

Data Standards and Products

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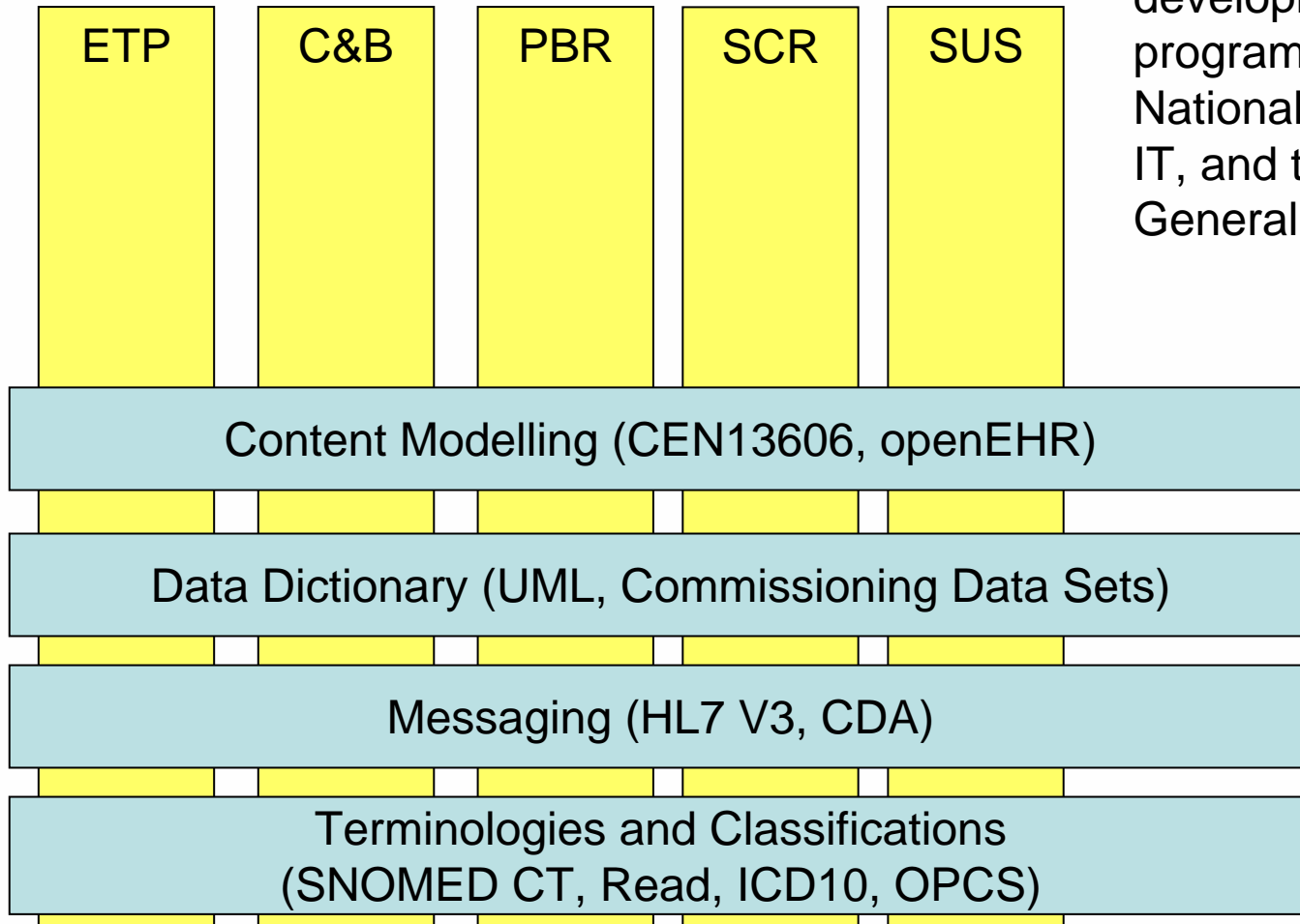


Data Standards and Products in the National Programme



DS&P provide a broad range of services to all development programmes in the National Programme for IT, and to the NHS in General

Development Programmes



Data Standards And Products

Facts and Figures

(March 2008)

Choose and Book: Over seven million (7,656,482) bookings have been made to date. Choose and Book has achieved over 24,000 bookings in a single day.

Electronic Prescription Service (EPS)

Over 72 million (72,680,070) prescription messages have now been transmitted electronically.

6,897 GP practices have had technical upgrades to the new system. 5,450 of these practices are actively operating the Electronic Prescription Service (EPS).

8,138 pharmacy systems have had technical upgrades to the new system and 6,720 are actively operating EPS.

GP2GP has now been used for 92,535 medical record transfers.

4,687 GP practices have had technical upgrades to the new system. 3,757 of these practices are now actively operating GP2GP.

N3: By 29 February 2008, there have been 29,730 connections to N3 and 100% of existing GP sites who require a connection have had this delivered.

N3 is one of the largest Virtual Private Networks (VPN) in the world.

PACS: There are 127 Picture Archiving and Communications System (PACS) from NHS Connecting for Health now live across England.

Over 613 million (613,001,624) images have been stored using PACS from NHS CFH.

PACS has been used for over 24 and a half million (24,521,613) patient studies.

NHS Care Records Service

153,188 Summary Care Records have now been uploaded to the Spine.

There are 462,570 Smartcard holders who are registered and approved for access to the Spine.

DS&P Mission

To develop, maintain and support a comprehensive range of clinically-related data standards that effectively support healthcare within the UK in an integrated and holistic manner, facilitating the delivery of a full longitudinal healthcare record for patients that can support a diverse set of secondary uses.

DS&P Products

Terminologies

- Read
- CTV3
- SNOMED CT
- DM+D

Classifications

- OPCS
- ICD10
- Cross maps

Data Dictionary

Messaging

- HL7 V3 for Spine
- CDA + Templates
- Commissioning Data Sets

Content Modelling

- Clinical Archetypes (CEN13606)
- Content models for suppliers

Some of the challenges

- Vendor solutions collect and manage data in very different ways
- Most standards are framework standards that need localisation and customisation
- No standard is comprehensive, and standards overlap and compete in some areas
- Localised optimisation of a particular standard often de-optimises the EHR
- Output-driven data design does not lead to effective or useful input-driven clinical collection, and leads to potentially unsafe transcription or transformation of data

Specific challenges

SNOMED CT adoption

OPCS capacity

Message-centric interoperability is not comprehensive enough

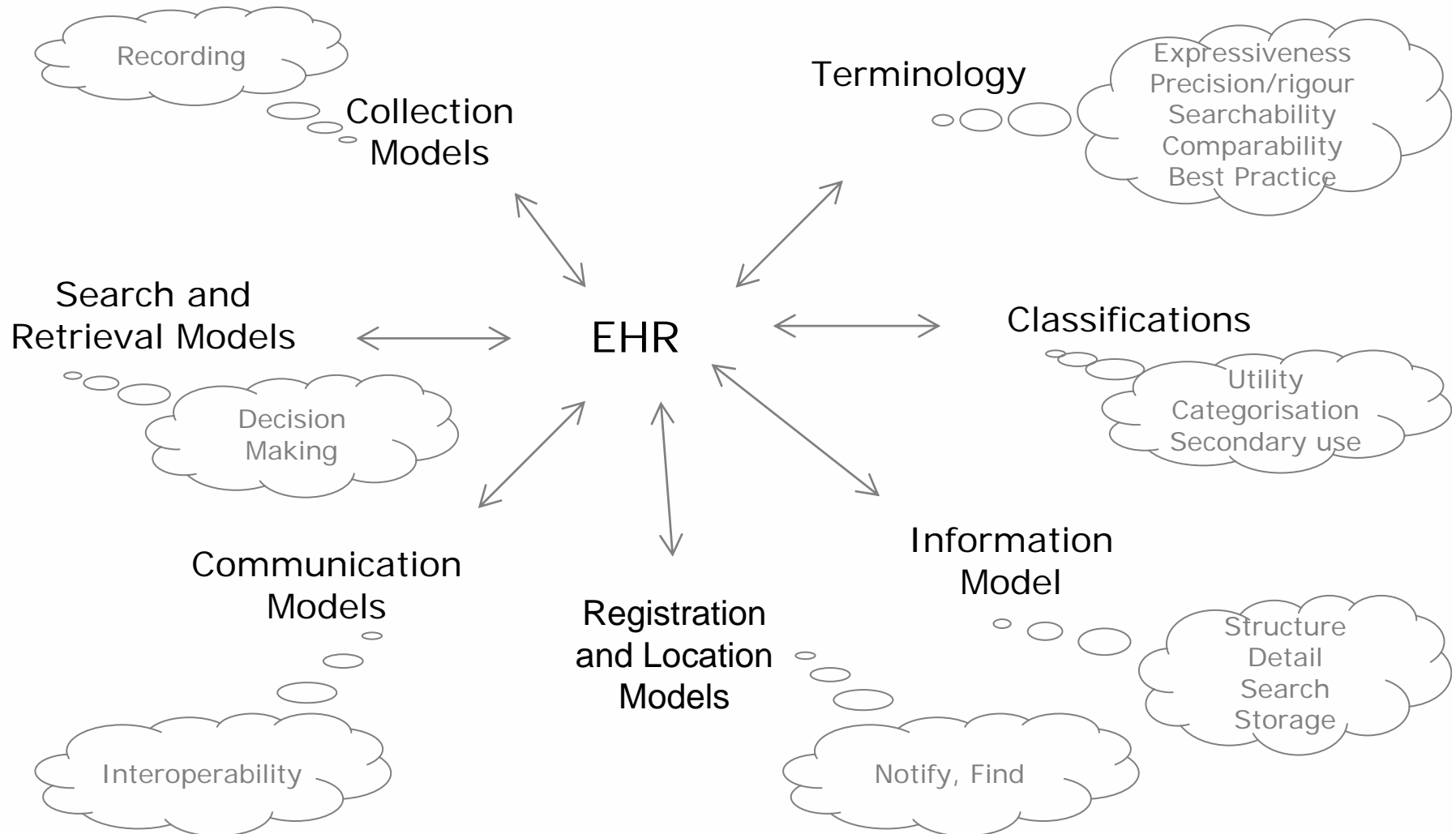
Secondary use is not derived from primary data, and is often inaccurate

Standards incompatibilities (e.g. Data Dictionary and Messaging inconsistencies)

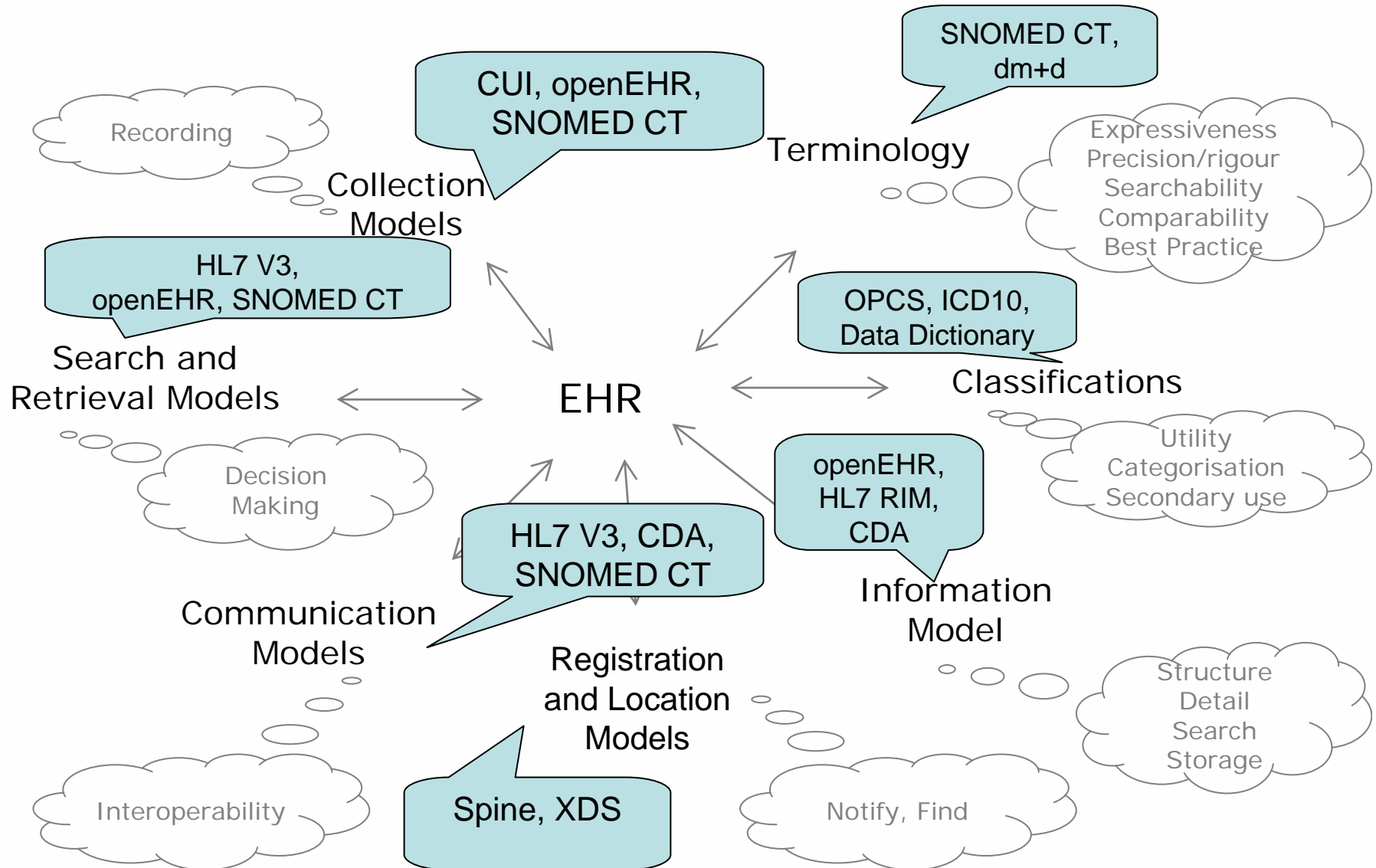
We do not have a consistent record location and discovery model outside of the Spine

Local integration is not fully supported at the national level in terms of standards, compliance and governance

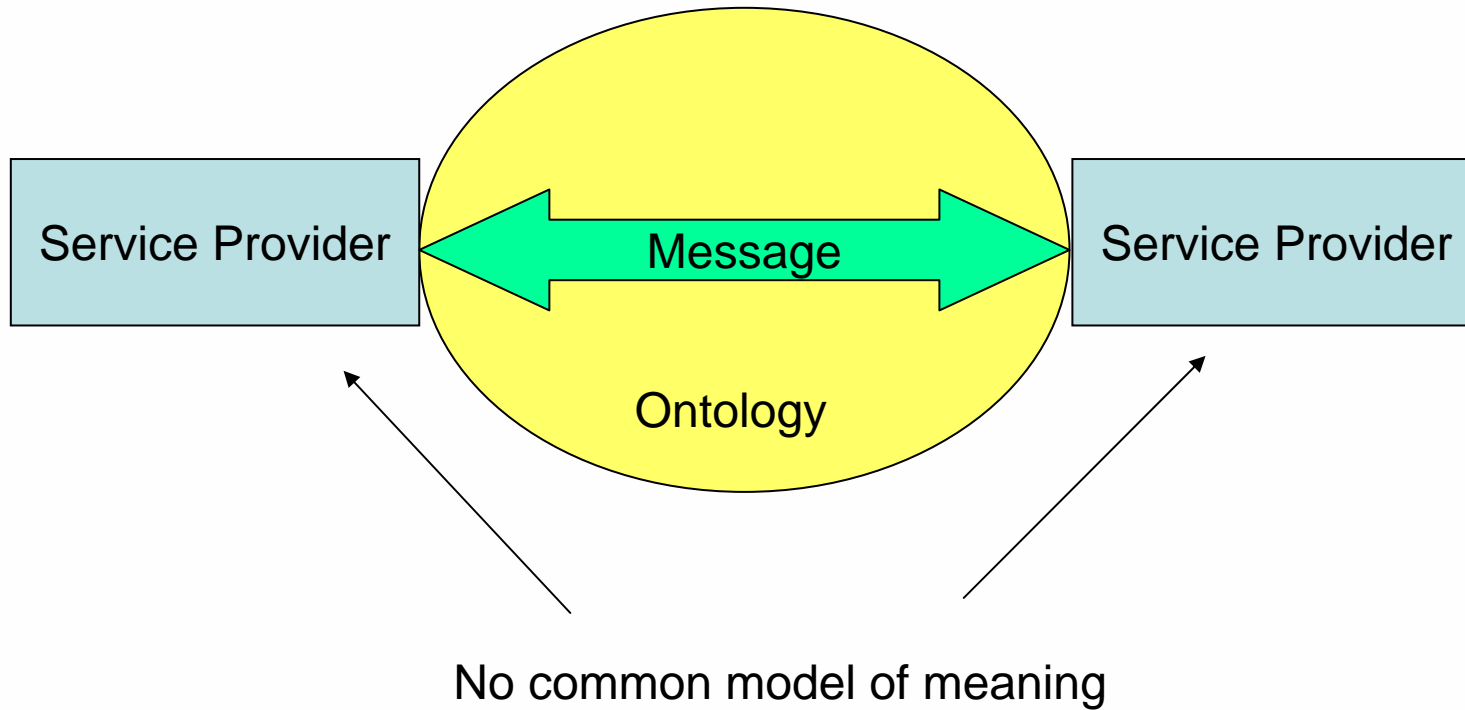
Standards in the context of an EHR



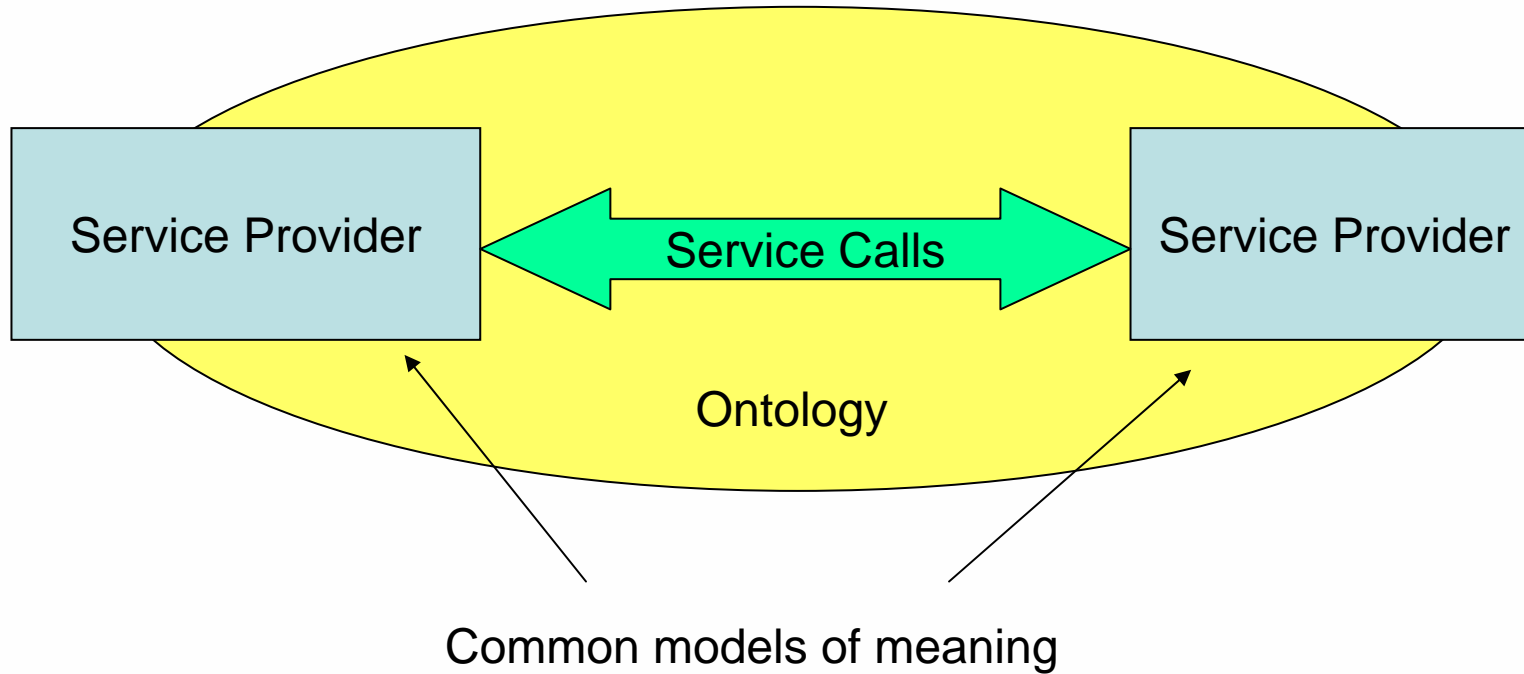
Standards in the context of an EHR



Clinical Interoperability today



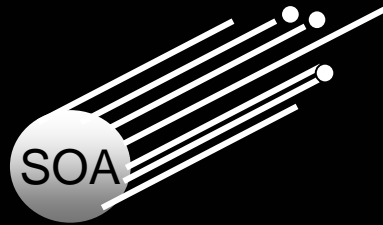
Clinical Interoperability tomorrow



The Standards Solar System



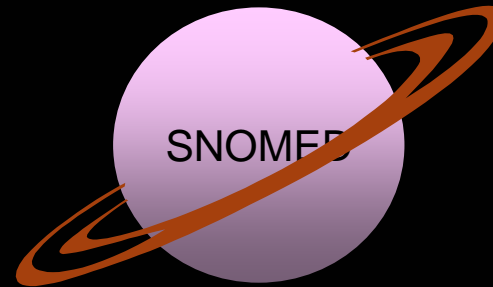
UML



SOA



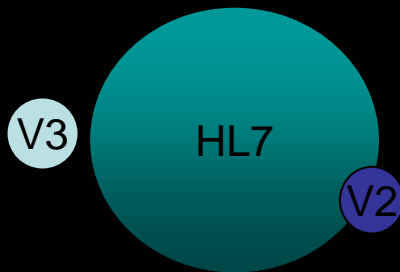
LOINC



SNOMED



ICD10



HL7

V3

V2



openEHR



IHE



ISO Data Types

Copernican Standards

We need to rethink our “physics”

No individual standard is the centre of the universe

No SDO can manage all the standards

The EHR should be the centre of the standards universe

The EHR needs to be thought of in terms of

- Terminology
- Data structure
- Location and retrieval
- Access and audit
- Clinical safety

The new physics for the EHR Connecting for Health

Collect data once, use many times

Operational not managerial collection

We need a model of re-use that reflects clinical practice and that is supported by standards

Terminology must be rigorously bound to the information model

Transformations can be dangerous – they reduce quality; they must be rigorous and automated

Replication is problematic – how do you rectify data that has been distributed widely?

Information needs to be available soon after it is collected

Information needs to be discoverable

Information needs to be searchable and comparable