



20 August 2020

The subject of this non-binding letter is intended to begin the process of building an effective and mutually beneficial collaboration between CODATA, the Committee on Data of the International Science Council (ISC) and the DDI Alliance in topics related to data issues and to coordinate efforts in areas of shared interest and in support to the CODATA mission and strategy.

CODATA, the Committee on Data of the International Science Council (ISC), is a global not-for-profit organisation that supports the ISC mission of advancing science as a global public good by promoting the availability and usability of data for all fields of research. The Data Documentation Initiative Alliance is an international collaboration dedicated to establishing metadata standards and semantic products for describing social science data, data covering human activity, and other data based on observational methods.

The two organisations currently intend to cooperate and support each other in the achievement of their common objectives and intend to do so in the spirit of collaboration.

Each of the organisations intends to become a dues-paying member of the other organisation and work as an active member of that organisation's activities. The form of participation is specified in the bylaws of each group, but includes the following:

Subject to invitation, CODATA may send a representative to annual meetings of the DDI Alliance and to meetings of the Scientific Board, the group that develops and provides stewardship for the DDI specifications. The representative will have voting rights as defined in the DDI Alliance bylaws and will have the opportunity to participate in discussions and the governance of the organization.

As an Institutional Member, and in accordance with the CODATA Constitution, the DDI Alliance may send a delegate to the biennial CODATA General Assembly. The delegate will have voting rights as defined in the CODATA Constitution and will have the opportunity to participate in discussions and the governance of the organization.

Specific areas of shared interest identified and specified and activity may be presented in further detail in an accompanying appendix and may be further modified by the two organisations. In the first instance, an important subject of common interest is DDI-Cross Domain Integration

(DDI-CDI). DDI-CDI is a model-driven specification that is designed to the emerging needs for the integration of data in old and new forms, coming from a variety of domains. The DDI Alliance recently announced the public review of this new specification. CODATA sees great potential in DDI-CDI as a contribution to the <u>International Science Council</u>-endorsed <u>Decadal Programme 'Making Data Work for Cross-Domain Grand Challenges'</u>.

Collaboration opportunities between CODATA and the DDI Alliance may in future include bilateral workshops such as the Dagstuhl model, ad-hoc meetings at conferences, joint interest/working/task groups, and communication on websites and newsletters.

Where appropriate and beneficial, and to the extent allowed by the organizations respective processes, CODATA and the DDI Alliance may establish and support joint Interest/Working/Task Groups in areas of shared activity.

The two organisations currently intend to promote and disseminate information on each other's activities and, if, and to the extent, they do, will accord credit and appropriate visibility on each other's website and other communications. Details of such communication will be approved by both parties in advance.

The Parties will endeavour to communicate readily and promptly with each other over areas of mutual interest and possible collaboration. The Parties currently intend this to be done by occasional bi-lateral meetings between CODATA and the DDI Alliance representatives as well as through ad-hoc meetings at conferences, workshops, and other events.

The results of collaborative activities of the Parties will be made open to the public by default unless both CODATA and the DDI Alliance agree on and document necessary access restrictions.

Both DDI and CODATA are committed to open access, including that standards shall be publicly and internationally available free of charge.

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The Regents of the University
of Michigan, on behalf of the DDI Alliance

Kate Chie

Appendix One: Background to the CODATA and DDI Alliance collaboration

1. THE DDI ALLIANCE

The DDI Alliance shares a commitment to meet worldwide requirements for publicly available standards and semantic products supporting the documentation and integration of social science data and other data for understanding the human condition. The DDI Alliance is an international collaboration dedicated to establishing metadata standards and semantic products for describing social science data, data covering human activity, and other data based on observational methods. The DDI Alliance is comprised of its Member and Associate Member Organizations and is governed by an Executive Board, a Scientific Board, and a Technical Committee. In addition, there are working groups that focus on developing specific areas of DDI.

2. CODATA

CODATA's mission is to connect data and people to advance science and improve our world. CODATA is an international non-profit organization mobilizing a global expert community. As the Committee on Data of the International Science Council (ISC), CODATA supports the ISC mission of advancing science as a global public good by promoting the availability and usability of data for all fields of research. CODATA works to advance the interoperability and the usability of such data: research data should be FAIR (Findable, Accessible, Interoperable and Reusable). CODATA promotes the principle that data produced by research and of potential value for research should be as open as possible and only as closed as necessary. CODATA pursues its mission through strategic activities to build consensus and implement good practice, and through advancing data policies, data science and data education.

3. BACKGROUND

In 2018 and 2019, representatives of the DDI Alliance and CODATA have jointly organised a Dagstuhl Workshop on 'Interoperability of Metadata Standards in Cross-Domain Science'. The workshops have taken place in the regularly arranged DDI slot in the Dagstuhl calendar. Both organisations have contributed effort, time and some financial support to the events.

The collaboration has highlighted important shared interests between the two organisations and this non-binding letter of intent is intended to help formalise the cooperation between the two organisations.

4. CURRENT SHARED INTERESTS

Two developments make the idea of collaboration timely and appropriate.

One the one hand: CODATA has been mandated by the ISC, as part of the latter's Science Action Plan, to develop and implement a global, decadal programme to 'Make Data Work for Cross-Domain Grand Challenges'. The objectives of the programme are multiple, but above all it aims to assist cross-domain research and policy monitoring by facilitating the interoperability,

combination and integration of data from many different sources. The mechanisms being explored to assist this are also multiple, and include: developing conceptual and semantic alignment between key metadata specifications, developing semantic tools to assist interoperability, developing methodologies and processes to assist harmonisation and data 'cleaning', exploring the contribution that machine learning may make to some of these processes.

On the other hand: DDI - Cross Domain Integration (DDI-CDI) is a potentially significant development which includes definitions for core concepts, applicable across a range of research areas, and which will therefore assist greatly in interoperability between data sets.

Taken alongside developments such as DCAT, Schema.org, initiatives to standardise representation of experiments, observations and measurements and the improved management of ontologies, DDI-CDI can make a positive contribution across domains and the collaboration between the DDI Alliance and CODATA is extremely timely.

5. POSSIBLE INITIAL AREAS OF COLLABORATION

Initial areas of joint activities and collaboration are likely to include:

- 1. collaborating on the further refinement and uptake of DDI-CDI;
- 2. doing this in a number of relevant contexts, but in particular in work that is central to the ISC CODATA Decadal Programme 'Making Data Work for Cross-Domain Grand Challenges';
- 3. organising regular consensus building workshops and intensive development workshops on the Dagstuhl model;
- 4. organising training events on DDI-CDI;
- 5. organising workshops, conference sessions etc where appropriate on shared issues including DDI-CDI;