Odum Dataverse

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1 Search for and list collection of datasets on a remote webpage

1.1 Dataverse Leveraging

1.2 What is Dataverse?

Dataverse is an open-source web application to share, preserve, cite, explore, and analyze research data. It ensures sharing, organizing and archiving data it also gives the ability to display data on a website. Dataverse could be personal or institutional. Through formal data citations, writers receive credit for their works including publications, journals or articles. In addition, authors will also have full control over the contents of the datasets, with who the data is going to be shared and when to publish.

1.3 APIs in Dataverse

- Search API
- Native API
- Metrics API
- Data Access API
- SWORD API

1.4 Functionality

The concept draft that I choose for a sample case is the search for and list collection of datasets on a remote webpage. The search API supports the same searching, sorting and faceting operations as the dataverse web interface. The search for the dataset approach together with its implementation will be discussed. As it can be seen from the figure below, the Odumdataverse for searching a dataset will have a search button for users to submit their keyword and search. Accordingly, the page will display the number of related datasets found

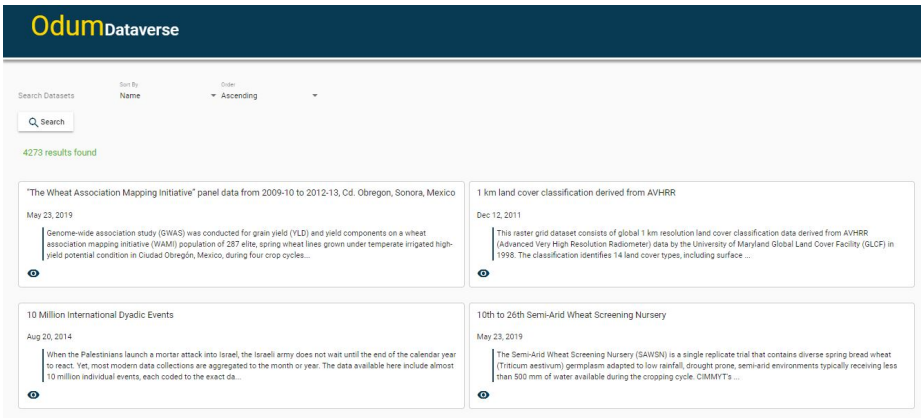

Figure 1: Search for and list collection of datasets

in the dataverse. Furthermore, after they submit their keyword they will have to choose for sorting order. For this specific demonstration, I have added 'Name' and 'Date' as parameters for sorting. Besides, users can also set for their orders to be displayed which is, in ascending or descending order. I have used alphabetical orders for this purpose. Odum dataverse will also give users to choose how many datasets they want to display on each page users can choose 10, 20, 50 or 100. In addition, each dataset interface will show the title of the dataset, the publication date of the dataset and description. The description of the listed data sets is limited in content therefore a URL is linked and provided for interested users to see the detail of the listed dataset.

1.5 Implementation

- Used Angular as a front end framework
- Used CSS Grid to make the page device responsive
- Leveraged query parameters
- q: it is a string type parameter which holds the search term or terms passed by the user
- type: it is a string type parameter, which holds the type of resource to be fetched either "dataverse", "data sets" or files it can also be multiple types (fixed to 'datasets')
- sort: the sort field supports values only "name" and "date" therefore it is only possible to sort using the two.
- order: holds the order in which to sort. The ascending and descending order of sorting

- start : holds the index of the page the user is trying to fetch
- per page: holds the number of datasets per page the user wants to see

1.6 Potential Improvements

At this stage users can only see the list page with little datasets description, while they are on the dataverse page. However, if they want to see the detail of the datasets they will be directed to the corresponding dataset web page through the URL provided but in future work, when user wants to see the detail of the datasets it should be possible to be seen on the same dataverse page. Moreover, in future work we should also work on other aspects of the data set, which inclued displaying ' Option to download", " Metadata source", "List for publication year", " subject" and others in order to make our search subject oriented and to get fast response.

1.7 References

http://guides.dataverse.org/en/latest/api/search.html
https://dataverse.org/software-features
https://dataverse.org/researchers