ARMAP, AOV, ISO Metadata, and RESTful Architectures for Data Sharing and Interoperability

IASC/SAON Arctic Data Committee meeting 26 October, 2015













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Arctic Research Mapping Application

http://armap.org

Project Locations





Arctic Research Mapping Application

http://armap.org

Arctic Observing Viewer

http://arcticobservingviewer.org

Project Locations

Data Collection Sites





Each project location is a logistical base of operation.







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Each data collection site is a sensor, monitoring asset, observing platform, or wherever repeat measurements have been taken.







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Each data collection site is a sensor, monitoring asset, observing platform, or wherever repeat measurements have been taken.

And each data collection site can have many datasets.





- 2400+ project locations
- high order
- Title, funding agency, funding program, discipline, point of contact, start and end dates, etc.
- All Arctic science
- 18 agencies & organizations







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- 7700+ data collection sites
- high resolution
- Collection type, site name, elevation or depth, science keywords, links to datasets, etc.
- Arctic Observing
- multiple networks







Project Life Cycle:

Project Planning	Collection Site Monitoring	Dataset Usage & Understanding
Who is doing what, when and where?	Where are existing data collection sites?	Is this dataset suitable for my research?
How do we plan for logistics?	Where are more sites needed?	Does it cover my area for the right time period?
Where are medical	Who operates and	*
facilities, field research stations, ship tracks,	manages existing sites?	How was it created? What are the errors?
airports, etc.?	Which sites can I use?	Who do I contact with questions?





Metadata can be distributed across multiple organizations through web services.





ARMAP and AOV have adopted ADIwg community standards.





Data sharing and interoperability can be improved through use of "recommendations". A recommendation is a set of information concepts that is independent of metadata dialects (standards), driven by user needs.





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A few established "recommendations":

ADIwg	AOV	CSW
ARMAP	ADIwg	FGDC
	LTER	GCMD
		DataCite
		ADIwg





Data sharing can cycle "backwards" to populate databases, and to improve completeness and accuracy.

Recommendations can be used to evaluate metadata ...



... and to improve metadata consistency, completeness, & interoperability.



Please see John Kozimor at the poster,

visit armap.org and arcticobservingviewer.org,

and feel free to contact any of us anytime.

Thank you!

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