The Arctic Value for Society University Ranking Initiative

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Abstract

Huge changes are occurring in society and in the world of higher education. Patterns of scholarly communication are also changing towards being more proprietary, local, authoritarian, commissioned and expert (Ziman, 2000). This development has emphasized the significance of strong research evaluation systems and research management with well-established standards, such as assessment systems and rankings (Whitley & Glässer 2010; Postiglione & Jung 2017).

Scientific publications related to arctic issues are hard to find with established citation databases and services such as Web of Science and Scopus, for example material produced by the working groups of the Arctic Council. It is also difficult to measure the significance and the value of the arctic information. Existing ranking systems don't favour arctic universities.

Arctic Value for Society University Ranking is an idea for a new ranking system for arctic information based on a database maintained by the UArctic Research Analytics Institute with content based on existing data from the arctic universities. It will be based on existing information that is aimed at engagement rather than impact: service tasks, downloads, social media, citizen science, evidence-based decision-making and so on. A governance model and investment is a necessity, and creating a large collection of data is a major strategic goal.

Arctic Value for Society University Ranking will be the University of Lapland's contribution to the new thematic network in The University of the Arctic (UArctic), UArctic Research Analysis Institute.

Universities are going through a major change in knowledge and the processes that ensure the quality of knowledge and knowledge dissemination. This is part of the shift in the value of knowledge in society and in the world of higher education, and the framework of this change is broadly known as the knowledge-based society. Patterns of scholarly communication are also changing towards being more proprietary, local, authoritarian, commissioned and expert (Ziman, 2000). This development has emphasized the significance of strong research evaluation systems and research management with well-established standards, such as assessment systems.

Scholarly publications and research data related to arctic issues are hard to find in established citation databases and services such as Web of Science and Scopus, including material produced by the working groups of the Arctic Council. It is also difficult to measure the significance and the value of the arctic information and scholarly databases. Existing ranking systems do not favour arctic universities.

Arctic Value for Society University Ranking is an idea for a new ranking system for arctic information based in a database with content based on existing data from the arctic universities maintained by the UArctic Research Analytics Institute. It will be based on existing information that is aimed at engagement rather than impact: service tasks, downloads, social media, citizen science, evidence-based decision-making, etc. Having a governance model and investment is a necessity and creating a large collection of data is a major strategic goal. The model of the Arctic Value for Society University Ranking is the University of Lapland's contribution to the new thematic network in The University of the Arctic (UArctic), UArctic Research Analysis Institute.

Life in the academy of the 2020s is not the same as it has been over the last few decades, because of the demands for openness, relevance and engagement changing the perception of research and its time perspective. As well as emphasising long-term basic research, international and national financial instruments also emphasise socially significant and strategic research. In these conditions, launching new and marginal research themes requires justifying them both from the point of view of high-quality research and societal impact. It can also be good news for arctic research if the focus of research funding agencies is on highlighting relevance and impact. This is because arctic research is often multidisciplinary, international and societal in nature. Research on actual topics such as climate change, mining, tourism and transportation is also an integral part of arctic university education and knowledge utilisation. The problem, however, is to make this premise visible. Visibility would benefit users of information, informed decision-making and the universities themselves. Disclosure of research data could strengthen arctic universities by making them more attractive places to study and thus increasing the number of applicants.

The benefits described above can only be achieved by making visible the long-term work of the arctic universities. A social contract between academia and society is not possible unless adequate and comprehensive information on the research is available. This requires internal processes within the universities that enable wide support of key stakeholders and their impact on Arctic research (Aarrevaara et al. 2017). These tools can serve as the basis for a database in which research, data management expertise, and leadership could build a state-of-the-art database. An Arctic Value for Society (AVS) database could consist of open data, metadata describing research data, and information presenting research results, such as articles and research reports. Based on institutional autonomy, universities could decide on their own structures, functions and policies. Therefore, it is not necessary for all research and data presented in the database to be carried out the way that fits all arctic universities' governance and practices. For example, open data can be a significant factor in some studies. In sensitive interview studies, it might be justified to describe the research data using metadata. Universities, within their institutional autonomy, have the power to decide the extent to which research data and results are made available, and this is also influenced by

international and national data regulation. However, it is essential that the arctic universities adequately and comprehensively describe what is at the heart of their research and how it can be used in society.

There is also a development which is seeing a move from weak to stronger research evaluation systems. Weak research evaluation systems are weighed down by funding instruments, lack of pre-defined criteria in decision-making is evident, documentation and evaluation of the impact is minimal. Scholarly authority rules the valorisation of the results. Strong research evaluation systems are based in scholarly institutions such as universities and research institutes, and they also have well-established standards such as assessment systems and rankings. The significance of research management is crucial (Whitley & Glässer 2010).

Why AVS ranking?

Some rankings create information on success factors such as reputation, prestige of scholarly publications, citation indexes or student/teacher ratios. Some rankings are based on information on institutional strengths, altmetrics and capacity. Arctic Value for Society University Ranking (AVS) is between them and could serve as a starting point for comparative research at arctic universities. Comparative data is a goal for AVS, and ranking is a tool for interest and visibility. AVS feeds the evaluation system and open data. The AVS works best as a federation of trust through discussions on copyright, embargos and anonymisation and pseudonymisation.

Arctic themes are hidden in analytical tools such as Web of Science and Scopus, and hidden in publication forums. For this reason, there is a need for an arctic research database. The AVS database will consist of publication reports, altmetrics reports, use of knowledge and information on growing arctic research topics. Regarding the AVS database, altmetrics can be defined as measuring rather than engagement or impact, e.g. service tasks, downloads, social media, citizen science, evidence-based decision-making.

Based on discussions with actors involved in arctic studies, we need better visibility and tracking of arctic research. AVS is a database for impact, societal interaction, engagement and stakeholder relations. All required data is already there and will be collected by the arctic universities. The establishment of the AVS framework and method of work is an initiative of the University of Lapland. It will also be our contribution to UArctic Science and Research Analytics Institute formed in 2017. A lean governance model and investments in open data are a necessity, and a large collection of data is a strategic goal.

AVS in use

The AVS database consists of existing databases and open data: what we have and what we can reach. The data management is based on co-hosting and a strong consortium of trust. It also allows regular or annual evaluation and peer review of Arctic value for Society. But who needs this data and who will be aware of it? It is appropriate to raise interest in annual reports to publish an AVS ranking list.

There are some technical, regulative and cultural issues to solve. The technical issues are the costs of data tools and data management including user access. Changes in national and EU regulations form the regulative issues. Finally, the diversity of academic culture is a problem to be solved. The next step by 2020 is to learn how to get AVS as open and transparent systems as a part of academic life at the arctic universities.

The AVS database can provide solutions to the problems that data production have today. These problems can be solved, for example, by producing data that is findable, accessible, interoperable and re-useable (FAIR principles). One option to improve this situation is to promote open data and open access.

Arctic libraries should work for open access, provide guidance and tools for that, and also encourage researchers to publish their results with open access. Also, the development of the altmetrics tools could improve the situation, and to these the arctic AVS database provides functional capability.

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