Technical Committee Report for 2019/2020

Submitted by: Wendy Thomas, Chair on behalf of the Technical Committee

# Work completed in 2019/2020

The Technical Committee focused most of this past year on 2 major areas, product publication and shifting our production work to an automated system in line with the DDI Roadmap work.

* The primary accomplishment of the Technical Committee over the past year has been the final review, modification, and publication of DDI-Lifecycle Version 3.3. During this process we were able to test out the documentation production features of the COGS system, resulting in refinements and adjustments in our approach. The new version of Lifecycle covers a significant expansion of the standard into areas where it has been week
  + Opened up existing parts of the standard to broader application in the areas of data capture (expanding to non-question-based capture) and flexibility in the use of the control constructs (Lifecycle process model) for describing data management processes
  + Improved relationship to the work of GSIM including an improved alignment of conceptual content and the addition of Statistical Classification in line with the GSIM model
  + Added the content developed by the Survey Development and Implementation working group covering:
    - Data Capture Development – The development and testing work associated with creating and fielding data capture instruments including question and measurement development, translation, quality testing, and delivery methods
    - Sampling – The methodology used for sampling, management of sample frames, and defining complex sampling processes
    - Weighting – The source, process, purpose, and guidance for weighting. This includes a means of instructing analysis tools on the appropriate use of weights in analysis.
  + Revision of Methodology, Quality Information, and Variable Cascade content to increase clarification on the purpose and use of this content.
  + Support for DDI as a Property Graph (properties on items and references)
  + Quality Statement improvements (useful for Eurostat reporting)
* Thanks to the continued work of Franck Cotton and Thomas Francart the new product XKOS – Extended Knowledge Organization System was published in June 2019. XKOS is currently under use by INSEE, FAO, and the UN as a means of publishing Statistical Classifications. XKOS is currently accepting and resolving issues with a small group of dedicated members.
* In October 2019 the TC held a face-to-face meeting funded by the Executive Board. Meetings in the previous 3 years had been small targeted meetings with 3-4 members dealing with a limited number of issues. The 2019 meeting, hosted by the Minnesota Population Center, had 3 main work areas: DDI Roadmap, Production Framework, and DDI-Lifecycle Version 3.3 review and entry. This meeting supported the completion of a good deal of work in a short, concentrated period. A full report is available at <https://ddi-alliance.atlassian.net/wiki/spaces/DDI4/pages/723255303/In-person+Meeting+21-25+October+2019?preview=/723255303/731054081/TC_October_2019_Meeting_Summary.pdf>
* The TC worked with the MRT on setting up for the public review of DDI-CDI Cross Domain Integration currently underway.
* We continue to work with the Controlled Vocabulary group in identifying and publishing new and updated Controlled Vocabularies. We have increased documentation in DDI-Lifecyle to strengthen the tie between DDI Controlled Vocabularies and their use in DDI-Lifecycle.
* The TC has begun discussions of the implications of the DDI Roadmap for organizing, describing, marketing, and training for DDI products.

# Workplan for 2020/2021

The Technical Committee is exploring how we do our work this year. In the past few years we have viewed our membership as individuals who have both an overall interest in the technical products of the DDI and specific areas of concern. We have been flexible in terms of meeting attendance based on agenda items and on encouraging feedback to the group through comments on JIRA issues, wiki content and email communications. In taking this approach we try to keep the burden on TC members reasonable, acknowledging not all members have interests in all areas we work in. This year we are exploring how to bring in people from the DDI community to work on specific task areas. We have recently started with a call for input to a DDI Codebook review and update. The immediate response was very good, and we continue to invite people into this process. We have also identified small working groups within the TC who are focusing on specific goals for the TC, using the regular TC meeting time to support the work of these smaller groups when possible. The major task areas for this year are:

* Continued improvement of the DDI-Lifecycle high level documentation. With the publication of DDI-Lifecycle version 3.3 this type of documentation has been separated from the specification package allowing updates to the content without having to version the specification. Some goals of this work
  + Work with Training Working Group to provide content that can be reused in training products, such as images and graphics, which should be consistent between the two platforms
  + Republish high level documentation for DDI-Lifecycle version 3.2 with material common between versions 3.2 and 3.3
  + Explore a set of documentation that supports implementation of DDI-Lifecycle on a technical level
* DDI-Lifecycle version 3.4 – This next version has specific goals
  + The content will be the same as version 3.3 but the expressed in a technical structure that supports more flexibility
  + Express content in multiple bindings/representations: XML Schema, RDF/OWL, JSON, and UML
  + Move to an automated production process that will expand the ability to support and test new content and work in a more iterative manner
  + Test the transformation processes for input and output to this system to ensure lossless transfer of content into the internal registry and export of consistent content to the various bindings/representations
* DDI-Codebook review and update
  + We have recently put out a call for those interested in working on an updated version of DDI-Codebook to be reviewed and published this year. We are soliciting additional issues and looking for individuals who would like to assist the TC with this work. Initially we will focus on issues to be resolved for the update. These include suggestions to improve interaction with DataVerse, support for new projects using or interacting with DDI-Codebook and covering some related content that has been added DDI-Lifecycle. The goal is to improve functioning within the current DDI-Codebook development constraints.
  + Long term we will be discussing the role of DDI-Codebook within the DDI Suite of Products and any implications for future coverage, structure, and development rules.
* Roadmap work – Definition of the DDI Suite of Products and each product produced by the DDI Alliance
  + Creation of an overarching conceptual content model for the DDI Suite of Products
  + Describe individual products in terms of their coverage within the full suite, technical requirements, intended applications, and binding/representation options. We will be working with members of the different product groups as well as Marketing and Training to development this information and present it in appropriate ways for different purposes.
  + Use the overall and specific models to explore alignment with external standards to identify differences in coverage, perspectives, gaps that should be addressed, and points where metadata and data need to transfer between systems.
  + Use models to facilitate the translation of metadata between products. This will help organizations managing DDI content who need to interact with users who require different products for different applications.