

Aid to Understanding Terminologies and Registries

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Terms without Understanding

“Don’t worry sir it’s all under control! Medical terminology has been standardized. All we have to do is find out exactly what Schmatzliccopatitis actually refers to!”



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The "Helsinki Principle"

"Any meaningful exchange of utterances depends upon the prior existence of an agreed upon set of semantic and syntactic rules."

ISO TR9007:1987 Information processing systems -
Concepts and terminology for the conceptual schema and the information base

The recipients of the utterances must use only these rules to interpret the received utterances, if it is to mean the same as that which was meant by the utterer

Components

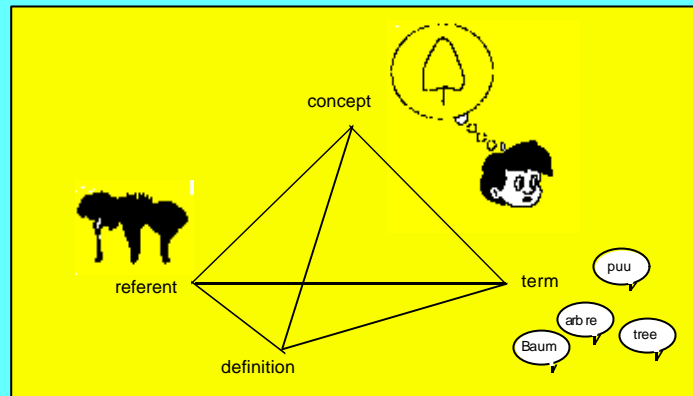
Terminology

- Concepts To understand
- System of Concepts To classify / group / relate
- Terms To designate

Data / Records Management

- Records To focus
- Data Elements To record
- Codesets To constrain

What are we communicating?



Relations between referent, concept, definition and term

CEN/TC 251 Medical informatics — Categorical structures of systems of concepts —
Model for representation of semantics

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Primary Issues

- Semantics What is it?
- Syntactic Rules How is it represented?
- Documentation What is needed?
 - Identifying information
 - Definitional information
 - Representational information
 - Administrative information
 - Relational information

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Considerations

- Recognize that different communities use different terms for a concept
- Recognize “justifiable” prejudices
- Mandating conformity does not work
- Well documented and understood items are often reused
- Harmonization is a journey

Facilitators for understanding

- Common structure for documentation
- Publicly available documentation
- Quality documentation

Registries as Facilitators for Understanding

■ Metadata Registry –

- A set of services
- Operating on a standard structure (ISO/IEC 11179)
- Providing information on concepts
 - Identifying, Definitional, Administrative, Relational
- Providing information on components of data elements
 - Information Types Identifying, Definitional, Representational, Administrative, Relational
 - Components Concepts, Data Elements, Codesets, Systems of Concepts, terms, ? ? ?

Health Metadata Registries

■ USHIK – US Health Information Knowledgebase

- NCPDP – Pharmaceutical ? NCVHS
- X12N – Claims ? DoD-HA
- HL7 – Clinical ? CDC
- ASTM - E31 – Health Informatics ? HCFA
- IEEE P1073 – Medical Devices ? G-CPR
- MD156 – Dental

■ AIHW – The Knowledgebase

- www.aihw.gov.au/inet/knowledgebase/index.html

Other Metadata Registries

- US EPA Environmental Data Registry
- US Census Bureau Registry
- IEEE Intelligent Transportation System Registry
- ISO TC 154 Basic Semantic Register

Information

- ISO/IEC 11179
Metadata Registry Implementation Coalition
<http://hmrha.hirs.osd.mil/mrc/>

Standards Development Registry Usage or Consideration

Registry Standard

- ISO/IEC JTC 1/SC 32/WG 2 – Metadata

Registry Usage or Consideration

- ISO TC 154 – Processes, data elements and documents in commerce, industry and administration
- ISO TC 204 – Transport information and control systems
- ISO TC 211 – Geographic information/Geomatics
- ISO TC 215 – Health informatics
- CEN TC 251 – Health informatics

Concluding Goal

- Consistent structure for the documentation
 - Components of data elements and concepts
 - Terms, concepts, and systems of concepts
 - ISO/IEC 11179 structure
- World-Wide-Web access to the documentation
- Ability to compare and utilize entries from multiple registries in same and/or different business sectors

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