Title: Using a classifier to assist SNOMED CT authoring with real-time results

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# Audience

Users, Vendors, Implementers, NRCs, editors

# Objectives

Describe the benefits of real-time feedback from classifier results for SNOMED CT content authoring, showing an example implementation.

# Abstract

SNOMED CT is an ontology described using Description Logics (DL), the authors add a set of asserted attributes to concept definitions, and a classifier utility is used to create a distribution form, with inferred parents, children and a computation of inherited attributes.

The large size of SNOMED CT makes the human prediction of the classification results tough and is often required that the authors need to do further modifications to a concept modifications attending to the results of a classifier run.

In classic scenarios, the classifier runs in batch, the author accumulates some changes and then launches a classification process; that usually takes a few minutes to finish. Then the author reviews the classifier changes for the last edited concepts and makes any necessary changes that are required. This cycle of edit, run batch classification, see results, leaves spaces for errors of the type of missing undesired changes due to the gap of time between authoring and classification.

In the new scenario, we describe the classifier is running in real-time, and the authors see the impact of the asserted definition in the same moment they save. The key is to be able to present meaningful classification information to the author, like:

• Equivalences

• Inferred parents

• Inferred ancestors

• Inferred children

• Inferred descendants

• Short or long normal forms

• Ancestors graphs

The presentation will describe an example implementation of a real-time authoring assistance tool powered by a DL classifier.