Information - a conceptual labyrinth
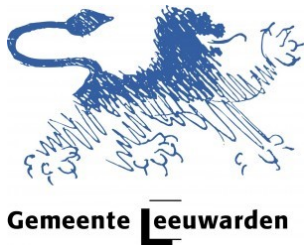
Rienk Jonker

2016

Introducing

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- municipal archivist

- consultant records management
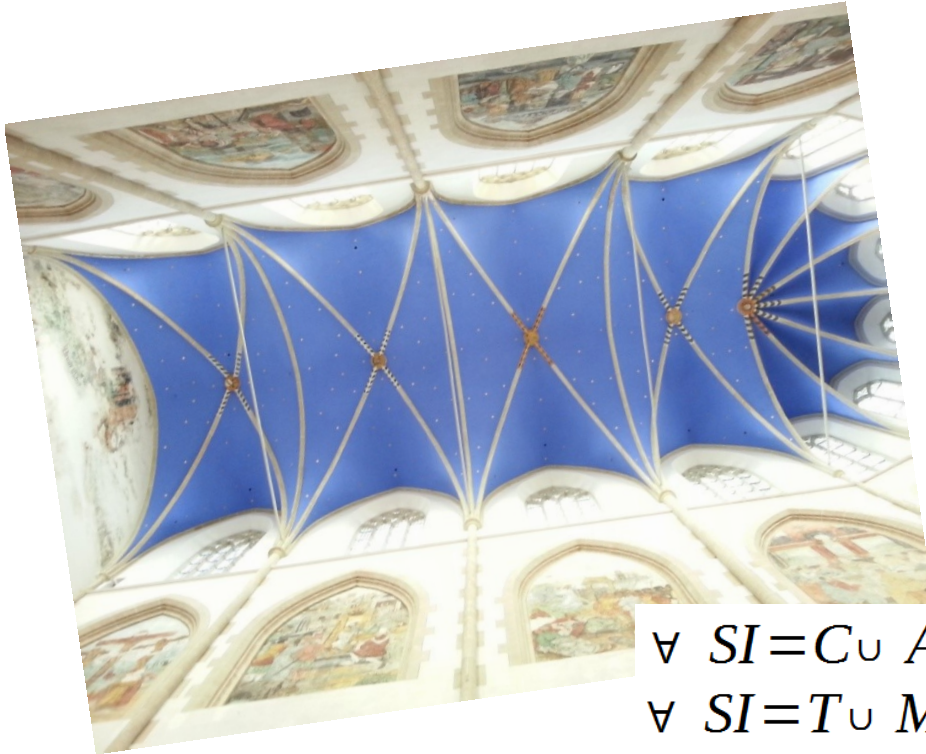
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Adressing

- Central question
- Some limitations
  - Language
  - My personal context
- Why
- The model
- And finaly ……

Meaning?

$$\forall \ SI = C \cup \ A \cup \ Io$$
$$\forall \ SI = T \cup \ M \cup \ W$$
$$\exists \ SI = R$$
$$\forall \ R = SI$$
$$\forall \ R = C \cup \ A \cup \ Io$$
$$\forall \ R = T \cup \ M \cup \ W$$

Challenge

Chaos and balance

"Our technological tree has been growing its far reaching branches much more widely, rapidly, and chaotically than its conceptual, ethical, and cultural roots."

Floridi, *The Ethics of Information*, 2013, Preface blz. xiii

Crisis and grokking

There is a crisis in our line of work. The archival inspector as the archivist / records manager must not only have a understanding of the many ways the information reality is moulded they must also comprehend this reality.

Frans Smit, *Profiteer, profileer, prioriteer - Gedachten en handreikingen voor professionalisering van het archieftoezicht.* (S@P- Jaarboek 13, 21-39) Stichting Archiefpublicaties, 2014. (my translation)

Refocus

A conceptual labyrinth

Question

Is it possible to develop

1. *an information model including*

2. *a model for sharing and exchange of information*

3. *independent of social, organizational and technical changes and*

4. *at the same time compliant to the required qualities and retention interests.*

Language

"When I use a word," Humpty Dumpty said, in a rather scornful tone, "it means just what I choose it to mean – neither more nor less."
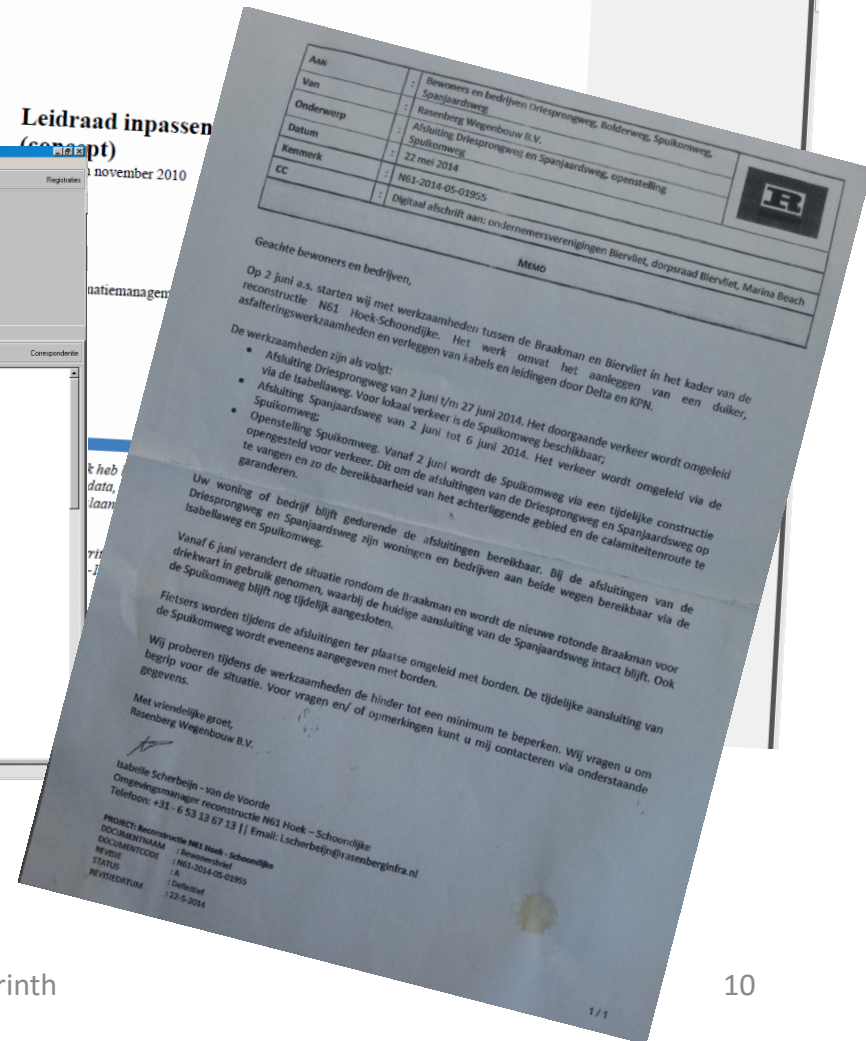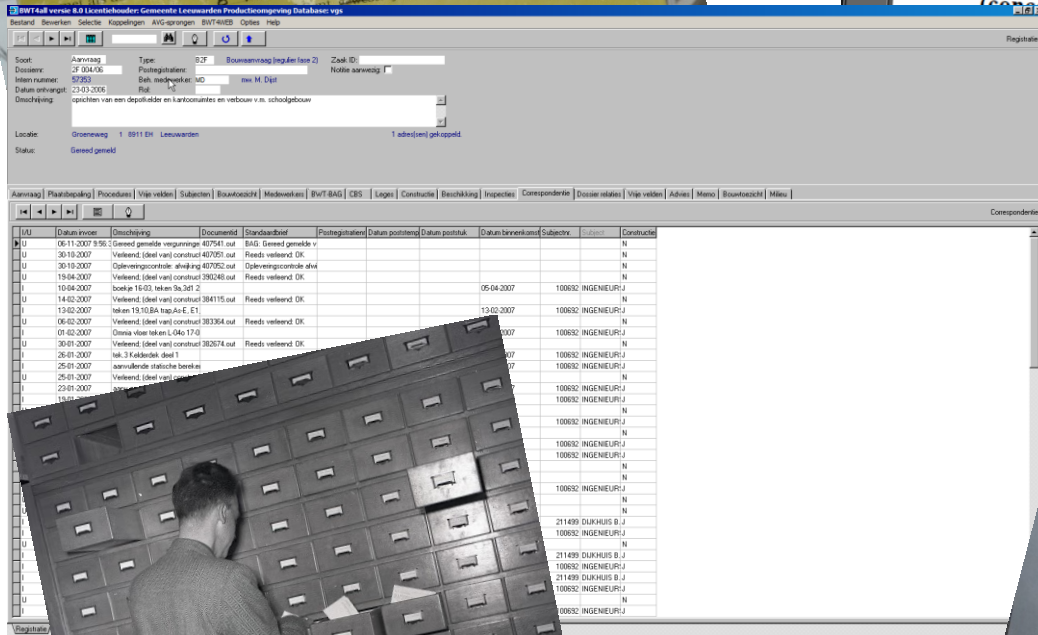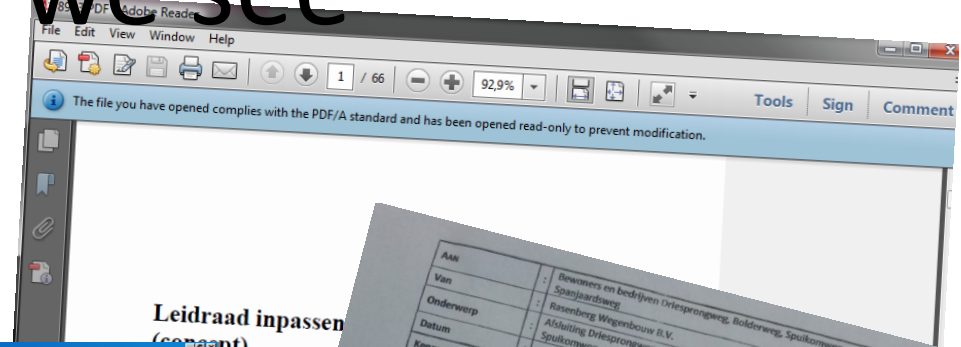
Information is?
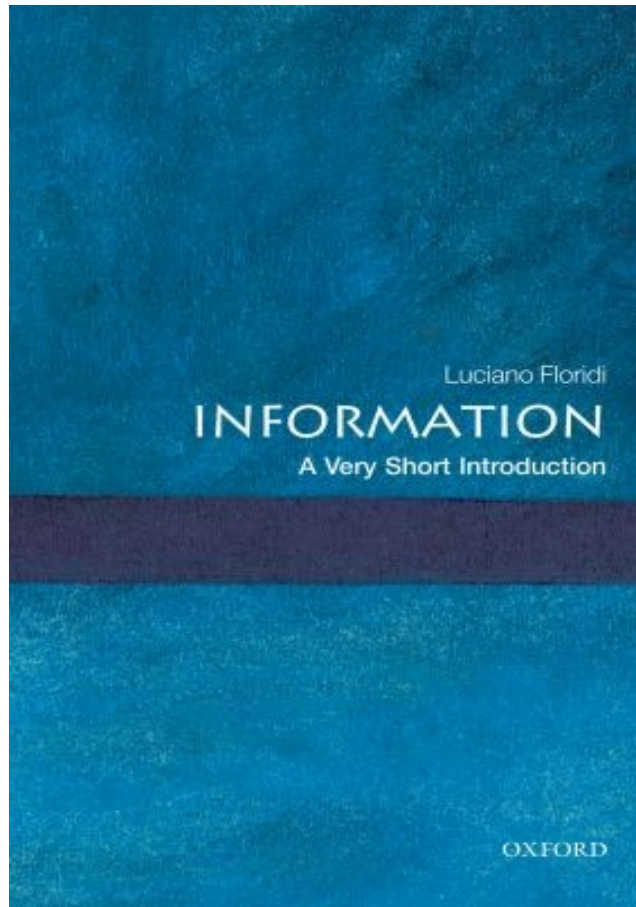
Information is a distinction that makes a difference.

The term 'information' in colloquial speech is currently predominantly used as an abstract mass-noun used to denote any amount of data, code or text that is stored, sent, received or manipulated in any medium."

What we see

A conceptual labyrinth
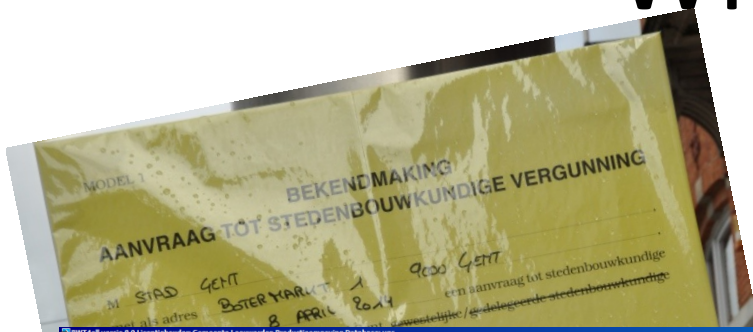
What we need to see

- Modelling
  - Schema, model, ontology
- Conceptual model with
  - Concepts,
  - Properties
  - Relations,
  - Functions,
  - Conditions and
  - Axioms
- Presented as objects (things)
- As plain as possible

A hook

Point of departure
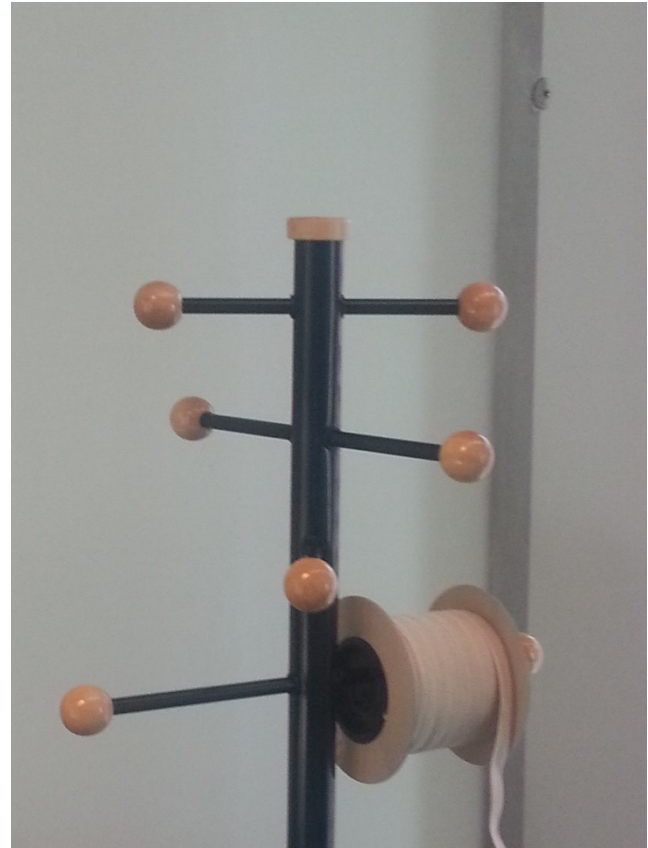- Philosophy of information with the concept of Semantic information (SI)
- A foundation for building blocks

Semantic information (SI)

data
(structured)

You are here

environmental

semantic
(content)

primary

analogue

secondary

instructional

factual

digital

meta-

binary

untrue

true
(information)

operational

derivative

unintentional
(misinformation)

intentional
(disinformation)

knowledge
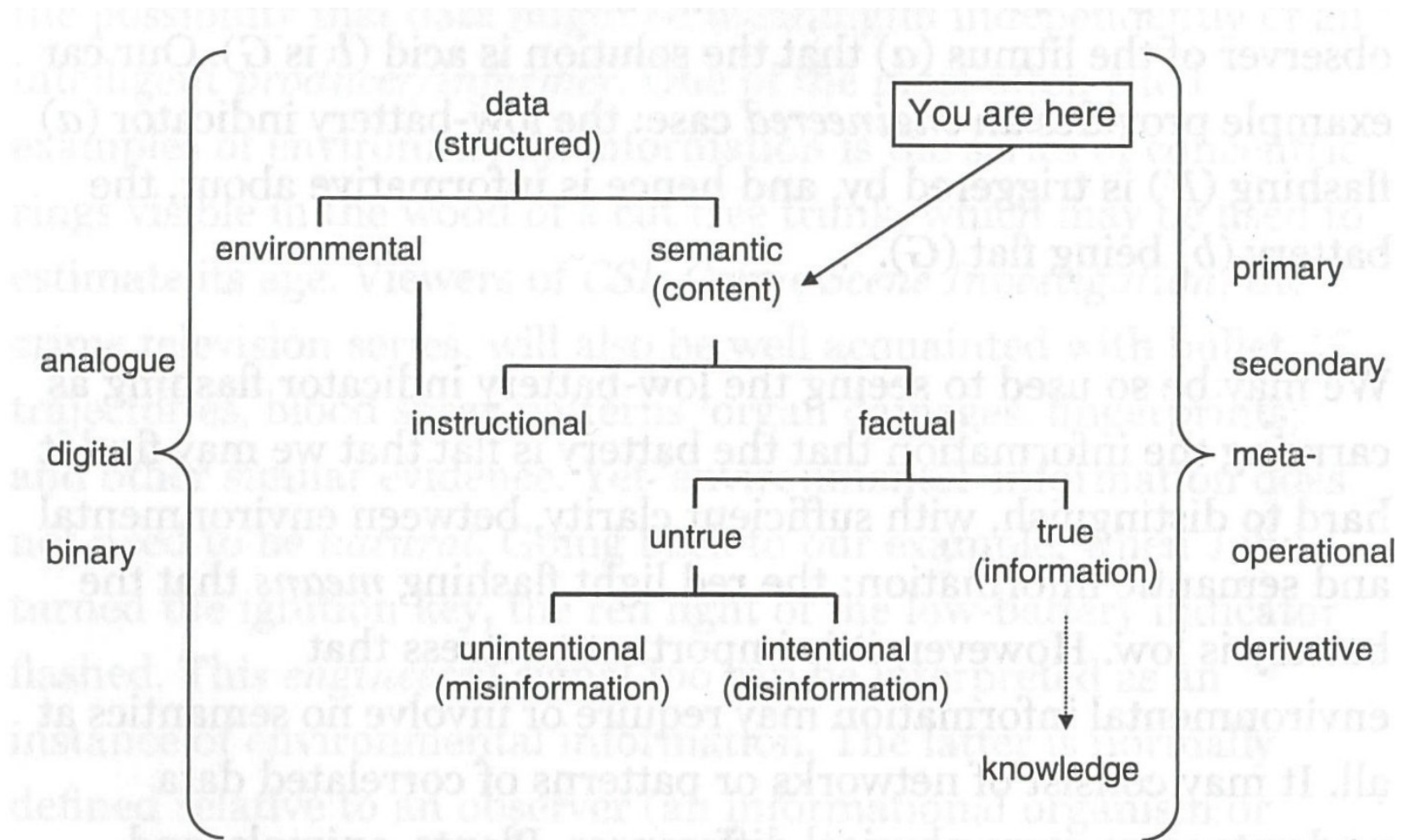
6. Information as semantic content

Building blocks SI

1. Levels
   o 1^e Level
     - Context (C)
     - Activity (A)
     - Information object (Io)
   o 2^e Level (examples)
     - Actor only as
       - part of the context
       - a (sometimes) accidental passer-by
     - Communication as part of the activity

- Qualities
  – Meaningful (M),
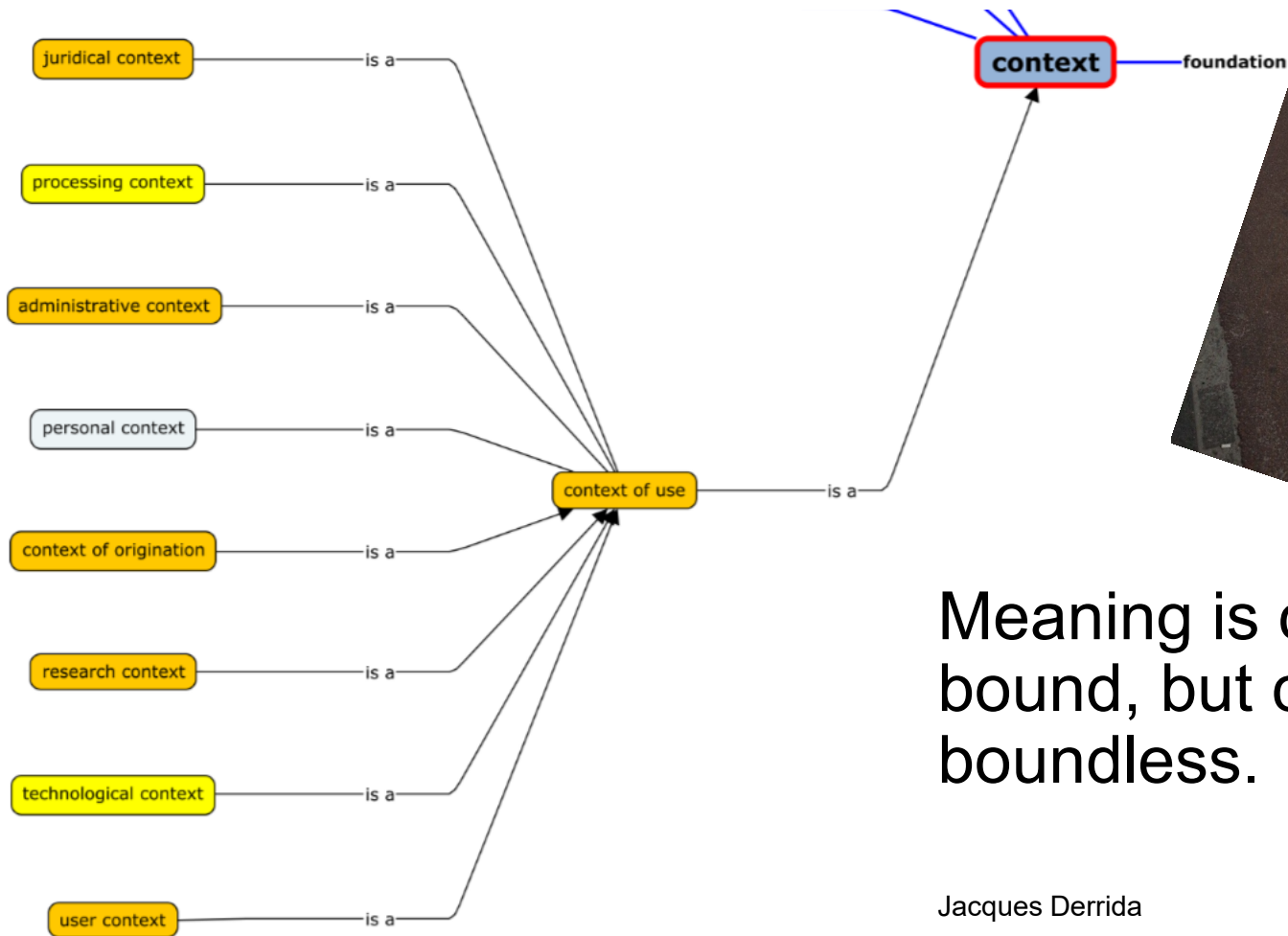 – Truthful / Trustworthy (T),
  – Wel formed (W)

Context and meaning

juridical context — is a

processing context — is a

administrative context — is a

personal context — is a

context of use

context of origination — is a

research context — is a

technological context — is a

user context — is a

is a

context — foundation

Meaning is context-bound, but context is boundless.

Jacques Derrida

Context

Elements context (C)

Onderdelen
1) Warrant (why)
2) Assignment (what)
3) Actor (who)
4) Domain (how)
5) Result
6) Functionality (What is allowed / possible)
7) Data/Information (which type)
8) Informationobject (how shaped)
9) Technology (wich tools)

Information object

Information object (Io) elements

Kenmerk	Betekenis
1 Content	The message / information to be conveyed by the object.
2 Structure	The form of the message / information. Structure and content together determine determine the typology of the object.
3 Context	The setting in which the object has a function and which is implicitly and / or explicitly present in the object only. This context is therefore the result of the content and structure, and perhaps also the behavior and technique.
4 Behaviour	Functionalities that must be executed to convey the message / information.
5 Technology	The tooling that sustains, maintains and preserves the object

Information object (Io)
technical layers

Layer	Meaning
5.11 Presentation	Presenting the object to an 'user' including performing of behaviour.
5.2 Transport / processing	Transforming the factual technical form (eg. bitstream) to make the message (content) presentable. Eg. Print to paper en show on digital interfaces like display screens.
5.3 Store / Fixation	With analogue media like papier: The ink / toner attached to (or in) the medium. Digital data: the bitstreams, the zeros and ones a fysical datacarrier which together make up a document.

Activity

A conceptual labyrinth

Activity (A)

Onderdelen	Aspecten
Time	o Start o Moment(s) o End

Communicate	o Send
	    o (message, make available, transfer)
	o Receive
	    o (message, fetch, acquire)

Steps	o Assess o Capture o Process o Keep / Retain / Dispose

Communication

Plain model

A conceptual labyrinth

Is it already in use?

- Information- and records management policies of the council of Leeuwarden:
  - Local decree on information management 2016
  - Adopted in reference framework in information and records management 2015
- Delivering know how about Records Management
- Framework for Information managers and consultants
- Framework for checking Business cases, projects and Change Management, (public) tenders for digtals systems
- Provides in outline the description of activities (acts)
- Userd as framework for
  - information architecture
  - appraising
  - metadataschema
  - substitution, migration and conversion
- Reference for file formats and understanding compound documents
- Reference for preparation digital repository

Generic framework

	Business	Information and Communication	Technology
Strategic (aiming)	**Warrant Assignment**	**IC-Warrant IC-Assignment**	**T-Warrant T-Assignment**
Tactical (arange)	**Actor Domain**	**Level of aggregation Functionality**	**Technology**
Operational (accomplish)	**Result**	**Information & Information object**	**Digital Analogue**
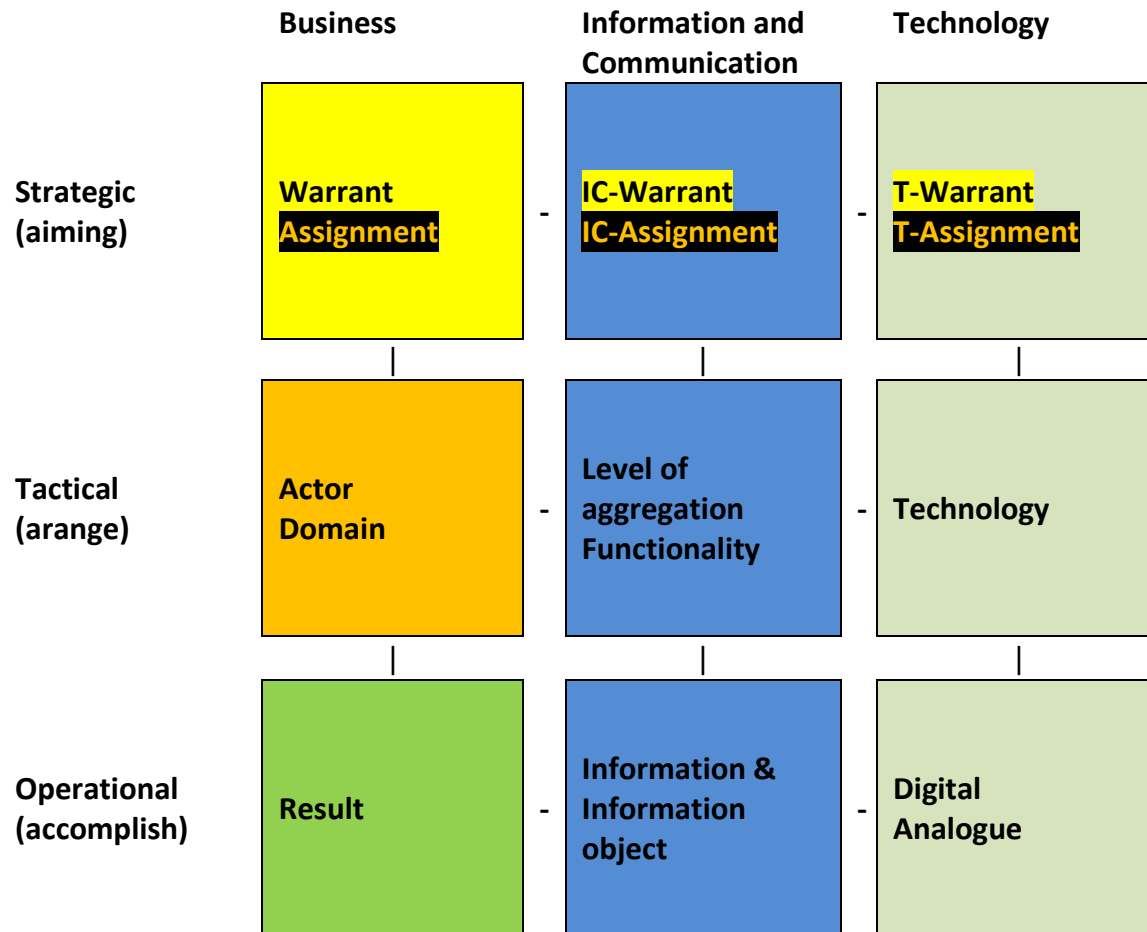
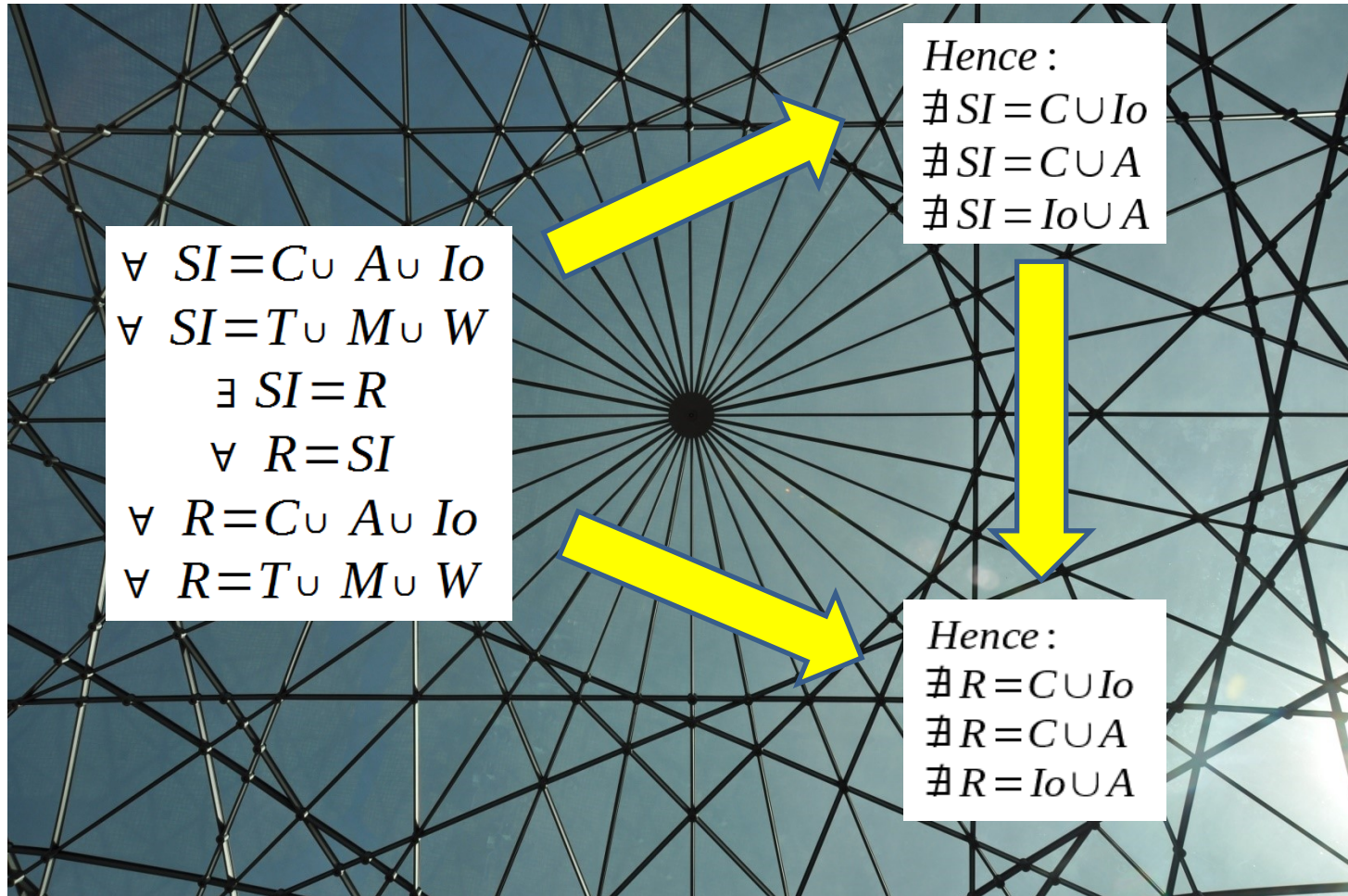| LEVEL	Proces / Context	Channel (in/out)	Review	Capture	Process	Product / Reply	Store (archive)
	1) Warrant	Framework for the layers and the process					
LOGICAL	2) Assignment	Means of communication	Part of the warrant	It fits in the warrant	It is the warrant	Result of the warrant	Accountability & compliance
	3) Actor	Sender / Receiver	Registrator Handler	Owner / Handler	Handler	Owner / Handler	Owner / Curator
	4) Domain	Generic (e.g. Proces / project / (part of an) organization / body / official/ staff)					
	5) Result	Means of communication	-	-	Result(s)	decision / result / notification	Accountability & compliance
	6) Functionality	communicate, view, control	Communicate, appraise, view, control	Communicate, appraise, view, control, register / record	Communicate, view, available, (re)use	Communicate, make available	Keep and make available, (re)use, dispose
	7) Information	Received and send as data	Data becomes information and is information				It is data again (on hold)
	8) Information object	message / document	Document(s) / register(s) (based documenttypes)				See 6
FYSICAL	9) Technology	website, ecrms, (e)mail, scanner	Ecrms, activity-based information system , catalogue, (case)file	Ecrms, activity-based information system , catalogue, (case)file	Ecrms, activity-based information system , (case)file	website, ecrms, e-mail, document	ecrms, depot, cabinet, (case)file, catalogue, digital storage

Transfer
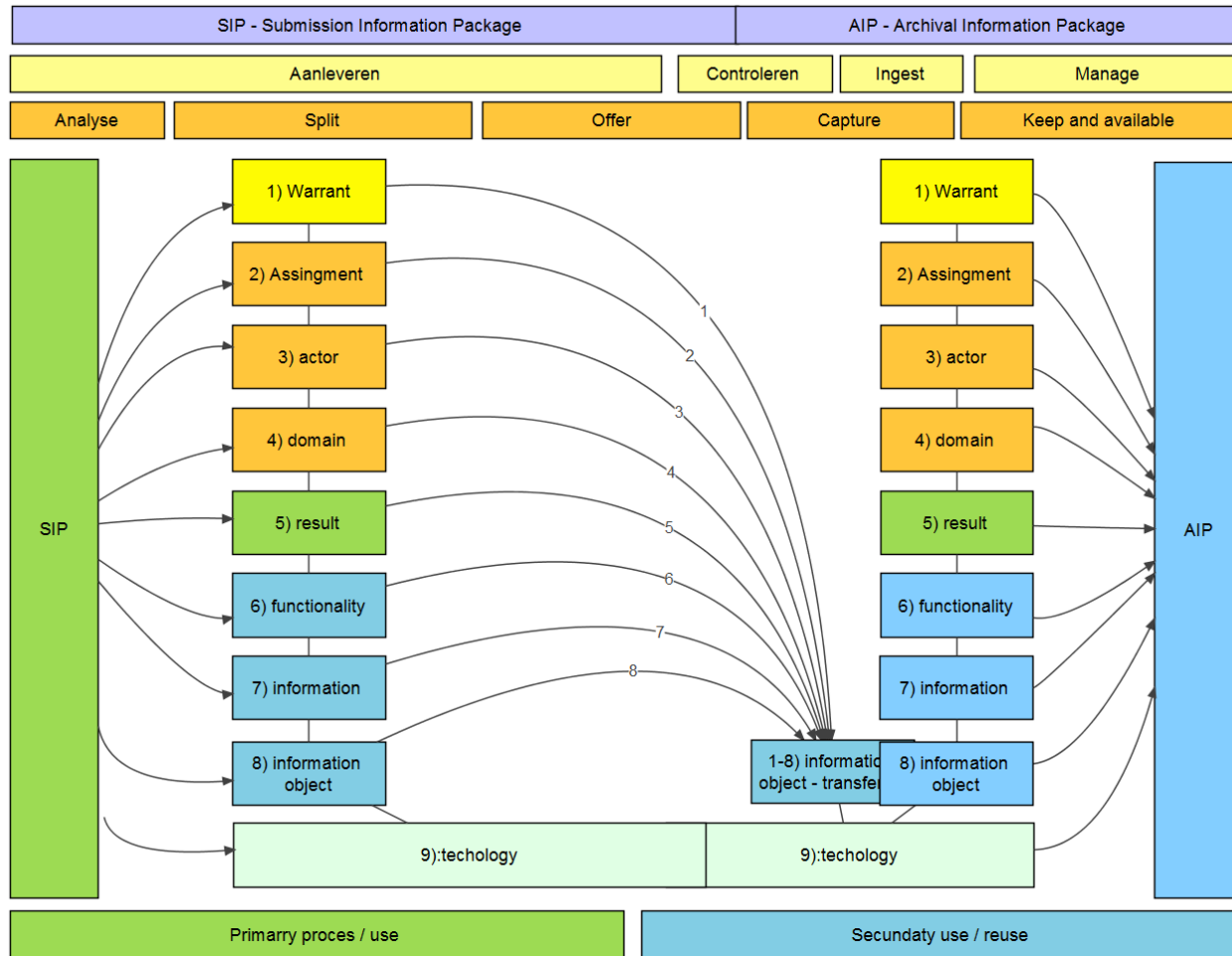
Transfer digital informatioe - a model
\R.S. Jonker
12/4/2013
rev 5/6/2016

Meaningful?

Formulate

$$\forall \; SI = C \cup A \cup Io$$
$$\forall \; SI = T \cup M \cup W$$
$$\exists \; SI = R$$
$$\forall \; R = SI$$
$$\forall \; R = C \cup A \cup Io$$
$$\forall \; R = T \cup M \cup W$$

Hence :
$$\nexists SI = C \cup Io$$
$$\nexists SI = C \cup A$$
$$\nexists SI = Io \cup A$$

Hence :
$$\nexists R = C \cup Io$$
$$\nexists R = C \cup A$$
$$\nexists R = Io \cup A$$

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- Reference for preparation digital repository

Recommended

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- *The Onlife Manifesto; Being Human in a Hyperconnected Era, version 8-feb-2013 / European Commission, 2013.*
- Website *Society for the Philosophy of Information,* http://socphilinfo.org/

Coming 2017/2018

- S@P-Yearbook Archives and the Philosophy of Information - Informatiefilosoof.nl

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