INTERNATIONAL HEALTH TERMINOLOGY STANDARDS DEVELOPMENT ORGANISATION

Title: Lightweight Expression of Granular Objects (LEGO) Content Modeling Using the SNOMED CT Observables Model

Presenter: Keith E. Campbell, MD, PhD, VHA OIA KBS, Director of Clinical Decision Support
John Carter, MBA, Vice President, Apelon, Inc.

Audience

Workbench users, SNOMED CT implementers and those interested in information models.

Objectives

To provide an overview of LEGO clinical data models and best modeling practices, raise awareness of recent LEGO modeling developments and activities, and demonstrate the tools available to facilitate LEGO model creation, editing, and sharing.

Abstract

LEGO stands for “Lightweight Expression of Granular Objects” and is intentionally evocative of Lego® building blocks, in the sense that small standardized pieces can be combined to create larger and more complex structures. Based on the IHTSDO Observables Model and comprised of self-contained units of knowledge, LEGOs transform patient data into a normalized consumable form. Ultimately, LEGO models can provide a foundation for the large-scale exchange of computer-processible medical information. This kind of information exchange enables a new generation of analytics and decision support applications that can enhance the quality and efficiency of patient care.

Currently under development by the U.S. Department of Veterans Affairs, LEGOs are created, edited, stored, and exported with the support of a LEGO Editor software toolset. This toolset was designed specifically to integrate with the next generation IHTSDO Workbench architecture and extended EL++ classification, thus supporting concrete domains. Using this toolset allows Subject Matter Experts and knowledge engineers to leverage the SNOMED CT terminology model in order to create, validate, and archive LEGO models of clinical concepts, such as vital signs, patient problems, clinical findings, and other relevant data used for decision support and medical record keeping.