

## Usability and Assessment Working Group Charter

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### 1. Background

DataONE was conceived as a 10-year project to enable new science and knowledge creation through universal access to data about life on Earth and the environment that sustains it. In Phase I (2009-2014), more than 300 DataONE participants designed, developed and deployed a robust cyberinfrastructure (CI) with innovative services, and directly engaged and educated a broad stakeholder community. DataONE provides a resilient, scalable infrastructure using Member Nodes (data repositories), Coordinating Nodes, and an Investigator Toolkit to support the data access and data management needs of biological, Earth, and environmental science researchers in the U.S. and across the globe. DataONE also supports research by developing an engaged community of users and repositories via the DataONE Users Group and the Member Node Forum; encouraging working groups (small groups of community experts) to support CI and community engagement activities; educating the workforce by providing online best practices, curricula, and other resources; and collaborating with other CI and community efforts nationally and internationally.

Building on Phase I, DataONE will target goals that enable scientific innovation and discovery while massively increasing the scope, interoperability, and accessibility of data. Community education and outreach efforts will remain central to the DataONE mission. Four working groups will refine and extend the DataONE CI; perform usability testing and assess community needs; engage and educate the community; and develop a responsive governance structure and long-term sustainability model.

### 2. Working Groups

Working Groups are central to DataONE in conducting research, specifying cyberinfrastructure, and engaging the community. The Working Group Model allows DataONE to conduct targeted research and education activities with a broad group of scientists and users. Working Groups are designed to enable research and education activities to evolve over time. Each Working Group will have two co-leaders who actively work with members to propose and implement solutions to particular research, education, cyberinfrastructure, governance, and sustainability challenges.

### 3. Purpose, Scope, Mission

The working group will focus on the research, development, and implementation of the necessary processes, systems, and methods to ensure DataONE products and services meet network goals, include appropriate community involvement, and demonstrate progress and achievements of DataONE.

The scope of the Usability & Assessment Working Group is defined as activities necessary to establish program performance indicators, measure usage and impact, and adopt usability analysis principles and methods to ensure that high quality, community-driven products and services result from DataONE activities. This includes periodic testing of versions of the system and tools as they are being developed. The Working Group also establishes and implements appropriate methods, tools, and instruments for usability and assessment of all DataONE stakeholders.

### 4. Duration of Working Group

This Working Group will exist throughout the life of the DataONE Project. Working Group members will conduct yearly updates to the Working Group Charter.

## 5. Major Objectives

The Usability and Assessment Working Group will monitor community needs and inform project priorities and deliverables as well as provide feedback on DataONE products that can be incorporated into future releases. Specific activities include

- Perform usability analyses (at least 1/year), for proof-of-concept, pre-release and post-release products; and
- Assess DataONE stakeholders' (e.g., scientists and educators, libraries and librarians, and decision makers) strategies via formal surveys, focus groups and interviews, environmental scans, and ethnographic case studies.

## 6. Expected Deliverables, Outcomes & Schedule

### Community Needs Assessments / Design assessment of communities

- Build assessment strategy and schedule Y1: all quarters
- Conduct assessments of communities Y2: all quarters, Y3: all quarters, Y4: all quarters
- surveys: scientists, educators, libraries, librarians, policy makers Y2Q4, Y3:all quarters, Y4: all quarters
- policy makers surveys (data collection & analysis) Y2Q4, Y3Q1, Y3Q2
- librarians & library directors surveys (data collection & analysis) Y3Q3, Y3Q4, Y4Q1
- scientists & educators surveys (data collection & analysis) Y4Q2, Y4Q3, Y4Q4
- focus groups/case studies/interviews: scientists, educators, librarians & library directors Y1Q3, Y1Q4, Y2: all quarters, Y3 all quarters, Y4 all quarters
- scientists & educators (qualitative) Y1Q3, Y1Q4, Y2Q1, Y2Q2
- librarians & library directors surveys (qualitative) Y2Q3, Y2Q4, Y3Q1, Y3Q2
- focused assessment: new & emerging communities Y4: all quarters
- Combine assessment results Y5: all quarters

### Design usability testing of DataONE products

- Build usability strategy and schedule Y1: Q1, Q2
- Conduct usability testing Y1: Q2, Q3, Q4; Y2: all quarters, Y3: all quarters, Y4: all quarters, Y5: Q1, Q2
- Disseminate usability results Y1Q2 - Y5Q4

## 7. Potential Risks

Potential risks are identified for the Working Group and other DataONE members are aware of their potential occurrence and develop appropriate methods to mitigate their impact on overall Working Group outcomes. These risks are briefly described below:

- RISK: Loss of Co-Chair; MITIGATION: Members will suggest a new co---chair to the Leadership Team if needed.
- RISK: Stakeholder response inadequate for Baseline and ongoing assessments; MITIGATION: Send reminders, distribute surveys widely, enlist assistance of all DataONE partners, expand distribution base.
- RISK: Insufficient involvement of Working Group members in the WG tasks; MITIGATION: Schedule meetings well in advance, communicate in multiple ways, distribute notes from all meetings and assign actions, review membership every year and replace members as necessary
- RISK: Lack of capacity of CI to respond to usability recommendations; MITIGATION: Report regularly to CI Working Group and to about assessment and usability plans and findings; develop usability recommendations in collaboration with CI Working Group members

- RISK: Delay in CI deliverables; MITIGATION: Refocus activities on more long-term research

## **8. Membership**

- Carol Tenopir
- Mike Frame
- Lynn Baird
- Kevin Crowston
- Lisa Zolly
- Bruce Grant
- Allison Specht
- Suzie Allard
- Robert Olendorf

New members will be nominated by the working group co-chairs and vetted by the DataONE Leadership Team. Members will serve at the pleasure of the co-chairs and the leadership team.

## **9. Roles and Responsibilities**

Members of this Working Group should be prepared to provide expertise in assessment and/or usability and assist with assessment and usability testing of DataONE stakeholders, services, and products. Members of this Working Group will bring expertise in:

- Assessment techniques, including surveys, interviews, and focus groups; testing of software tools; and evaluation of information products and services;
- Usability testing;
- Survey data analysis;
- Scientific data analysis and/or
- Working with an interdisciplinary research team.

Decisions within the Working Group will be by collective-agreement, giving serious treatment of every group member's considered opinion. Ultimately, the WG will make decisions on at least a majority vote and ideally consensus.

## **10. Resources Available to Working Groups**

The Usability and Assessment Working Group will use the following resources:

- All Working Group documents will be managed through the DataONE content management system.
- An annual or biannual face-to-face Working Group meeting will be held in support of Working Group activities.
- Quarterly Conference calls/Video Conferences will be held to support Working Group activities. Agendas, documents in development, and other materials will be available in advance of these monthly meetings.
- Financial support including a modest honorarium and travel support will be provided to members that are allowed to and desire to receive such support.

## **11. Relationship to other Working Groups**

The Usability & Assessment Working Group is a cross-network Working Group, which aims to ensure that proper assessment tools and methodologies exist for the entire network. The Working Group also provides advice to inform all DataONE working groups and network operations in the area of usability analysis and assessment. Consequently, this Working Group supports and works with a number of the DataONE working groups and Leadership Team members.

## **12. Communication Plan and Reporting Requirements**

The Usability and Assessment Working Group will provide monthly and quarterly status reports identifying major activities completed, anticipated deliverables, and any other issues identified to the Principal Investigators and Executive Director. The Working Group will provide periodic feedback on activities and issues as appropriate to other working groups, and the Leadership Team.

## **13. Modifications to the Charter**

Final approval for this Working Group Charter will be provided by the DataONE Principal Investigator and the Executive Director.