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Health informatics — Information models — Biomedical Research Integrated Domain Group (BRIDG) Model

Informatique de santé — Modèle d'information — Modèle de groupe de domaine intégré de recherche biomédicale (BRIDG)



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 215, *Health informatics*.

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Introduction

The Biomedical Research Integrated Domain Group (BRIDG) model was developed in response to a growing global demand for solutions to help enhance the opportunities to more closely integrate medical research information with healthcare, as well as integrate information within medical research. Currently, clinical research data processes use a variety of meanings, formats, and data types that inhibit the ability and potential to more widely share, integrate, and disseminate clinical research data resulting in slowing, and in many cases, dead-ending, promising drug discovery and development processes. Vast bodies of medical knowledge data either do not exist in an electronic format that is useful for today's dynamic decision support systems or are electronic, but are locked into discrete proprietary systems. Once freed, information that is locked away in static documents and discrete databases is able to flow through the processes of medical research. In an ideal world, critical data could be read, accessed, and aggregated by any tool at any point in the process. The tools would become the effective means of communication crossing all the existing boundaries and would enable automation of many procedures that currently take place manually. Removing the time-consuming procedure of translating and transcribing data contained in dissimilar and proprietary information stores would allow scientists to focus on science and innovation.

In order for all of this to become reality, medical research data need to be machine-readable and semantically interoperable.

The BRIDG model provides an approach to remove semantic ambiguities present in the world of medical research. As a domain analysis model (DAM), BRIDG is intended to represent a shared view of the semantics of the domain of protocol-driven research and its associated regulatory artefacts. The need for this International Standard came as a result of various projects which contributed to its semantic content. These source projects are documented in the model through the use of tags in each class and attribute (and many an association as well). These tags indicate the source project elements from which the concept was derived or to which the element maps.

More information about the projects contributing to the BRIDG content can be found in the BRIDG user's guide in the section entitled "Projects Contributing to the BRIDG Model" and in the BRIDG mapping spreadsheet (available at: <http://www.cdisc.org>).