Smart Hand Offs & Earthdata Search

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Origins

[Image of a map showing sea surface temperature data from the State of the Ocean visualization tool.]

PO_DAAC (Ed Armstrong) updated some collection metadata as follows,

<OnlineResource>
  <URL>https://podaac-tools.jpl.nasa.gov/soto/#b=BlueMarble_ShadedRelief_Bathymetry&l=GHRSST_L4_MUR_Sea_Surface_Temperature(la=true)
  <Description>SOTO (State of the Ocean) Visualization</Description>
  <Type>PORTAL_DA_TOOLS_AND_SERVICES</Type>
</OnlineResource>
Vision

1. Handoff a user from Web Tool A to Web Tool B, *without* losing their “place”
   a) Space
   b) Time
   c) Dataset

2. Handoff a user from a Google search tool to the Web Tool, *without* losing their place

3. Add handoffs via simple database updates (minimal code)
‘General purpose’ discovery
That would also look great in …

- Giovanni
- State of the Ocean
- <Your application here>
But how do I get there?

- Open up a new browser window
- Navigate to the application
- Add my constraints
- Is this the same collection?
Why so difficult? © Chris Lynnes

I’m at Earthdata Search
I want to look at this stuff in Giovanni
I want a link to Giovanni
I don’t want to manually set up the same search in Giovanni
NAVIGATION & CONTEXT PRESERVATION
Context A to context B

I have the following constraints,
  – Collection
  – Spatial
  – Temporal

How do I get that context to another tool?

I need to be able to describe the API
Standards for API description

Schema.org search actions

- https://schema.org/docs/actions.html
- ‘The act of searching for an object’
Standards for constraints

How do I determine the format of those parameters?

Default value!

How do I know this is the end date/time and not the start date/time?

Tricky! Needs some research…
Collection aliasing

Most of our tools follow the same standards, except…

We all have our own names for collections.

How do we handle that?

We can alias a collection name as follows,

{"app-name": "Giovanni", "alias": "dataKeyword=AIRX3STD"}

Either by collection tagging or in the association between a UMM-S and UMM-C
HTTP GET or POST or what?

This approach assumes we can interact with your application in a RESTful way, via GET or POST with Keyword-Value pairs.

There are applications out there that we would like to hand off to that don’t conform to this.
SMART HAND OFFS
To Giovanni (1 of 3)
To Giovanni (2 of 3)
To SOTO
Transferring to SOTO
Visualization and smart handoff
State of play

- Giovanni – now
- State of the Ocean – 19.1
- <Your application here> - 19.x
Embed your search action
Egress costs (a partial solution)

• In the cloud, egress costs money!
• Put the data next to the analytics
• Put the analytics next to the discovery
• Use smart hand offs to navigate
QUESTIONS
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