Data Services Usability Test Results

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Methodology

Testing was completed October 10-13th 2016. Six members of the DataONE community participated. Five participants used the User-Experience Lab for testing and one participant completed the test through WebEx. Participants were asked for their understanding of data services, and then were shown a mock-up of a metadata page with data services. Once they were shown the mock-up the participants were asked to describe what they are looking at, asked their first impressions, and asked if there is anything they do not understand. The mock-ups and testing document can be found at the end of this report.

Prior testing of the data services mock-up was completed in March 2016.

Prior Understanding of the Data Services

Before the test began, the researcher asked participants what "data services" are. Participants were able to correctly describe data services as defined by DataONE. While each participant describe data services a little differently, they all thought data services would allow the user to manipulate or do something with the data, such as visualizing, merging, and subsetting. The researcher provided more detail as to how data services were being used and defined by DataONE, and the participants did not have any questions about the different data services.

First Impressions

After discussing the definition of data services, the researcher set up the scenario for how they would have ended up on the metadata view with the data services. The researcher asked them to describe the page and give their first impressions. Participants correctly described the information presented in the alternative data access table. They thought the information was presented in a clear format.

Participants thought "alternative data access" was a good title for the data service table. They understood that the access types listed below would help them access the data and potentially provide additional information or services. Name, description, access type, and URL were well-laid out and understandable. Participants especially liked the ability to copy the URL.

Participants thought website was an accurate term for anything with HTTP, and could not imagine a situation where that would not be accurate.

Not all the participants were not familiar with each access type (THREDDS, FTP, DAP), but the hover-over along with the description made them think they had enough information to learn about each access type. The hover-over information was easy to read and informative.

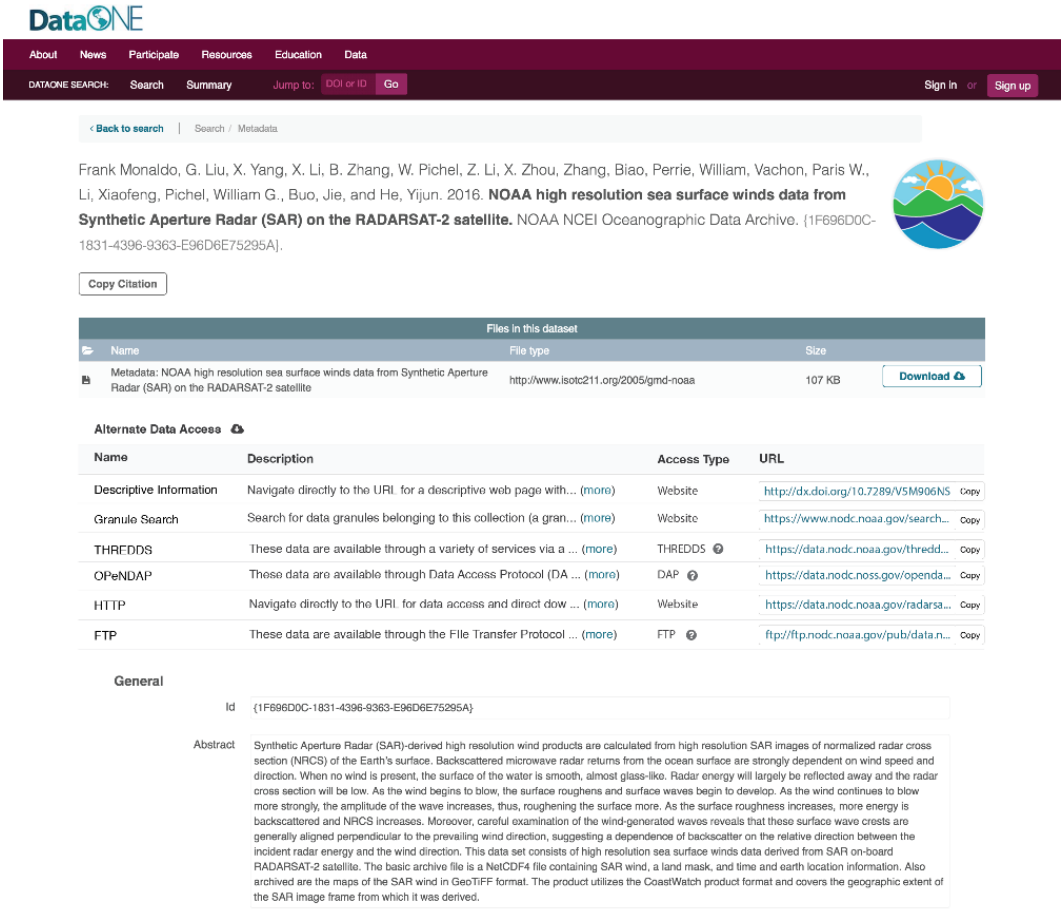
Additional Comments

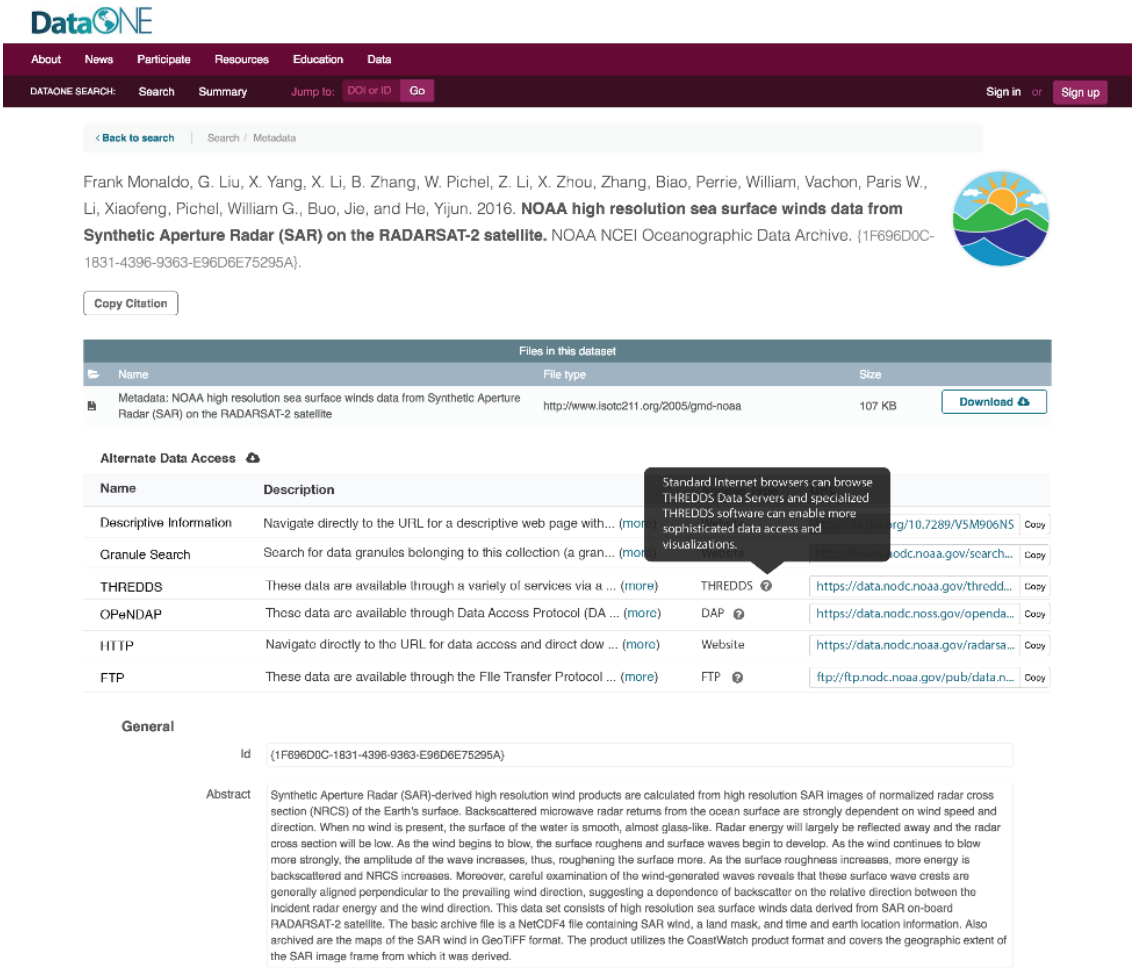
A couple of participants said they would like the “name” column in the “files in this dataset” table to look more like the “name” column in the alternative access table. The users did not think it was clear that the included file was metadata. They wanted a way to pull out the word “metadata” and include it in a separate column.

Conclusion

Participants liked how the data services was presented. The table was easy to understand and the wording was clear and precise. Unlike the first usability test, this test presented no major usability issues.

Data Services Mock-ups




DataONE
About
News
Participate
Resources
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DATAONE SEARCH:
Search
Summary
Jump to:
DOI or ID
Go
Sign in
or
Sign up
‹ Back to search
Search / Metadata
Frank Monaldo, G. Liu, X. Yang, X. Li, B. Zhang, W. Pichel, Z. Li, X. Zhou, Zhang, Biao, Perrie, William, Vachon, Paris W., Li, Xiaofeng, Pichel, William G., Buo, Jie, and He, Yijun. 2016. NOAA high resolution sea surface winds data from Synthetic Aperture Radar (SAR) on the RADARSAT-2 satellite. NOAA NCEI Oceanographic Data Archive. {1F696D0C-1831-4396-9363-E96D6E75295A}.
Copy Citation
Files in this dataset
Name
File type
Size
Metadata: NOAA high resolution sea surface winds data from Synthetic Aperture Radar (SAR) on the RADARSAT-2 satellite
http://www.isotc211.org/2005/gmd-noaa
107 KB
Download
Alternate Data Access
Name
Description
Standard Internet browsers can browse THREDDS Data Servers and specialized THREDDS software can enable more sophisticated data access and visualizations.
Descriptive Information
Navigate directly to the URL for a descriptive web page with... (more)
Granule Search
Search for data granules belonging to this collection (a gran... (more)
THREDDS
These data are available through a variety of services via a ... (more)
THREDDS
https://data.nodc.noaa.gov/thredd...
OPeNDAP
These data are available through Data Access Protocol (DA ... (more)
DAP
https://data.nodc.noss.gov/openda...
HTTP
Navigate directly to the URL for data access and direct dow ... (more)
Website
https://data.nodc.noaa.gov/radarsa...
FTP
These data are available through the File Transfer Protocol ... (more)
FTP
ftp://ftp.nodc.noaa.gov/pub/data.n...
Copy
General
Id
{1F696D0C-1831-4396-9363-E96D6E75295A}
Abstract
Synthetic Aperture Radar (SAR)-derived high resolution wind products are calculated from high resolution SAR images of normalized radar cross section (NRCS) of the Earth's surface. Backscattered microwave radar returns from the ocean surface are strongly dependent on wind speed and direction. When no wind is present, the surface of the water is smooth, almost glass-like. Radar energy will largely be reflected away and the radar cross section will be low. As the wind begins to blow, the surface roughens and surface waves begin to develop. As the wind continues to blow more strongly, the amplitude of the wave increases, thus, roughening the surface more. As the surface roughness increases, more energy is backscattered and NRCS increases. Moreover, careful examination of the wind-generated waves reveals that these surface wave crests are generally aligned perpendicular to the prevailing wind direction, suggesting a dependence of backscatter on the relative direction between the incident radar energy and the wind direction. This data set consists of high resolution sea surface winds data derived from SAR on-board RADARSAT-2 satellite. The basic archive file is a NetCDF4 file containing SAR wind, a land mask, and time and earth location information. Also archived are the maps of the SAR wind in GeoTIFF format. The product utilizes the CoastWatch product format and covers the geographic extent of the SAR image frame from which it was derived.

Data Services UX

Description: Member nodes will be able to register their services with DataONE. Data services can include data subsetting, merging, slicing, analysis, visualization, and summarization. The registered services will be discoverable through the search interface. The goal is to assist users in the discovery of services.

For example you have a PID for a large dataset that is structured as a single table with many records. You'd like to retrieve a specific record from the dataset that is identified by an identifier that is local to the data object. You could perform a search on DataONE for "tabular record extraction" services and select from the results a service co-located with the member node that holds that data.

Task 1: What is your understanding of a data service?

Task 2: Describe what you are looking at. (Show different hover-overs: THREDDS, FTP, DAP)

Task 3: What are your first impressions?

Task 4: Anything you do not understand?

Other Comments: