



DCM projects

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Content

- Projects in international perspective
- HL7 projects
- ISO 13972 quality criteria and methodology for DCM



IMH

- > 3000 models
- > XML based
- > use in EHR, Data warehouse, DSS
- > etc.



VA

- Heavy investment in UML modeling
- Creation of Devices DAM HL7



HL7 int & Nictiz: Top 10 DCM

- Body height and weight
- Respiration, heart rate, body temperature, blood pressure
- Apgar Score
- Glasgow Coma Score
- Barthel Index
- Braden Scale
- 2006 discussions in HL7 v3,
- 2007 decision to use for DCM

DCM in Netherlands 2-10-2010



- Nictiz 26 DCM for e-diabetes.
- Top 10 DCM HL7 international, ballot sept 2010.
- For archetype development 13 assessment scales in DCM and as archetype
- Parelsnoer initiative: DCM as core for data specs biobanking.
- Nictiz: repository DCM national level
- Results 4 Care: nursing process
- UMCN, Portavita and UMCG: EHR based on DCM principle
- VWS: Care standards and DCM for chronic diseases



Korea Clinical Contents Models

- Development of CCM
- Implementation of clinical document template library based on CCM
- Interconnection of CDS system with Structured Data Entry (SDE)
 - All reflect current medical information standards such as standards medical terminologies, UCUM and HL7 V3 data type as much as possible.



CCM projects

- Field application
- DCM Evaluation Metrics (Ahn, 2009). (www.clinicalcontentsmodel.org)
- Feedback



HL7 DEV project DCM

- DCM for medical devices (DAM in sept 2010 ballot)
- People from ISO, HL7, care and industry are involved
- See http://wiki.hl7.org/index.php?title=Detailed_Clinical_Models_for_Medical_Devices

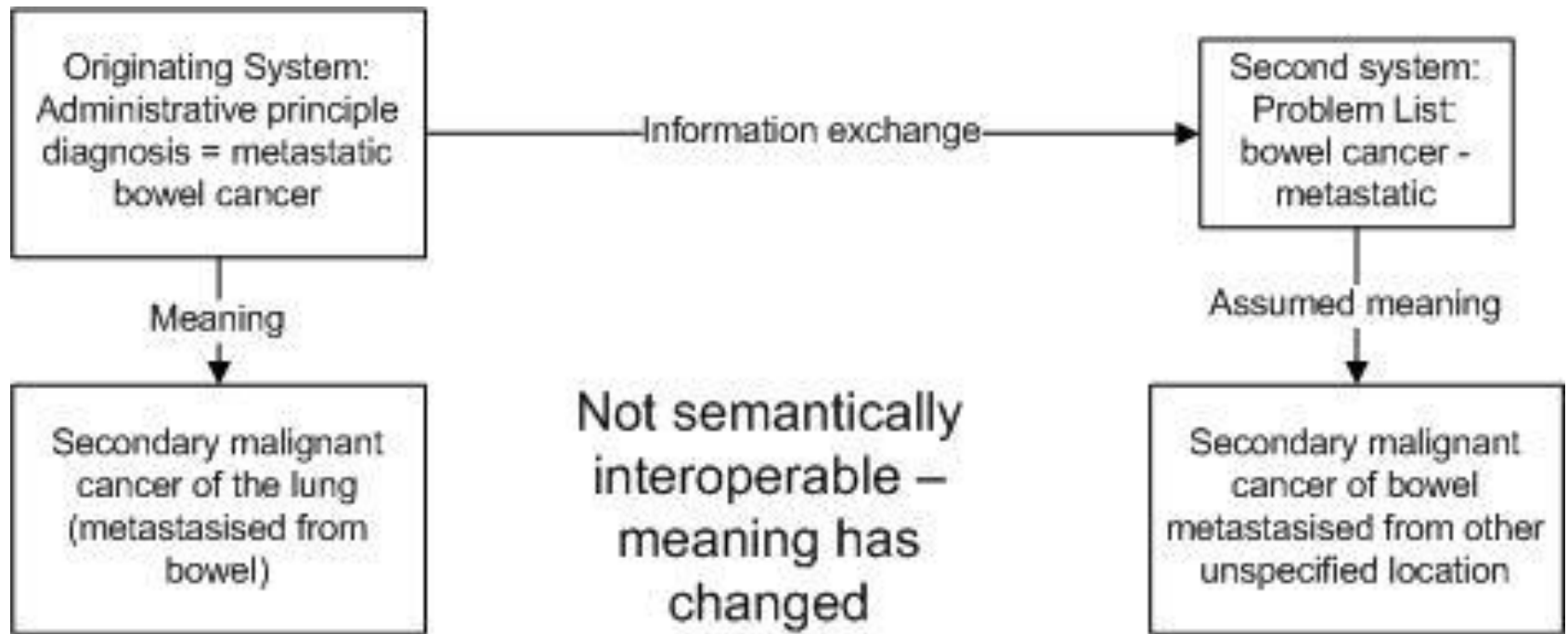


ISO 13972 status 02-10-2010

- Development of DCM well received internationally, lot of interest, but even more debate and discussion.
- Within ISO and HL7 3 projects.
- 320 PC DCM instances
- HL7 Dev
- ISO, project team from different countries and SDO's.
- ISO per 28 July 2009 a definitive IS route, only 1 counter vote (Au), may Rio: discussed Working Draft 1, follow-up in October 2010, Rotterdam: move to CD hopefully



Semantic interoperability problem





Definition of DCM

- A detailed clinical model is a relatively small, standalone information model designed to express a clinical concept in a standardized and reusable manner. It documents clinical information as a discrete set of precise clinical knowledge for that concept.



ISO 13972 scope

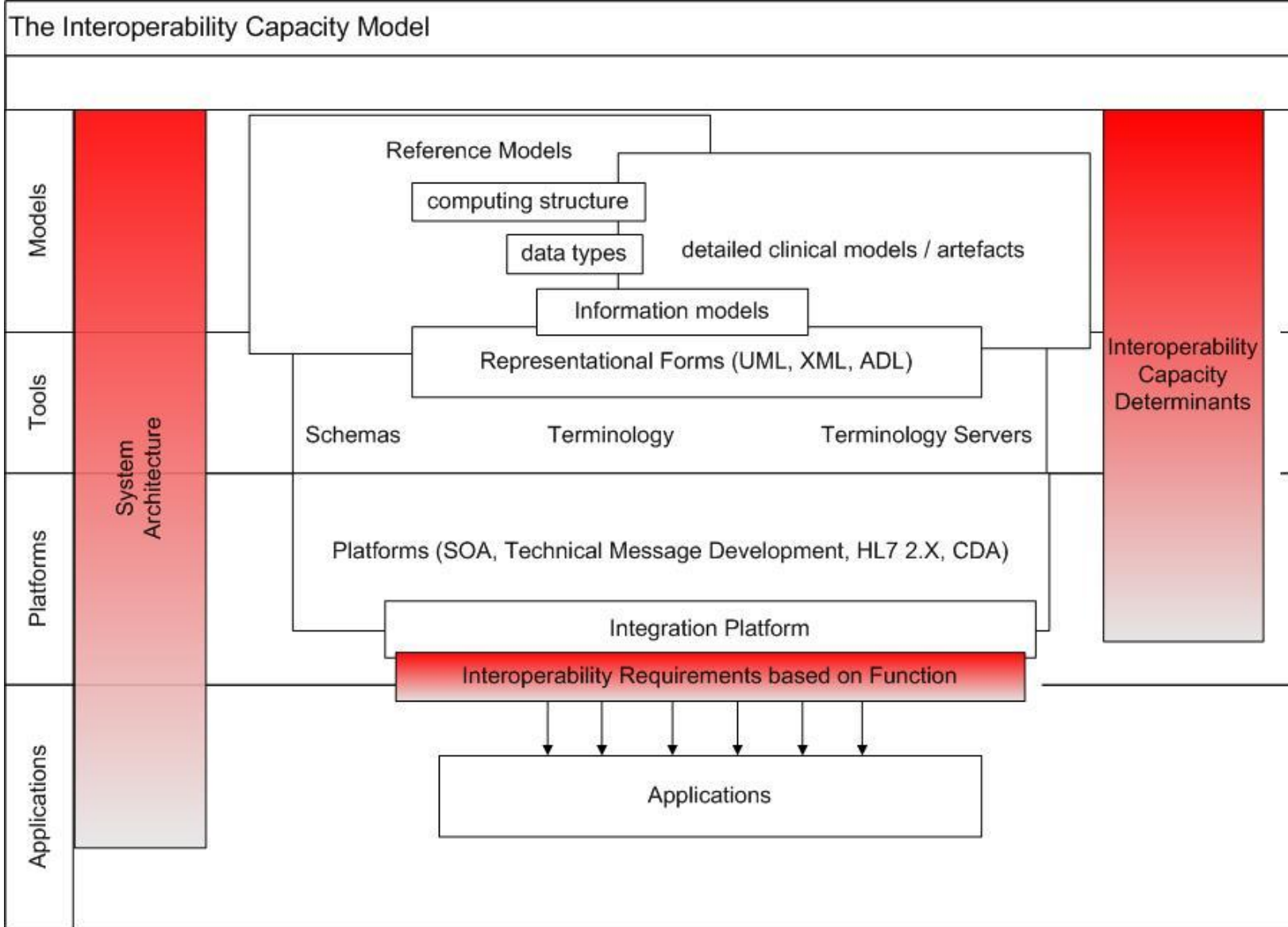
- Clearly define how detailed clinical model should look and how it should be designed, its utility and relationships to the EHR and EHR system.
- Describe quality requirements and methodologies that are necessary for clinician's involvement in design of detailed clinical models and their endorsement of instances.
- Clinician's would need to analyze the quality of the clinical content, content description, data element specification, and potential impact on patient safety.



ISO 13972 scope

- Provide quality criteria for detailed clinical models, meta-information, transformations, repositories, checks and maintenance and handling of patient safety issues for control and governance of detailed clinical models.
- Specify the effects of engineering principles on the structure of detailed clinical models, e.g. when transforming the conceptual models into logical and physical representations that can be engineered in EHR systems

DCM 13972 reference model





DCM 13972 core areas

- Clinician involvement and endorsement
- Content evidence based, data element level and meta information
- Modeling criteria
- Repository and Governance
- Patient Safety



Added value of DCM

- Clarity professional content
- Technical implementation spec EHR
- Reusable in HL7 v3 messages CP, CDA, (choicebox)
- Transform to HL7 v3 templates
- Transform to 13606 archetypes
- Snomed CT implementation support
- Now uses in several project s
- International
- CCD Standard and other new projects....



Dank u voor uw aandacht!

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