What is DDI?

- A structure for describing data and its related information
- An open standard designed for data sharing and reuse
- A mechanism for creating consistent, machine-actionable documentation for data
- Supports the entire research data lifecycle
Historical approach of DDI Versions

• Evolving, non-linear standard
  ○ DDI Codebook (DDI-C)
  ○ DDI Lifecycle (DDI-L)

• Designed for different purposes
  ○ DDI Codebook is intended for documenting a **single study**
  ○ DDI Lifecycle is intended for documenting **relationships** between **data objects**

• Preparation phase of both standards is different
DDI-Codebook

Metadata not structured

Lost Metadata Manager

DDI Codebook structures

Metadata structured by DDI Codebook standard
DDI-Lifecycle

DDI Lifecycle Structures

Variable Scheme

Universe Scheme

Question Scheme
Reusable items in Lifecycle

Metadata structured by DDI Lifecycle standard

Metadata specified by DDI Lifecycle standard
## Purposes of DDI Versions

### DDI Codebook
- Find previous studies
- Build a data repository
- Catalogue record
- Variable lists
- Data analysis

### DDI Lifecycle
- Find previous studies
- Build a data repository
- Catalogue record
- Variable lists
- Data analysis
- Data harmonisation and comparison
- Questionnaire design
- Manage data processes and workflows
- Question banks

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**universal compounds**

**specific compounds**
A8. Using this card, generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can’t be too careful and 10 means that most people can be trusted.
DDI-Lifecycle coverage
Benefits of DDI

• Interoperability
• Rich content
  • Granular
  • Expansive
• Increased search capability
  • Precision in searching
• International community
Available Standards

DDI Codebook 2.5

DDI Codebook is a more lightweight version of the standard, intended primarily to document simple survey data. Originally DTD-based, DDI-C is now available as an XML Schema.

Read more about DDI 2.5...

Online field level documentation
XSD Schema entry point
Download documentation

DDI Lifecycle 3.2

DDI Lifecycle is designed to document and manage data across the entire life cycle, from conceptualization to data publication and analysis and beyond. It encompasses all of the DDI-Codebook specification and extends it. Based on XML Schemas, DDI-Lifecycle is modular and extensible.

Implementation Guide: Best Practices for Usage of DDI 3.2 and Future Versions

Read more about DDI 3.2...

Online field level documentation
XSD Schema entry point
Download documentation

Controlled Vocabularies - Overview Table of Latest Versions

What is a controlled vocabulary?

The DDI Controlled Vocabularies Group (CVG) has created a set of controlled vocabularies that can be used with DDI as well as for other purposes and applications. Select DDI Alliances vocabularies are already in use at repositories like the Research Social Science Data Archive (DOS), the DSHS - Laboratory Institute for the Social Sciences, the Interuniversity Council for Political and Social Sciences (SIS), Mathematical Policy Research, the UK Data Archive (UKDA), and the University of Bath. Germany. More information can be found at http://www.rsnv.org/overview/.

A paper on "Controlled Vocabularies for DDI 3: Enhancing Machine Readability" provides additional background on this effort.

Download

Download package with latest versions of all DDI Controlled Vocabularies: .zip

Available formats:
- Usage
- Translations
- Publication, Maintenance, and Management
- Versioning Policy

DDI RDF Vocabularies

Current status: The vocabularies underwent public review in 2014. XKOS was officially published in June 2015. disco has been updated for public review and publication in 2015, and PHDD has been postponed due to similar development in related vocabularies like CV on the Web.

The DDI Alliance has supported work on three RDF vocabularies, including XKOS, an RDF vocabulary for describing statistical classifications, which is an extension of the popular SKOS vocabulary; the 2DISO RDF Discovery vocabulary for publishing metadata about datasets into the Web of Linked Data (dov); and PHDD, a vocabulary for describing existing data in rectangular format.

- XKOS - Extended Knowledge Organization System
- disco - DDI-RDF Discovery Vocabulary
- PHDD - Physical Data Description
- Mailing List
- Development history
Challenges of DDI

• Complexity
• Level of buy-in

• Involves initial investment but saves costs in the long-term
  • May involve changes to processes and systems
  • Investment in technology tools may be considerable

• Legacy metadata may require updating
  • Consistency issues
  • Format transformations

• Training is required
Summary

- DDI *facilitates* the creation of metadata
- **Expressed in XML**
  - The XML schema is a way of tagging text for meaning, not appearance
- DDI allows you to have a clear boundary between the information required to define and understand data and the data itself
- Understanding the differences between DDI Codebook and Lifecycle allows you to make the appropriate choice for your use case
- Part of the decision about which version to implement should be informed by your existing levels of information and your available skills and technology stack
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