(STR(YEAR(?dat)) AS ?year)
16
17  SERVICE wikibase:label { bd:serviceParam wikibase:language "en". }.
18 }
19 LIMIT 10000
20
21
```



Image grid

2498 resultaten in 1106 ms

</> Code

Downloaden

Koppeling



1655

[commons:Rembrandt 2...](#)
Daniel's Vision of the Four ...
print
Rembrandt
[Q wd:Q111821799](#)



1650

[commons:Rembrandt - Emperor J...](#)
Emperor Julian
drawing
Rembrandt
[Q wd:Q112619716](#)



1634

[commons:Bust of a Be...](#)
Bust of a Bearded Old Man
painting
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1656

[commons:School of Rembra...](#)
School of Rembrandt
painting
Gerbrand van den Eeckhout
[Q wd:Q112626733](#)



[commons:Rembrandt - Circle of - Abraham's ...](#)
Abraham's offer
drawing
Rembrandt
[Q wd:Q110773704](#)



[commons:Landskap med fäste \(Rembrandt\) - Nationalmuse...](#)
City Gates
drawing
Rembrandt
[Q wd:Q110802068](#)

LOD connection tool

LOD source	Wikidata	Yale University collections	Other LOD sources
Search pattern	creator	creator	[...]
Search arguments	list of artist names	list of artist names	[...]
Data to be extracted from LOD source	persistent identifier, creator, title, date, collection [...]	persistent identifier, creator, title, date, collection [...]	[...]
Transformations	to RKDimages	to RKDimages	[...]
Scheduling	once a week	once a year	[...]
Extraction of data to the RKD knowledge graph	mapping: identifier, creator, title, date, collection [...]	mapping: identifier, creator, title, date, collection [...]	[...]



Visit us on rkd.nl/en

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