Supporting Jargon of Different Specialisms

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31 October 2014

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Why support jargon?

- One concept, multiple descriptions
  - Ablatio retinae <-> Netvliesloslating
  - Neovascularisatie van cornea <-> Corneapannus
  - Milia <-> Gerstekorrel
  - Verruca vulgaris <-> Virale wrat
  - Ehlers-Danlos syndrome <-> India rubber skin <-> Cutis hyperelastica dermatorrhexis
- Which preferred term?
  - Heuristics not always sufficient, or contradictory
    - Most descriptive or most widely used?

Why support jargon?

- One description, multiple concepts

  - Infarct

    - Cardiology = myocardial infarction
    - Neurology = cerebral infarction

  - Syndroom van Silver

    - 15069006 |Russel-Silver syndrome (disorder)| (type of dwarfism)
    - 76043009 |Hereditary sensory-motor neuropathy, type V Type 5 (disorder)|

What do we use descriptions for?

- Registration

  - Different specialisms search by different descriptions

  - Supported by SNOMED CT through synonyms

- Presentation

  - Use different descriptions to present the same concept to different audiences?

  - Currently unsupported by SNOMED CT

Risks

- Miscommunications between specialisms

- Lengthy disputes over preferred terms

- Cannot flag descriptions as suitable 'layman terms' for communication with the public

- Unwilling end users?

We propose...

- Each specialism its own preferred term

  - Only for those concepts they expect to use

  - Fewer people have to agree

  - All preferred terms are valid synonyms in all specialisms

- Co-creation of content

  - By groups of medical specialists

  - NRC provides tooling, advice, guidelines, supervision and mediation

How?

- How do we achieve this without:

  - Enormous increase of size of SNOMED CT?

  - Loss of compatibility with international standard?

  - Implementation difficulties for IT-suppliers?

Option 1: Add column

- Add a column 'Specialism' to the specialism for which the description is 'preferred term'

- Advantages:
  - Small increase of size
  - All information in a single language refset

- Disadvantages:
  - Format of language refset differs from core

Option 2: Add language refsets

- Dutch language refset in original format which contains:

  - The default preferred term

  - All synonyms used in all specialisms

  - (Eventually) Translations of each concept in SNOMED CT

- Add specialism-dependent language refsets which contain:

  - The preferred term for that specialism

  - Only for concepts used in that specialism

Option 2: Add language refsets

- Advantages:

  - No deviation of core format

  - One language refset to find all suitable synonyms

- Disadvantages:

  - Duplication of information -> increase of size

  - May need two language refsets to find suitable preferred term for presentation

Chosen solution

- Prefer size increase over loss of compatibility

-> Option 2 it is!

... but what does that entail?

Specification of Dutch Extension

- One file with all Dutch simple refsets

- One file with all Dutch language refsets, containing:

  - One generic Dutch language refset with:

    - One (default) preferred term per concept
    - All Dutch synonyms

  - For each simple refset a language refset with:

    - A preferred term for each concept in the refset
    - No synonyms!

The translation process

- Co-creation
  - Authors: groups of specialists
  - Tooling: Nictiz refset editor
    - Creation of simple & language refset
- First translation -> default preferred term
  - Only NRC terminologists can change default preferred terms
  - NRC supervises translations
  - Also added to corresponding language refset

The translation process

- If another editor adopts the same concept:

    - Show the default preferred term and all synonyms

    - New synonyms are added to generic Dutch language refset

    - If preferred term is changed

        - Add to generic Dutch language refset as *synonym*
        - Add to specialist refset as preferred term
        - Keep original default preferred term in generic refset!

Result

- Generic Dutch language refset contains all Dutch descriptions

  - And one default preferred term per concept

- Dutch module contains a series of 'specialist' language refsets:

  - Each corresponds to a Dutch simple refset

  - With one preferred term for each concept in that simple refset

Consequences for implementation

- Search application across all SNOMED CT concepts:

  - Retrieve all valid Dutch descriptions from the generic Dutch language reference set

- Registration application for a single simple reference set:

  - Retrieve all valid Dutch descriptions from the generic Dutch language reference set

  - Use the corresponding language refset to identify the preferred term for this specialism

Consequences for implementation

- Present registered concept to other user:
  - Identify specialism of user
    - E.g. 'Layman'?
  - Retrieve specialism's language refset
  - Retrieve specialism's preferred term
  - Or retrieve default preferred term from generic language refset

Conclusion

- Support the use of jargon when registering and viewing clinical information

- Method:

  - Specialism-dependent preferred terms

  - Created by specialists

  - Supervised by NRC

  - Compliant with core format

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