



# Accessing grey literature in an integrated environment of scientific research information

**Elly Dijk, Chris Baars, Arjan Hogenaar and Marga van Meel**  
**KNAW Research Information**

Grey Literature 2007, Antwerp (Belgium), 10-11 December 2007



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# Outline



- Introduction
- Dutch Research Database and DAREnet
- Research data of DANS
- Academic Information Domain
- NARCIS
- Digital Author Identifier – DAI
- Conclusions



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# KNAW Research Information



*Magie van wetenschap*

## **Academy's mission:**

- to ensure the quality of scientific research in the Netherlands
- to promote the open accessibility of scientific information

## **Our mission:**

- national focal point of research information



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# Dutch Research Database - NOD

- The national Current Research Information System (CRIS)

- Contents:

- ✓ Scientific research programmes and projects
- ✓ Researchers
- ✓ Research institutes

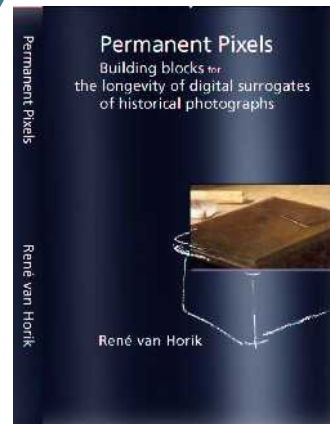


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# DAREnet

- About 141,000 full text scientific publications and research output of 21 institutions
- Cream of Science: 48,000 scientific publications of over 200 top academics (60% full text)
- Promise of Science: 18,000 doctoral e-theses from all Dutch universities

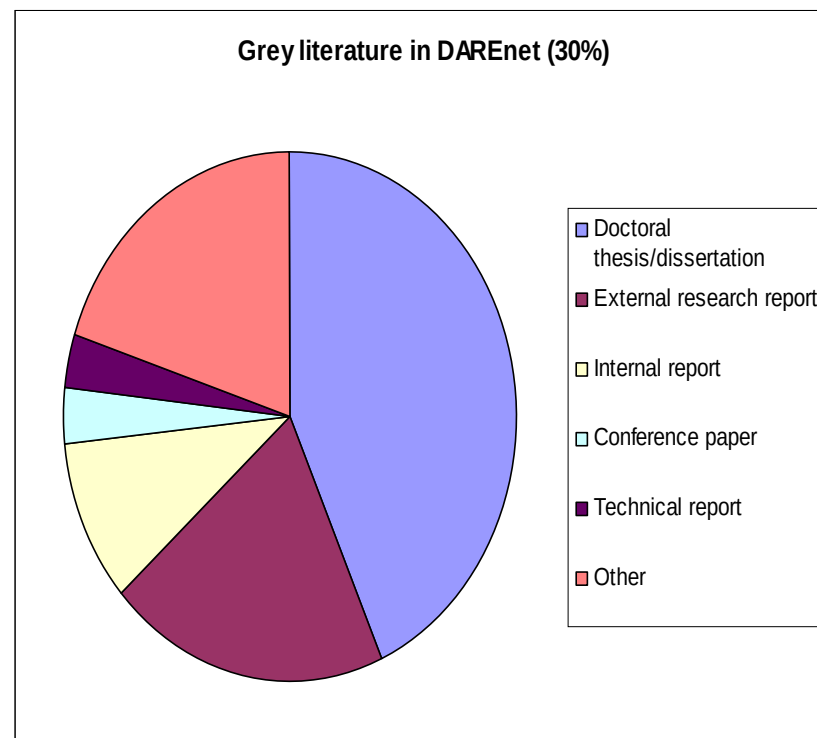


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# Grey literature in DAREnet

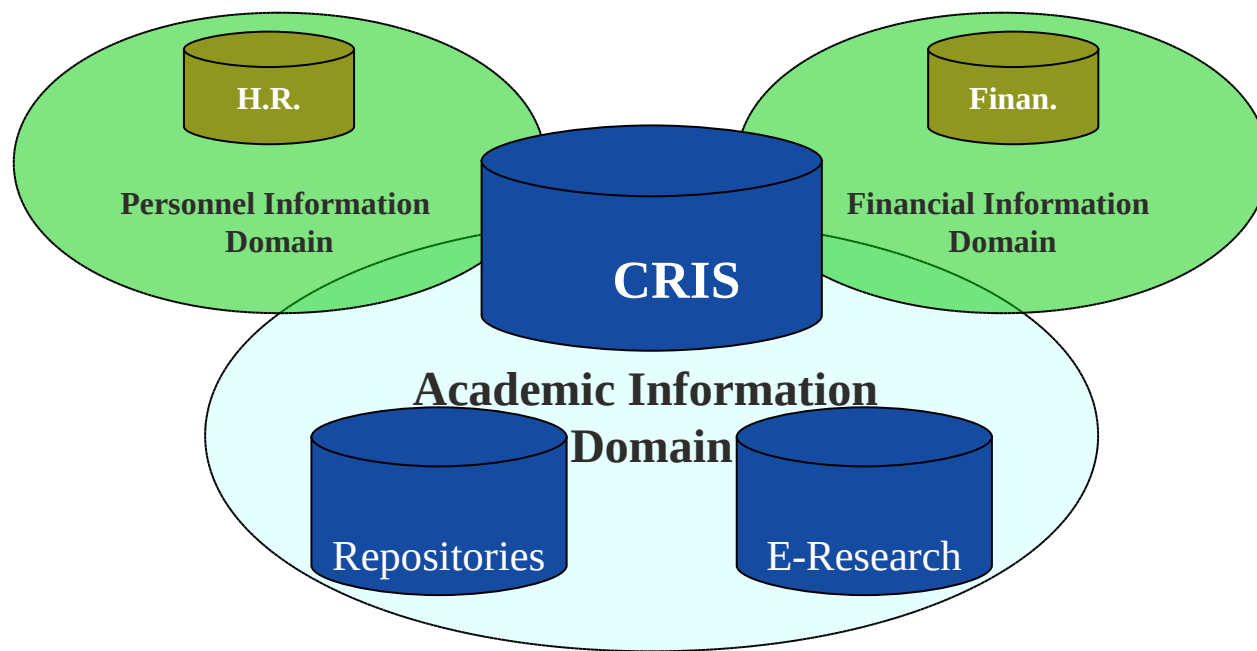
- **Doctoral thesis: 13%**
- **External research report: 6%**
- **Internal report: 3%**
- **Conference paper: 1%**
- **Technical report: 1%**
- **Other: 6%**







# Academic Information Domain



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## Research Data

*Dutch GNP*

**Table F.1**  
**Gross National Income by Component, 1807-1913**  
**(millions of guilders, current prices)**

	wages	capital income	profits	depreciation	indirect taxes	gross national income
1897	727.6	451.7	156.7	107.7	87.7	1531.4
1898	763.1	399.1	160.6	109.8	90.4	1523.0
1899	778.3	497.4	171.4	114.7	93.1	1654.9
1900	796.4	643.2	179.3	121.5	97.0	1837.4
1901	820.8	464.1	187.0	122.7	99.8	1694.4
1902	844.7	616.5	192.0	119.3	102.3	1874.9
1903	857.7	695.4	197.9	126.5	105.0	1982.5
1904	877.0	600.1	207.5	129.1	107.7	1921.4
1905	902.3	622.8	221.3	129.5	109.6	1985.4
1906	926.1	614.0	243.1	139.9	115.5	2038.6
1907	943.5	594.8	239.3	148.2	116.3	2042.2
1908	951.5	652.0	243.1	155.6	114.8	2116.9
1909	972.8	634.8	248.1	153.1	120.9	2129.6
1910	1003.4	663.6	257.7	156.1	126.2	2206.9
1911	1035.0	737.5	279.3	165.5	130.1	2347.4
1912	1080.4	961.4	333.8	177.3	135.8	2688.7
1913	1142.6	1155.2	372.2	199.2	142.4	3011.5

- **DANS = Data Archiving and Networked Services**
- **Humanities and social sciences**
- **Developing harvestable metadata for datasets**
- **EASY – Electronic Archiving System**



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# Dutch DAI: NARCIS



**Scientific portal containing:**

- **Research information: research programmes, research institutes, researchers**
- **Full text publications**
- **Research data**



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# What do we need to develop a Dutch DAI?

- Relation between objects in the different systems

By:

- Digital Author Identifiers – DAI
- Persistent Identifiers - PI



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# Digital Author Identifier

**Research description/  
Projectleader**

**Publication/  
Author**



**Research data / Creator**



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# Implementing DAI in The Netherlands

- Co-operation of all Dutch universities, KNAW and NWO
- Creating a thesaurus of author names with corresponding DAI within the OCLC-PICA system
- Matching DAI and author names in all three research related information systems (NOD; EASY; repositories)
- 40,000 unique author names with DAI's





# Implementing DAI in NARCIS

**Harvest DAI's by using a stripped Metadata Object Description Scheme (MODS): so-called mini-MODS**

- **First step: building a demonstrator:  
Names of 20 researchers en their DAI: connecting  
research information and publications.**
- **Second step: and research data**



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mugele

search

☒ Organisations ☒ Persons ☒ Current research ☒ Publications (DARE)

## Mugele, Prof.dr. F.G.

**Expertise**

Confined liquids; Wetting; Electrowetting; Microfluidics; Nanofluidics

**Expertise (NL)**

Confined liquids; Wetting; Electrowetting; Microfluidics; Nanofluidics

[back to resultlist mugele](#)**Active as**

## ▪ Professor

[Physics of Complex Fluids Group \(UT\)](#)

Chair (EN)

Physics of Complex Fluids

Chair (NL)

Physics of Complex Fluids

Phone

+31-53-4893094

Email

f.mugele@utwente.nl

URL

[http://pcf.tnw.utwente.nl/people/scientific\\_staff/profdr\\_f\\_mugele/](http://pcf.tnw.utwente.nl/people/scientific_staff/profdr_f_mugele/)**Current research**

(the most recent reasearch is at the top)

## ▪ Project leader

[Electrowetting-based droplet generation and emulsification in microchannel](#)

## ▪ Project leader

[Dynamic structure formation of colloids in confined geometries](#)

## ▪ Project leader

[Electrically tunable structured superhydrophobic surfaces](#)

## ▪ Project leader

[Pinch-off dynamics in alternating electric fields](#)

## ▪ Project leader

[Measurement of hydrodynamic resistance of single living cells](#)

## ▪ Project leader

[Diffractive optics of superhydrophobic surface](#)

## ▪ Project leader

[Bubbles in microfluids](#)

## ▪ Project leader

**Classification**

## ▪ D12700

Gases, fluid dynamics, plasma physics

## ▪ C60000

Nanotechnology

Update this data in the [Dutch Research Database \(NOD\)](#).



[Lohse](#)  
[Manukyan](#)  
[Rathgen](#)  
[Staicu](#)  
[Vanapalli](#)

## Publications in DARE

### [Drop by drop](#)

[Electrowetting-Induced Oil Film Entrapment and Instability](#)  
[Collapse of molecularly thin lubricant layers between elastic substrates](#)  
[Nanofluidics: Viscous Dissipation in Layered Liquid Films](#)  
[Trends in Microfluidics with Complex Fluids](#)  
[Dynamics of Layering Transitions in Confined Liquids](#)  
[Frictional properties of thin chain alcohol films](#)  
[Nonlocal Dynamics of Spontaneous Imbibition Fronts](#)  
[Erratum: Nonlocal Dynamics of Spontaneous Imbibition Fronts \[Phys. Rev. Lett. 89, 104503 \(2002\)\]](#)  
[Capillary forces in tapping mode atomic force microscopy](#)  
[Impact of Line Tension on the Equilibrium Shape of Liquid Droplets on Patterned Substrates](#)  
[Self-excited oscillatory dynamics of capillary bridges in electric fields](#)  
[Interface Profiles near Three-Phase Contact Lines in Electric Fields](#)  
[Possible correlation effects of surface state electrons on a solid hydrogen film](#)  
[On the structure of thin  \$^4\text{He}\$  films on solid hydrogen](#)  
[A simple, ultrahigh vacuum compatible scanning tunneling microscope for use at variable temperatures](#)  
[Step roughness on  \$\text{Ag}\(111\)\$  investigated by STM: a systematic study of tip influence](#)  
[The influence of tip-sample interaction on step fluctuations on  \$\text{Ag}\(111\)\$](#)   
[New design of a variable-temperature ultrahigh vacuum scanning tunneling microscope](#)  
[Structure of Confined Films of Chain Alcohols](#)  
[Boundary lubrication: Dynamics of squeeze-out](#)  
[Capillarity at the nanoscale: an AFM view](#)  
[Two-dimensional observation of drainage and layering transitions in confined liquids](#)  
[Frictional Properties of Straight-Chain Alcohols and the Dynamics of Layering Transitions](#)  
[Mixing and Condensation in a Wet Granular Medium](#)  
[Dynamics of squeeze-out: Theory and experiments](#)  
[Mechanical properties of wet granular materials](#)  
[STM investigation of the island growth of gold on  \$\text{WS}\_2\$  and  \$\text{WSe}\_2\$](#)

## Classification

D12700	Gases, fluid dynamics, plasma physics
C60000	Nanotechnology

Update this data in the [Dutch Research Database \(NOD\)](#).

narcis

The gateway to Dutch scientific information



# Conclusions

- **NARCIS will become a real national Academic Information Domain**
- **Full text grey literature can be accessed easily in repositories by NARCIS**
- **First a demonstrator will be build (January 2008)**
- **Interlinking via the DAI research information with research output**



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# The result?

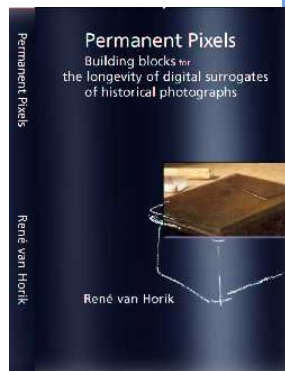


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**[www.researchinformation.nl](http://www.researchinformation.nl)**

**[www.DAREnet.nl](http://www.DAREnet.nl)**

**[www.NARCIS.info](http://www.NARCIS.info)**

**[Elly.Dijk@bureau.knaw.nl](mailto:Elly.Dijk@bureau.knaw.nl)**



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