Challenges of Developing and Deploying Large-Scale Biomedical Terminologies

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Outline of this morning

First Session (9:00 - 10:30)
- 10' - Introduction (Ronald Cornet)
- 30' - Vision, requirements, and plan for ICD11 (Bedirhan Üstün)
- 30' - SAGE project use of terminologies in guideline-based decision support (Samson Tu)
- 20' – Discussion

Second Session (11:00 - 12:30)
- 30' - Auditing large-scale medical terminologies, with a focus on SNOMED CT (Ronald Cornet)
- 45’ - NCI Thesaurus (Sherri de Coronado)
- 15’ - Discussion
Challenges re. Large-Scale Biomedical Terminologies

- Developing
  - Position & Focus
  - Quality assurance

- Deploying
  - Integration
  - Services

Position & Focus

- How to draw the boundaries of terminological systems?
  - What content should and should not be included?
- What is the usage of the system?

- E.g., SNOMED is NOT ICD(9/10/11) and will NOT replace it!
Quality Assurance

Increase the size of your ontology

◆ How to ensure quality over quantity?
◆ How to validate terminological system?
◆ Which metrics are useful?
◆ How to reduce manual effort and increase automation?

Integration

◆ Integration of data and knowledge
  ▪ Large terminological systems
  ▪ Large data stores
  ▪ Interaction between data model and terminology model
◆ Integration of various types of knowledge
  ▪ Ontological knowledge, guidelines, classification rules
◆ Integration of various terminological systems
  ▪ How to adequately map terminological system
Services

Terminological systems require terminological services!

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