ESIP Data Stewardship Strategic Plan Calendar Year 2015 [1]

Submitted by sophisticus on Mon, 2015-09-14 11:33 Article Type: Semi-annual cluster review [2] Collaboration Area: Data Preservation [3]

Abstract:

The mission of the Data Stewardship Committee is to assist ESIP to continue its leadership role in promoting the collection, stewardship, and use of Earth science data, information, and knowledge that are responsive to societal needs. As such, the Data Stewardship Committee:

- 1. Develops and fosters practices and standards that ensure continued and reliable information content, quality, access to, and usability of Earth system science data for as long as they are deemed to be of value.
- 2. Facilitates the long-term preservation, stewardship, curation, and access of/to Earth system science data and information.
- 3. Advances the development of data science as a professional discipline that adds value and increases the use of Earth system science data.

The group is very proud of our very high level of productivity, including our international reputation for standards development, an extremely strong publication record, and our recognized involvement in many other external organizations which are nationwide and international in scope. Item 1h below contains a non-exhaustive list of such entities.

Technical Reports:

Chair: Justin Goldstein (jgoldstein AT usgcrp DOT gov [4])

Student Fellow: Chung-Yi (Sophie) Hou (hou AT illinois DOT edu [5])

Website: http://wiki.esipfed.org/index.php/Preservation and Stewardship [6]

Monthly Meeting Time: Third Monday of each month: 2 PM ET / 1 PM CT

Data Stewardship Committee Vision and Values

The mission of the Data Stewardship Committee is to assist ESIP to continue its leadership role in promoting the collection, stewardship, and use of Earth science data, information, and knowledge that are responsive to societal needs. As such, the Data Stewardship Committee:

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Mission Implementation (Calendar Year 2015 Activities)

The Committee is pursuing the following activities. The reader is directed to the ESIP 2015 Strategic Plan for further details pertaining the mapping of these to those of ESIP as a whole.

- 1. Subgroups:
 - 1. Data Management Training (Vision & Values (1) and (3))
 - 1. Pursuing funding for updating and increasing the breadth and depth of the <u>ESIP Data</u> Management Short Course for Scientists [7].
 - 2. Publication of a paper [8] in Issues in Science and Technology Librarianship.
 - 2. Data Stewardship Maturity Matrix (Vision & Values (1) and (2))
 - 1. Developing a matrix to be used by developers and users of data for quantifying the maturity of datasets. Work this Calendar Year involves updating the matrix and applying it to various datasets. Submitting of related papers for publication consideration.
 - 3. Provenance and Context Content Standard (PCCS, Vision & Values (1) and (2))
 - 1. Continued PCCS development
 - 2. Two articles on the PCCS have been accepted for publication in 2015: one [9] in *D-Lib Magazine*, and another (forthcoming) in *Eos*.
 - 3. Actively participating in ISO TC 211 Working Group 7 (WG-7, Information Communities) in assessment of and revisions to a proposed new standard: ISO 19165
 -"Geographic Information Preservation of digital data and metadata".
 - 4. Extension to physical samples (see item "d" below).
 - 4. Data stewardship for physical samples A session was held at the ESIP 2015 summer meeting to discuss collaboration with the EarthCube RCN <u>iSamples</u> [10] which has possible overlap with the Provenance and Context Content Standard and Data Citations groups. iSamples may also contribute materials for the data management training project. (Vision & Values (1) and (2)).
 - 5. Data Citation (All "Visions & Values")
 - Convened a workshop at the 2015 Winter ESIP Meeting concerning the citation of temporally-dynamic datasets. The workshop was lead by Andreas Rauber of the Institute of Software Technology and Interactive Systems, Vienna University of Technology / TU Wien, AT. A workshop report is being created.

- 6. Ontology development (Vision & Value #2)
 - 1. Adapt the existing <u>W3C PROV-O Ontology</u> [11] to meet the needs of the Earth Science Provenance Tracing Community. This will result in a new Ontology Data Model, which we call PROV-ES.
- 7. Ongoing work on the development of the AMS and AGU Data Citation and Management Policies/Recommendations. Publication of a related <u>editorial</u> [12] in all AMS journals. (Vision and Values (1) and (2))
- 8. Fostering overlap in membership to engage with various organizations, including the EarthCube Council of Data Facilities [13], the Research Data Alliance [14], GEO/GEOSS, the NASA Earth Science Data System Working Group (ESDSWG), the Counces [15] (COPDESS), the UK Digital Curation Centre [16] (DCC), and the USGS Community for Data Integration [17] (CDI) as appropriate. Please note that the above list is not meant to be exhaustive. (All Visions and Values)
- 9. Information Quality Cluster Reinvigorate the work and promote standards and best practices for data quality for adoption by inter-agency and international data providers. (Vision and Values (1) and (2))
- 10. Investigate and recommend approaches for persistent identifier use for non-data products (Vision and Values (1) and (2))

Needs from ESIP to facilitate implementation

- Budget
 - Support for development of ESIP Data Stewardship introductory collateral (e.g., materials for ESIP 101, new members, etc. in order to promote completed work and not duplicated elsewhere within ESIP).
 - Funding of occasional testbed activities to try out some recommended approaches.
 - Funding for conference or meeting attendance where an ESIP Data Stewardship presence is requested and/or deemed valuable to the larger Data Stewardship and ESIP communities.
- Partnerships
- Staff Support
 - Student fellow

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• Continuing involvement of ESIP staff and communication with ExCom through our committee's leadership.

How will we know we are on the right track?

- 1. Performance/Quality How the Committee will keep an eye on the resources/measure the quality of resources, activities.
 - 1. Analytics for Data Management Training modules
 - 2. Comments and discussions pertaining to the information
 - 3. Outputs from engagements (deliverables, comments, new contacts)
 - 4. Results of the peer-review process for publications
 - 5. Extent of grant funding where applicable
 - 6. Requests for Participation in various efforts
- 2. Relevance How the Community will ensure that its research agenda and outputs (content and format/channel) are relevant to their core audiences
 - 1. Community input drives agenda
 - 2. Periodic revisiting of ongoing activities to ensure relevance
 - 3. Periodic publications
 - 4. Outreach beyond ESIP, fostering overlap in membership (see Item #1g under "mission implementation" above).

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- [7] http://commons.esipfed.org/datamanagementshortcourse
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- [9] http://dx.doi.org/10.1045/july2015-downs
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- [11] http://www.w3.org/TR/prov-o/
- [12] http://dx.doi.org/10.1175/2015MWR2222.1
- [13] http://earthcube.org/group/council-data-facilities
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