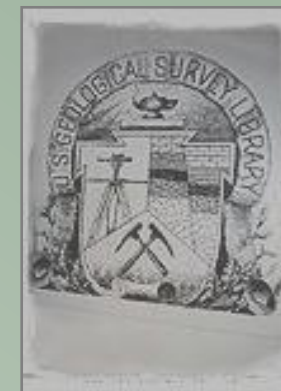


# Digital Curation at the U.S. Geological Survey

---

**June 16, 2009**

U.S. Department of the Interior  
U.S. Geological Survey



# Outline

---

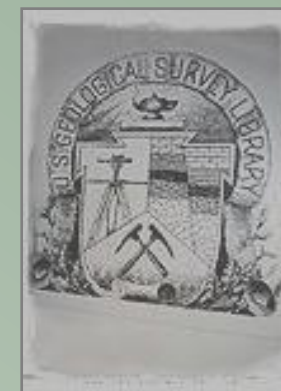
- **Definition**
- **Scope**
- **Application**
- **Considerations**
- **Future Directions**
- **Contacts**



# Definition

---

- Digital curation is the curation, preservation, maintenance, and collection and archiving of digital assets
  - [http://en.wikipedia.org/wiki/Digital\\_curation](http://en.wikipedia.org/wiki/Digital_curation)
- The Digital Curation Centre's current definition of the term is:
  - Digital curation, broadly interpreted, is about **maintaining** and **adding value to**, a trusted body of digital information for **current** and **future use**.



# Definition (continued)

---

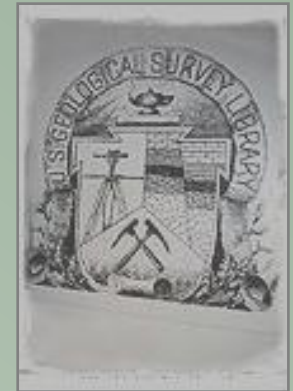
- **The e-Science Curation Report (2003) by Lord and Macdonald proposed the following distinctions:**
  - **Curation :** Managing and promoting the use of data from its point of creation, to ensure it is fit for contemporary purpose, and available for discovery and re-use.
  - **Archiving :** A curation activity which ensures that data is properly selected, stored, can be accessed and that its logical and physical integrity is maintained over time, including security and authenticity.
  - **Preservation :** An activity within archiving in which specific items of data are maintained over time so that they can still be accessed and understood through changes in technology.



# Scope

---

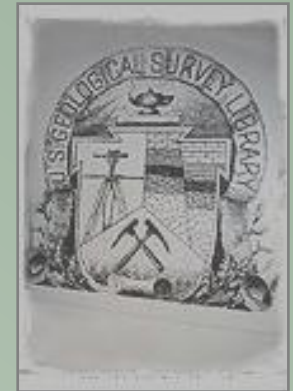
- With such a broad definition, where does digital curation happen within an organization?
- The USGS Library has engaged their organization on this issue and is working to define the scope of the library's role.
- Will it include:
  - Institutional repository (published information)?
  - Records (unpublished information)?
  - Data repository (tabular information)?
  - Imagery (graphical information)?



# Scope (Continued)

---

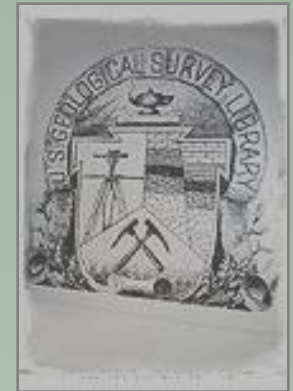
- In its 130 year history, USGS has published:
  - Over 80,000 series publications
  - Over 300,000 topographic maps
  - An untold number of:
    - thematic maps and
    - USGS-authored journal articles
  - USGS also has substantial collections of:
    - Historic photography
    - Aerial imagery
    - Field records, scientific data sets, and
    - One of the largest libraries in the Natural Science in the world



# Application

---

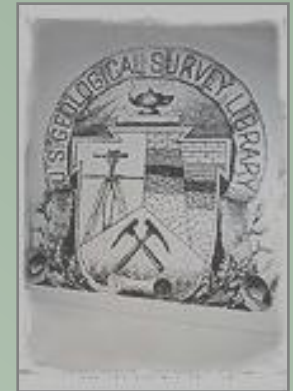
- Many organizations already create and maintain digital collections.
- By example, USGS has a resource called the Publications Warehouse. So, what does it mean to curate publications and not just provide access?
- USGS has initiated processes to:
  - Investigate fail-over and redundant systems
  - Implement persistent links (e.g. Handles)
  - Develop derivative products for access, preservation copies, and archive procedures
  - Contemplate migration to new formats



# Application (Continued)

---

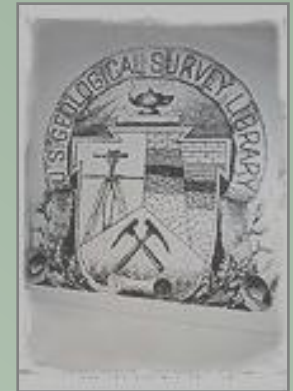
- **USGS is also considering different models for managing digital content:**
  - **Digital Repository software**
  - **Federated repositories, distributed based on scope of collections**
  - **File system management with separate metadata catalog systems**
  - **Integration via metadata harvesting and other “discovery layer” tools**



# Considerations

---

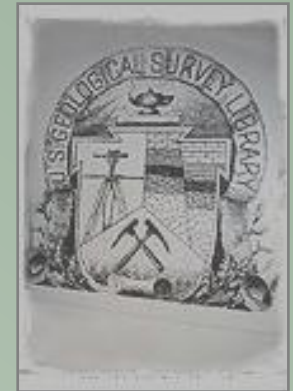
- **Digital Curation seems to be a natural extension of the role libraries have played in the past...**
- **But is your library ready to take on the added responsibilities, new skill sets, and uncertainties of the future of digital content?**
- **Some specific considerations:**
  - **Which collections will be included**
  - **What will be the technical infrastructure**
  - **What policies are needed to authorize the systems, procedures, etc.**
  - **How will the system complement the organization's Web site, ECM efforts, etc.**



# Considerations (Continued)

---

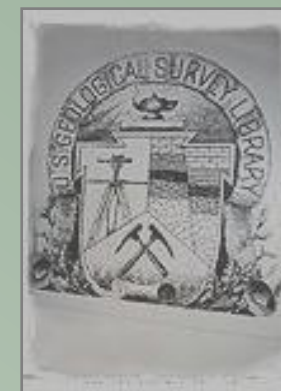
- Printed collections have always been able to survive benign neglect. Digital collections cannot.
  - [Scholarship in the Digital Age: Information, Infrastructure, and the Internet](#) by Christine L. Borgman
- If you take on the curation of digital content, do so with your eyes open and with the full support of your organization.
- Stay informed about emerging standards (OAIS, XMP, etc.).
- Be ready to adjust your approach and replace components periodically.



# Future Directions

---

- The USGS Library is just starting down this road, but we are excited about the role it gives to the library of the future.
- The effort of digital curation is also paired with efforts for:
  - Migrating library services and transactions online (virtual reference, etc.)
  - Managing access to licensed content (federated search, URL resolvers, etc.)
  - Evaluation of library use patterns (patron feedback, usage statistics, etc.)



# Future Directions (Continued)

---

- The USGS Library is considering their role in supporting access and use to digital information other ways as well:
  - “re-datification” of data expressed in charts, graphs, tables, and other printed forms
  - Data integration (data set storage that would support integration, comparison, and analysis)
  - Mobile devices (Amazon Kindle, Blackberry, iPhone)
  - Mashups and new product development based on aggregation from previously produced materials



# Contacts

---

- **Richard Huffine, National Library Coordinator**
  - 703-648-7182
  - [rhuffine@usgs.gov](mailto:rhuffine@usgs.gov)
- **USGS Library**
  - <http://www.usgs.gov/library/>
- **USGS Publications Warehouse**
  - <http://pubs.usgs.gov/>
- **USGS Photographic Library**
  - <http://libraryphoto.cr.usgs.gov/>

