

Sea Ice for Walrus Outlook (SIWO) data collection and community feedback methods

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The Sea Ice for Walrus Outlook (SIWO), an activity of the SEARCH (<http://www.arcus.org/search/siwo>), is a resource for Alaska Native subsistence hunters, coastal communities, and others interested in sea ice, weather, and walrus. From April through June, SIWO provides information on local-scale weather and sea ice conditions in the Northern Bering Sea and southern Chukchi Sea regions of Alaska via a web page that is updated weekly. As a part of 2011 SIWO efforts, we are seeking ways to improve communication with hunters and local residents on weather and ice conditions, the accuracy of the SIWO maps, and general conditions in the region.

Because of the technical challenges of communicating with remote communities, including low bandwidth Internet connections, limited computing resources, and the need of the hunters to concentrate on hunting, we seek to make communication options as straightforward as possible. After considering a variety of data transmission techniques, we decided to create a simple grid overlay on SIWO maps to allow text messages and brief emails to be used to gather information. We also have explored using a Facebook page created as a part of SIWO as another feedback mechanism. We plan to display the feedback on a Google map as a way to integrate the environmental data with geolocated information received from the communities. While we do not currently have an extensive archive of feedback, we anticipate needing to store and manage the data we are gathering.

In the future we hope to use social media harvesting techniques to extract information and geographic locations from resources such as Facebook posting and Tweets made by residents in coastal communities. We envision integrating this information with the more traditional data resources, e.g, satellite imagery and wind analyses, that are created for SIWO.

In participating in the workshop, I (and the project) hope to share our experiences, but more importantly to learn from the experiences of other participants.. We welcome the opportunity to understand how we might better develop and support a two-way data exchange and collaboration with the communities and how we might best store, display, and manage our data.

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