



What is double documentation and what is not?

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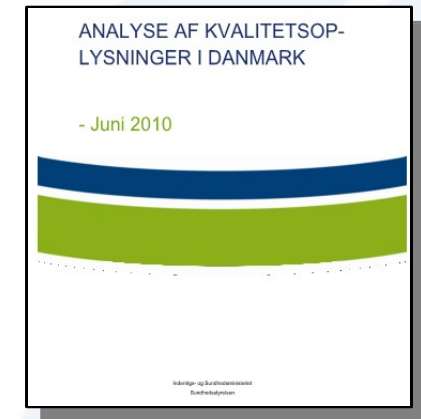
Why is double documentation of interest?

Through more than a decade of health informatics double documentation has been a thing to avoid

- constitutes unnecessary extra work
- risk for inconsistent data and other forms of reduced data quality

The actual Danish perspective (june 2010):

- Inhabitants:
5.6 mio {Statistics Denmark}
- Patients in the National Patient Registry (LPR):
2.3 mio pr year {National Board of Health}
- Double documentations:
30+ mio pr year {Ministry of Health & National Board of Health}
- That makes 13 cases of double documentation for every patient every year



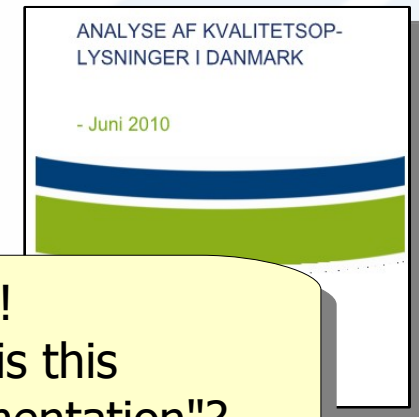
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- That makes 13 cases of double documentation for every patient every year
- Double documentation must be halved by the end of 2011!
{Ministry of Health & National Board of Health}



Fine!
But what is this
"double documentation"?

What is double documentation in health informatics?

No obvious definition

Qualitative literature review

- Free-text search, snow-balling
- Including 31 papers
- Both governmental and research papers

Definitions were few and with very limited scope

- e.g.

... (recording of) data which are mandatory to report to the National Patient Register or other key health registries and which are also reported to the clinical databases

{Lundgreen et al. 2006}

... that nurses and physicians records information about the same phenomenon in their separate health records

{Lundgreen et al. 2006}

What is double documentation in health informatics?

Slightly different perceptions of double documentation

The common characteristic:

- Within an area of information gathering (local, regional or national)
- semantic redundancy occurs, and
- this redundancy is introduced by manual registration

Double documentation versus data reuse

- Percieved as complementary opposites
- Information can be obtained either by one or the other
- Several papers implicitly describes this dualism, e.g.

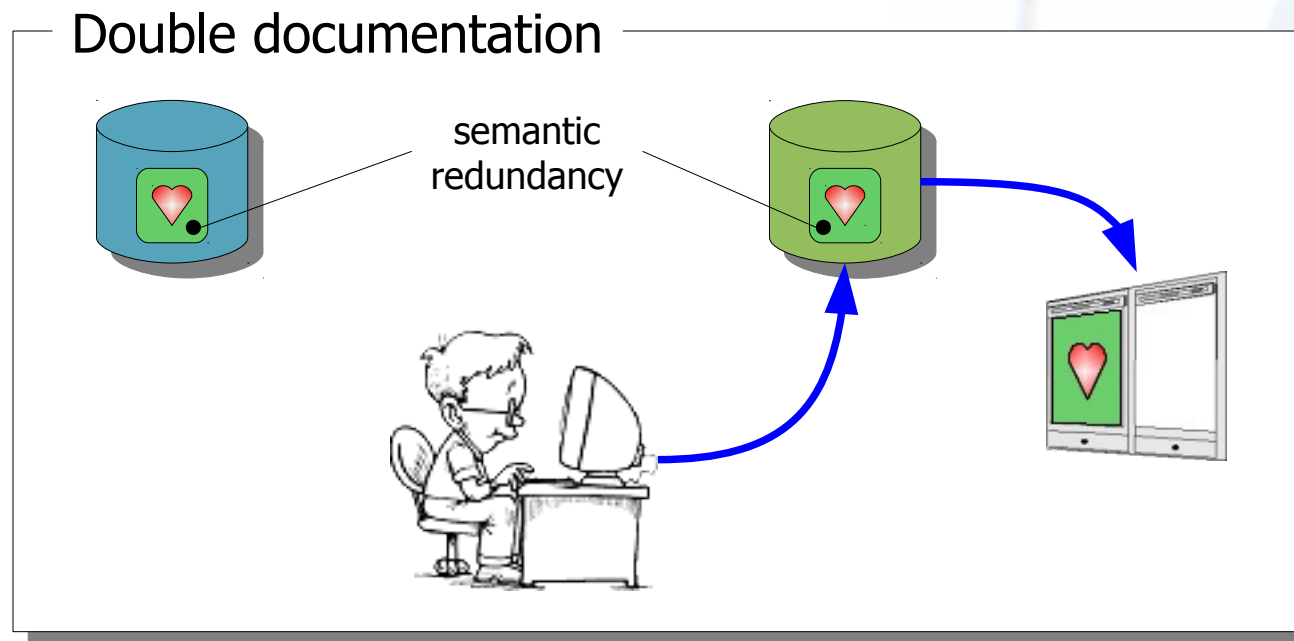
To avoid duplicate data entry, ... data should be recorded only once, even when they are stored in different databases.

{Winter et al. 2011}

Proposed definition

Double documentation

manual registration of information that - within the relevant sources - already exists

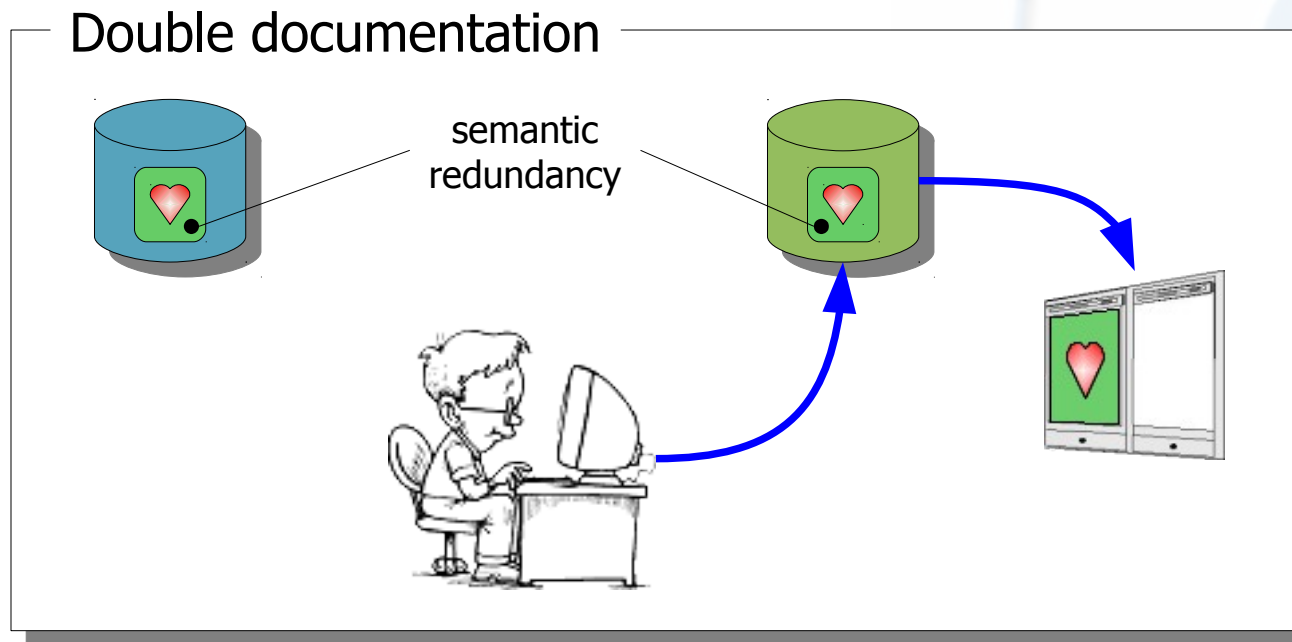


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Which sources are relevant?



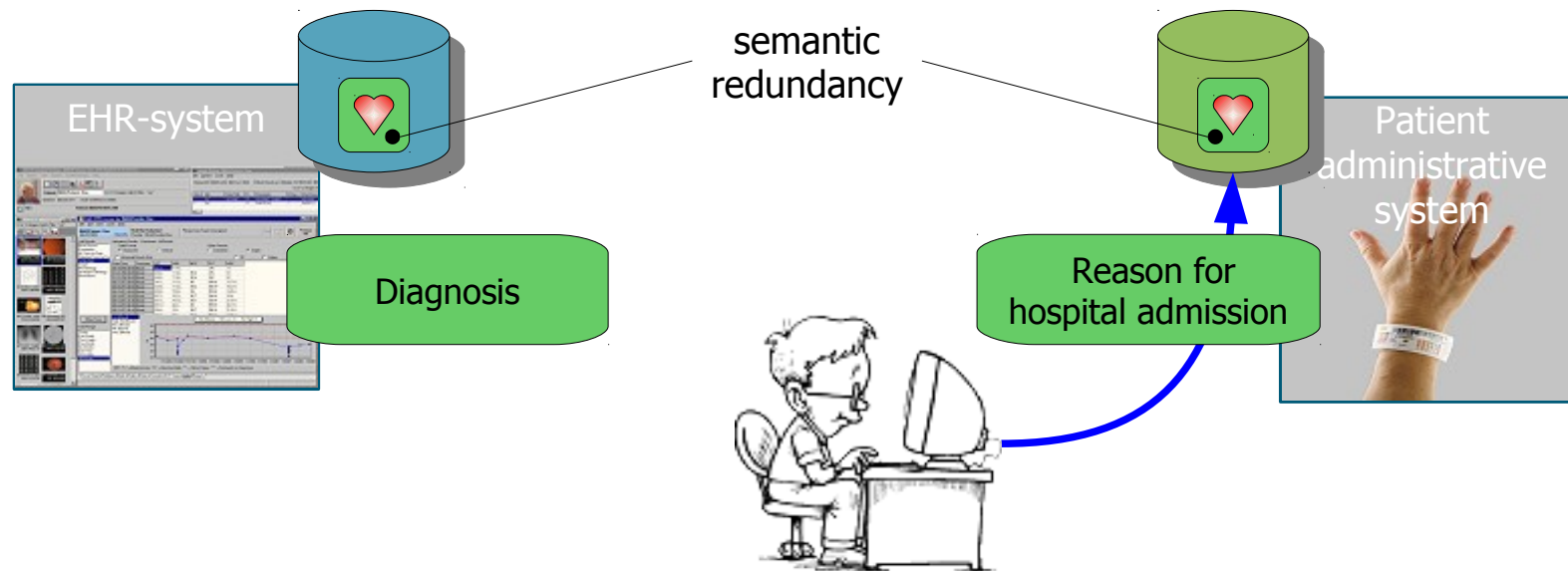
Double documentation of health data - which scope?

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Which sources are relevant?

Should information be reused?



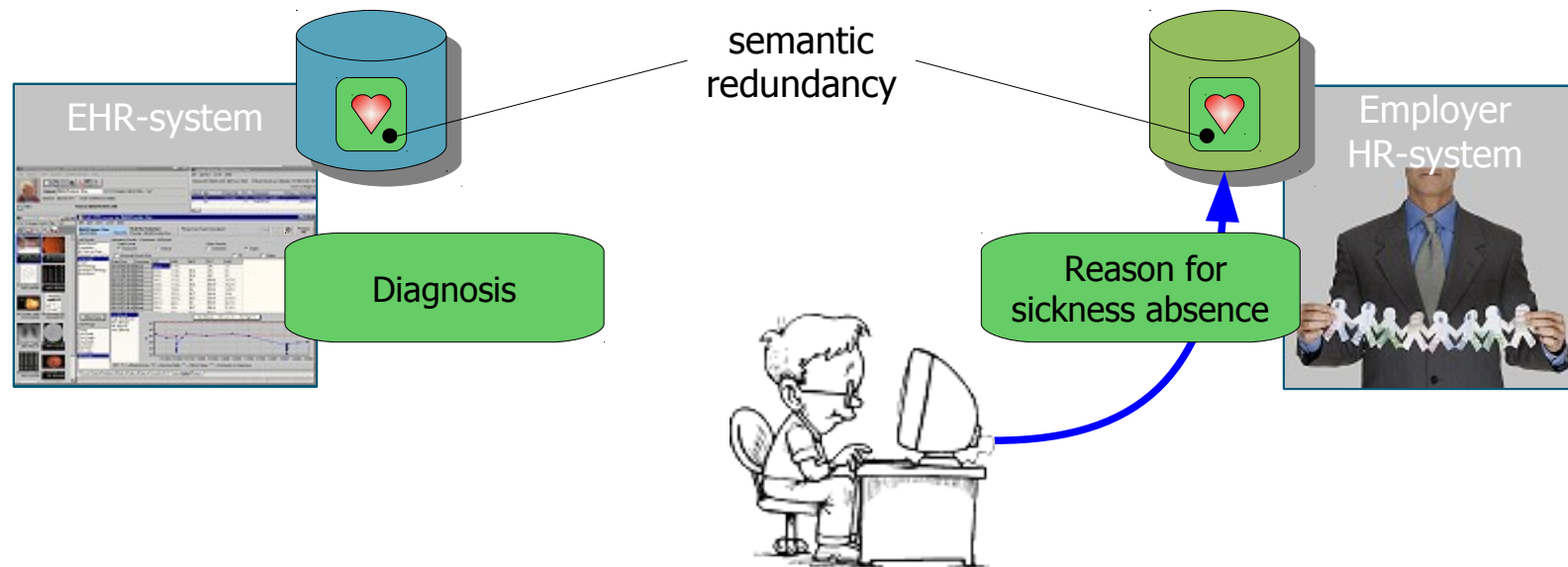
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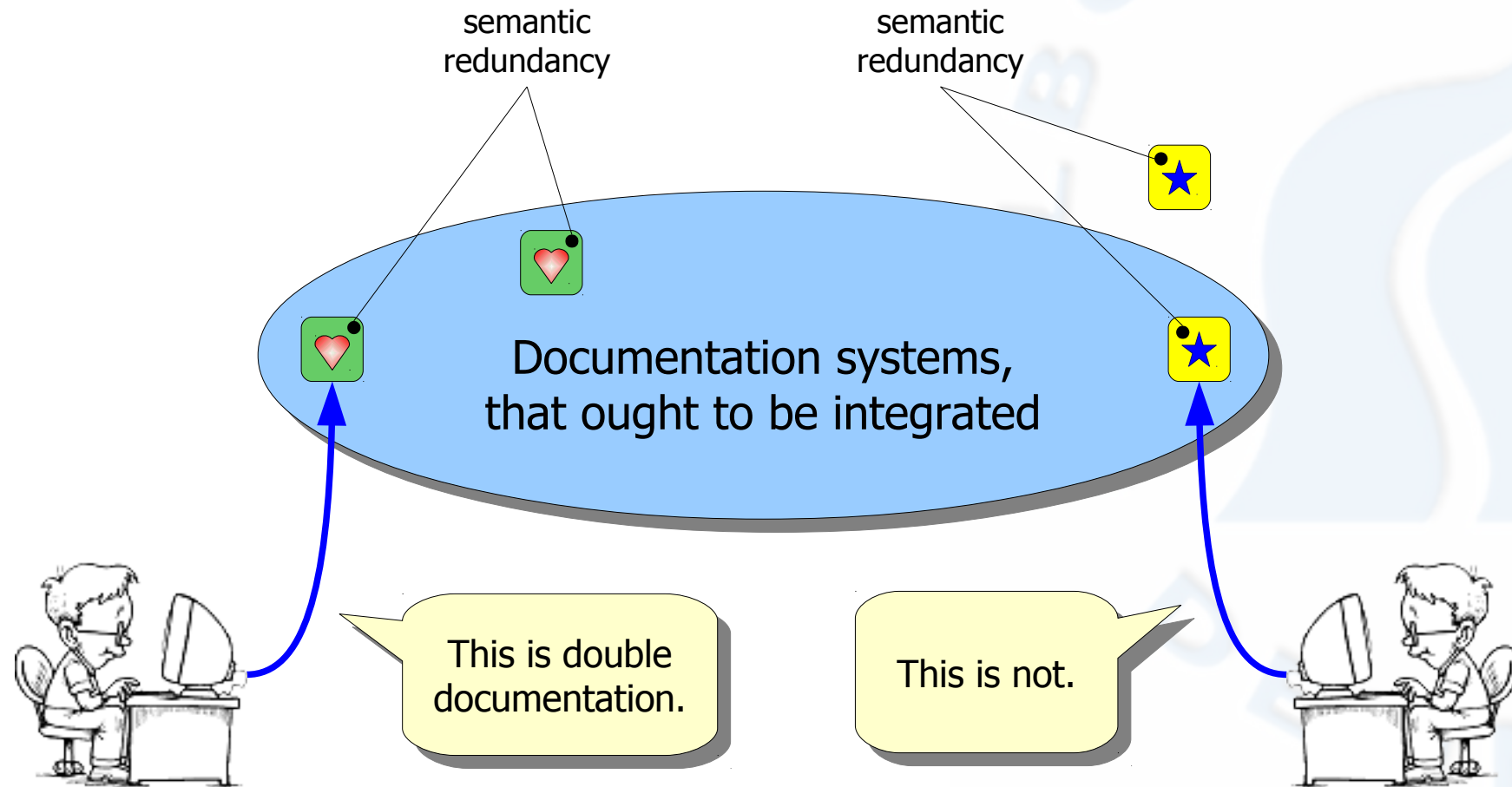
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Double documentation of health data - which scope?

The scope is a matter of (political) ambition...



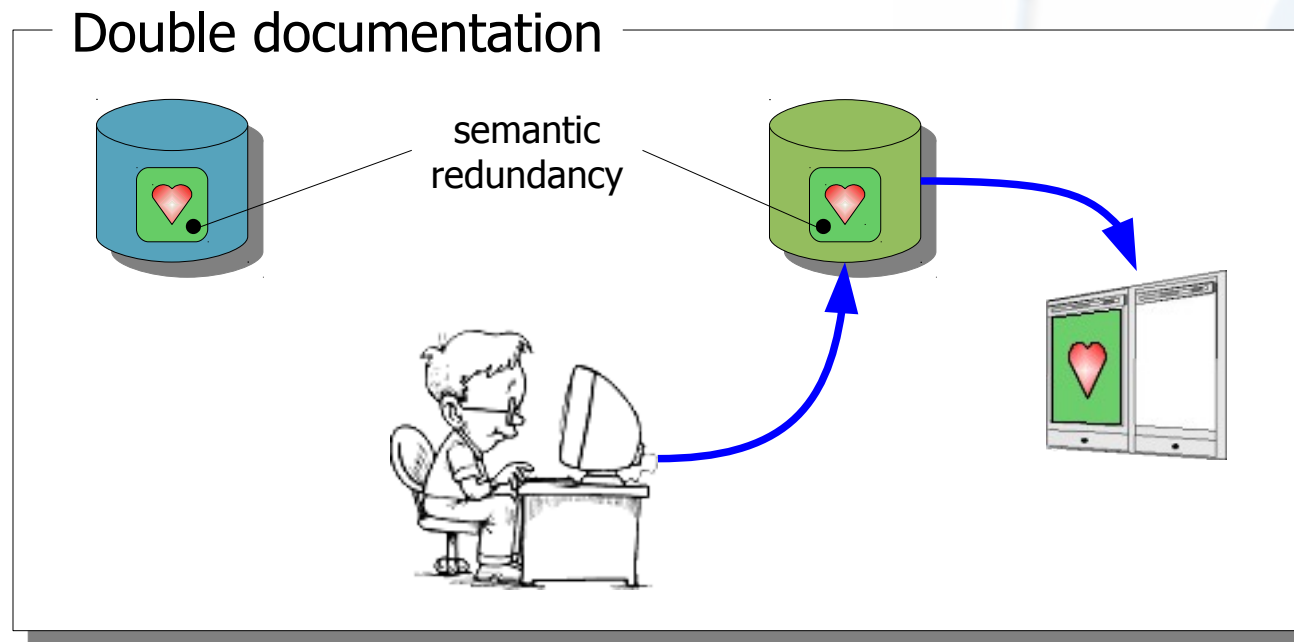
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What does it mean, that information already exists?

Which sources are relevant?



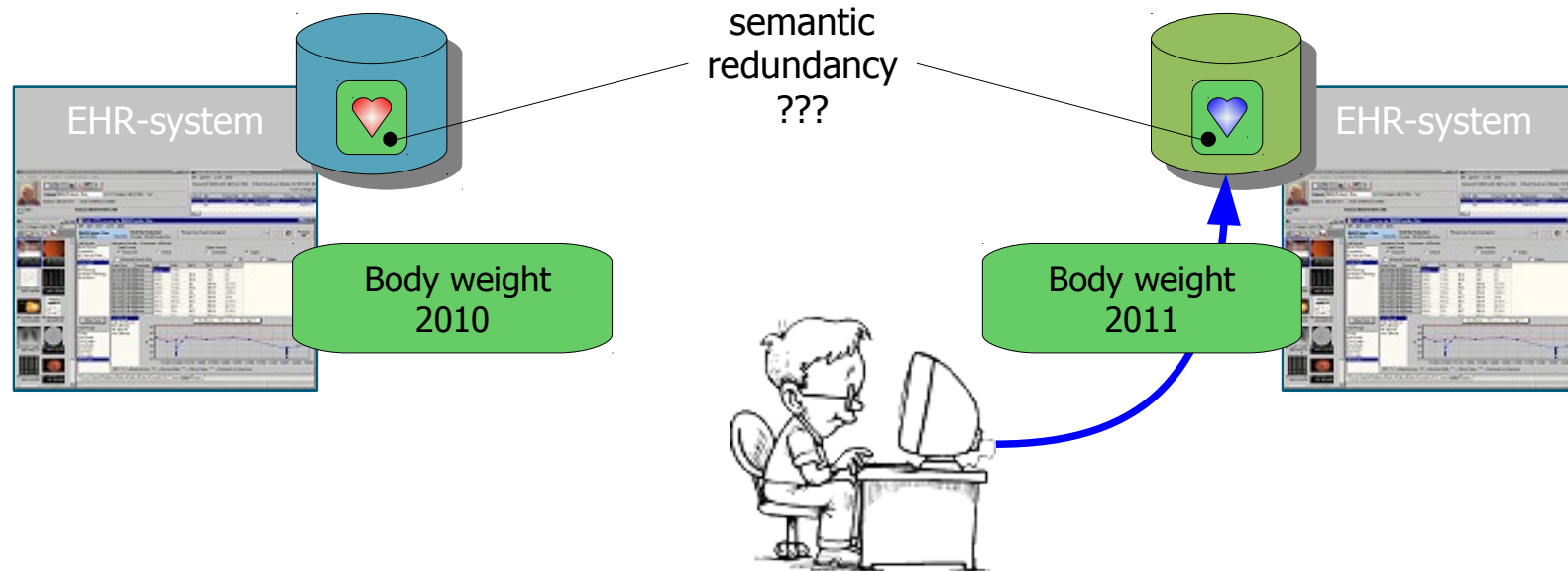
Does the information already exist?

Double documentation

manual registration of information that - within the relevant sources - already exists

What does it mean, that information already exists?

Can information be reused?



Can information be reused?

That depends on ...

- the context in which the information will be used



Before **anaesthesia** we need to know the body weight.
Can we use a week old measurement?



Before **dialysis** we need to know the body weight.
Can we use a week old measurement?

Can information be reused?

That depends on ...

- the context in which the information will be used
- the type of information



Before X-ray we need to know the **gender**.
Can we use a 10 year old statement, that the patient is male?



For respiratory care we need to know the **saturation**.
Can we use the measurement from yesterday?

Can information be reused?

That depends on ...

- the context in which the information will be used
- the type of information
- the context in which the information was provided



When evaluating blood glucose, we want to know
e.g. if the patient was **fasting** ...



... if the patient was **on steroids** ...



... and of course we need to
know the **time and date**
when blood was sampled



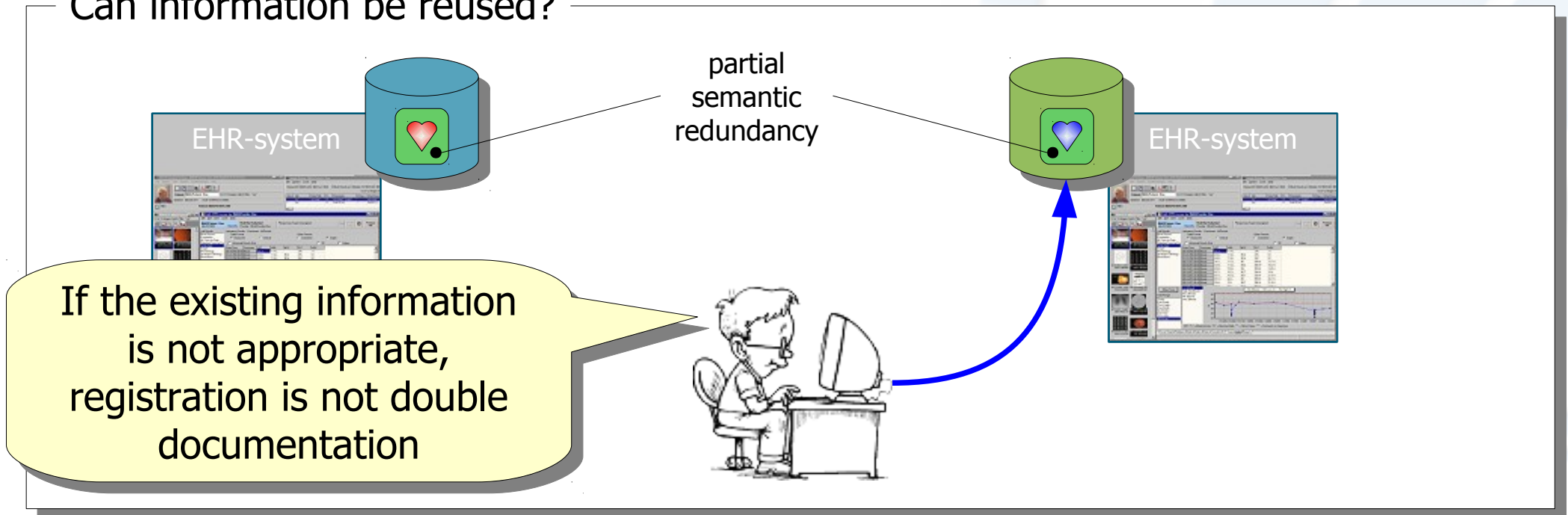
... if the patient was **pregnant** ...

Double documentation or documentation of distinct data?

That depends on ...

- the context in which the information will be used
- the type of information
- the context in which the information was provided

Can information be reused?



So...

To eliminate double documentation, it is necessary to ...

- have a defined scope for data reuse

- Which systems should be integrated?
- What information should be exchangeable?

- analyse each potential occurrence of double documentation

- The type of information?
- The context in which the information was provided?
- The context in which the information will be used?

Thank you
for your attention!



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