

Generating Societal Value from Improved Weather, Water & Ice Forecasts in the Polar Regions

A Special Issue in Polar Geography

Special Issue Editors

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Aims

The [Polar Prediction Project \(PPP\)](#) is a World Meteorological Organization (WMO) initiative to support coordinated international research efforts to improve weather and environmental prediction services for the polar regions. The Year of Polar Prediction (YOPP) is one of the flagship activities of the PPP, with a core phase from mid-2017 to mid-2019.

This special issue collects current social science research results and perspectives related to the use and improvement of weather and environmental prediction services for the polar regions, in an effort to translate scientific and technological advances into societal value (see also [PPP-SERA team](#)). It aims to explore how weather, water, ice and climate (WWIC) information is currently being used and produced in the Polar Regions, by whom, and for what reasons. There is a paucity of knowledge on how WWIC services are used by various human activities in the Polar Regions (see [Dawson et al., 2017](#); [Thoman et al. 2017](#)). These may include, but are not limited to, hunting and travel by Indigenous communities, industrial activities associated with resource extraction in the Arctic or transit of commercial vessels, tourism operations of all sorts (cruise ships, pleasure yachts, adventure tourism), search and rescue operations, government and research operations, and/or military enforcement. There appears to be a wide range of WWIC information available to support diverse aspects of arctic marine navigation, but how these are accessed or are influencing decision-making and operational practices is largely unknown (see [Knol et al, 2018](#); [Lamers et al., 2018](#)). Therefore, more research is needed that considers the context in which marine activities take place in the Polar Regions, and how WWIC services are used. It becomes clear that for WWIC services to become more salient, they need to be tailored more precisely to decision practices of different users, in content and well as in format and interface.

In this special issue, we seek to better understand the complexities of actors, information needs, information systems and infrastructures, funding structures, data management approaches, and applications of weather and sea ice prediction services of various end-user groups in the polar regions.

Specific focus of the Special Issue

- i) Diverse regional experiences with what kinds of WWIC information is sought out, how this is accessed (with what technology or equipment), and what is desired in terms of greater access or more tailored products. In particular, we hope to learn about how people assess the reliability and relevance of WWIC products, including what constraints, abilities, risk perceptions and decision-making contexts affect how information is accessed and used.

- ii) The disconnect that seems to be increasing between data providers (modellers) and end-users (e.g. hunters, tour operators, ship captains, fishing boat captains, researchers, among others), as each are creating information tailored to their own needs. We need to explore the underlying reasons for this, and ways to reconnect for mutual benefit;
- iii) The seemingly dualistic emphasis on providers and end-users of weather and climate information, while increasingly diverse actors are being identified that both provide and use environmental information. We need to better understand this user-producer interface and the cycles, scales, and flows of information exchanged for different purposes;
- iv) The trend away from nation states (i.e. national weather, hydrometeorological, and sea ice services) being the primary holders/providers of environmental information, as the evolution of the information age enables private actors to create and share their own information through community-based monitoring and social media. We need to better understand the implications of these new sources and flows of information.

This SI combines an open call for papers with a range of contributions that are prepared as a result of ongoing work within PPP. We encourage contributions from a diversity of social science and humanities disciplines, and from operational forecasters, Indigenous Peoples, northern residents, decision-makers and politicians, as well as academics, working on issues related to this user-producer interface of weather and sea ice information.

Important deadlines

- Abstract submission: 1 November 2018
- Decision on abstracts: 15 November 2018
- Full manuscript submission: 1 February 2019
- Return reviews: 15 March 2019
- Revised manuscript submission: 1 June 2019

Information about the journal

[Polar Geography](#) is an international, peer-reviewed journal of Taylor & Francis, which publishes original research contributions to scientific knowledge. Polar Geography is a quarterly publication that offers a venue for scholarly research on the physical and human aspects of the Polar Regions. The journal seeks to address the component interplay of the natural systems, the complex historical, political, economic, cultural, diplomatic, and security issues, and the interchange amongst them. As such, the journal welcomes comparative approaches, critical scholarship, and alternative and disparate perspectives from around the globe. The journal offers scientists a venue for publishing longer papers such as might result from distillation of a thesis, or review papers that place in global context results from coordinated national and international efforts currently underway in both Polar Regions.

Submission

Please send your abstract by email before the deadline to one of the editors. Full manuscripts will have to be submitted online via [ScholarOne](#).