**Why a new version of DDI**

DDI has continuously evolved to meet the needs of its user community. The development of this latest iteration was begun in earnest in October 2013 at Dagstuhl and has continued through a series of sprints and online meetings.

**Goals**

To produce a model-based specification that can be more easily managed, extended and be expressed in different representations

To be more responsive to changing requirements from the user communities

To more easily align the specification to other current and emerging standards

**Why we're doing it**

* In reaction to the new requirements of both data and the processes around data collection and acquisition, the standard has got more complex as a consequence it has been more difficult to manage and understand.
* Model based has advantages
  + Easier and more transparent way of involving more people in the development, maintenance and testing of new functionality
  + Alignment with other model based standards
  + Enables more straight-forward generation of other expressions of the standard
* New Requirements
  + other implementations of the standard - not just XML but also RDF, program libraries (like JSON, C#, Java), database schemes, etc
  + new functionality e.g. process and automation
  + better documentation of other forms of data collection e.g. clinical, biomedical
  + documenting other forms of data - genetic, big data
  + a better mechanism for sub-setting the standard than instance profiles

**How are we doing it?**

As a self-sustaining membership organization whose members have a voice in the development of the DDI specification, we have made the whole development process as open and transparent as possible.

The project has a website with documentation of the meetings and decisions that take place at [https://ddi-alliance.atlassian.net/wiki/display/DDI4/DDI+Home](https://ddi-alliance.atlassian.net/wiki/display/DDI4/DDI+Home%20) and an open development platform where active work on the specification is taking place at <http://lion.ddialliance.org/> (Lion)

The model specification is being created on the Lion development platform. This captures all the objects and their relationships to other object used and the relevant information to support documentation to understand the objects and their intended usage.

**What are the outputs?**

The platform is able to generate the model in both XML Metadata Interchange (XMI) format, and in RDF/OWL and object level documentation in Docbook (reusable) and HTML formats.

The XMI model is processed alongside bindings to generate XML Schema with an XSD file with in-line documentation and an OWL ontology with RDF expressions for implementers. Both have HTML documentation to accompany them.

As a major shift in the way in which a DDI product is developed, the current DDI effort has unfolded over several years in a series of sprints and online meetings. The effort involves developing not only the information model, but also the infrastructure for building that model and then transforming it into a set of representations and associated documentation (initially XML schema and RDF/OWL). The results of the current DDI work will be rolled out in a series of "releases".

The initial releases will be both tests of the production infrastructure and an opportunity for the DDI community to comment on the direction of the information model. In addition to revisions driven by community feedback each of the initial releases will also add new content.