Open Polar: a discovery service covering the global output of openly accessible polar research data and publications

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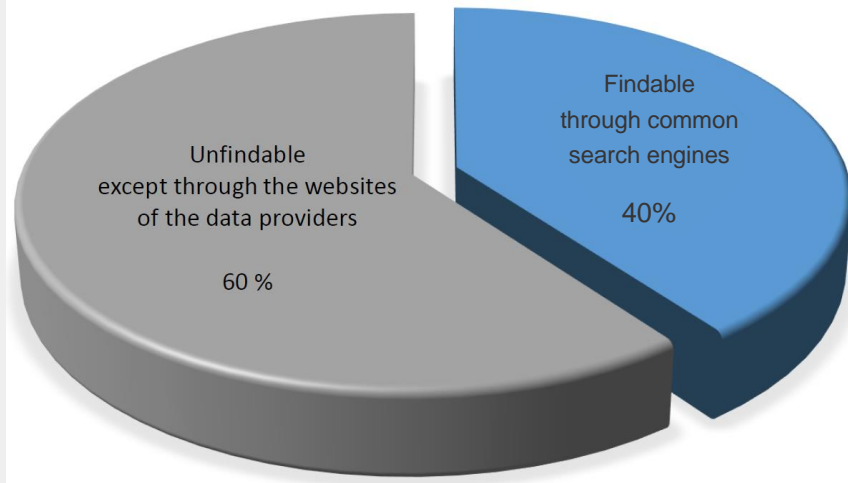
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Abstract

- Data from the Polar Regions are of critical importance to modern polar research.
- Researchers rely heavily on the comparison of existing data with new data sets to assess changes that are taking effect.
- In a recent survey, we found that an estimated 60% of the existing polar research data is unfindable through common search engines and can only be accessed through institutional webpages.
- This results in an awareness of the need of the scientific community to harvest different metadata related to the Polar Regions and collect these in a homogenous, seamless database and making this database available to researchers, students and the public through one search platform.
- This contribution describes the progress in an ongoing project, Open Polar (https://site.uit.no/open-polar/) started in 2019 at UiT The Arctic University of Norway.
- The suggested service will include three parts: 1) harvesting metadata; 2) enriching and filtrating of the harvested metadata relevant to Polar Regions; and 3) making the collected records available and searchable to the end-users through an interactive user interface.
- The service will help to make the polar related research data and documents more visible and searchable to the end-users and thereby reducing the findability gap.

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•60% findability gap

Unfindable except through the websites of the data providers

60 %

Findable through common search engines

40%

There is a 60% findability gap of the polar records. When it comes to social science, indigenous knowledge, and education, 3 records out of 18 can be found through common search engines (84% findability gap) (e.g. Johnson et al., 2019).

This findability gap raises an awareness sign of the need of the scientific community to create a homogeneous, seamless database of the open-access records about the polar regions and making this database available to researchers, students and the wider public through one search Platform (**Open Polar**).

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Open Polar: Progress and added values

- Open Polar will include both open-access publications and research data from both Arctic and Antarctic **(a filtration algorithm was written and tested)**

- Open Polar will harvest data from all (most) open-access repositories which include polar-related data/publications. **(Still in progress)** **-- At the current status, the Open Polar has 1,500,000 records**

- Open Polar uses an interactive user interface. (**The user interface was setup, and the beta-version can be tested at**: https://james.ub.uit.no/vufind/)

- Open Polar will add a value to the records by searching for the geographic location of each record. **(an extensive geographic location database, that includes more than 270,000 locations, was compiled. An algorithm to search and set the locations to the records was tested successfully)**

- End-users will be able to search the database using a map search tool using maps with polar stereographic projection **(The Arctic map was setup and functions well. The Open Polar team is still working with the Antarctic map)**

- Open Polar will rely on continuous recommendations from a reference board. The reference board will help ensure that the service meets the needs of the scientific community. (**The reference board was established**)

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Organization and feedback

Beta version of Open Polar can be tested at: https://james.ub.uit.no/vufind/
The beta version will be transferred to the official domains of Open Polar at: OpenPolar.no, OpenPolar.info, OpenPolar.net, OpenPolar.org

The team of Open Polar appreciates your feedback and suggestions for cooperation -- tamer.abu-alam@uit.no

Open Polar is a joint project between

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