Ditidaht First Nation App Teaches Language to Kids Through Games

WHAT?

Vancouver Island's Ditidaht First Nation is both preserving their language for future generations and making it much easier for children (and adults) to learn it, with a new mobile app.

The nation's app, Ditidaht Kids, teaches its centuries-old language to users through a game that takes them on a canoe trip through the nation's territory. Throughout the game, players learn about the Ditidaht's language, their stories, and their songs.

Ditidaht Kids has been downloaded over 2,000 times so far. The app is available on the App Store for iOS, and as a direct download for Android. The developers say Ditidaht Kids should be coming to the Google Play Store soon.

SO WHAT?

Language and culture were taken away from many Indigenous people in Canada through residential schools and assimilation. Using gamified learning methods for language learning is not a new trend. However, preservation and learning of indigenous languages and culture using games for both kids and adults' signals towards more decolonized futures.

Source:

B.C. First Nation app revitalizing Indigenous language with modern approach | CTV News (Nov 2021)

Related: <u>Sask. people keeping Indigenous language alive through music, technology and education | CBC News</u> (Nov 2021)

Related signals (Future of indigenous languages)

- Weak Signal Future of Language Motorola adds two indigenous languages in Android devices.docx (sharepoint.com)
- Film shot entirely in Blackfoot language, on tribal land to premiere | Arts & Theatre | missoulian.com
- Colombian movie stars a language that's been extinct for centuries (trendwatching.com)

Eternals' Deaf Hero Leads To Increased Interest In Learning Sign Language

WHAT?

A recent study has found that *Eternals'* Makkari, the first Deaf superhero, has led to a 250% increase in the number of people looking to learn sign language. Makkari is Marvel's first Deaf superhero, played by Deaf actor Lauren Ridloff. Since the debut of the film, an increasing number of people interested in learning sign language is drastically increasing, according to a study conducted by Preply (via the Independent).

Source: <u>Eternals' Deaf Hero Leads To Increased Interest In Learning Sign Language</u> (<u>screenrant.com</u>)

SO WHAT?

Sign languages are visual languages that use hand, facial and body movements as a means of communication. Research conducted over the years points to the significant benefits of learning and communicating with sign language such as helping babies communicate better and sooner, obtaining higher reading levels, having better vocabulary, and being able to better communicate not only with the deaf and hearing impaired, but also with folks with autism, dyslexia, and other learning differences.

The increase in people looking to learn sign language shows just how powerful the entertainment industry can be today. With movies like Eternals giving a platform to a previously under-represented group in film, it is likely there will be more of these features. Consider movies like "A Quiet Place" or "Dune" that also showcase sign language as a dominant form of communication. This surge in people learning sign language can lead to a series of disruptions for the way we communicate, the Official Languages Act, school curriculums, diversity and inclusion, and so on.

Related Weak Signals (Future of Sign Language)

Weak Signal- Future of Language - Sign language interpreters are coming to 'Forza Horizon 5'

Weak Signal- Future of Language- Snapchat Launches New AR Lenses to Teach Users Sign Language

Related Weak Signals (Future of Languages in Media)

<u>Film shot entirely in Blackfoot language, on tribal land to premiere | Arts & Theatre | missoulian.com</u>

Colombian movie stars a language that's been extinct for centuries (trendwatching.com)

Cambridge Quantum Makes Quantum Natural Language Processing A Reality

WHAT?

This section should answer the questions: What is new here, and how is it different than what we've seen before?

Last month, <u>Cambridge Quantum ("CQ")</u> announced the release of the world's first toolkit and library for Quantum Natural Language Processing (QNLP). The toolkit is called lambeq, named after the late mathematician and linguist Joachim Lambek, a late professor at McGill University.

The Lamberg toolkit is one of it's first toolkits that is able to turn our theoretical understanding of QNLP into practical use. Advancing from the traditional binary sequencing into quantum computations with little processing power.

Thomas Ehmer from Merck's IT Healthcare Innovation Incubator states the following:

"There is a lot of interesting theoretical work on QNLP, but theory usually stands at some distance from practice, with lambeq, we give researchers the opportunity to gain hands-on experience on experimental aspects of QNLP, which is currently completely unexplored ground. This is a crucial step towards reaching the point where practical, real-world NLP applications on quantum hardware become a reality."

Source: Cambridge Quantum Makes Quantum Natural Language Processing A Reality (forbes.com)

SO WHAT?

This section should answer the question: When you read this, why did you think this was interesting?

As these advancements become more prevalent within our society, we can expect an increase in automated roles within organizations and business. Predominantly roles within research and classification. Leaders within organizations may eventually depend on quantum computing tools like Lamberg to provide synthesized information to make informed decisions within minutes. Such tools also provide organizations the capability to classify documents within seconds.

Speechmatics pushes forward recognition of accented English

WHAT?

Speech recognition has gone from convenient to crucial over the last few years as smart speakers and driving assist modes have taken off — but not everyone's voice is recognized equally well. Speechmatics claims to have the most inclusive and accurate model out there, beating Amazon, Google and others when it comes to speech outside of the most common American accents. The company explained that it was guided toward the question of accuracy by a 2019 Stanford study entitled "Racial Disparities on Speech Recognition," which found exactly that. Speech engines from Amazon, Apple, Google, IBM and Microsoft "exhibited substantial racial disparities, with an average word error rate (WER) of 0.35 for black speakers compared with 0.19 for white speakers."

In addition to improving accuracy for Black American speakers, the Speechmatics model claims better transcription for children (about 92% accurate versus about 83% in Google and Deepgram) and small but significant improvements in English with accents from around the world: Indian, Filipino, Southern African and many others — even Scottish.

Source:

<u>Speechmatics pushes forward recognition of accented English | TechCrunch</u>

Related: Google tests Project Relate, a voice recognition and synthesis app for people with speech impairments (yahoo.com)

SO WHAT?

Speechmatics may be ahead in the metrics it cites, but the AI world moves at an incredibly rapid clip and I would not be surprised to see further leapfrogging over the next year. Google, for instance, is hard at work on making sure its engines work for people with impaired speech. Inclusion is an important part of all AI work these days and it's good to see companies trying to outdo each other in it.