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Spoken Language: The Importance of Weaving Traditional Knowledge into the 21^{st} Century

Michael McDowall

University of British Columbia

ETEC 540: Text Technologies: The Changing Spaces of Reading and Writing

Dr. Keri Ewart

The purpose of this paper is to highlight the importance of spoken language and how it shapes a person or community to think. This paper will also demonstrate the vital connections between oral traditions and indigenous communities such as the Ts'msyen people who live along the Northwest Coast of British Columbia. The paper will explore how indigenous people such as the Ts'msyen are using technology to help revitalize their traditional language of Sm'algyax, while also still properly navigating the complex process of traditional permissions of use and ownership issues within the 21st century. Finally, this paper will highlight some examples of Ts'msyen developed technologies that are already in use to help grow the Sm'algyax language. Spoken language is vitally important to who we are as people across the globe. Language not only allows people to express their own ideas, thoughts, and feelings but language can allow people to share all of their views with others. Language can bring people together by preserving a culture or divide nations and tear them apart. Through understanding an intricate system of sounds, words, and syntax, a person can port with them pieces of their own society across oceans. When learning a different language, a person can also gain insight into different cultural ideas and thoughts. Spoken language is one of these most effective technologies ever advanced

Language is such a powerful tool, that it can affect how people actually think. As language is a foundation part of any culture across the globe, when speaking a particular language, it naturally will impart particular pieces of that culture with it, therefore affecting one's cognitive ability. (Boroditsky, 2011) Research has shown that speaking a particular language can differ how a person remembers and describes an event, and how a language is constructed can increase or decrease the difficulty of people to learn new things (Boroditsky, 2011).

by humans, and we have developed thousands of variations throughout history.

However, language and thinking appear to be a two-way street. The way in which a person thinks can have an obvious affect in how they speak, but research has shown that the way a person speaks can also have a significant effect on their cognition. For example, by simply switching the word used for a particular colour, studies have found that it alters a person's capability to differentiate between colours (Boroditsky, 2011).

As language is a dominant cultural element across all societies, predictably spoken word and storytelling is the dominant medium of knowledge transmission within Indigenous societies and is also an essential educational instrument. Storytelling is one important manner that local knowledge, values, and skills were transferred within and among communities and across generations (Jackson & Masching, 2016). As Jackson and Masching also highlight (2016) "The primary reasons for support of storytelling as a knowledge transfer strategy in Indigenous communities is derived from the understanding that stories embed the cultural protocols of a specific Indigenous peoples, are powerfully linked with the power of oral tradition, and are grounded in different ways of knowing (p.95)."

According to Smylie and colleagues (2003):

"In Indigenous knowledge systems, the development of knowledge often starts with 'stories' as the base units of knowledge; proceeds to 'knowledge' and the integration of the values and processes described in the stories; and culminates in 'wisdom,' and experiential distillation of knowledge.' This process is cyclical, as 'wisdom' keepers in turn generate new 'stories' as a way of disseminating what they know. Traditionally local forms of knowledge dissemination were often interwoven with social, political and kinship structures in ways that reinforce individual and collective wellbeing to ensure the protection and sustainability of the physical environment. (p.114)"

As we move into the 21st century, traditional means of Indigenous knowledge transmission are under a duel threat of cultural and digital assimilation. After hundreds of years of colonialization, more than two-thirds of the languages still spoken in Canada are

endangered, and the remaining third are vulnerable (Coles, 2018). Furthermore, as English becomes the predominant language spoken by Indigenous groups in Canada, there is a push to preserve these languages by any means possible, often through digital mechanisms. Indigenous groups want to preserve their traditional knowledge, but the integrity of the language and following proper protocols still need to be respected, as has been done for time immemorial.

Sm'algyax is the language spoken by the Ts'msyen people who have lived for thousands of years on the North Coast of British Columbia (Ts'msyen Sm'algyax Authority, 2021).

Any attempt to digitize Indigenous knowledge such as language without proper permission from a local governing body is completely forbidden. As Mills (2017) notes:

"Systems that govern transmission and ownership of songs and stories represent worldviews that may be fundamentally different from those represented in Western law. The misuse or mistreatment of Indigenous property, then, undermines the values and identity of Indigenous peoples. In very real ways, infringement of Indigenous cultural and intellectual property can lead to loss of access to ancestral knowledge, loss of control over proper care of heritage, diminished respect for the sacred, commercialization of cultural distinctiveness [and] threats to authenticity and loss of livelihood. In this way, misappropriation not only constitutes a violation of copyright or moral rights, but also attacks Indigenous cultures directly – it is a threat to their cultural survival. (p.114)"

In all Ts'msyen territories, matters concerning the Sm'algyax language fall under the jurisdiction of the Ts'msyen Sm'algyax Authority. The Ts'msyen Sm'algyax Authority consists of 12 members committed to the learning and/or teaching of Sm'algyax. Representation comes from each of the Ts'msyen communities and includes individuals who are fluent in the language, knowledgeable in the culture, and committed to learning and/or teaching the language. A majority of the members are elders from the Ts'msyen communities who provide spiritual and

interpretive guidance. Elders are the most highly knowledgeable members of communities and they are recognized by community members as the ones who hold responsibility of intergenerational knowledge translation (Jackson & Masching, 2016).

According to the Terms of Reference, the purpose of the Ts'msyen Sm'algyax Authority:

"seeks to protect, promote, restore, revitalize and develop Sm'algyax language and culture strategies to ensure survival and retention of the language. The Ts'msyen Sm'algyax Authority ensures that the Ts'msyen Nations have a means of ensuring control and accountability over the Sm'algyax language (Ts'msyen Sm'algyax Authority, 2021)."

Ownership of digitized materials is another essential matter to discuss within this paper. When any traditional knowledge is placed into the digital sphere, who actually owns this material? Traditional concepts of intellectual property and copyright do not consider Indigenous concepts of property because they focus on financial rights and unique, individual ownership. According to Mills (2017):

"For many Indigenous communities control over their cultural property is not just about protecting it from commodification, but also about dignity and human rights. When we talk about Indigenous communities, especially in colonial countries like Canada, we have to consider their historical context. Indigenous peoples often occupy a social and political space that places them at a disadvantage in very real and basic ways. They live with extreme levels of poverty, chronic ill health and poor educational opportunities as a direct result of the actions of the states in which they reside. In this context, the "need for increased control [of cultural property] is connected to reparation of past injustice, survival of cultural identity, and respect for Indigenous legal and social orders."

There are multiple different systems overriding access, ownership, and the restriction of Indigenous cultural property around the world which are specific to location and context. Nonetheless they often share comparable features, which set them apart from colonial philosophies. Stories, histories, and songs are not just for amusement. They have a more profound significance to the people to which they belong (Mills, 2017). The notion that misusing

songs and stories can cause harm is common in Indigenous communities. Ownership of traditional knowledge comes with obligations, and violating those responsibilities has consequences for their custodians and those with whom they share their stories, similar to violating Western property law have penalties. Possession can be individual, collective, or communal, so for groups that see their stories or songs as sacred, and treacherous when distorted, the effect of that distortion can be wide-reaching and the consequences much greater than a loss of profit (Mills, 2017).

Knowledge transmission in Indigenous societies is a procedure that works to support principles of self-determination and needs shared agreement and creating a common understanding. (Jackson & Masching, 2016) Methods of Indigenous knowledge generation and application are often also participatory, communal, and reflect local customs. These participatory methodologies emphasize a "by us/for us and about us" approach (p.89) and are directed by communities in equal partnerships (Jackson & Masching, 2016).

Once approval from the Ts'msyen Sm'algyax Authority is achieved, an 'ethical space' is created which is another key principle when working with any Indigenous community on knowledge translation activities, and one which was missing from the previous translation project. Jackson & Masching define ethical space as "the common space between disparate knowledge system, cultures, and world views. (p.90)" It is a space where dialogue about intentions, values, perspectives, and assumptions are respected in ways that promote amicable research agreement between researchers and Indigenous communities. The idea of an 'ethical space' helps to advance the argument that online Indigenous knowledge transmission is grounded in, supports, and builds on Indigenous perspectives and values (Jackson & Masching, 2016).

Over the last decade there have been a number of technologies that have helped improve the accessibility of the Sm'algyax spoken language. It is hoped that by increasing digital literacy and making advances in mobile, interactive technology, it will create new opportunities for language learners to revive endangered languages such as Sm'algyax (Ignace & Dedegikas, 2014).

In 2015, in collaboration with Simon Fraser University, the Sm'algyax Language Authority began developing an online app which was developed with Sm'algyax fluent speakers, linguists, and administrators with Prince Rupert's local School District. The app has multiple modules covering a wide range of topics including the Smalgyax alphabet, vocabulary and audio recordings for introductions and family, and links to a Sm'algyax online dictionary (Lough, 2017).

A more recent digital tool which has been locally developed is the Sm'algyax Word mobile app. This word of the day app sends users a notification of a different Sm'algyax word each day complete with a definition and voice recording. Brandan Eshom, the local High School student who developed the free app, notes that as Ts'msyen traditions and history are embedded into their language, that promoting Sm'algyax through digital means is a way to share Ts'msyen culture with the world (Millar, 2020).

In closing, language has the power to connect people unlike many other forms of human technology. Language can carry with it fragments of culture, and can actually alter how people reason and reflect. Nevertheless, when faced with losing one's language, the consequences can be dire. Modern technology can help preserve language loss, but needs to be done in a manner that respects traditional ways of thinking. Indigenous knowledge transmission draws on the

power of decolonizing and participatory approaches, aimed at creating a principled zone where collaboration and exchange resound with the beliefs of Indigenous ways of knowing.

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