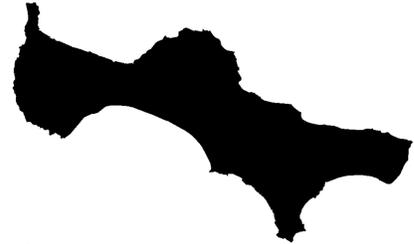


Integrating Language Documentation and Computational Tools for Yupik, an Alaska Native Language

Key Project Contact(s):

PI Lane Schwartz @ University of Illinois; lanes@illinois.edu

PI Sylvia L.R. Schreiner @ George Mason; sschrei2@gmu.edu



St. Lawrence Island, Alaska

Project Website URLs & Social Media Accounts:

<https://github.com/SaintLawrenceIslandYupik/>

<http://dowobeha.github.io/>

<http://www.sylvialrschreiner.com/research/yupik-project/>

Project Objectives: Digitization, archiving, & community dissemination of legacy Yupik texts and audio. Development of foundational tools including finite-state morphological grammar & speech recognition system. Research to improve Yupik language documentation, including Yupik phonology, morphology, and syntax. Support of community-based language revitalization and education efforts.

Keywords: St. Lawrence Island, Alaska, Yupik, computational linguistics, language documentation, polysynthetic language, Bering Strait, phonology, morphology, syntax, morphosyntax

Progress to Date: Multiple trips to St. Lawrence Island for linguistic fieldwork & community consultation. Successful digitization of dozens of Yupik legacy texts & 100s of hours of audio. Successful development of 2 generations of finite-state morphological analyzer & prototype neural network-based analyzer. Preliminary work completed on speech technologies. Initial research on Yupik phonology, morphology, and syntax. Successful creation of prototype interactive e-book delivered to local community school.

Future Plans: Continue language documentation efforts. Distribute technology & resources to local community.

Highlights or Expected Outcomes: Successful development of Yupik morphological analyzer coupled with successful use of this tool during fieldwork, resulting in quicker analyses of data & identification of gaps in existing language documentation.

NNA Community Collaboration and Research Coordination: We would like to connect with other researchers & communities involved in research and/or revitalization efforts involving other Inuit-Yupik languages.

Advice for Overcoming NNA Project Challenges: One extremely important factor contributing to the success of our project to date is the development and maintenance of strong personal connections with individuals and stakeholder groups in the local community where we conduct our research. We spent a non-trivial amount of time before the project began, at the beginning of the project, and continuing throughout the project, travelling to St. Lawrence Island and meeting with local stakeholder groups, talking with them about our proposed work, listening to their priorities and concerns, requesting their permission to conduct the research, and updating them throughout the project on project status. It is impossible to overstate the importance of actually spending time in the local community and taking the time to build relationships and earn the trust of the local community. There is a long and dark history of outside researchers swooping in, doing their work, and leaving without acknowledging or contributing to the local community and the local culture. As outside researchers, we have a crucial obligation to be highly cognizant of the negative history of colonialism, and to be proactive in shaping our research in such a way as to be highly sensitive to local Native culture, local Native needs, and to ensure that our research positively and concretely contributes to the local communities where we do our work in intentionally and actively anti-colonialist ways.