

The background of the entire page is a repeating pattern of red feathers, drawn with fine lines, scattered across the white space. A large, dark brown rounded rectangle is positioned on the right side of the page, containing the main text.

# Indigenous-Led Data Research Project

Knowledge Transitioning Data  
Collection: Atchimostakanna –  
Story Telling Instrument Testing

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Alberta First Nations Information  
Governance Centre





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## Table of Contents

Acknowledgements .....	1
Report prepared by: .....	1
Project Summary .....	3
Adaptations & Project Changes .....	4
Stream I & II Project Findings .....	5
Stream I – Literature Review .....	5
Stream II Testing of Atchimostakanna – Story Telling Instrument .....	6
Nehiyaw Iskwewak (Nov. 15-17, 2022) Conference Testing #1:.....	7
Survey Results.....	8
<b>General Demographics</b> .....	8
<b>Section A: Rated Responses</b> .....	9
A.4 “I would recommend this tool to my colleagues.” .....	10
<b>Section B: Open-ended questions</b> .....	11
B.1 What could be better about this story-telling tool? .....	11
B.2 What aspects of this tool did you find most useful? .....	11
B.3 I still have the following questions/comments.....	11
Findings #2 MMIWG Vancouver .....	12
Conclusions .....	12
Section II Literature Review.....	13





## *Project Summary*

The establishment of a robust Indigenous data sovereignty movement requires iterative experiential-learning investments; one that is supportive of autonomous learning journeys within the data creation, data collection, and data management sectors. In this final report, the Alberta First Nations Information Governance Center (Alberta FNIGC) provides the results of the Atchimostakanna – Story Telling Instrument project. The project examined, investigated, and articulated a data tool to support the National Action Plan (NAP) for improving the safety and well-being of marginalized voices. The project focused on two main streams of work: a) a literature review, and b) the testing of a digital story application technology for sharing the story of MMIWG experiences and potential data collections. The Atchimostakanna – Story Telling Instrument review revealed different digital storytelling technology-based approaches that are occurring within Alberta First Nations.

The second stream of work provided two opportunities for Indigenous women, girls, and 2SLGBTQQIA+ people to test the selected Atchimostakanna – Story Telling Instrument (Adobe Express). In this interactive phase we discovered that limited technical knowledge was a possible barrier for older generations, however explanation and a short training session immediately remedied these concerns. This phase yielded critical data to support the premise of Atchimostakanna’s viability and was proof positive of Atchimostakanna’s ability to transform the data landscape for Indigenous voices in Canada. The data collected in this final report will aid in the advancement of the four pillars (inclusion, accountability, interconnectedness, and impact) of NAP.

The overall aim was to give Indigenous women, girls, and 2SLGBTQQIA+ people, opportunities to test, visualize, and evaluate a selected, distinctions-based, data collection tool. The Atchimostakanna – Story Telling Instrument project, in examining the digital storytelling environment within Alberta First Nations, identified a safe digital storytelling, knowledge, and information transfer data tool available for immediate use. Alberta FNIGC attended two conferences and presented the Atchimostakanna – Story Telling Instrument project to over 300 individuals; some participants volunteered to test the digital storytelling tool, creating, and controlling their own data.

The free digital storytelling tool was chosen for its cost efficiency, ease of use, and comprehensive online learning supports. The application was easy to introduce at public events and was successfully accepted and assessed by women of all ages. The safe environment and time taken to explain the tool helped generate critical discussion around potential within cultural healing spaces, and various venues. The key Atchimostakanna – Story Telling Instrument outcomes were the users’ ability to create their own digital story and an opportunity to heal. The option of digital storytelling tools signals the end of an era where Indigenous people experience total reliance upon mainstream media to tell Indigenous stories. Instead, these tools make Indigenous women, girls, and 2SLGBTQQIA+ people real-time creators of their own messaging.





The introduction of the Atchimostakanna – Story Telling Instrument project received overwhelmingly positive reviews, opening the door to a new pathway for autonomy over storytelling and Indigenous messaging of MMIWG experiences. Indeed, the Atchimostakanna – Story Telling Instrument plays a vital role in the transfer of information and knowledge with time sensitive issues, placing full control into the hands of the digital storyteller. In light of the MMIWG National Action Plan (NAP) Data Strategy project a digital storytelling tool offers a culturally safe alternative that informs each of the four pillars, namely: inclusion, accountability, interconnectedness, and impact. The Atchimostakanna – Story Telling Instrument project moves the Indigenous data sovereignty foundation forward, providing Indigenous women, girls, and 2SLGBTQQIA+ people, an Indigenous data collection and management methodology, reflecting a solid Alberta First Nation Region solutions-based cultural approach.

### ***Adaptations & Project Changes***

Within the National Action Plan (NAP) call for proposals is a shared commitment to explore Indigenous data methodologies, grounded within community-driven engagement, to reflect the realities of Indigenous people and communities involved. The final proposal submission entitled ‘*Atchimostakanna – Story Telling Instrument*’ included an enthusiastic detailed workplan in a time when COVID restrictions were just being lifted. Conducting a literature review and scan was important to ascertaining the current state of digital storytelling. A literature review had been omitted in the workplan but was added once work was initiated.

Additionally, the \$50,000 budget could not realistically support the ambitious plan of dynamic engagements scheduled within the various Treaty areas as outlined in the proposed travel budget, plus compensate Elders properly. With the guidance of Alberta FNIGC Knowledge Holders, the Atchimostakanna – Story Telling Instrument project identified the parameters of a literature review to help select the application most promising for the work at hand. Data collected from the literature review validated the community’s needs, helping to narrow the scope for which digital tool to select for best outcomes.

This shift in direction with the literature put into place a solid testing plan that was originally identified as a deliverable. Testing the selected app by attending Indigenous women’s and MMIWG gatherings, widened the testing area. When the work commenced its intended outcome was to determine the most appropriate Atchimostakanna – Story Telling Instrument required to create and collect data, as well as to manage the process under the auspices of OCAP<sup>®</sup> (Ownership, Control, Access, and Possession) principles. In the end, the merit of ‘*Adobe Express*’ advanced the conversation around the NAP – Quantitative Indicator Framework and the participants generated data related to a demonstration of Indigenous data sovereignty (IDS) with real time activities.





## ***Stream I & II Project Findings***

Work Stream I focused on a literature review, and Stream II involved testing the Atchimostakanna – Story Telling Instrument. The project findings mirror the needs identified in the MMIWG National Inquiry where Indigenous women, girls, and 2SLGBTQQIA within Alberta proved they were either misrepresented or not represented within mainstream media. The spirit and intent of the Atchimostakanna – Story Telling Instrument project was to investigate and identify a data tool to support the National Action Plan, and to improve upon the safety and well-being of marginalized people. Both phases of this project revealed substantial findings.

### ***Stream I – Literature Review***

The literature review process is detailed in section II of this report. The literature review revealed that there were four Alberta First Nations digital storytelling projects whose approach to digital storytelling were from different needs, purposes, and applications. Only four projects within Alberta were digital storytelling oriented and First Nations specific. These four are strong examples of how digital technology is a transformative space that is culturally safe and practical. The following are the four ongoing projects supported with evidence-based cultural practice:

1. *Voices of Amiskwaciy – Digital Storytelling* (Edmonton Public Library)
2. *Digital Voices* (Alexa Blyan)
3. *AMMSA Archive - Digital Archival & Digitalizing project* (Sound Studies Institute (SSI) at the University of Alberta)
4. *Environmental Guardians - Mikisew Cree First Nations & Athabasca Chipewyan First Nations – (Community Based Monitoring).*

Each project utilized digital storytelling in their own unique way. From data creation, data preservation, data collection, data management, and storage perspectives these four different Alberta First Nations-based digital initiatives employed a variety of collection devices in their digital storytelling process. The nature of their projects was specific digital storytelling. Information gathered from this review helped inform what Atchimostakanna would be best suited to meet the project objectives, specifically for aiding in the advancement of the four pillars (inclusion, accountability, interconnectedness, and impact).





The findings revealed that:

- Tablet is the preferred device.
- Must be cost efficient and free for public use.
- Easy to use with online learning resources.
- Full data control and ownership.
- Full story maker ability and capability to create a message and send it out.
- Complete personal management of data.
- Retrievable.

These identified aspects were vital for the Atchimostakanna – Story Telling Instrument and required choosing an app that was user friendly and free for public use. After careful and extensive research *Adobe Express* was selected as the most appropriate app to test.

### *Stream II Testing of Atchimostakanna – Story Telling Instrument*

A special invitation was extended to the Alberta FNIGC MMIWG project by the Kehewin and Frog Lake Cree Nations hosting the ‘*Nehiyaw Iskwewak*’ conference. This final report will highlight the testing of the Atchimostakanna – Story Telling Instrument from within a cultural context. The ‘*Nehiyaw Iskwewak*’ gathering hosted over 300 women of all ages and their families. This venue provided the perfect opportunity to hear about the Atchimostakanna – Story Telling Instrument project. At the end of the presentation, conference participants were invited to test the Adobe Express app. It was found to not only be useful and easy to navigate, but it also unexpectedly emerged as a healing tool. Twenty-nine women created posters with varying cultural themes on Samsung Galaxy Tab A8 tablets provided for use during the session. Conversations around the table centered around the potential of using this data tool for various cultural projects and activities.

**Note:** Alberta FNIGC searched different platforms to support and activate an independent capacity building process where everyone who feels silenced has the capability to create their message and broadcast it to whomever they want. Other platforms were considered, but did not meet the requirements our project team and knowledge holders were looking for. These included but were not limited to:



Figure 1 ALBERTA FNIGC conference presentation of 'Atchimostakana'





1. Newswire - (Vconneck Services, can custom develop) for a fee,
2. Ceros Studios - can create digital storytelling and publication component,

Adobe Express was selected because it is free and has the ability to custom create graphic projects and social media videos, and has a variety of other templates such as business cards and posters.

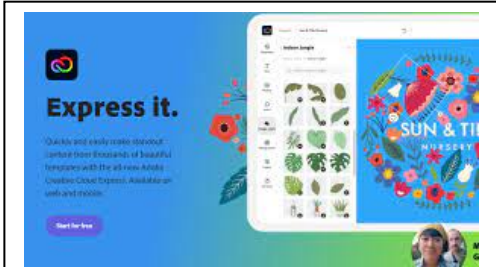


Figure 21 Atchimostakanna - Storytelling Instrument chosen as the project app to be tested.

Cost efficiency was central to the discussion as most individuals are not able to afford expensive tools. An added benefit is easy accessibility and the availability of instructional materials for users to learn how to customize the app for their own purposes.

### *Nehiyaw Iskwewak (Nov. 15-17, 2022) Conference Testing #1:*



Figure 3. Nov 17, 2022 Conference participant Elder Hilda Pasquayak (Moosomin First Nations) receiving a demonstration (from Alberta FNIGC Executive Director Lea Bill) on how to use the Adobe Express app.

The following photos capture the interaction with conference participants who spent time at the kiosk learning about the project and the app.

What is unique about the exchange captured in Figures 3 to 5, was that the interactions were conducted in the Cree language, and it shows knowledge transitioning continues at all ages as seen in the photo with Elder Pasquayak's digital storytelling.







Figure 2. Elder Pasquayak working on her Adobe Express poster with the guidance of Alberta FNIGC Executive Director Lea Bill.

These few images illustrate ease of use at any age. Another benefit was that Elder Pasquayak was able to save her poster and send it to herself via email.

## Indigenous woman's empowerment and healing journey



Figure 5 Elder Pasquayak's poster

## Survey Results

### General Demographics

A total of 29 participants responded to the Storytelling Workshop Tool Evaluation. There were more workshop participants, however not all chose to respond to the survey.

The bulk of the workshops took place at the River Cree Resort and Casino on November 15 and 16, 2022 and a few individuals were able to participate in February at the MMIWG2S+ gathering in Vancouver on February 15, 2023.





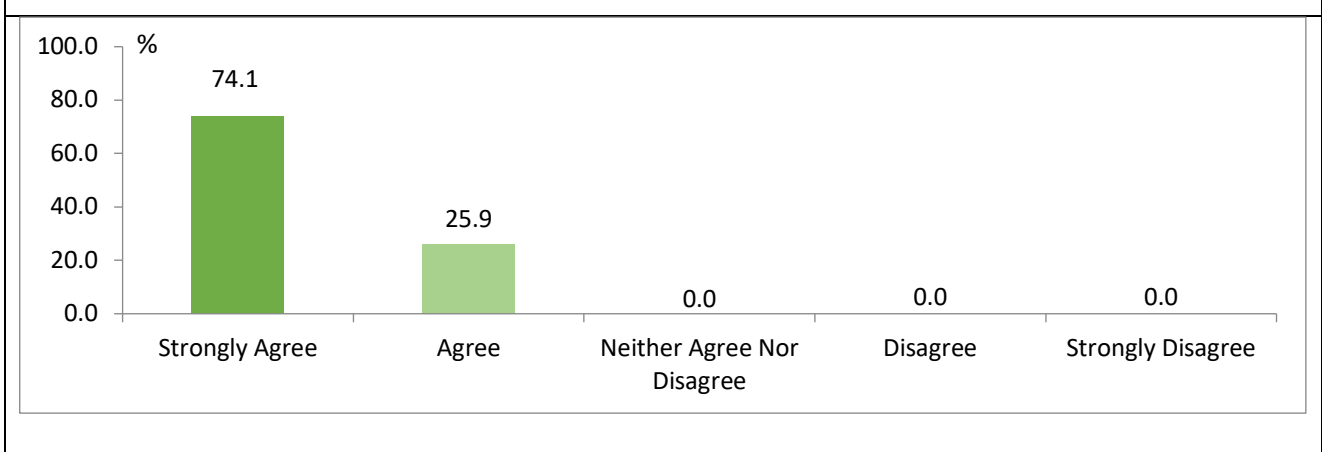
### Section A: Rated Responses

Respondents were asked to select their level of agreement with 4 targeted questions:

#### A.1 *“I like the concept of visual storytelling.”*

One hundred percent (100%) of respondents either agreed (25.9%) or strongly agreed (74.1%) with the statement: “I like the concept of visual storytelling.”

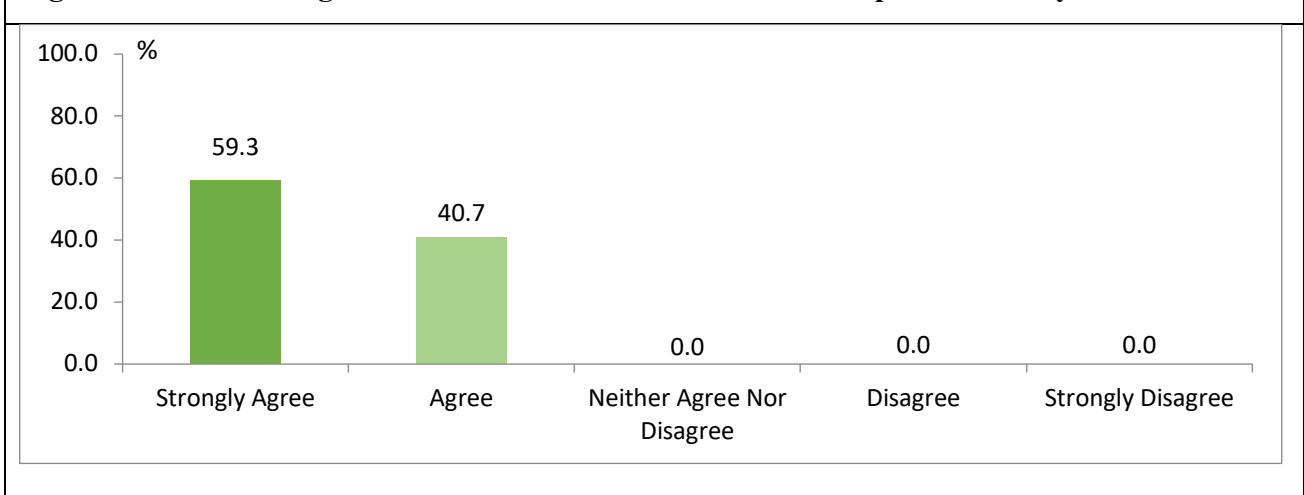
**Figure A.1: Level of agreement with the statement: “I like the concept of visual storytelling.”**



#### A.2 *“Adobe Express was easy to use.”*

One hundred percent (100%) of respondents either agreed (40.7%) or strongly agreed (59.3%) with the statement: “Adobe Express was easy to use.” Ease of use was related to how comfortable individual respondents were with technology. Even those who were not *tech-savvy* quickly warmed up to the task and after only a few minutes were able to navigate the software and make their own creation.

**Figure A.2: Level of agreement with the statement: “Adobe Express was easy to use.”**

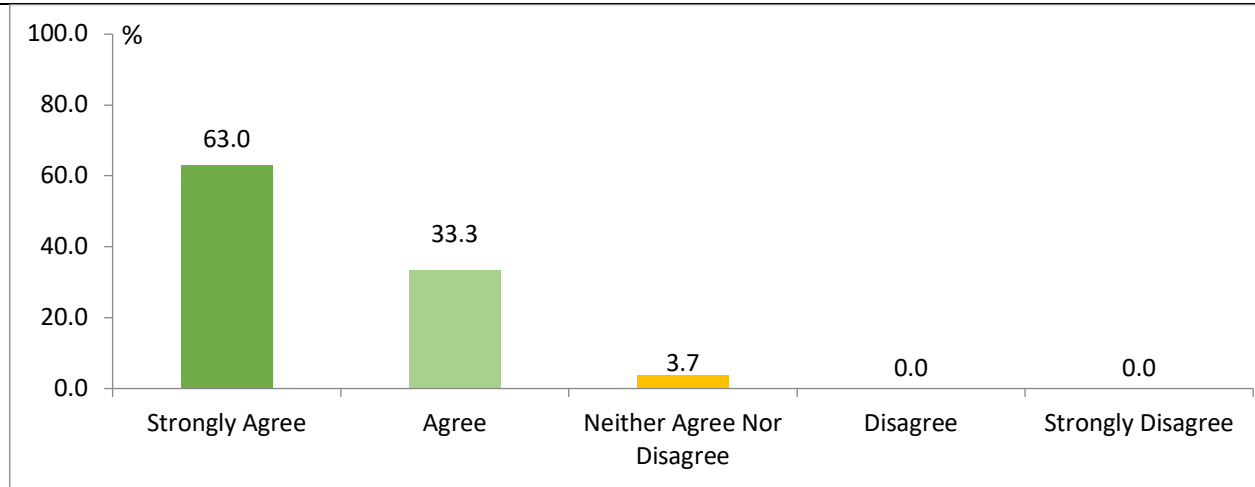




**A.3** *“This tool helped me tell my story.”*

Over 90 percent (96.3%) of respondents either agreed (33.3%) or strongly agreed (63.0%) with the statement: “This tool helped me tell my story.” Many posters and other works were created by workshop participants. One lady even uploaded her own photos and used them to create a poster for an upcoming memorial event for her sister who had perished in Edmonton years ago.

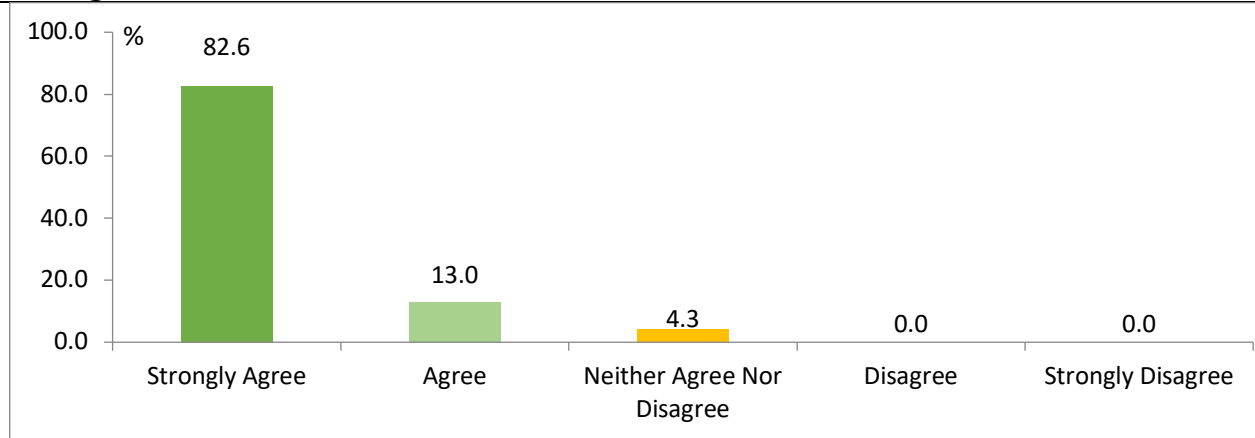
**Figure A.3: Level of agreement with the statement: “This tool helped me tell my story.”**



**A.4** *“I would recommend this tool to my colleagues.”*

Over 90 percent (95.7%) of respondents either agreed (13.0%) or strongly agreed (82.6%) with the statement: “I would recommend this tool to my colleagues.” The uncertainty was more around technology in general rather than the specific tool. Those who were less technologically inclined had some difficulties at the beginning and felt their colleagues might experience the same challenges.

**Figure A.4: Level of agreement with the statement: “I would recommend this tool to my colleagues.”**





## Section B: Open-ended questions

Respondents were asked to elaborate on their experience by answering 3 open-ended questions. Twenty nine of the 30 respondents (97%) answered the open-ended questions.

### ***B.1 What could be better about this story-telling tool?***

The responses fell into 5 categories:

- Everything was good, with specific comments such as: “this is wonderful”, “Totally enjoyed this”, “Love it the way it is and easy to use”, ‘Make more communities aware of this.’, “I was new to this and I’m very satisfied with the end result.”
- First Nation language ability
- More Indigenous content – e.g. images, backgrounds
- The ability to share and network – live streaming and Dropbox were mentioned.
- Training on the app – a few asked about features that do actually exist in the app but the users may not have had the time to explore

### ***B.2 What aspects of this tool did you find most useful?***

The responses mainly centred on praise for the app.

- “Being able to make a collage to use with future speeches.”
- “Easy to use”
- “Gave us choices.”
- “The option of using (my) own pictures.”

### ***B.3 I still have the following questions/comments***

The responses were either about learning more about the software (computer-based or app-based) or praise for the app.

- “A very good way to get the story from their own voice.”
- “How much is it?”
- “Very interesting idea.”





## ***Findings #2 MMIWG Vancouver***

Another invitation was issued to AFNGIC to attend the MMIWG2S+ Gathering by Assembly of First Nations (AFN) in Vancouver, BC on February 15, 2023. Out of the Testing #1 Atchimostakanna – Story Telling Instruments participants, six women were selected to attend this conference. These women reported they felt Atchimostakanna was a life changing experience for them; they acknowledge the value of creating, managing, and storing your own data – essence of data sovereignty in action.

Due to extenuating circumstances only two women in leadership were able to test the Atchimostakanna – Story Telling Instrument at this gathering. They described their experience as affirming and having great potential. One woman created her own line of posters for her anti-racism MMIWG workshops, and a Chief indicated she will use the concept of the Atchimostakanna – Story Telling Instruments in their cultural gatherings. The Chief wanted technical specifics of using the tablet in land-based healing experiences for the youth and family cultural camps activities. The dialog was insightful and confirmed that Alberta FNGIC's project - Atchimostakanna – Story Telling Instruments - did indeed honour, present, and exercise a data sovereignty cultural approach.

## ***Conclusions***

The storytelling workshops were well received, and participants enjoyed learning the new technology. Many could see the potential for future projects and activities. Most respondents were quickly comfortable with the technology as it was very similar to using an app on a mobile phone. The remaining respondents needed a bit more instruction on using the tablet before continuing to the Adobe Express application. Once they became comfortable with the technology, they were quite competent at creating their own posters and other media. Two of the ladies even created a short video together!

The beneficiaries of the Atchimostakanna – Story Telling Instrument are Indigenous women, girls, 2SLGBTQQIA+ Indigenous people, and communities. Indeed, the primary aim was to explore ways to support Indigenous peoples in discovering and examining the potential in using digital storytelling tools for individual data creation, collection, and management. Additionally, Atchimostakanna (Story telling Instrument) was gifted, offering to those who took time to sit and test out the concept, knowledge that is within everyone's capacity to create, control, and own their story in a digital format. Digital storytellers can now begin exploring ways to bring forth their own Atchimostakanna (Story telling Instrument) digital stories within their own communities.





## ***Section II Literature Review***

### **Literature Review and Environmental Scan of Atchimostakanna – Story Telling Instrument**

The Alberta First Nations Information Governance Centre responded to the calls for Indigenous-led projects to support the transformation of the data landscape within Canada. The proposal and work targeted information to support the creation of a comprehensive MMIWG National Action Plan Data Strategy (NAPDS) The proposal outlined an investigative approach and to articulate a data tool to support NAPDS development and to improve the safety and well-being of the marginalized voice of Indigenous women, girls and 2SLGBTQIA and people. The first step was to conduct a literature review and environmental scan of how digital technology within First Nations communities is utilized and to examine if inclusion, diversity and honoring of their voices was a part of the literature and digital technology being applied to capture data and storied of this population group. Important to the search was to assess if the literature and the digital technologies being applied were conveying the richness of living knowledge systems and the lived experience of the target audience. Secondly search for information pertaining to Indigenous communities' data collection, data management and data storage; and Indigenous led digital story telling; digital projects informed by the Cree language and worldview Emphasis was placed on Indigenous communities' actions that involved digital technology and included story telling. The title of the project ***Knowledge Transitioning Data Collection: Atchimostakanna – Story Telling Instrument to inform the MMIWG National Action Plan Data Strategy*** acknowledges the oral culture of First Nations people, and the dynamics of culturally intersectionality to support the development of better data, living data and real-time data. Finding the right storytelling tool was imperative. Five main thematic areas were identified: (a) Indigenous On-line Education Curriculum Resource Service Tool, (b) Self Representation in the language, (c) Real time storytelling, (d) Data Collection: People- community focused and (e) Promotion of Digital Cultural Storytelling. Indeed, the literature review and scan revealed that a small number of First Nations communities have employed a wide range of creative and cultural digital enhancement in their social development projects. These few projects demonstrate that digital technology can incorporate and infuse culture in creating a living-data landscape.

### **Work Stream I: Literature Review and Scan: Software and Data Platforms**

Identify objective of Literature Review; search internet & community-based publications on themes of digital technology, data collection, data management and data storage; and Indigenous led digital story telling; 5-year time frame 2022 to 2017; develop inclusion and exclusion on Indigenous-led digital storytelling; and digital project informed by the Cree language and worldview. As well, to create a better understanding how of Indigenous women, girls and 2SLGBTQIA and people can create their own cultural data, within their own communities and manage their data. There is a great learning curve as to the general process of digital storytelling. Technology changes and there are more capabilities available to all ages, to create a personal narrative from a variety of media, such as images, audio, video, and text, even within a workshop setting. Educational settings are the highest users of digital storytelling including researchers as a intersectional tool. The potential is great for community-based projects to include digital story telling. Creating a community memory project is a growing trend, where Elders are interviewed within their language sharing narratives of land use. These living-data narratives are then shared in a public setting to demonstrate the similarities and diversity of these collective experiences.





## **Inclusion and Exclusion: Finding the right digital tool.**

The guidance and help of a Traditional Knowledge Holder were secured to guide the process of developing the inclusion and exclusion criteria and they assisted in finding a cultural appropriate digital app. There were many factors to consider of what was to be included and excluded:

Inclusion criteria:

- Alberta based.
- Cree Language application
- Cultural knowledge passed on through digital means.
- Digital oral data collection
- Sustainability of projects and digitization of data/ Information collected.
- Land based projects
- Oral Methodologies applied to collect stories.

Center upon methodological gaps for groups who are underserved or underrepresented in data.

- Converge and connect to define safety through Indigenous ways of understanding.
- Identify effective data governance based on orality.
- Recognize Indigenous methodology specific to missing and murdered Indigenous women, girls, boys and 2SLGBTQQIA + people.
- Explore digital best fit data collection and data management cultural tools.
- Promote and thread oral tradition, Indigenous language, and protocol, within the OCAP<sup>®</sup> principles.

Exclusion Criteria:

The following exclusion criteria were used:

- Non-indigenous
- Non-community based.
- External data control

All the while the inclusion and exclusion narrowed the research, two research questions guided the exploration.

Two Guiding Research Questions:

- **How can research instruments like computers/ipads/digital app's be used?**
- **What does Atchimostakanna – Story Telling Instruments mean to the Elders and Youth?**

These questions were applied in searching for greater meaning and understanding of what other Indigenous communities are applying Atchimostakanna – Story Telling Instrument.

## **The current state of Atchimostakanna – Story Telling Instrument within Indigenous communities:**

A scan of the limited amount of literature and data of what and how First Nations communities are using and applying digital storytelling revealed a healthy diversity of projects. In the field of education, Indigenous youth, adults, and Elders have a platform to express and share their worldview, in the true





spirit of knowledge transfer. However, little data exists on how Indigenous communities are applying and using instruments like tablets or apps for reclaiming personal power and autonomy for Indigenous women, girls and 2SLGBTQIA and people. Some bold moves and transformative spaces were created for communities using new story telling methodologies. The following illustrates how research instruments like computers, tablets, iPads digital apps be used? The following projects exemplify local Indigenous digital story telling programming, which define community ownership and honor lived experience in using Atchimostakanna – Story Telling Instruments:

1. **Indigenous Education Curriculum Service Tool:** Indigenous organizations are using digital platforms like *Creative Commons License* to offer First Nations communities' opportunities to create, conceptualize, design and deliver curricula honoring their perspective, histories, languages and culture such as in the following:
  - Alberta Education offers a Cree Language and cultural programming. It has programming resources and curriculum, easy to use <https://education.alberta.ca/cree-language-culture/language-culture/>
  - Empowering the spirit: Educational Resource to support reconciliation; First Nations Education Steering Committee ([www.fnesc.ca/learningfirstpeoples](http://www.fnesc.ca/learningfirstpeoples))

During COVID many academic institutions offered online learning good example is:

- Lakehead University – Lesson planning websites and open resources (<https://libguides.lakeheadu.ca/c.php>)
  - Indigenous sovereignty community healing programming, where digital technology focuses on water.
  - <https://www.ohneganos.com/digital-storie>. Digital storytelling is a participatory research method that delivers a narrative by combining different audio and visual tools. Oral storytelling is a traditional, tried and tested means of knowledge transmission. A key engagement feature is the Indigenous mapping entitled 'Terrastories' allows youth to learn about their landscape. As well, the digital storytelling assists in the collection and sharing of Indigenous Knowledge because they resonate with Indigenous peoples - integrating traditional methodologies with modern technologies. Part of their research has involved developing digital stories and making them free-to-use through our various social media platforms from Six Nations of the Grand River.
  - University of Victoria – Residential school resistance narratives was a Centre for Youth and Society's research project. These stories were documented as part of the research project Residential School Resistance Narratives: Significance and Strategies for Indigenous Youth. (<https://www.uvic.ca/research/centres/youthsociety/publications/digital-stories/index.php>)
2. **Self-Representation in the language:** Telling your own story in your own way, where ownership is central as it is people who have marginalized telling their story.
    - Oral story mapping of a traditional hunting campsite with members of the Osoyoos Indian Band in Oliver, British Columbia. [www.chairs-chaires.gc.ca/chairholders-titulaires/profile-eng.aspx?profileId=3020](http://www.chairs-chaires.gc.ca/chairholders-titulaires/profile-eng.aspx?profileId=3020) Revealing the deep meanings of language in this way is integral for understanding knowledge systems of all Indigenous Peoples.)
    - Voices of the Land (Funded by the Public Library Services Branch of the Government of Alberta): Digital Storytelling and sharing/preserving content online, a digital storytelling platform stewarded by libraries from around Alberta as a safe space to create, share, discover, and







celebrate local Indigenous content online. From digitizing First Nations archives, to creating films with Elders on language revitalization, to large scale digital storytelling projects

([www.crowdcast.io/e/voicesofthelandepl](http://www.crowdcast.io/e/voicesofthelandepl))

- Walking Together (First Nations, Metis and Inuit Perspectives in Curriculum. Oral tradition to develop an understanding of stories that preserve and reinforce the oral traditions.  
([https://www.learnalberta.ca/content/aswt/oral\\_tradition/](https://www.learnalberta.ca/content/aswt/oral_tradition/))
- 3. **Real time story telling:** Photovoice is popular digital story telling tool and a community-based participatory research tool to document and reflect reality. Personal devices like cellphones equips individuals with cameras to give firsthand accounts and it is dropped onto dedicated files and digital sites.
  - **Photovoice** as a participatory action research method that employs photography and group dialogue as a means for marginalized individuals to deepen their understanding of a community issue or concern, as well as a student example from Edmonton Public Schools.  
<https://empoweringthespirit.ca/sharing-through-story>
  - **Modern artforms** like the REDress Project: Digital media shared on social networking sites can be viewed as a form of Indigenous resurgence and resistance. It is truly powerful and empowering for Indigenous people who are using their voice and mastering social media platforms, especially when Canadian news stations and other media sources are not shedding light on MMIWG. Moreover, Indigenous art is considered integral to Indigenous survival, as it can disrupt current status quo portrayals of Indigenous women and girls (Gallagher 2020), and recent research has shown a connection between Indigenous art and activism dedicated to raising awareness of MMIWG. Gail Gallagher's (2020) REDress Project helps raise public awareness through social activism and may help better unite Indigenous and non-Indigenous communities across Turtle Island. Furthermore, social justice art projects such as the REDress Project use Indigenous ceremonies to foster healing within communities and in families  
(<https://www.erudit.org/en/journals/kula/1900-v1-n1-kula06185/1079238ar.pdf>)
  - **Knowledge Transfer - Cultural Research.** Perhaps the greatest area of local expression, usership and innovation is how digital technology is applied within cultural research. The cultural research learning journey that First Nations families, community and Nation is leading the revitalization of culture and language, in a time of Truth and Reconciliation. Knowledge Transfer is the essence of identifying components of what is the role of the Atchimostakanna – Story Telling Instrument. An example is the Metis Voices – a digital storytelling (Using Metis resources in your classroom) teachers resource guide to use seven short digital stories.  
(<https://www.metisvoices.ca/>)
  - **Cultural Safety tool: Indigenous Health Research** – Safety in all of its forms and remains the primary feature, where participants feel, validated and free to share their story. One good example where digital technology offers Indigenous woman a safe and nurturing platform. Woman's voice Lorena Fontaine with University of Winnipeg conducted a 'Listening to First Nations women' expression of heart health: mite achimowin digital storytelling study' a presentation where the objective was to identify concepts, language, and experience of heart health amongst FN women, can be found at (<https://www.youtube.com/watch?v=D5gGounwlJg>)





4. **Data Collection - People-community focused:** Online Indigenous resources exist 'First Nations Pedagogy online' but do not indicate if they are Indigenous controlled and use Moodle an open-source course management system and have blog create a digital communication board called 'Circle Talk Blog' using Nucleus an open-source Blog software.
  - **Digital Archives Capacity:** The vast ability to help with memory work community projects creates healing pathways. Creating local data or archival keeping houses/centers places Indigenous communities in proactive role to reconstruct their lived history. Indigenous communities are re-evaluating the relationship between archives, official record keeping and nation building, with OCAP solidifying Indigenous-led research for their people and land. [https://www.researchgate.net/publication/351801888\\_Indigenous\\_Digital\\_Storytelling\\_for\\_Cultural\\_Heritage\\_Access\\_and\\_Preservation](https://www.researchgate.net/publication/351801888_Indigenous_Digital_Storytelling_for_Cultural_Heritage_Access_and_Preservation)
  - Digitalizing projects: The Alberta Native Communications Society have amassed over 5,000 items (film, photographs, event documentation, etc.) this digital archival project the Sound Studies Institute (SSI) is a collaborative project at the University of Alberta. (<https://soundstudies.ca/2021/07/12/digitizing-the-ancestors-project/>)
  - Indigenous Languages Technology Project (<https://nrc.canada.ca/en/research-development/research-collaboration/programs/fact-sheet-indigenous-languages-technology-project>) lists the language reclamation revitalization and stabilization projects such as (**Verb conjugation software** – collaborators (Onkwawenna Kentyohkwa Mohawk-language immersion school (Western Mohawk), Kanien'kehá:ka Onkwawén:na Raotitióhkwa Language and Cultural Center (Eastern Mohawk), Kitigan Zibi Cultural Centre (Algonquin), Prairies to Woodlands Indigenous Language Revitalization Circle (Michif); **ReadAlong Studio** – highlights words in indigenous books as they are being read (Carleton University's School of Linguistics and Language Studies, Michael Running Wolf (Northeastern University); **Predictive Text** – software provides suggestions for texting on cells phone in ᓂᐃᓄᐃᓂ (Plains Cree) and Qʷi·qʷi·diččaq (Makah); **Digital Recordings** – older recordings formats are degrading and becoming obsolete this UBC project supports the digitalization of audio and video recordings (University of British Columbia (UBC)'s Indigitization Project, Council of Yukon First Nations, T̓silhqot̓in National Government, Syilx Language House); On-line Language course - Collaborators: 7000 Languages, Prairies to Woodlands Indigenous Language Revitalization Circle.
  - Data Storage: There is very little information as to how Indigenous communities are storing their data. Projects appear to be using external sources like Affinity Bridge (<https://affinitybridge.com>) who partnered with Nature United who developed the Indigenous Guardian program to support Indigenous-led conservation and sustainable resource management.
  - 'Indigenous Guardians Toolkit created chapters and the Mikisew Cree First Nations have a community-based monitoring program to track impacts upon their traditional lands. They have developed data collection and management system, using open-source software using Android and iOS devices. They have established a database with Athabasca Chipewyan First Nation with Developers Affinity Bridge. (<https://www.indigenousguardianstoolkit.ca/community-resource/indigenous-guardians-toolkit-brochure>)
5. **Promoting Digital Cultural Storytelling:** Indigenous led digital story telling involved intergeneration's within their ancestral landscape. Libraries are safe spaces to maintain critical communication linkages for Indigenous women, girls and 2SLGBTQQIA and people.





- The project was developed in collaboration with the Tê ilhqot'in National Government's Education Department to address a community-identified need for open-access teaching and learning resources for Indigenous communities in the north-central region. Their stories counter dominant understandings of local histories by using cultural memory to reinterpret landscapes. They seek to reinscribe Indigenous lands and places with historical and contemporary narratives from Indigenous storytellers, contributing to decolonization and reconciliation efforts in Canadian education. <https://doi.org/10.18357/kula.149>]
- Voices of Amiskwaciy (Stories from Indigenous Edmonton). The Edmonton Public Library introduces Voices of Amiskwaciy—a digital public space to share Indigenous stories, a first for a public library in Canada and downloaded onto Vimeo. <https://www.epl.ca/digital-storytelling/>

One of the predominate key features of using digital storytelling was its educational capacity for teaching and learning. It quickly became apparent that educators were using 'youtube' for class assignments, but more so, this site offered tutorials on any subject. Youtube serves as a great education and learning tool for any age group.

### **Evaluating the Anticipated Needs – Using digital technology:**

The cultural needs of the community are placed first to preserve knowledge systems. However, communities must anticipate all factors in fusing digital storytelling and access to high-speed internet and providing Wi-Fi into their programming. Digital storytelling offers healing avenues to address the compounded social issues impacting Indigenous communities. Every available methodology must be applied from cultural to technological, to engage people at a deep emotional, intellectual, physical and spiritual level. Therefore, community planners need to be prepared to address the overall costs associated in using digital storytelling. Software cost must be relatively low and user friendly to support community memory work projects.

Education is a critical factor required, to learn how to use this technology to be and explore its capabilities. Workshop facilitators are essential and can provide technological support, which can include teaching participants how to use the program on an iPad. The access to numerous options such as recording or capturing one's narrative, then uploading requires a management plan. Taking and learning to edit and add photos can be one session, including editing videos. Vital one-on-one support must be provided for participants and depending upon their comfort or knowledge level with the chosen program because not everyone is efficient with technology. Proper equipment is essential, including access to highspeed internet.

Interviewed three IT experts: (Oscar O'Neil [Digital Staff], Samuel Morin [CFX – DreamWorks Animation] and Ken Viccar [AFNIGC IT specialist]

- The guiding IT research question: How can research instruments like computers/ipads/digital app's be used? Suggested list of Software – Data collection instrument by IT specialists:
- RedCap (Research Electronic Data Capture) requires a license – fee service.
- Microsoft offers many platforms.
- Social media like Facebook is popular place to create pages that can be monitored and can be protected with password and is users friendly and people can be admitted into the room





- Creative Commons Licensing is widely used to generate web pages that share educational resources.
- Oxwall – based interactive content management system.

Identify objective of Literature Review; search internet & community-based publications on themes of digital technology, data collection, data management and data storage; and Indigenous led digital story telling; 5 year time frame 2022 to 2017; develop inclusion and exclusion on Indigenous-led digital storytelling; and

### **Themes arising from the Literature Review:**

Cultural preservation, digital equity support tool and cultural safety mechanism appears to be elements of what digital technology is contributing to building capacity within First Nations communities. Education and local promotion of digital technology is key step for any Atchimostakanna – Story Telling Instrument to be applied. There are a few Cree communities who are using digital technology to preserve language, culture, and environmental stewardship. It is still unclear if First Nation communities have a digital data management or data storage or sharing agreement. What has is known is there any digital programming software is outsourced and software companies will create and provide for the needs of the community. The urgency to preserve cultural knowledge systems builds upon positive qualities and the key issue amongst the different age groups is to connivingly to demonstrate the wide range of opportunities.

### **Closing**

There were several digital projects informed by the Cree language and worldview within Alberta and elsewhere in Canada. Digital technology brings Indigenous storytelling into another era, where Indigenous data methodologies brings peoples lived experience often silenced, into focus. In contemporary media world, whose story and experience are privileged is not the missing and murdered Indigenous women, girls, boys and 2SLGBTQQIA and people, however this literature review a small range of ingenious approaches and work that is occurring at the community level; to transform the data landscape. Indeed, digital technology offers a direct healing tool, where the user is able to present their lived data that is collected using the digital formats of their choice or access, provides further insight of how Indigenous data sovereignty is shaping across Indigenous communities.

