Libre: Freeing your data - Free to share, discover, and use

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What if....

Finding data matching your interests was as easy as subscribing to the news?

Greenland 1 km DEM has been published
A Digital Elevation Model (DEM) of Greenland acquired by A. Researcher is available in binary format at a 1 KM grid spacing in a polar stereographic projection ...

Greenland Ice Sheet Melt Characteristics Data updated

Greenland Ice Sheet Melt Characteristics now available via OpenSearch API
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What would it take to make that happen?

• Simple mechanisms to advertise data and services

• Tailored aggregators looking for ads

• Aggregation-based news services and portals that allow user subscriptions
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Libre is working on all of these things!
Libre - Advertising Support through Casting

- Casting is the dissemination of news through subscription-based syndication formats
- Uses Atom, RSS, or any other syndication format
- Entries contain enough information
  - For subscribers to access the service or data
  - To populate search indexes
- Cast feeds can include:
  - Lists of available data collections
  - Lists of files available for download
  - Lists of services (OPeNDAP, OGC, WMS, etc.)
Libre - Advertising Support through Casting

A live data file cast feed
Libre - Advertising Support through Casting

A live service cast feed
Libre - Advertising Support through Casting

A live data catalog feed

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27th Conference on Interactive Information Processing Systems (IIPS)
91st American Meteorological Society Annual Meeting
Libre - Advertising Support

• Things that are easy
  • Casting all of NSIDC's data sets
  • Casting some of NISDC's data granules
  • Casting NSIDC services
  • Working with groups like ESIP to get others to cast their data and services

• Things that are hard
  • Convincing regular scientists to cast their data
Advertising your data so that everyone could find them, were as simple as...

1 - Filling out a web form
2 - Saving it to your website
3 - Adding it's link to your site
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Well... It can be!
Libre - Aggregation Support

- **Search API**
  - Use search API's to find casts for specific subject areas

- **Cast Crawler**
  - Monitor known casts for updates
  - Find new casts on known sites

- **Seed Crawler**
  - Seed list
  - Schedule
  - Heritrix

- **Aggregation Server**
  - Support storage & retrieval of active cast entries

- **Retrieve a feed matching OpenSearch Criteria**

Feed the aggregator with new or updated casts
Libre - Portal Support

- In conjunction with NSIDC's IceBridge Project, Libre is developing a portal that will demonstrate the power of these technologies.

- OpenSearch will be used to discover relevant data and services which will then be used in providing portal discovery, subscription, access, and visualization capabilities.
Questions?