

[ESC Charrette](#) [1]

Submitted by superadmin on Wed, 2012-02-01 14:30 Friday, January 6, 2012 - 13:30 to 15:00

Event: [Winter Meeting 2012](#) [2]

Session Type: [Breakout](#) [3]

Collaboration Area: [Earth Science Collaboratory](#) [4]

Abstract/Agenda:

We will begin to outline the feature list for the Earth Science Collaboratory. As a starting point, we will look at some desired features coming out of the EarthCube Charrette, asking questions like: is this appropriate for ESC, who benefits and how do they benefit? We will also entertain feature requests unique to the ESC.

*A charrette is a collaborative design session: <http://en.wikipedia.org/wiki/Charrette> [5]

Notes:

Introduction

Following on the idea of the EarthCube Charrette, we will look at the key features needed for the Earth Science Collaboratory. In fact, we will leverage the results of the EC Charrette to look at the top-ranked features first. We will then look to answer the

following questions:

Charrette Questions

- 1.a core goal
2.a key supporting feature
3.a key supporting feature
4.a secondary supporting feature
5.irrelevant

- 1.Discipline Science Researcher
2.What kind of user/stakeholder benefits from the feature?
3.Early-Career Scientist
4.Applications Researcher
5.Applications User
6.Science Assessment Panel
7.Citizen Scientist
8.University Educator
9.K-12 Educator

3.How do they benefit?

4.Is there any sample/existing implementation of this feature?

Charrette Features

Drawing from the [Earth Cube Charrette Features](#) [6]...

[EC v. ESC Spreadsheet](#) [7]

Charrette Summary

General notes

1.We began with top rated EarthCube Charrette individual capabilities that seemed most relevant to ESC. This took them out of context, though this was not always a bad thing.

2.Having a trained facilitator for future charrette-like sessions would be helpful.

3.NSF representation was invaluable, helping to provide context and clarification.

4.Remote participation would be enhanced by having better audio capabilities and someone assigned to monitor chat box

N1 - Social networking sites to support knowledge sharing between disparate teams of computer science/geo scientists

- We need to define the social network FIRST, before we worry about what kind of site or social feature will support it. A job for the [ESC Human Factors](#) [8] track.

- Key questions:
 - who will share and
 - proposal teams
 - what will they want to share?
 - relevant tools
 - relevant data
 - proposal ideas
 - data annotations
 - intercomparisons
 - products
 - process, execution of experiments
 - results generated both within and *elsewhere* (outside ESC)

- Lots of existing capabilities (LinkedIn, Mendeley): can we integrate them all together? How is ESC different?

Balance between social networking vs rigor/formal science research (peer reviewed results) – 2 different layers, but connected.

A3 Search across multiple granularity levels & disciplines for workflows and datasets (using semantic metadata and provenance information when appropriate)

- Also tied in with N2, **Global catalogs /directories for data, software, models, workflows, etc.** and G3 A means to discover, publish and reuse computational models within the EarthCube framework
- This could be low-hanging fruit
- Global catalogs not universally popular. Compare the Google and Amazon models
- Search should be **coherent**

G2 Community-based/policed repositories, standards and governance structures for EC compliant tools, and applications that are promulgated

- Community curated, recommended vs quality control/authoritative. Compliance requires different levels, and need to have standards in place.
- Quality pays a role.
- This is about establishing minimum requirements (e.g. meeting community based protocol) into ESC framework.

D2 Brokering mechanisms to manage access to data repositories employing disparate search and access protocols

- Looking into this in Technical track
- Removes need for central catalogs or use of single protocols in federated catalogs

B2 Commenting, annotating, rating, and categorization of workflows, data sets, or models (both automatic and manual)

- A key goal of ESC
- Casting model with distributed linked data type (tools/workflow/metadata) may offer a way forward for this. Something similar proposed for [Semantic Web](#) [9] cluster collaboration ([ToolMatch](#) [10]).

B3 Computational environment provenance stored including code, configurations, input and metadata, with a goal toward reproducibility

- Enabling reproducibility
- Goal of provenance is twofold
 - Enabling understanding of the process

- Provenance Content and Context Standard (?) offers something here

- Work ongoing with Provenance as a Service: call a web service to register your provenance

H3 Interacting gridding/regridding, visualization and other manipulation and analysis tools

- Is this really "interactive" or truly "interacting", where the tools are interoperable with each other?

- This is a high priority, probably in either case.

N3/K1 Linkage with NEON, LTER, state geological surveys, and other communities

- N3 is about sustainability, evolutionary, continuity;
- Note that although the individual capability is repeated twice in the reorganized EC capabilities, context is important:
 - Prioritization, on going activities
 - Perhaps an ecosystem (vs. a system) can be more self-sustaining.
- K1 is about Broad Participation: Enable Collaboration and Participation from International, Industry, Academic, NGO and other Domain Partners
 - Determine which community to connect to.
 - Include Dataone, ESDSWG, USGS Community of Data Integration.
 - Interoperability, governance linkage, but loose coupled?

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