

Title: The Use of Natural Language Processing, Artificial Intelligence, and Social Robotics for Anishinaabemowin Revitalization and Reclamation

Abstract

This presentation will discuss the use of natural language processing (NLP) (Le et al., 2022) in artificial intelligence (AI) and social robotics (SRs) for the revitalization and reclamation of the Anishinaabemowin language. This presentation will present the use of a 'Two-Eyed AI' approach (Bourgeois-Doyle, 2019), combining Indigenous and non-Indigenous methodologies. AI-powered socially assistive robots could provide individualized, non-judgmental support to learners (Kanero et al., 2018), addressing barriers such as discrimination and historical trauma within a socio-linguistic framework. The development of such a robot would require Anishinaabe community engagement to lead the design philosophy with the support of social roboticists.

References

- Bourgeois-Doyle, D. (March, 2019). Two-eyed AI: A reflection on artificial intelligence. *The Canadian Commission for UNESCO's IdeaLab*. Retrieved from <https://en.ccunesco.ca/-/media/Files/Unesco/Resources/2019/03/TwoEyedArtificialIntelligence.pdf>
- Kanero, J., Geçkin, V., Oranç, C., Mamus, E., Küntay, A. C., & Göksun, T. (2018). Social robots for early language learning: Current evidence and future directions. *Child Development Perspectives*, 12(3), 146-151.
- Le, N. T., Cadotte, A., Boivin, M., Sadat, F., & Terraza, J. (2022, July). Deep Learning-Based Morphological Segmentation for Indigenous Languages: A Study Case on Innu-Aimun. In *Proceedings of the Third Workshop on Deep Learning for Low-Resource Natural Language Processing* (pp. 146-151).