



A simple web-based interface for advanced SNOMED CT queries

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Audience

Members of the SNOMED CT community of practice, terminology authors and technical professionals interested in SNOMED CT query methods

Objectives

- To demonstrate how a web based search interface is capable of executing complex queries
- To introduce some real life use cases and a query solution that caters for extended SNOMED CT content

Abstract

SNOMED CT – as the most comprehensive biomedical ontology – has the potential to utilize semantic query methods that operate on the defining attributes of the concepts. This type of semantic querying is widely used, and some of the query languages already extended the attribute constraints with the option for limited lexical and metadata search criteria.

Since the introduction of RF2 the expressibility of SNOMED CT can increase, and various national extensions make use of this extensibility by adding specific description logic features that are relevant for their content. An example for this is the Singapore Drug Dictionary that is based on the SNOMED CT concept model, but applies additional attribute types. The standard query languages are not powerful enough for such content.

This demonstration introduces a search interface that allows querying both standard SNOMED CT content as well as pharmaceutical extensions that utilize optional description logic extensions. These advanced queries are created by terminologists with an understanding of SNOMED CT. End-users can then use these queries to browse relevant subsets of the terminology appropriate for their use case. For example, clinicians can browse only drugs that are clinically relevant, while regulators can constrain their searches to controlled substances. The tool also allows early validation of intensional reference set content, without having to implement and publish the reference sets.

Practical examples using an online browser (Snow Owl Web) will highlight challenges and lessons learnt when working with real-world clinicians and regulators lacking SNOMED CT training.