CIEL Terminology

The Columbia International eHealth Laboratory Terminology (CIEL Terminology) is an open source, standardized clinical interface terminology used particularly by low- and middle-income countries (LMICs) to capture, map, and analyze health information. Clinical interface terminology provides clinically and public health –relevant concepts that are SAME-AS the concepts required for clinical care, triggering of SMART guidelines, and creating cohorts. CIEL also provides for more accurate and seamless translation of concept codes across terminologies and between versions of code systems and insulates applications and reports from backend coding changes. As part of the OMOP terminologies, CIEL is poised to play a crucial role in migrating LMIC data sources into the OHDSI community and will benefit from multi-lingual translation of the OHDSI documentation including the use of standard vocabularies.

General Details

PRIMARY USERS:

Clinicians are most likely to use CIEL content as it appears in their electronic health record or mobile phone device. Data managers would see CIEL content as they migrated their existing concept dictionaries as well as potentially the actual instance data (patient data) as it moves into data warehouses and reporting tools. The standard codes assigned by CIEL would be used for standard reporting to national, international, and local agencies, as well as for financial reporting and clinical decision support.

REACH OF TECHNOLOGY:

CIEL is used widely across the globe primarily by those implementations that use OpenMRS and Bahmni (although this is now changing as more people use CIEL terminology for backend processes). Many countries are using the CIEL terminology as an interface terminology for migration of content, or in the case of OHIE countries, as the start of national data dictionaries, including Kenya and Nigeria.

LANGUAGES:

Current list of concepts with translations (latest stats can be found here: https://app.openconceptlab.org/#/orgs/CIEL/sources/CIEL/summary). As the use of the content is primarily through OCL and OpenMRS, there is less need for CIEL-specific user documentation in multiple languages. However, as part of the OHDSI community we plan to translate the book of OHDSI (which includes the use of standard terminologies, including CIEL) beyond the English, Korean, and Chinese versions currently available online.

TYPE:

Content

OPEN SOURCE LICENSE:

CC-BY-4.0

Access Information

WEBSITE

https://app.openconceptlab.org/#/orgs/CIEL/

CONTACT

ask2164@cumc.columbia.edu

WHO System Classification

PRIMARY

C11 | C11 Terminology and classification systems

ADDITIONAL

B2 | B2 Health finance-related information systems
D1 | D1 Analytics systems
D2 | D2 Data interchange and interoperability
D6 | D6 Health management information systems (HMIS)
E2 | E2 Public health and disease surveillance system

Community

The OpenMRS community is primarily responsible for providing input into the CIEL, but as more countries are using Open Concept Lab as their terminology services, the OCL community has been a growing input.

Sustainability

The CIEL terminology is managed by the Columbia International eHealth Lab based out of the Department of Biomedical Informatics at Columbia University. It is managed primarily by Dr. Andrew Kanter, and has produced monthly releases since 2009. Intelligent Medical Objects (IMO) also provides ongoing support to Dr. Kanter in the form of tools (and mapping assistance when appropriate using interface terminology concepts). CIEL has been a reliable part of the OpenMRS community for nearly 20 years. There are 75 historical monthly release versions available online since January 2015 (prior to that, the releases were not archived in the same manner, but there were regular releases from 2009 to 2015). Content is primarily supported through three mechanisms: volunteer contribution, in-kind partner contributions, and small service contracts. Dr. Kanter is committed to support expansion of the CIEL team over the next three to five years including the sponsorship of a \"CIEL/OCL Fellow or Fellows\" via OpenMRS\' Fellowship mechanism beginning in January 2025. The purpose of CIEL and how it can be used has been described as part of the OCL documentation (https://chat.openconceptlab.org/t/ocl-getting-started-materials/30) and part of the OpenMRS Academy (https://openmrs.org/academy/openmrs-concept-management-using-ocl/ and https://openmrs.org/academy/openmrs-fundamentals-academy/).