

# Elders' Conversations: Perspectives on Leveraging Digital Technology in Language Revival

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## Abstract

In First Nations, Métis, and Inuit (FNMI) communities, Elders are highly regarded as intergenerational transmitters of ancestral language and Indigenous knowledge. Without language revival initiatives, ancestral languages in FNMI communities are at risk of extinction. Leveraging digital technologies while collaborating with Elders can support revival initiatives. Through semi-structured interviews and qualitative analysis, this study addresses how three Elders who use technology in their ancestral language teaching (1) describe the benefits, drawbacks, and preferences of technology; (2) reveal the accuracy with which cultural knowledge is imparted through technology; and (3) view the impact of technology on their role as traditional knowledge keepers and intergenerational language transmitters. Findings suggest that while Elders acknowledge the benefits of leveraging digital tools in language revival initiatives, they are concerned about technology's potential negative impacts on relationality.

**Keywords:** language revival, digital technology, First Nations, Metis, and Inuit, Elders



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## **Introduction**

Researchers have argued that an inextricable link exists between language, culture, and identity (Bruner, 1990; Donohue, 2016; Fishman, 1991; Hinton & Hale, 2001). When a language becomes extinct, significant parts of one's culture, identity, and knowledge are lost. For First Nations, Métis, and Inuit (FNMI) communities on Turtle Island, also known as North America, settler relations have created environments that have destroyed FNMI languages and dialects. Maintaining and developing ancestral first language speakers depends upon creating and implementing sustainable FNMI language revival projects.

One way to build sustainable language revival projects is by leveraging digital technologies to reach a wider audience of language learners. As a non-Indigenous settler, I am mindful of my position in relation to this research. I seek to learn with and from Indigenous communities to decolonize my worldview and engage in research that is respectful, relevant, relational, and responsible (Kirkness & Barnhardt, 2001; Kovach, 2012; Wilson, 2008). To do this, I look to Indigenous peoples, scholars, and settler allies worldwide who are currently engaged in language revival initiatives to inform how to best leverage digital technologies when breathing life back into endangered languages. However, Costa (2013) presents a different perspective, indicating there are more pressing matters than language revival, such as socio-economic inequities and injustices. The matters Costa (2013) presents are pressing matters. However, addressing language revival efforts without acknowledging the reflexive relationship between culture and language and the embedded inequities would be limiting. Exploring how Elders leverage digital technologies (mobile language apps, online language courses, and virtual conferencing software) to revive their ancestral languages is of interest to communities, Elders, scholars, educational institutions, and government agencies invested in language revitalization projects.

As Elders play a critical role in the intergenerational transmission of knowledge, consultation is essential throughout the language revival process (Osborn, 2006). Despite Elders' vital intergenerational role, a review of the literature revealed limited research addressing Elders' perspectives on the role of digital technologies in facilitating language revival. This research is a collaborative exploration of Elders' perceptions of using digital technologies to facilitate ancestral language revival.

It is critical at this juncture to acknowledge that I conducted this research through an Anglo-Canadian lens. As an educator I have witnessed disparities in education that silence voices and further marginalize individuals. Although I am not privy to the experiences, culture, or history of First Nations, Metis, and Inuit (FNMI) peoples, in building community partnerships and relationships, I seek to engage in research that is relational, relevant, respectful, and responsive to the needs of the community. Three Elders graciously shared their stories and experiences using digital technologies to revive their ancestral languages. Although Indigenous Elders and knowledge keepers guide the research, I acknowledge the influence of my settler worldview and strive to present the knowledge shared with me with integrity.

## **Literature Review**

Language represents the spiritual, artistic, and intellectual essences of a community and is the repository where cultures store intellectual wealth and knowledge (Warschauer & De Florio-

Hansen, 2003). The ability to use language to express oneself, be understood, and understand others is an integral piece of one's self-concept, inextricable from culture. However, colonization, assimilationist policies, mandatory school programs, violence, and globalization have eradicated or endangered ancestral languages. Safran (2014) argues that colonial languages (i.e. English) permeate the language landscape. Therefore, maintaining and developing ancestral mother-tongue speakers becomes increasingly difficult. Language revitalization through intergenerational transmission aims to reverse the progression toward endangerment or extinction (Battiste, 2002; Mirza & Sundaram, 2016).

Ancestral language loss is apparent in Canada, where over 70 Indigenous languages in 12 different language families are spoken (Statistics Canada, 2016). Of the 70 languages spoken, more than half (43) have fewer than 1000 speakers. Algonquian languages appear to have the greatest chance of survival, with 175,825 total speakers (Statistics Canada, 2016). Anishinaabemowin and nêhiyawêwin appear in the revival stage, based on the number of fluent speakers (Eberhard, Simons & Fennig, 2019), followed by the Inuit language family, including Inuktitut, Inuinnaqtun, and Inuvialuktun (Statistics Canada, 2016).

In efforts to revive ancestral languages in Canada, communities are turning to digital technologies to facilitate the process while at the same time being mindful of the potential risks about data storage and access to information. Due to the pervasive nature of digital devices and their affordances, learners and teachers are leveraging digital tools such as apps, online language courses, and virtual conferencing software (Bourget, 2016; Cutknife, 2018; Eamer, 2014; Kaleimamoowahinekapu Galla, 2009). Further, digital repositories facilitate the development of extensive language resource banks to draw from for educators and learners.

Despite the potential of digital technologies to engage learners and break down accessibility barriers such as geographical distance, not all access is equitable. Barriers exist for some rural and remote communities beyond geographical barriers, including unstable internet connectivity, lack of infrastructure, and harsh climates (Osborn, 2006; O'Donnell et al., 2016; Taylor, 2018). These barriers are less problematic in larger urban centers where infrastructure and stable internet connections are readily available.

In addition to challenges with accessibility, challenges exist in the representation of FNMI cultures in the digital sphere. When Elders do not have opportunities to guide digital programmers, the programmers risk overlooking cultural nuances in the development of digital language learning technologies (Baskin & Davey, 2015; Benally, 1994; Kaleimamoowahinekapu Galla, 2009; Hinton & Hale, 2001; Meek, 2007; Norris, 2004; Ross, 2016). When considering digital technology in language revival initiatives, a collaboration between Elders and digital programmers is essential. However, this collaboration requires moving away from Eurocentric models of language learning.

Eurocentric models of language learning such as the audiolingual approach, the grammar-translation method, content-based language teaching, comprehension-based instruction, and form-focused pedagogy are pervasive in educational models (Lightbown & Spada, 2013). The colonial structures embedded in these approaches are not representative of the intergenerational transmission of language (Fishman, 1991). Teaching polysynthetic languages, such as those spoken by FNMI peoples, requires a trauma informed instructional approach that

is not rooted in colonial approaches (Archibald & O'Grady, 2008) and includes land-based approaches, grounded in ways of being, doing, and thinking.

Culture and language are crucial to FNMI people's resilience. While other minority language groups benefit from ongoing immigration to bolster the number of fluent speakers in their communities, FNMI peoples must revive their languages from within by drawing on the knowledge of Elders and mother-tongue speakers (McIvor & Napoleon, 2009). Self-empowerment through language initiatives is how Elders continue to preserve the language and facilitate revival (Benally, 1994; Hinton, 2010; Ross, 2016). The active role of Elders in the educational experiences of youth opens dialogue, transmitting valuable knowledge and shared history.

The active role of Elders is a critical point in engaging digital technologies in the language revival process. However, it is essential to acknowledge that different Indigenous groups have embraced technology for language learning with varying degrees of enthusiasm (Kaleimamoowahinekapu Galla, 2009). Researchers Bennett (2003) and Kitchenham (2013) warn that using technology for language learning should be viewed as a complementary strategy rather than a replacement for sound pedagogy. Building communities of language learners in a technology-infused context can be challenging where there is limited access to viable tools and reliable internet connections.

Further, some communities do not wish to have their language documented in such a manner as language is considered sacred and to be passed intergenerationally within the community (Adley-Santa Maria, 1997). Further, some communities fear the commodification of their language curriculum and loss of language resource ownership. Additional complications arise when some smaller or remote communities do not have on-site or close-proximity individuals who can troubleshoot technological problems. Some of these communities are not yet capable of independently addressing IT problems and are waiting long periods for technical support (Villa, 2002).

Unfortunately, some companies that create language apps and streaming services have designed a digital space that appears to bypass Elders' traditional role in language learning. Although some services seek the advice of Elders in developing language apps, the apps alone can only attempt to approximate the holistic approach that Elders use in language transmission. These concerns validate the need for Elders' guidance and recommendations as an essential practice in holistic approaches to language revitalization. Further, it is imperative that time is spent invested in relationship building with Elders. Kitchenham (2013) agrees that, with technology, it is possible to harness the potential for language preservation, connecting ancestral language speakers with learners in virtual environments.

Donovan (2007) further points out that Indigenous pedagogy and ICT are complementary. Indigenous pedagogies are grounded in experiential learning. Technology promotes language learning through experimentation, collaboration, and differentiation. Educators using technology can develop individualized language learning outcomes through differentiated instruction and collaborative learning, thereby creating opportunities to deepen students' language learning (Donovan, 2007; Kitchenham, 2013; Stewart, 2002). Focusing on maintaining a high-quality language pedagogy as newer and more efficient resources are developed while consulting with Elders can build the foundation for leveraging technology in language revival.

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## Research Objectives

Given the critical role of Elders in the language revival process, the following research questions were designed in collaboration with Elders and Knowledge Keepers as a framework to guide this investigation. How do Elders who use digital technology, specifically mobile language apps, online language courses, and virtual conferencing software, in their language teaching:

- describe the benefits, drawbacks, and preferences of technology?
- reveal the accuracy with which cultural knowledge is imparted through technology?
- view the impact of technology on their role as traditional knowledge keepers and intergenerational language transmitters?

## Methodology

This study focuses on the storied experiences of three Elders. It adopts an Indigenous methodological approach, informed by Wilson's (2008) concepts of relationality, reciprocity, and respect. As a dialogic methodology, an Indigenous approach opens space for celebrating voices and worldviews that may otherwise be limited or silenced in the research. Scholars Battiste, 2002; Brown & Strega, 2005; Kovach, 2012; and Smith, 1999, agree that an Indigenous approach must be grounded in relationality, storied experience, and accountability.

Indigenous methodologies engage multiple perspectives and respond to the questions: *What knowledge is most worth?* and *Whose knowledge permeates the narrative?* The (re)presentation of multiple stories elevates participant voices, opens space for hope and empowerment, illustrates areas in need of transformation, and challenges oppressive power structures (Bishop et al., 2019; Donald, 2009; Metta, 2017). Citizens are empowered by telling their stories as woven together with the stories of others to create change and offer hope.

Wilson (2008) presents Indigenous research methodologies as ceremony, deeply relational and storied. Indigenous methodological approaches view knowledge as gained through storied experiences. In this instance, knowledge is gained through the storied experiences of three Elders who currently teach their ancestral language using digital technologies. According to Wilson (2001), "[A]n Indigenous methodology means talking about relational accountability. As a researcher, you are answering to *all your relations* when you are doing research" (p 177).

Further, adopting an Indigenous methodology embraces the entanglement of multiple realities, co-constructed stories, and lived experiences. This allows for an exploration of liminal spaces and "[C]ontradictory ways of being, knowing, thinking, doing, and relating" (Bishop et al., 2019, p. 2).

## Participants

Three Elders graciously offered their time and expertise and are introduced below using pseudonyms and non-identifying information.

Mari is a nêhiyawêwin speaker from Western Canada and has been teaching nêhiyawêwin for over 30 years. Mari has begun to use technology when teaching nêhiyawêwin to adult learners

through virtual conferencing in addition to the face-to-face courses offered at the post-secondary institution where she teaches. Mari lives away from her community and now resides in a larger city. Mari noted frustrations for her home community in accessing reliable language learning resources.

Kandi is an Anishinaabemowin speaker from Central Canada. Kandi has been using technology (Facebook Live, video conferencing, textual messaging services) to teach Anishinaabemowin to a virtual community of learners. Kandi teaches youth, young adults, and older adults wishing to reconnect to their language. Kandi is passionate about breathing life into the language and encouraging youth to use it as often as possible.

Shelli resides in South Central Canada and has taught Anishinaabemowin for over 40 years. Shelli has made an effort and is passionate about engaging with youth to use their language, often engaging in youth groups and community groups to be present in the community. Shelli has taught in the elementary, secondary, and post-secondary school systems and community programs. Shelli offers face-to-face, on-the-land, asynchronous and synchronous courses using various technologies available to her.

### **Data Collection**

Purposive sampling was undertaken to recruit potential participants (Bogdan & Biklen, 2003). Ontario Tech University's Indigenous Student Centre staff and associates aided in the referral process. Criteria included: Elder status with proficiency in their ancestral language and English; personal investment or interest in current language revitalization initiatives; familiarity with current technologies in language learning; the ability to meet online or in person; and a willingness to permit voice recording during the interview process.

Elder status, technological knowledge, Indigenous language proficiency and language revival knowledge were all self-reported. Participants self-reported their proficiency in two distinct ancestral languages: Anishinaabemowin (two) and nêhiyawêwin (one). Participants identified by a pseudonym were provided with a transcript of the interview to clarify or correct any inaccuracies (Hagens, Dobrow & Chafe, 2009).

Data gathered for this study were derived from individual semi-structured interviews. Two interviews were voice recorded and transcribed (Adobe Connect and phone), and the third interview was written communication via Facebook messenger.

### **Data Analysis**

Prior to analysis, Elders completed member checks to ensure the accuracy of the transcripts. An inductive approach to data analysis was employed to identify themes emerging from Elders' transcripts (Strauss & Corbin, 1998). Inductive analysis was the preferred method of analysis due to its alignment with Indigenous methodologies allowing for an exploration of emerging themes. The iterative nature of inductive analysis allowed for exploration between and within the data.

## Findings

An inductive data analysis indicated several emerging themes:

- Technophilia: enthusiasm for the use of technology to revive a language;
- Resistance (Technophobia): language teachers and Elder resistance to incorporating technology into their language learning programs;
- Spirituality, Culture, and Traditional Language learning practices: the inclusion of spiritual, cultural and historical practices of language learning in technology-infused classrooms or virtual classrooms;
- Access: To current technologies, ICT, and stable Wi-Fi;
- Funding: for technology and language programs; and
- Archiving and knowledge dissemination.

These themes are further discussed in response to the research questions under the headings: benefits, drawbacks, and preferences; accuracy with which cultural knowledge is imparted through technology; and impact of technology on Elders' role as traditional knowledge keepers and intergenerational language transmitters.

### Benefits, Drawbacks, and Preferences

In response to the research question, what are the benefits, drawbacks, and preferences as described by Elders when leveraging digital technologies in their language learning practices? Mari noted that the less comfortable an Elder is with using technology, the less likely they are to use digital tools. This comfort level can limit Elders' ability to connect with younger generations in the intergenerational transmission of knowledge. However, as Shelli claimed, Elders can build a technological relationship with the younger generation by learning how to use technology with their grandchildren, nieces, or nephews. This may create favourable conditions for increasing comfort in using technology and, therefore, a willingness to explore the value of using technology in their language teaching. Shelli explained: Some of the Elders don't know how to type or don't use the media [...] I always tell them to ask their granddaughters or grandsons to help them look for other materials that are out there because when I started teaching, there was no language materials, but there is quite a bit now on websites and that for them to look for if they want to (personal communication, March 8, 2019).

To implement technology in authentic and experiential learning, reliable access to Wi-Fi is necessary. Mari indicated that geographical location creates barriers to technology implementation. Some communities lack access to reliable Wi-Fi, noting that reliable Wi-Fi remains a challenge in her home community. In contrast, Shelli and Kandi did not mention this concern but alluded to the portability of technology as a benefit when implementing it into experiential language learning. It is possible that because Shelli and Kandi are located in South Central Canada and Central Canada (respectively), access to reliable Wi-Fi is more readily available. Further, Mari, located in rural Western Canada, noted that Wi-Fi accessibility varies from area to area. Despite the portability of technological devices, as indicated by Shelli and Kandi, the barrier to reliable Wi-Fi appears to be a widespread challenge in some regions of Western Canada.

Mari also noted that additional barriers to language revival include the lack of funding and technicians to troubleshoot technological problems. Kandi pointed out that the cost of classes to individual students could be a barrier to accessing language programming. However, she did not mention the lack of funding to implement programs in the same manner as Mari. Shelli did not mention funding as a barrier to online language programming.

### **Accuracy with Which Cultural Knowledge is Imparted Through Technology**

Resistance (technophobia) is something that Kandi alluded to in her interview. She discussed the importance of face-to-face learning in transmitting traditional, spiritual, and cultural knowledge. She suggested that Elder resistance to using technology for language transmission stems from a power struggle between Elders and youth. Youth using technology (i.e., internet search engines) to contest the teachings of Elders results in the internet becoming a tool of dominance to override traditional teachings, thereby bypassing the role of the Elder in language and knowledge dissemination. She also maintains that when youth attempt to access traditional teachings through digital means, they miss critical pieces traditionally taught by Elders through relational approaches. Kandi's belief that the role of the Elder is changing with the implementation of technology contrasts with Mari, who stated: "I don't see how it [the role of the Elder] would change." Mari noted that: As younger generations become language teachers, this is expected to shift from resistance to using online methods and digital pedagogies in teaching towards a generation of language teachers that embrace and use technology in everyday teaching practices (personal communication, February 1, 2019).

Kandi was concerned about this issue when she spoke about the importance of relational interaction and spirituality in language learning. She argued that this is not evident in digital language learning. The themes of language as a reciprocal process, the importance of communities, and how they help each other revive their language, culture, and spiritual practices through knowledge dissemination, were present in all interviews. In each interview, Mari, Shelli, and Kandi reveal a focus on sharing and how sharing is [not] yet implemented in the digital sphere. As Kandi presented, there is a concern for "polluting the medicine ways" and a disconnect from relationality.

### **Impact of Technology on Elders' Role as Traditional Knowledge Keepers and Intergenerational Language Transmitters**

Shelli built upon Kandi's argument about the importance of personal presence and relationships in the language learning process. In her interview, Shelli advocated for building relationships with youth and including students in identifying content to be included in the language program, noting that asking them what they want to learn (content) aids in student engagement. Throughout this section of Shelli's interview, I noted that she alluded to the continued colonial undertones in the classroom.

All three participants indicated community as an essential component in language revival. For example, both Shelli and Kandi discussed the importance of connecting with Elders, family, and friends who are part of the broader community. Shelli spoke of connecting youth with others who speak their ancestral language and collaborating with Elders and Anishinaabemowin speakers. Each individual described in Shelli's interview was a part of the broader language



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learning community. In her discussion, Mari also discussed community in terms of building an online community of post-secondary-level learners by using specific conferencing software.

### Discussion

This study explored the storied experiences of three Elders, Kandi, Shelli, and Mari, in leveraging digital technologies in language revival initiatives. Rich data was collected from the storied experiences of Kandi, Shelli, and Mari, leading to recommendations for practice and policy. Due to the contextual nature of each participant's lived experience, further collaboration with Elders and Knowledge Keepers from differing language families is essential. An approach to leveraging digital technology in language revival relative to each community is key to deepening the understanding of best practices when supporting Indigenous language teachers.

When asked how they saw their role changing as an Elder with the infiltration of digital technology in language revival initiatives, Mari claimed the role of the elder would not change. She regarded the role of technology from the perspective that, as younger generations move forward in their language learning journeys, the youth will bring their technical skills and the ability to include technology as a part of their teaching practices when they become Elders. In contrast, Kandi views technology in language learning from a medicine and relational perspective focusing on the relationality and sacred practices that are embedded in language learning.

Both Shelli and Kandi expressed optimism in their discussion regarding the future of digital technology in language revival initiatives. However, another perspective was brought to light by Kandi concerning the potential dangers of relying on technology as the sole means of transmitting linguistic and cultural knowledge. Kandi's concerns about technology's potential negative impacts on relationality [culture, spirituality, and medicine practices] are further expressed in her concerns that technology will be used as a replacement for Elders or to undermine their role. For these reasons, Kandi asserted that when leveraging digital technology in the language revival process, it is critical to employ good pedagogical practices and use technology as a tool, one of many, rather than replacing Elders' teachings.

Similar to the sentiments expressed by Kaleimamoowahinekapu Galla (2016), this study highlighted that digital technology can be an enabler of language revival and a barrier, particularly when addressing how cultural and spiritual knowledge is disseminated when using technology. By sharing cultural and spiritual knowledge or ceremonial practices via digital technologies, individuals not living in their home communities can engage virtually with their spiritual and cultural practices. However, at what cost?

As Kandi noted in her interview, debate among Elders continues regarding what is appropriate for sharing in virtual spheres. The fear is that Elders will be replaced by technology, and the relational nature of ceremonies will be lost, with ceremonies becoming tokenized. These are critical issues language revival educators, and policymakers must consider. They must also ask themselves; what can we share in terms of spiritual practices that do not take away from the sacred practices of culture? As language is deeply ingrained in culture and culture in language, is it appropriate to share ceremonies (i.e. Sweat lodge ceremonies, moon ceremonies, etc.) in the virtual sphere? Who can guide these practices?

Beyond the concerns of relationality, Elders' reluctance to employ digital technology tools in language revival initiatives may be linked to skill level and comfort. Shelli speculated that some Elders might choose not to include digital technology in their teaching practices, whether or not they possess the skills to do so. This may indicate continued (philosophical) resistance, possibly due to personal preferences in teaching without digital technologies, or it may indicate minimal experience in using technology. A potential solution to support Elders' reluctance to use digital technology due to lack of technical expertise may be to connect with technologically savvy youth. Developing reciprocal programs between youth and Elder would highlight the bidirectional nature of intergenerational knowledge transmission; Elders teach language, and youth teach technology.

Further complicating the use of digital technologies is the lack of infrastructure and unreliable access to Wi-Fi. The barrier caused by unreliable access to Wi-Fi impacts students' ability to connect with online language learning tools, programs, and digital language communities. Challenges in accessing Wi-Fi also affect the ability of language teachers to integrate technological devices into their language instruction. The inequitable and unreliable access underscores that digital technology is not equally available to everyone. Communities lacking the infrastructure to support digital technology in language learning are at a clear disadvantage to learners in more urban centres where Wi-Fi is easily accessible.

Shelli added that in addition to unreliable Wi-Fi, the persistent presence of colonial teaching practices in ancestral language revival initiatives, including in physical and virtual classrooms, further compounds language revival initiatives. The continued presence of colonial teaching practices is partly due to parameters set by some provincial ministries of education, including curriculum expectations, learning goals, and success criteria set by a colonial institution. These parameters impact the authenticity and relational nature of ancestral language learning, including those learning their language using digital technologies. As Shelli discussed, including youth in developing the curriculum content encourages engagement with the language. As Kandi noted, this could empower youth, allowing them to engage in sacred medicine practices as a part of their ancestral community (clan).

If we are to ensure the survival of ancestral languages, Elders must be consulted regarding best practices when leveraging digital technologies. Ensuring the traditional role of Elders in intergenerational language transmission while offering language learners access to culturally relevant ancestral language learning opportunities honours the storied experiences of learners and teachers. Future research should consider addressing the impacts of technological infrastructure (i.e., Wi-Fi) on ancestral language revival. Further, assessing the implications of digital technologies on relationality [culture, spirituality, and medicine practices] in the language revival process can provide insight into best practices.

### **Author's Contributions**

All contributions by Melissa Bishop.

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### Ethics Statement

Ethical authorizations were requested and obtained from the University of Ontario Institute of Technology Research Ethics Board.

### Conflict of Interest

The author does not declare any conflict of interest.

### Data Availability Statement

The data generated and analyzed during the current study are not publicly available due to ethics requirements. They are available from the corresponding author on reasonable request.

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