

**Abstract ID and Title:** 77357: Academic Research Library as Broker in Addressing Interoperability Challenges for the Geosciences

**Final Paper Number:** PA53A-2231

**Presentation Type:** Poster

**Session Date and Time:** Friday, 18 December 2015; 13:40 - 18:00

**Session Number and Title:** PA53A: An Interoperability Challenge for the Geosciences II Posters

Data capture is one of the most important processes in the research lifecycle. Complete descriptive and representative information of the data or database is necessary during data collection in the field or laboratories then discovery. The National Science Foundation's (NSF) Public Access Plan (2015) mandates the need for federally funded projects to make their research data more openly available. Developing, implementing, and integrating metadata workflows into to the research process of the data lifecycle is one major step facilitating improved access while also addressing interoperability challenges for the geosciences such as data discovery. Lack of metadata or data curation can contribute to (1) semantic, (2) ontology, and (3) data integration issues within and across disciplinary domains and projects. Some researchers of EarthCube funded projects have identified these issues as gaps. These gaps can contribute to interoperability data access, discovery, and integration issues between domain-specific and general data repositories. Academic Research Libraries have expertise in providing long-term discovery and access through the use of metadata standards and provision of access to research data, datasets, and publications via institutional repositories. Metadata crosswalks, open archival information systems (OAIS), trusted-repositories, data seal of approval, persistent URL, linking data, objects, resources, and publications in institutional repositories and digital content management systems are common components in the library discipline. These components contribute to a library perspective on data access and discovery that can benefit the geosciences.

The USGS Community for Data Integration (CDI) has developed the Science Support Framework (SSF) for data management and integration within its community of practice for contribution to improved understanding of the Earth's physical and biological systems. The USGS CDI SSF can be used as a reference model to map to EarthCube Funded projects with academic research libraries facilitating the data and information assets components of the USGS CDI SSF via institutional repositories and/or digital content management. This poster articulates the USGS CDI SSF for cross-discipline collaboration considerations from a library perspective.

**Potential Research Questions:**

1. Can the USGS CDI SSF be mapped to EarthCube Funded Projects to improve understanding of EarthCube?
2. How can an academic research library serve as a resource broker between disciplines, domains, and funded projects in addressing interoperability issues for communities of practice?