**UiT Norges arktiske universitet**

All the world's polar research data in one place: Fighting the 60% findability gap

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Data from the Polar Regions are of critical importance to modern research. Regardless of their disciplinary and institutional affiliations, researchers rely heavily on the comparison of existing data with new data sets to assess changes that are taking effect. In turn, knowledge based on as broad and comprehensive a selection of polar data sets as possible is used to inform politicians and decision makers. Although individual researchers and their institutions are aware of the importance of making collected data openly available through institutional websites, the infrastructures that are used for these purposes at many institutions, are often poorly interoperable, and therefore make valuable data difficult to find and reuse. In a recent survey of 113 major polar data providers, we found that an estimated 60% of the existing polar research data is unfindable through common search engines and can only be accessed through an institutional webpage. This findability gap limits the ability of researchers to establish robust models by which changes in the polar regions can be predicted. In this contribution, we present a new, free-to-use discovery service covering the global output of openly accessible polar research data and publications, with the purpose of rendering polar research more visible and retrievable to the research community as well as to the interested public, teachers and students and public services. The new service is currently under construction and will be hosted by UiT The Arctic University of Norway in close collaboration with the Norwegian Polar Institute.

Why OPEN POLAR?
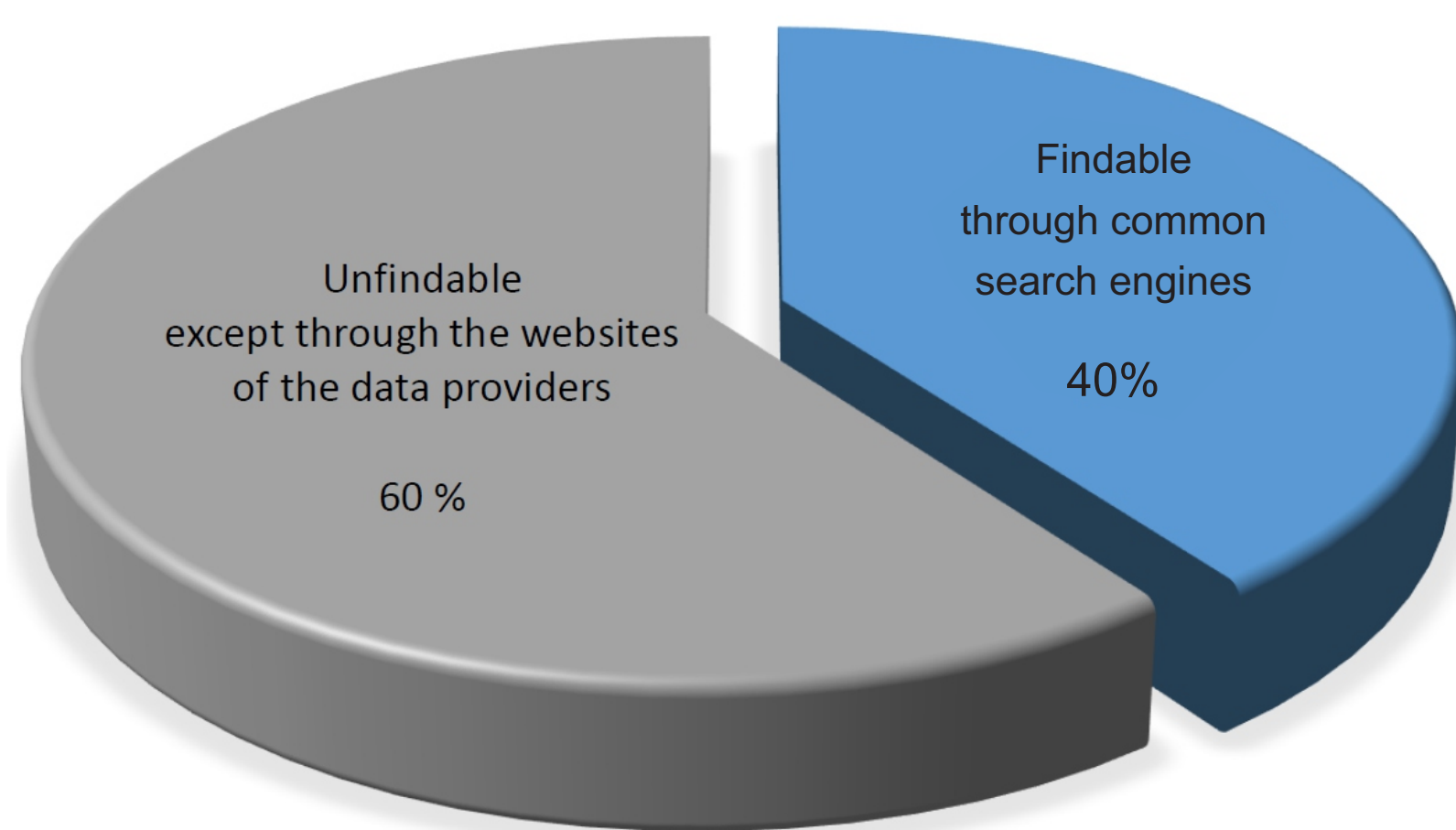
There is a 60% findability gap of the polar records based on the records numbers of 115 metadata providers (Abu-Alam, 2019)

Unfindable except through the websites of the data providers 60 %

Findable through common search engines 40%

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 60% 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.

Based on the obligations and the motivations of the University of Tromsø – the Arctic University of Norway (UiT) toward making research data and research documents available to the scientific community, UiT together with the Norwegian Polar Institute launched the OPEN POLAR project.

Organization

OPEN POLAR is a joint project between the University of Tromsø – the Arctic University of Norway and the Norwegia Polar Institute. The University Library (UB) hosts the project.

Our Vision and aims

is to offer a unique and comprehensive service that makes polar research results more easy to find.

To attract more researchers, students and decision makers to use the service, we aim to add three additional subservices):

1) archiving original data from the Polar Regions;
2) creating a research platform;
3) creating an education platform.

The integration between the main service (i.e. make open-access polar records more visible and findable) and the three new subservices.

From researchers lacking data repositories

Hosting data

Metadata bank for open-access research data and publications on the Polar Regions

How will we do that?

Using different technics for automatic extraction of metadata from different sources of polar research results, the OPEN POLAR will create a collection of metadata of the openly available research data and research publications. This collection will be the core resource for OPEN POLAR. End-users can perform search using a map. The presentation of the results from a search can be as a classic list, as a timeline or as a map view.

Build upon existing experience
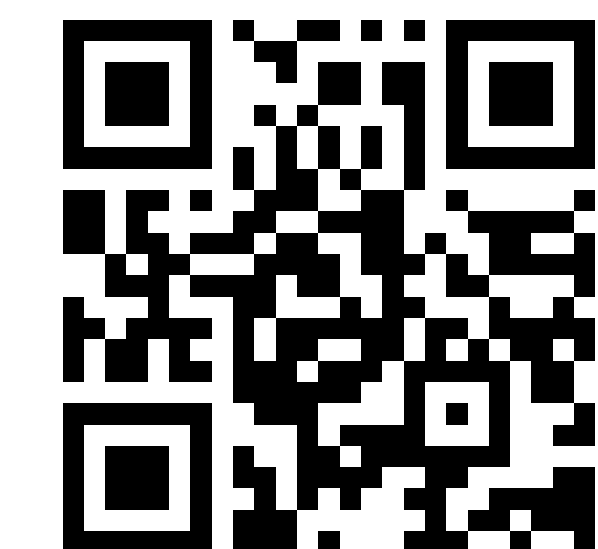
Scan me
High North Research Documents

The new service builds upon experiences from High North Research Documents (i.e. an existing service at the UiT). The High North Reseach Documents has more than 1,000,000 records primarily related to the Arctic region.

Added values
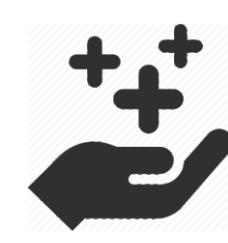
★ Since the service will cover cross-disciplinary sciences and will focus on Polar Regions, it will be a useful tool for politicians and decision makers.

★ Our service will cover both publications and research data (note that very few search engines consider the research data as a target for their services).

★ The service will provide quick access to open publications and research data by providing links to full text for each record that allow end-users to get what they are looking for in the shortest time.

★ The service will rely on continuous recommendations from reference and editorial boards. The reference board will help ensure that the service meets the needs of the scientific community, while the editorial board will suggest new metadata providers and broadcast the service internationally.

National and international cooperations

In order to cover most (all) open-access research data and documents published about the polar regions, the team of OPEN POLAR relies on both national and international connections to other institutes that are working on polar regions.

Let us unlock the door to the polar sciences together

Open Science Framework
A scholarly commons to connect the entire research cycle

C⊙S CENTER FOR OPEN SCIENCE

Integration with other research platforms

Connected Researchers

**Online research platform**

Education platform

E-LEARNING

• Online lectures on polar sciences

• Simplification of some of research data to be used for teaching purposes

• Using virtual/gaming technology by doing simulation of fieldwork in polar areas

For suggestions, cooperation and following up the progress - just scan the code

Follow the progress in the project on

fb.me/OpenPolar

@PolarOpen

/company/open-polar

Or just drop us an email

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References

Abu-Alam T.S. (2019) Open Arctic Research Index: Final report and recommendations. Septentrio Reports (No. 3). DOI: https://doi.org/10.7557/7.4682

Johnson N., Druckenmiller M. and Pulsifer P. (2019) The Exchange for Local Observations and Knowledge of the Arctic (ELOKA): Working towards interoperability of community-based data platforms. Polar Data Forum, Helsinki.

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