Workshop "DDI Moving Forward: Production Framework and Bindings"

Major Goal

The focus of this sprint will be on preparation for the upcoming DDI4 prototype release in June 2018. We are not wanting exploration of new areas, but rather making sure that the model as it exists now is cleaned up where needed and internally consistent. The purpose of the DDI4 prototype is to show some of the new approaches of DDI4, e.g. datum-based description of data, more generalized data capture, patterns such as a more powerful approach to collections including its application to process description, a model driven approach, and generated bindings. The prototype is not intended as a basis for productional implementations, but could be used for exploring DDI4 in detail and doing prototype implementations.

TOPIC – Structural Documentation

- Improvement of structure. Definition of required and optional items for multiple documentation types.
- Modular examples with the perspective of a specific audiences or purposes
  - Software developer, archivist, data producer, training tutorial
  - The examples should be realized in the used technical format (restructured text)
  - Examples in different target formats should be realized, like for single documents, linked documents, slides.
- This work will continue similar work in the 2016 workshop in Dagstuhl.

TOPIC – Production Framework

- Resolution of tasks described in the document from the Cologne meeting (2016-12). Details see the document "Lion Ease of Use Task Specification". This includes mostly additions to the model capture platform Drupal.
- Review of transformation steps from PIM, PSM, and bindings.
- Further documentation of production framework

TOPIC – Example/Test Cases, formal requirements, simple examples, a plan and some XML coding

Technical test cases in binding syntax (XML and RDF) for core items of Functional Views (Data Description and Data Capture). The test cases of W3C specifications are the role model for this. A good example is the suite of test cases for CSV on the Web.

Develop rules for testing interoperability between the two major bindings – XML and OWL/RDF. (See "The ability to roundtrip between bindings"

TOPIC – OWL/RDF

Work plan and partial resolution of tasks described in document from [Cologne meeting](#) (2016-12). Details see document "RDF Work Specification".

There are two main topics

- How do we integrate other ontologies, including at which level: bindings, PSM, or model.
- Rules and syntax of the binding. What needs to be improved from the current draft?

TOPIC – Program Libraries

Java binding

- Conceptual approach: documentation, rules, prototype, review of existing approaches.
- Rules for round trip of metadata between bindings, especially XML, RDF, and Java
  - Each representation has its own limitations. These limitations shouldn't have an influence on the metadata round trip. A common set of structural features of these representations could be the solution.
- JSON-LD. Conceptual approach: generation on basis of RDF-S/OWL or on basis of UML model.

TOPIC – Data Description Capture Integration Issues

What are the touch points between data capture and the data description sections of the model? What changes need to be made to make them work together and avoid functional duplication and overlaps?

TOPIC – Clarify DDI4 goals and design rules

Define model-based approach –

- Purposes of each level of the model
  - clarify documentation on:
    - what kind of a model this is and what that implies (logical model falling between a conceptual model such as GSIM and an implementation model such as the XML or RDF binding)
    - how is this different and what does it support
    - goals of a model-based approach
  - how does it fit with design rules in DDI overall
  - what tooling should be provided to support this work
- DDI4 model itself -
  - Implementation review before prototype
    - can it be implemented?
    - how to resolve any implementation issues (process, modeling rules, specific changes)
- Clarification on Views -
  - what are we trying to solve
  - what are options for solving it
  - what are the criteria for evaluating whether the solution solves the problem
  - output: documentation to be distributed to users

TOPIC - Prototype description and work plan

- What exactly is a prototype - out for review but phrased in a way that lowers expectations - this is not clear in the communications because these sound like DDI 4 is coming out in June
  - Clarify just what is going out and communicate clearly
- What the product description should be for the outputs are in terms of set of products
- What is the product description of what prototype includes
  - In addition to 3.2 coverage
- Broader use cases supported - What will the prototype support? (use case work week 2)
- Work product for Dagstuhl: documentation of the above to be included as prototype goes out.

- Clear work plan for DDI products over for the coming year(November 2017 on)
  - Priorities
  - What needs to get done to meet those