INDIGENOUS DIGITAL INNOVATIONS AND MENTAL WELLNESS:

Opportunities, tensions, and futures

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National Collaborating Centre for Indigenous Health

Centre de collaboration nationale de la santé autochtone

SOCIAL DETERMINANTS OF HEALTH



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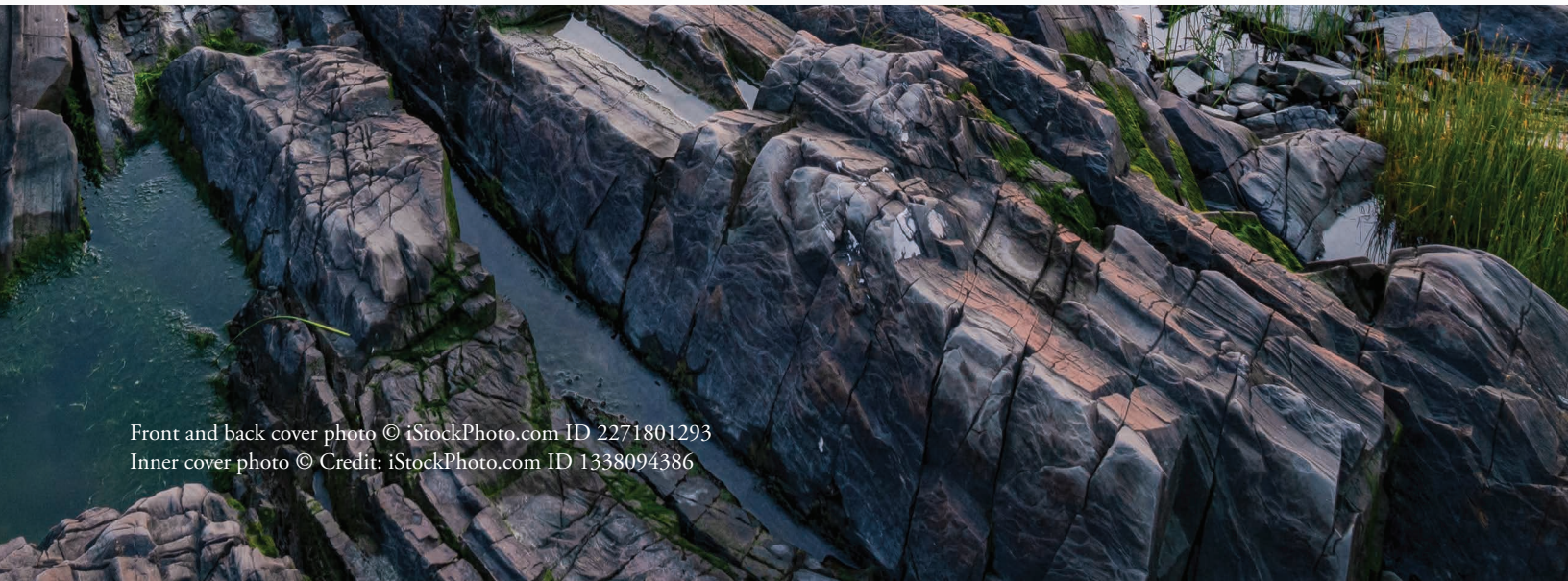
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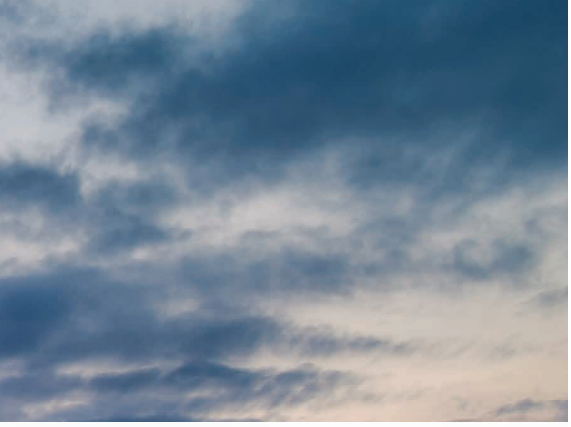
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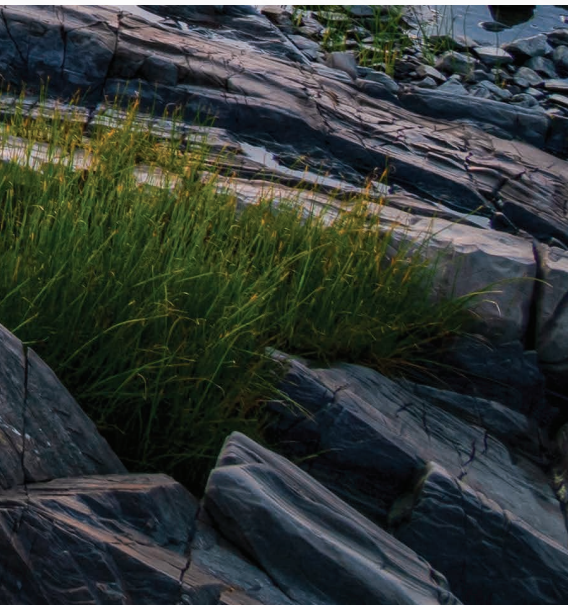
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INTRODUCTION

Improved access to culturally safe and relevant mental health and wellness programs and services is paramount for many First Nations, Inuit, and Métis communities in Canada (Assembly of First Nations [AFN] et al., 2015; Greenwood & Larstone, 2022) and Indigenous communities globally (Gone & Kirmayer, 2020). Colonialism violently disrupted traditional systems of maintaining health and well-being, through land dispossession, the criminalization of cultural and healing practices, the dismantling of relational worldviews and, in colonized countries such as Canada, the forcible removal of generations of children from their families (Allan & Smylie, 2015; Greenwood & Lindsay, 2019). The resulting intergenerational trauma, grief, and mental distress continue to be felt across many Indigenous communities (Gone & Kirmayer, 2020). Nevertheless, for many Indigenous Peoples, access to mental health services and supports that are responsive to their needs, priorities, and contexts remains limited due to persistent racism, the dominance of colonial biomedical models of care, and the ongoing marginalization of Indigenous ways of knowing, being, and healing within western health systems (Allan & Smylie, 2015; Gone & Kirmayer, 2020; Josewski et al., 2023; Turpel-Lafond, 2020).

At the same time, Indigenous Peoples[1] have never simply endured colonialism (Greenwood & Lindsay, 2019; Nelson & Wilson, 2017). Indigenous self-determination and resurgence are reflected in ongoing efforts to reclaim and revitalize cultural healing practices and knowledge systems that support mental wellness and collective healing (Greenwood et al., 2018, 2022). A growing body of evidence shows that health interventions for Indigenous Peoples are most effective when designed and led by Indigenous Peoples (Allen et al., 2020; Josewski et al., 2023; Nelson & Wilson, 2017). Guided by holistic understandings of

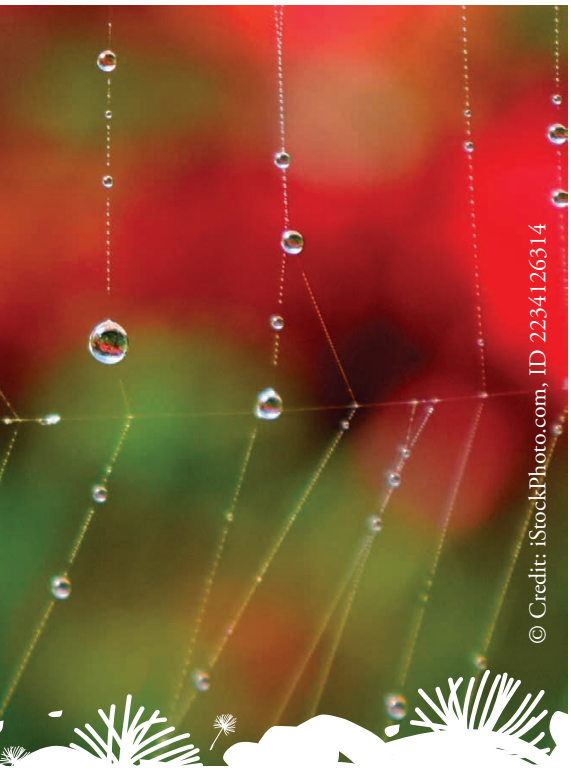
[1] The term 'Indigenous Peoples' is used throughout this report to refer to First Nations, Inuit, and Métis peoples inclusively.



mental wellness that emphasize the interconnected mental, physical, emotional, and spiritual dimensions of well-being, such programming promotes healing through nurturing meaning, purpose, belonging, and hope, respectively, while simultaneously addressing Indigenous-specific determinants of health (AFN et al., 2015). Indigenous-specific determinants of health extend beyond conventional social determinants (i.e., income, education, and access to health care), and rather emphasize culture, land, language and self-determination – elements that are fundamental to individual, family, and community mental health and wellness (Greenwood et al., 2018, 2022; Greenwood & Larstone, 2022).

Situating technological innovations in mental health within broader discussions of Indigenous self-determination, cultural resurgence, and Indigenous determinants of health therefore becomes critical when considering their potential role in advancing Indigenous mental wellness and mental health equity. In recent years – particularly since the COVID-19 pandemic – there has been significant growth in digital mental health interventions (e.g., telehealth, mobile apps, online therapy platforms, virtual peer support) (Coelho et al., 2025; Khan et al., 2023; Torous et al., 2025). Evidence suggests that these technologies have the potential to help reduce health inequities by making health care more accessible, especially for remote and underserved communities (Coelho et al., 2025; Khan et al, 2023). However, for Indigenous communities to benefit from emerging mental health technologies, innovations must be culturally tailored and designed in partnership with Indigenous communities to ensure cultural safety, contextual relevance, and long-term sustainability (Moecke et al., 2024; Reilly et al., 2020).

Indigenous Peoples have long been innovators, developing and using technologies to sustain knowledge systems, relationships, and community well-being across generations. Today, examples of innovative Indigenous-led mental health technologies can be found around the world, including



culturally grounded digital tools and platforms designed to support Indigenous wellness, such as language revitalization or digital healing spaces (e.g., Li & Brar, 2022; Moecke et al., 2024; Reilly et al., 2020).

Several reviews have examined and synthesized the available evidence on digital mental health solutions for Indigenous Peoples (e.g., Dawson et al., 2020; Li & Brar, 2022; Moecke et al., 2024; Reilly et al., 2020; Toombs et al., 2021). Yet, although many studies emphasize that culturally grounded design and Indigenous leadership are essential to ensure digital mental health tools support community well-being and self-determination, relatively few reviews are conducted in partnership with Indigenous scholars and/or grounded in Indigenous understandings of mental health and wellness. Two exceptions include the works of Hicks et al. (2025) and Toombs et al. (2021) – two reviews that were conducted in partnership with Indigenous scholars and grounded in Indigenous understandings of mental health and wellness, with a specific focus on youth. To address this gap, a literature review was conducted to document the breadth of Indigenous technology-enabled mental wellness and healing innovations across the lifespan and map the supporting evidence using an Indigenous determinant of health framework (AFN et al., 2015; Greenwood & Larstone, 2022; Greenwood et al., 2018, 2022). This review identifies and explores technology-enabled mental wellness pathways developed with the input and leadership of Indigenous Peoples in Australia, North America, and Aotearoa New Zealand. By bringing together this body of work, this review offers support to Indigenous self-determination in mental wellness by foregrounding diverse and innovative approaches that Indigenous communities may engage with, adapt, or extend in accordance with their own priorities, knowledges, and governance.

The report begins with a brief overview of the methods and key term definitions, followed by a presentation of seven identified Indigenous-led digital pathways found within the literature that contribute to and influence mental wellness across multiple, interconnected determinants of health, rather than implying direct or linear effects. These pathways are:

1. Digital mental wellness tools supporting cultural identity and connection to self;
2. Indigenous digital storytelling;
3. Technology-enabled Indigenous language revitalization;
4. Indigenous digital healing spaces and online communities;
5. Indigenous digital artistry;
6. Online Indigenous knowledges; and
7. Indigenous digital activism and social movements.

The report concludes with a critical discussion of how technologies have served as both a force for transformation in Indigenous mental wellness and a vehicle for ongoing colonization and oppression, reminding the reader that technology is not value neutral, but saturated in cultural and social processes and shaped by broader systems of power and oppression. Who creates technology, how it is shaped, and who it serves are essential questions that warrant continued focus.



METHODS AND APPROACH

Guided by Two-Eyed Seeing, or *Etuaptmumk* – a Mi'kmaq First Nations concept articulated by Elders Albert and Murdena Marshall that calls for bringing together Indigenous and western ways of knowing (Bartlett et al., 2012), the authors conducted a literature review informed by scoping review methodologies (Peters et al., 2024) of both academic and grey literature on mental wellness technologies developed for, by, and with Indigenous Peoples. Relevant literature from 2013 through 2024 was identified in six databases (CINHAL, Medline, PsychInfo, Scopus, Iportal and the Native Health database) as well as Google and Google Scholar. Literature published between 2013 and 2024 was included to provide a focused 10-year review period capturing the growing use of mobile and contemporary digital technologies. Multiple reviewers, including Indigenous and non-Indigenous authors, engaged with the literature. Two-Eyed Seeing informed the experiential nature of the review, as well as the conceptual expansion of mental health and wellness beyond western conceptions to include Indigenous determinants of health. Technologies identified in the academic literature were further explored through targeted grey literature searches (e.g., organizational websites). Conversely, technologies identified in the grey literature, through targeted searches of relevant Indigenous, government, health, and organizational websites (e.g., First Nations Health Authority [FNHA] and Thunderbird Partnership Foundation), were used to guide additional searches for related academic publications. Where accessible, the authors also directly engaged with the technologies themselves (e.g., websites, apps, or digital platforms) to gain experiential insight into their design, features, and intended uses. This iterative and experiential approach supported a more comprehensive understanding

of each technology, including its development, functionality, and intended purposes. Search terms were developed using the PCC (Population, Concept, Context) framework and included both controlled vocabulary and keywords related to Indigenous Peoples (population), technology, and holistic mental health and wellness, including Indigenous determinants of health (concept) in Canada, Australia, Aotearoa New Zealand, and the United States (context). These countries were selected because they share similar colonial histories and present-day realities.

To be included in the review, literature had to describe community-based digital or technology-enabled solutions aimed at addressing Indigenous Peoples' mental health and well-being and/or Indigenous determinants of mental wellness, such as land, culture, cultural identity, language, and intergenerational relationships (AFN et al., 2015; Greenwood et al, 2018, 2022). This included interventions that were not explicitly designed to improve holistic mental wellness but reported outcomes or impacts related to mental wellness or Indigenous determinants of health. Technological interventions also had to be developed or adapted in partnership with Indigenous Peoples or communities. While the review focused primarily on Canada, literature from Australia, New Zealand, and the United States was included to broaden the evidence base while limiting the review to broadly comparable settler-colonial contexts, recognizing the distinct colonial histories and diversity of Indigenous Peoples within and across these countries. Interventions based solely on conventional western models of tele-mental health service delivery were excluded, as these have been extensively reviewed elsewhere.



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KEY TERMS AND DEFINITIONS

Indigenous Peoples

In this report, references to "Indigenous Peoples" include Indigenous groups in Canada, the United States, Australia, and Aotearoa New Zealand. While the review draws on examples from across these contexts, particular attention is given to highlighting interventions relevant to Indigenous Peoples in Canada, specifically First Nations, Inuit, and Métis peoples.

Mental health and wellness

In this report, the concept of *mental wellness* is used to reflect Indigenous understandings of mental health as inseparable from holistic wellness (AFN et al., 2015). From a First Nations perspective, for instance, wellness arises from balance across the spiritual, physical, mental, and emotional dimensions of the self, as articulated in the *First Nations Mental Wellness Continuum Framework* (AFN et al., 2015). In line with this framework, mental wellness encompasses the presence of meaning, purpose, belonging, and hope, sustained and nurtured through relationships with culture, land, language, family, and community (AFN et al., 2015). Culture, land, language, family and community, among others, are recognized as Indigenous-specific determinants of health and mental wellness (Greenwood et al., 2018, 2022). These determinants extend beyond conventional social determinants of health frameworks to reflect Indigenous Peoples' unique yet diverse worldviews, as well as the enduring impacts of colonialism and anti-Indigenous racism (Greenwood et al., 2018, 2022), which remain pervasive root causes of poor mental health and ongoing inequities among First Nations, Inuit, and Métis peoples in what is colonially known as Canada, and among Indigenous Peoples globally (Gone & Kirmayer, 2020; Greenwood & Larstone, 2022; Loppie & Wien, 2022). Indigenous self-determination and community control are foundational to individual and collective healing and the restoration of wellness in the face of ongoing colonial harms and trauma (AFN et al., 2015; Gone & Kirmayer, 2020; Truth and Reconciliation Commission of Canada [TRC], 2015).

Technology

In this report, the term "technology" refers broadly to digital and online pathways that may support mental wellness. These include digital tools, mobile applications, and websites; audio blogs and podcasts; digital storytelling; online dictionaries and archives; digital spaces or online community platforms; digital artistry; social media; and other related online platforms.

RESULTS: INDIGENOUS-LED DIGITAL PATHWAYS TO MENTAL WELLNESS

The findings from this review highlight the wide range of innovative technologies developed by Indigenous Peoples and communities across diverse contexts to support and strengthen individual, family, and community mental wellness and healing. These initiatives are innovative not only because of the digital tools themselves, but because they reimagine the role of technology in mental wellness through Indigenous knowledge systems, cultural continuity, and community self-determination. Indigenous communities are mobilizing digital platforms, mobile applications, and online networks in ways that support self-determined approaches to mental health and wellness while addressing broader determinants of Indigenous well-being and responding to local priorities, needs, and contexts. This approach differs from many mainstream digital mental health tools, which are often grounded primarily in biomedical or psychological models of care. Defining features of many Indigenous technologies are their focus on strengths-based approaches to healing rather than pathology, and their development through co-creation with Indigenous communities, including partnerships with Elders, youth, and Knowledge Keepers. In some cases, this involves the creation of entirely new digital tools; in others, it involves adapting existing digital mental health interventions to reflect Indigenous cultural contexts and priorities.

Due to the diversity of technologies identified across forms, purposes, and cultural contexts, this review did not aim to be exhaustive. Rather, it highlights how Indigenous Peoples and communities are leading and mobilizing digital technologies in ways that promote individual and collective healing and mental wellness by strengthening Indigenous determinants of health, such as culture, land, language, and community, while addressing the ongoing impacts of colonialism and anti-Indigenous racism. This section discusses seven interrelated and overlapping pathways that emerged from the literature review:

1. Digital mental wellness tools supporting cultural identity and connection to self;
2. Indigenous digital storytelling;
3. technology-enabled Indigenous language revitalization;
4. Indigenous digital healing spaces and communities;
5. Indigenous digital artistry;
6. online Indigenous knowledges; and
7. Indigenous digital activism and social movements.

We use the term *pathway* to describe the interrelated and overlapping ways through which digital technologies may contribute to Indigenous mental wellness – either directly or indirectly through their influence on broader determinants of Indigenous health and wellness, such as culture, language, identity, community connection, and self-determination. Each

pathway is described in greater depth below, shining the spotlight on a few innovative examples – representing a small selection among many – that have been led by First Nations, Inuit, and Métis peoples in Canada. Examples were selected to reflect the breadth and diversity of technologies within each pathway and where sufficient information was available to meaningfully describe the initiative.

Pathway 1: Digital mental wellness tools supporting cultural identity and connection to self

Many of the digital tools identified in this review support mental wellness and resilience in culturally grounded ways, including by strengthening connections to self, cultural identity, and community, as well as by supporting relationships and adaptive coping. These tools were designed to support a range of mental health and wellness priorities, including life promotion and suicide prevention (e.g., Brown et al., 2020; Dingwall et al., 2023; Tighe et al., 2020); emotional well-being such as anxiety and depression (e.g., Litwin et al., 2023; Warren et al., 2020); healing from trauma (e.g., Litwin et al., 2023; Warren et al., 2020); substance use (e.g., Jongbloed et al., 2016, 2020; Kaufman et al., 2023; Routledge et al., 2022; Snijder et al., 2021); and resilience (e.g., Firestone et al., 2020; Nagel et al., 2022; Ni Mhurchu et al., 2019; Serlachius et al., 2021; Te Morenga et al., 2018). A full list of identified Indigenous apps and platforms is provided in Appendix A. Given the diversity of digital apps and platforms identified within this pathway, several unique features that emerged as common strengths across these initiatives are highlighted. The first of these is their strong grounding in local cultural contexts and relationships to place.


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Cultural relevance and connection

A defining feature of many of the Indigenous digital tools (e.g., Bohr et al., 2023, 2024; Isaksimagit Inuusirmi Katujjiqatigiit Embrace Life Council [IIKELC], 2026; Thunderbird Partnership Foundation [TPF], 2024) is their grounding in local cultural contexts and relationships to place. Elder stories, cultural teachings, and Indigenous ways of knowing are often integrated alongside Indigenous languages, imagery, and soundscapes that reflect local geographies and traditions.

Together, these elements foster connections to land, community, culture, language, and identity – factors widely recognized as key Indigenous determinants of mental wellness (e.g., AFN et al., 2015).

For instance, many Indigenous applications enable users to navigate and engage with content in both their traditional Indigenous languages and English (e.g., Bohr et al., 2024; IIKELC, 2026; Virtual Qaggiq [VQ] Project, 2025). Cultural symbols and imagery further reinforce identity and belonging within digital environments. For example, the **Thunderbird Wellness** app draws on First Nations teachings in which the thunderbird is used to symbolize connections to Creator, language, land, and ancestry (TPF, 2024). More broadly, many Indigenous-based platforms incorporate visual elements such as traditional patterns, landscapes, animals, beadwork designs, or culturally significant spaces that reflect local histories and relationships to land, water, and territory. Inuit digital tools, for instance, frequently feature Arctic imagery and seasonal landscapes (e.g., VQ Project, 2025). Some Indigenous applications also integrate culturally meaningful soundscapes that evoke local environments and everyday experiences such as footsteps on snow, ocean waves, goose calls, throat singing, or Elders speaking over tea and Bannock, creating calming and culturally resonant digital spaces (e.g., IIKELC, 2026; Letts, 2024; TPF, 2026).

Many Indigenous apps also emphasize relational dimensions of well-being by encouraging users to identify sources of social and cultural support, thus facilitating networking opportunities and building skills such as healthy communication and boundary setting that support positive relationships with peers and caregivers (e.g., Bagwell-Gray et al., 2021; Firestone et al., 2020; Koziol-McLain et al., 2018; Markham et al., 2016; Nagel et al., 2022; Serlachius et al., 2021; Shegog et al., 2017; Thabrew et al., 2022; Tighe et al., 2020; Vigil-Hayes et al., 2021).

Blending Indigenous and western approaches

The integration of Indigenous wellness practices and teachings with western evidence-informed approaches – such as cognitive behavioural therapy, mindfulness, psychoeducation, and motivational interviewing – was another defining feature of many Indigenous digital mental wellness tools (e.g., Christie et al., 2019; Litwin et al., 2023; Shepherd et al., 2015, 2018; Warren et al., 2020; Vigil-Hayes et al., 2021). For example, the **AIMhi Stay Strong** app, developed to support First Nations communities in Australia, uses motivational interviewing techniques to guide users in identifying personal strengths, support networks, and meaningful relationships as part of resilience-building and mental wellness planning (Dingwall et al., 2019, 2021, 2023; Nagel et al., 2022; Perdacher et al., 2022; Povey et al., 2020, 2022). Similarly, the **iBobbly** app, another example from Australia, incorporates elements of cognitive behavioural therapy alongside culturally relevant narratives and imagery to support suicide prevention and emotional well-being among Aboriginal and Torres Strait Islander youth (Tighe et al., 2020, 2017). Additionally, **Quest – Te Whitianga**, a mobile app designed for Aotearoa New Zealand Māori and Pasifika youth navigating emotional challenges, uses gamification to engage young people in online cognitive behavioural therapy (CBT) principles (Warren et al., 2020). The app was co-developed with Māori and Pasifika youth participants who informed the app's design through Māori values and tikanga (cultural practices) (Christie et al., 2019).

Community-driven development

Participatory, community-driven design processes are central across many Indigenous initiatives, reflecting commitments to Indigenous self-determination and relational accountability. Technologies are often developed in partnership with youth,

Elders, cultural advisors, and local organizations to ensure the tools reflect community priorities, cultural knowledge, and local contexts. As such, many initiatives emerge in response to community-identified mental wellness priorities and incorporate community wisdom throughout the planning, development or cultural adaptation, implementation, and evaluation of the technologies. An example of this is **ARORA**, a prototype of a future app that was developed in partnership with Native American youth through a participatory design process which blended Indigenous knowledges with western psychological approaches, using a Two-Eyed Seeing framework (Vigil-Hayes et al., 2021). Youth were directly involved in designing the technology through activities such as "low-tech prototyping," using tools like pens and paper to map out what they wanted for the app's features and functions (Vigil-Hayes et al., 2021). Likewise, the **Virtual Qaggiq** project brought together Inuit youth leaders, Elders, cultural advisors, and mental health researchers to co-create a digital space inspired by the traditional Inuit Qaggiq, a communal gathering place for sharing knowledge and strengthening social bonds (VQ Project, 2025). Through this collaborative process, the game, Virtual Qaggiq, integrates Inuit storytelling, cultural teachings, and interactive gameplay elements to support youth mental wellness. Similarly, the **Isumajunnattiarniq** app, developed by the Isaksimagit Inuusirmi Katujjiqatigiit Embrace Life Council in Nunavut, was created in collaboration with Inuit artists, Elders, and wellness experts to ensure the app reflects Inuit generational knowledge, cultural practices, and local understandings of well-being (IIKELC, 2026).

Diverse digital formats

Indigenous digital mental wellness initiatives take diverse technological forms, ranging from self-guided wellness applications and culturally grounded educational platforms to interactive and gamified learning tools that teach coping and emotional regulation strategies. These tools often incorporate multimedia features such as storytelling, visual imagery, reflection prompts, and interactive activities to engage users in culturally meaningful ways. One particularly innovative approach involves the use of gamified digital mental wellness tools. By incorporating game-like elements such as quests, avatars, rewards, and interactive narratives, these digital programs can make mental health learning more engaging and accessible, especially for Indigenous youth (Christie et al., 2019; Dingwall et al., 2023; Laskaris, 2025; Shepherd et al., 2015; Vigil-Hayes et al., 2021). Examples developed for and by Inuit youth include the **Virtual Qaggiq** game (VQ Project, 2025), **SPARX** and its Inuit adaptation, **I-SPARX** (Bohr et al., 2023, 2024; Litwin et al., 2023), and the **Isumajunnattiarniq** app (IIKELC, 2026; Letts, 2024).

Offline accessibility

Many Indigenous communities, particularly in remote and northern regions, continue to face limited internet access due to colonial, market-driven practices such as "digital redlining" – a practice that deliberately excludes many Indigenous communities from telecommunications and internet expansions because they are deemed to be unprofitable and economically unviable (Indigenous Connectivity Institute, 2024; Merid et al., 2021). In response to these neocolonial realities, many Indigenous digital mental wellness tools are intentionally designed to function both online and offline (IIKELC, 2026; Tighe et al., 2017). For example, the **Isumajunnattiarniq** app allows users in Nunavut to access many of the app's features without requiring continuous internet connectivity (IIKELC, 2026). This design ensures that individuals and families can continue to benefit from the app's mental wellness resources, even in areas where reliable broadband or cellular service is restricted, making it accessible and usable across remote communities.

Expanding access to mental wellness supports

Many digital mental wellness tools are designed to be accessed independently by Indigenous individuals, families, and youth without requiring direct interaction with a healthcare provider (e.g., Craig Rushings et al., 2021; Kaufman et al. 2023; Litwin et al., 2023; Reilly et al., 2020; Shepherd et al., 2015, 2018; Snijder et al., 2021; TPF, 2024; Tighe et al., 2020; Warren et al., 2020; Vigil-Hayes et al., 2021). This self-guided format addresses longstanding barriers to culturally relevant mental health services in many Indigenous communities, particularly in rural and remote regions where access to services may be limited. At the same time, some Indigenous mental wellness tools are designed to complement existing health services by supporting culturally informed care and strengthening relationships between Indigenous communities and mental health professionals. Examples include Yarnhem, INSIST, WICKD, **Cedar Project WelTel**, the Stay Strong App, and iBobbly ((Black et al., 2022; Brown et al., 2020; Dingwall et al., 2021; Jongbloed et al., 2016, 2020; Nagel et al., 2022; Perdacher et al., 2022; Tighe et al., 2020). For example, Cedar Project WelTel uses two-way text messaging to help Indigenous participants remain connected with trusted case managers and healthcare providers, integrating digital technology into existing relationships of care rather than replacing them (Jongbloed, et al., 2016, 2020).

Innovation spotlight

I-SPARX is a role-playing video game for Inuit youth. SPARX was originally developed with Māori youth aged 12 to19 years in Aotearoa New Zealand to address symptoms of depression (Litwin et al., 2023). The video game was redesigned with Nunavut youth leaders, Elders, and community members to ensure cultural relevance to Nunavummiut.[2] **I-SPARX**, which is based on Inuit Qaujimajatuqangit (IQ) – the foundational knowledge and values of Inuit culture – teaches users skills to manage stress, anxiety, and low mood through an interactive fantasy adventure game. By incorporating Inuit cultural teachings and imagery into the game, **I-SPARX** aims to strengthen cultural pride, community resilience, youth engagement, and mental health literacy (Bohr et al., 2024). The program was evaluated by 121 Inuit youth from 16 communities across Nunavut, engaging just over 1% of youth in the territory. Results showed significant improvements across many areas of well-being, especially for asking for support, feeling hope, and an increase in perceived energy levels (Bohr et al., 2023, 2024).

FIGURE 1: I-SPARX



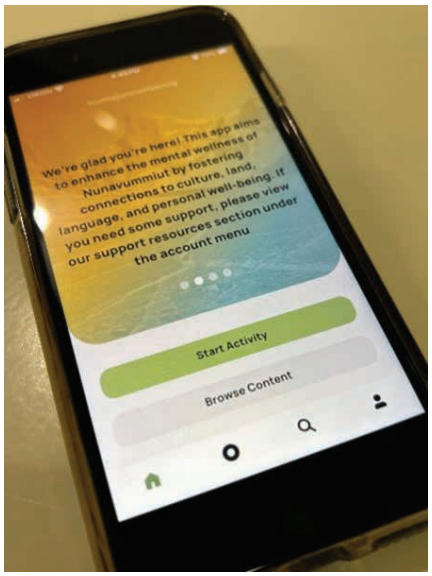
Source: *I-SPARX* [Photograph], by I-SPARX Project Team (2024).

[2] The term 'Nunavummiut' originates from Inuktitut and means "people of our land", in other words, residents of Nunavut.

The **Isumajunnattiarniq** app – named after the Inuktitut word for mindfulness – integrates contemporary wellness practices with Inuit generational knowledge and teachings to support the mental health and wellness of Nunavummiut across the lifespan (IIKELC, 2026). Familiar Arctic imagery and cultural motifs are used throughout the platform to strengthen cultural resilience and reinforce connections to land, water, and identity (Letts, 2024).

To support relaxation and stress reduction, the app offers features such as guided meditation, breathing exercises, and stories shared by Elders. Ambient audio elements, including the sound of footsteps on snow, children playing by the ocean, goose calls, Elders speaking over tea and bannock, and throat singing, create a calming, culturally meaningful listening environment (Letts, 2024). The app is available in Inuktitut and English, with Inuinnaqtun coming soon (IIKELC, 2026).

FIGURE 2: ISUMAJUNNATTIARNIQ APP



Source: *Isumajunnattiarniq app* [Photograph], by Letts (2024).

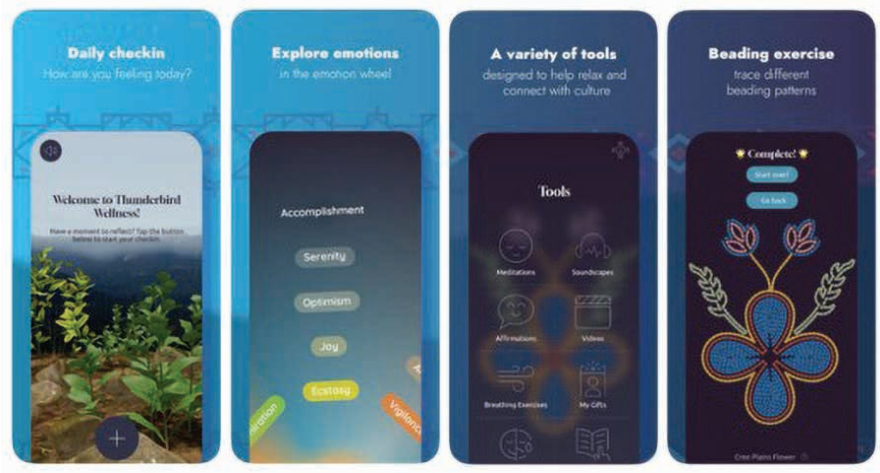
Designed by and for Inuit youth, **Virtual Qaggiq (VQ)** is a novel Arctic-based video game that uses IQ principles to address mental health challenges, such as hopelessness, trauma, depression, substance use, self-harm, and emotional regulation, among Inuit youth aged 12 to 24 years, while also fostering connections to cultural identity (VQ Project, 2025). Drawing on elements of Inuit knowledge and place – including the traditional Inuit Qaggiq, a communal meeting place for sharing knowledge and strengthening community bonds – the VQ game platform offers a culturally meaningful virtual and interactive space for healing, connection, and resilience-building (VQ Project, 2025). The game is available in English and Inuktitut. VQ is currently undergoing community testing and evaluation with Inuit youth aged 12 to 24 years (VQ Project, 2025).

FIGURE 3: VIRTUAL QAGGIQ (VQ)



Source: *Virtual Qaggiq* [Photograph], by Virtual Qaggiq Project Team (2025).

FIGURE 4: THUNDERBIRD WELLNESS APP



Source: *Thunderbird Wellness app* [Photograph], by Thunderbird Partnership Foundation (2024). Thunderbird Wellness app, **thunderbirdpf.org/thunderbird-wellness-app**.

The **Thunderbird Wellness** app, developed by the Canada-based Thunderbird Partnership Foundation, is a culturally grounded digital wellness tool to support First Nations peoples in their wellness journeys (TPF, 2026). Culture forms the foundation of the app's content and strategies, which incorporate culturally based wellness tools like meditations and affirmations grounded in First Nations teachings, nature soundscapes (e.g., birds and water), and creative activities inspired by traditional practices such as beading. These features are designed to reinforce cultural identity and support grounding practices that reflect Indigenous relationships with land and the natural world. Intended for First Nations youth aged 12+ years and adults, the app adopts a strengths-based and trauma-informed approach rooted in the First Nations Mental Wellness Continuum Framework, which identifies hope, belonging, meaning, and purpose as the four key dimensions of mental wellness (AFN et al., 2015).

...Indigenous communities around the world are creating digital stories as a way to strengthen cultural identity, assert self-determination, challenge colonial narratives, and share their viewpoints

(Flicker et al., 2019).

Pathway 2: Indigenous digital storytelling

Indigenous digital storytelling represents an important pathway through which digital technologies can support Indigenous mental wellness. Across many Indigenous cultures, storytelling is not only a means of communication but also a relational and spiritual practice deeply connected to identity, belonging, community knowledge, and well-being (Iseke, 2013). As the findings from this review demonstrate, Indigenous communities around the world are creating digital stories as a way to strengthen cultural identity, assert self-determination, challenge colonial narratives, and share their viewpoints (Flicker et al., 2019). The process of telling one's own story and listening to other people's stories is deeply rooted in oral traditions of connection-building, self-knowledge, agency, and reclamation of individual and collective voice. In this sense, storytelling is often understood not merely as narrative expression but as an act of healing and a form of medicine that supports both individual and community well-being (Flicker et al., 2019).

The movement of storytelling into digital formats, including podcasts (e.g., CBC Podcasts, 2021; NDN Collective, 2025; TPF, 2021), digital storytelling workshops (e.g., Manuelito, 2016;

Moorehead, 2016), photovoice projects (e.g., Badry & Felske, 2013a; Beltrán & Begun, 2014), and audio blogs (e.g., 4Rs Youth Movement, n.d.), has enhanced the timing, reach and longevity of Indigenous stories. Podcasts, which are audio recordings distributed through online platforms, allow storytellers to share conversations, teachings, and lived experiences in an accessible format that can be streamed or downloaded by listeners. Digital storytelling workshops typically bring participants together to create short digital narratives that combine personal stories with photographs, video, music, and/or voice recordings. Similarly, photovoice projects invite participants to document their experiences through photographs and accompanying narratives, while blogs and multimedia storytelling platforms allow individuals and communities to share written, visual, and audio stories online. Digital platforms such as websites, social media (e.g., Facebook, Instagram), and video- or audio-sharing platforms (e.g., YouTube, TikTok) allow stories and podcasts to be uploaded, shared, and streamed by audiences, thus enabling communities to preserve stories for future generations while also sharing knowledge, insights, and perspectives with broader audiences. Although diverse in content, format, and approach, the literature identifies several recurring themes that illustrate how Indigenous storytellers are using digital storytelling to support Indigenous mental wellness. These themes are discussed here.


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Cultural continuity and revitalization

A prominent theme across many Indigenous digital storytelling initiatives is the role of storytelling in supporting and preserving Indigenous cultures and languages (Adelson & Olding, 2013; Badry & Felske, 2013b; Beltrán & Begun, 2014; Fletcher & Mullett, 2016; Flicker et al., 2019). Within many Indigenous traditions, storytelling is deeply embedded in cultural teachings, relational knowledge-sharing, and collective memory, which helps to transmit languages, values, traditions, and histories across generations. Digital storytelling initiatives, therefore, often function as platforms through which cultural knowledges, lived experiences, and community teachings can be shared, preserved, and revitalized. Through this process, storytelling becomes not only a means of cultural preservation but also a pathway for healing and resilience within Indigenous communities. Nevertheless, while oral traditions like storytelling help sustain continuous lineages of teachings, "collective history is retold in new ways in each generation, using contemporary images and vocabulary" (Kirmayer et al., 2009, p. 440).

For example, the **Nak'azdli Lha'hutit'en digital storytelling project** in the Nak'azdli Whut'en community in British Columbia, Canada recorded stories told

...while oral traditions like storytelling help sustain continuous lineages of teachings, "collective history is retold in new ways in each generation, using contemporary images and vocabulary"

(Kirmayer et al., 2009, p. 440).

by First Nations Elders related to local histories, traditional medicines, and cultural practices (Hausknecht et al., 2021). Elders played a crucial role in combating cultural loss by sharing local histories, wisdom, skills, and knowledge (Hausknecht et al., 2021). Through digital storytelling workshops, participants recorded community knowledge, including stories shared in the Dakelh language, which helped to preserve cultural teachings and local histories in digital form. Capturing Elders and fluent speakers sharing stories in their traditional language is particularly important for Indigenous communities facing language loss, as it helps safeguard linguistic knowledge for future generations. In this way, digital storytelling not only documents cultural teachings but also creates lasting digital archives that support cultural continuity, language preservation, and revitalization.

Another Canadian example of Indigenous-led storytelling facilitated in online spaces is the **Mino Bimaadiziwin** podcast. The podcast highlights Indigenous-led discussions and expertise focused on addictions and mental health issues, with leading voices in Indigenous wellness (TPF, 2021). Mino Bimaadiziwin, which translates to "living the good life" in Anishinaabe, is grounded in Anishinaabe culture, respect, kindness, compassion, and ways of knowing. The podcast features a wide array of topics that link to Anishinaabe concepts of well-being, including systemic racism, harm reduction, food as medicine, land-based treatments, the power of Indigenous languages, life promotion, and the management of grief.

Genuine community consultation and co-production are important aspects of ensuring that Indigenous digital storytelling projects are respectful of cultural protocols and relevant to the local contexts (Moorehead, 2016). Collaborative and culturally grounded processes allow Indigenous communities to determine which stories should be shared and how cultural teachings, histories, and identities are represented within digital storytelling spaces. In many Indigenous digital storytelling initiatives, the process of creating digital stories is also grounded in Indigenous ceremony and ways of knowing and doing. For example, in the development of the **nDigiStorytelling** workshops in Northern Michigan, Diné researcher Brenda Manuelito worked closely with Anishinaabe community members from the Keweenaw Bay Indian Community and followed a Four-Directions approach associated with many Anishinaabe teachings to shape the workshop's content and structure in ways that reflected local cultural perspectives and storytelling traditions (Manuelito, 2016).

By grounding digital storytelling initiatives in Indigenous cultural teachings and protocols, digital storytelling supports the ongoing transmission of cultural knowledge while strengthening Indigenous People's identity, belonging, and continuity across generations. Grounding the storytelling process in Indigenous methodologies and relational practices also ensures Indigenous digital storytelling initiatives remain aligned with community values, honour cultural protocols surrounding knowledge sharing, and reinforce connections to culture, identity, and collective memory.

Reclaiming narrative and representational power

When Indigenous stories circulate in public and digital spaces, they can reshape broader societal understandings by presenting perspectives that are often absent from mainstream media and academic narratives. In this context, storytelling can serve as a site of resistance through which First Nations, Inuit, and Métis peoples reclaim narratives, challenge colonial misrepresentations that have framed Indigenous Peoples as passive subjects or social problems, and recentre Indigenous voices and perspectives (Flicker et al., 2019). Many Indigenous digital storytelling projects make visible the strength, resilience, and complexity of Indigenous communities and expose the structural and historical roots of social and health inequities, including contemporary forms of colonialism, discrimination, and systemic racism.

For example, the **Brightening Our Home Fires** photovoice project engaged Indigenous women in Canada in sharing visual narratives in the form of photographs about health and fetal alcohol spectrum disorder (FASD). These issues were situated within broader histories of colonial trauma and systemic inequities to challenge colonial deficit-based and pathologizing narratives that individualize blame (Badry & Felske, 2013b). Similarly, the **Aotearoa Digital Storytelling as Indigenous Media Project (ADSIMP)** facilitated storytelling workshops in which Māori participants explored narratives of historical trauma and healing, which helped articulate connections between colonial histories and contemporary mental health disparities (Beltrán & Begun, 2014).

Youth identity and self-determination

For young people, digital media and storytelling can be particularly powerful tools for self-expression and identity development. The literature highlights Indigenous digital storytelling as an important approach for supporting Indigenous youth identity formation, expression, and self-determination (Adelson & Olding, 2013; Eglinton et al., 2017; Rice et al., 2016). By combining oral storytelling with images, music, and video, digital storytelling provides youth with creative spaces to explore what it means to be Indigenous in contemporary contexts. It also emphasizes how Indigenous identity is fluid, continually evolving, and shaped by both historical influences and present-day realities (Adelson & Olding, 2013; Wexler et al., 2013, 2014; Wicker & Ruan, 2023).

Many Indigenous youth use podcasts and audio blogs to share perspectives on social, cultural, and political issues that matter to them, including climate justice, LandBack movements, and the complexities of identity (e.g., 4Rs Youth Movement). **Land(ing) Back** is an example of an audio blog series that uses conversational storytelling to center Indigenous youth voices and experiences in relation to land, climate justice and reconciliation. Indigenous youth share their experiences about creating change within their communities while critically reflecting on their identities, positionalities, and roles within broader social and political contexts. The series amplifies a diversity of Indigenous youth perspectives, including voices from queer and Two-Spirit youth, all-gender and transgender youth, young mothers, and youth with mixed Black–Indigenous identities (4Rs Youth Movement, n.d.), while celebrating contemporary Indigenous youth identities and strengthening Indigenous youth leadership in shaping policy responses to climate change, reconciliation, and Indigenous futures that support collective mental wellness and resilience.

Youth-led podcasts, audio blogs, films, and other storytelling platforms (e.g., Inuit Art Foundation & Smithsonian Institution Arctic Studies Center, 2021; Love Intersections, 2015; Salmon Nation, 2022)

are important spaces where Indigenous and LGBTQS2+ youth explore experiences related to sexuality, gender identity, culture, and belonging through digital storytelling (Craig & McInroy, 2014). For example, in **Live Indigiqueer Storytelling**, a digital storytelling series highlighting Indigiqueer and Two-Spirit voices, Syilx storyteller Madeline Terbasket – a Two-Spirit performing artist working with traditional storytelling and filmmaking – shares stories rooted in Indigenous traditions and teachings while exploring queer themes (Salmon Nation, 2022). Similarly, in **Niish Manidoowag** (Two-Spirited Beings), a short documentary film by Anishinaabe filmmaker Debbie Mishibinijima, five youth travel the Bebamikawe Trail on Wiikwemkoong Unceded Territory in Ontario, Canada (Mishibinijima, 2017). Two of the youth identify as Two-Spirit and reflect on their experiences of acceptance and the challenges they face within their communities, as well as on how these experiences shape their ability to reconnect with culture and learn from the land.

Through their choices of storylines and multimedia elements, Indigenous youth use digital storytelling to construct and express their identities while developing voice and agency. Moreover, encountering similar experiences through digital media and shared narratives validates identities, fosters connections, and strengthens resilience among Indigenous youth (Craig & McInroy, 2014; Eglinton et al., 2017; Wexler et al., 2014).

Intergenerational, family and community connections

Another prominent theme in the literature is the role of digital storytelling in strengthening community relationships, especially intergenerational relationships and knowledge transmission (Fletcher & Mullett, 2016; Freeman et al., 2020; Hausknecht et al., 2021). Many projects bring Indigenous participants together in workshops or collaborative storytelling spaces where community members share experiences and listen to one another. In these contexts, storytelling becomes a relational practice that fosters a sense of community, belonging, and connectedness (e.g., Fletcher & Mullett, 2016, Hausknecht et al., 2021; Sanchez-Pimienta & Masuda, 2021). Intergenerational relationships between Indigenous youth and Elders are widely recognized as an important determinant of Indigenous mental wellness and intergenerational well-being because they support the transmission of cultural knowledges and languages, strengthen positive cultural identities and belonging, and foster resilience through relationships, mentorship, and shared learning (Fletcher & Mullett, 2016; Viscogliosi et al, 2020).

For example, the **Nak'azdli Lha'hutit'en** digital storytelling project created opportunities for promoting healthy relationships between First Nations Elders and youth in grades 6 and 7 in northern British Columbia, Canada (Hausknecht et al., 2021). Youth listened to and recorded Elders' stories. Digitizing these narratives ultimately fostered intergenerational engagement and knowledge exchange. The project also strengthened bonds between Elders and youth, ensuring the transmission of cultural knowledge to future generations and promoting youth, Elder, and community well-being. Studies consistently show that intergenerational connections are central protective factors in Indigenous youth resilience (Kahn et al., 2016; Wexler, 2011), specifically in reducing substance use and suicidality (e.g., Doria et al., 2022; Lehti et. al, 2009), and strengthening their connections to Elders, families, and communities (Kahn et al., 2016; Viscogliosi et al, 2022).



Pathway 3: Technology-enabled Indigenous language revitalization

Across many Indigenous communities, language revitalization is widely recognized as essential for sustaining cultural continuity and well-being. Indigenous languages carry knowledge systems, relationships to land and place, and ways of understanding the world that are foundational to both individual and collective health (Greenwood et al., 2018, 2022). As a result, Indigenous language revitalization is increasingly understood as an important determinant of mental wellness and a critical pathway for strengthening cultural continuity, identity, and well-being, as well as fostering belonging, resilience, and intergenerational connection (Greenwood et al., 2018, 2022; Koole et al., 2023; TRC, 2015).

Over the past 10 to 15 years, a diverse range of Indigenous-led, technology-enabled initiatives have emerged to support language revitalization, preservation, and transmission. Today, hundreds of Indigenous language apps and digital tools exist to support learners and communities. Online language technologies such as mobile language learning applications, digital dictionaries, digital archives, and online platforms can help address barriers to language learning by providing accessible resources for individuals who may not have direct access to fluent speakers. These tools are particularly important for Indigenous languages with few remaining speakers (Anderson, 2018).

One widely recognized initiative is **FirstVoices**, a collaborative online platform from Canada that supports Indigenous communities in documenting, sharing, and promoting First Nations languages. The platform hosts interactive learning resources – including audio recordings, vocabulary, phrases, songs, and stories – developed collaboratively with First Nations Elders, youth, and traditional language speakers. Currently, FirstVoices represents 33 of the 35 First Nations languages



spoken in British Columbia, in addition to languages from other regions across North America and Australia (FirstVoices, 2024). Importantly, language materials are managed by the contributing language communities, who retain ownership and copyright over their content (First Peoples' Cultural Council [FPCC], 2021). FirstVoices has also developed more than 100 Indigenous language keyboard applications that enable users to type and communicate in Indigenous languages across digital platforms, as well as mobile apps that allow learners to access FirstVoices language content with offline capabilities.



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Beyond FirstVoices, numerous Indigenous-led language applications have been developed across Canada and internationally (Cassels & Farr, 2019). Examples include **Michif to Go**, which supports learners in engaging with Michif languages (Gabriel Dumont Institute [GDI], n.d.); **Ditidaht Kids**, a Canadian mobile video game developed by Ditidaht First Nation on Vancouver Island in British Columbia, Canada to teach First Nations children aged three to six years about their language and culture (FPCC], 2021); and the **Windigo Language app**, which is another Canadian Indigenous-led digital learning platform developed by the Windigo First Nations Council to support the revitalization and reclamation of Anishinaabemowin and Anishininiimowin through immersive and culturally grounded learning approaches (Windigo First Nations Council, 2026).

These Indigenous language applications vary widely in design, reflecting diverse learning goals and approaches. Many apps combine multiple learning strategies, including vocabulary practice, dictionary functions, games, quizzes, interactive exercises, and culturally grounded educational materials (Cassels & Farr, 2019). For example, Ditidaht Kids engages children through an interactive canoe journey that introduces players to Ditidaht territory while teaching *Ditidaqiic̓aq cicqi*, the Ditidaht language (FPCC, 2021). With only four fluent Elders remaining in Ditidaht First Nation, strengthening connections between youth and their language, culture, and territory has become increasingly urgent. Through the video game, children learn vocabulary, stories, and traditional practices such as fishing and visiting a smokehouse. Moreover, the community retains full ownership and control over language and cultural content, ensuring the app remains community-led and culturally grounded.

Overall, mobile apps and other digital language tools developed through thorough community consultation can form one part of a successful language revitalization effort (Cassels & Farr, 2019; Koole et al., 2023; Trotter, 2023). Indigenous language learning apps are most effective when they integrate language instruction with cultural teachings (Begay, 2013). Involving Elders and community members in the development process ensures that language materials are culturally appropriate and aligned with community protocols (Koole, 2018). However, projects must protect community ownership of cultural knowledge – including stories, songs, prayers, and language materials – as recognized in international frameworks such as the United Nations Declaration on the Rights of Indigenous Peoples (United Nations, 2007).



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Innovation spotlight

Michif to Go

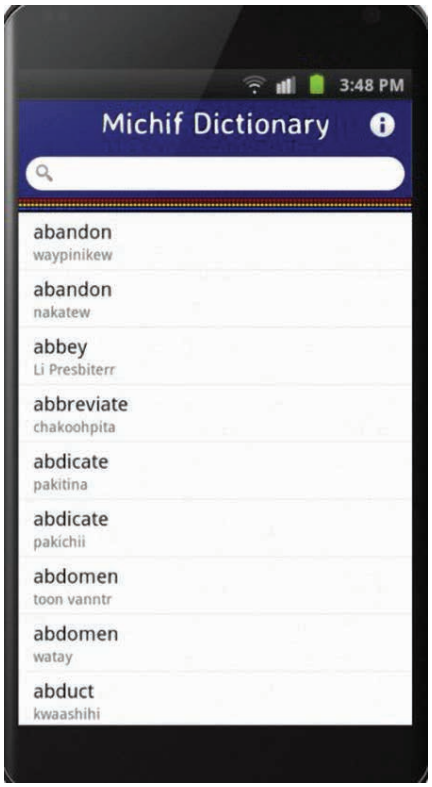
Heritage Michif to Go and **Northern Michif to Go** are mobile dictionary applications that translate English words and phrases into Michif, the orally based continuum of languages of the Métis. Both apps were developed by the Gabriel Dumont Institute to support the preservation and revitalization of Michif – a language spoken by a small proportion (5% to 10%) of Métis people, most of whom are Elders (GDI, n.d.)

Two Métis Elders played a central role in the development of the apps. Elder Norman Fleury provided the voice for every translation and pronunciation recording in Heritage Michif to Go, while Elder Vince Ahenakew provided the audio recordings for Northern Michif to Go. These recordings ensure that learners hear authentic pronunciations from fluent speakers, supporting both accurate language learning and the preservation of Elders' linguistic knowledge.

The Gabriel Dumont Institute recognizes both Heritage Michif and Northern Michif as distinct language varieties that reflect the histories, geographies, and communities of Métis people across the Prairies. Heritage Michif to Go is associated primarily with communities from western Manitoba to central Alberta, while Northern Michif to Go is connected to Métis communities in northwestern Saskatchewan (GDI, n.d.)

By providing separate applications for these language varieties, the tools allow learners to engage with the form of Michif most relevant to their communities. Through accessible mobile technology and Elder-led language recordings, these applications support ongoing efforts to reclaim, practice, and revitalize Michif for future generations.

FIGURE 5: MICHIF TO GO



Source: *Michif to Go* [Photograph] by Gabriel Dumont Institute of Native Studies and Applied Research. **metismuseum.ca/michif-app**.

Ditidaht Kids

The **Ditidaht Kids** video game app was released by Ditidaht First Nation on Vancouver Island in British Columbia, Canada. The First Nation collaborated with the First Peoples' Cultural Council to teach children aged three to six years about Ditidaht territory and Ditidaqiic̓aq cicqi, the Ditidaht language. Ditidaht Kids teaches children about traditional ways of living as they travel the territory by canoe in the game. Children explore canoe rides, a matching game, new vocabulary, a smokehouse, storytelling, fishing, and much more.

FIGURE 6: DITIDAHT KIDS



Source: *Still Image from Ditidaht Kids* [Photograph] by First Peoples' Cultural Council (2021). **fpcc.ca/stories/new-ditidaht-kids-video-game**.

Pathway 4: Indigenous digital healing spaces and online communities

With the increased use of smartphones and laptop computers, social media platforms have become important spaces for connection and sharing. Platforms such as Instagram, Facebook, Roblox, TikTok, Flickr, and YouTube enable Indigenous Peoples and communities to connect with each other and maintain community connections when opportunities for making connections or engaging in community in real life are limited (Berends & Halliday, 2018; Monkman, 2021). Across platforms, Indigenous Peoples have created Indigenous-specific networks – such as "Indigenous TikTok," "Native TikTok," "Métis Life" on Roblox, or "Indigenous Instagram" – where they can connect, support one another, and share knowledge. Through the use of Indigenous-focused hashtags, such as #IndigenousTikTok, #NativeTikTok, and #IndigenousCreators, creators are able to find and interact with other Indigenous users, forming informal but powerful digital communities through repeated interactions around these hashtags. These spaces allow Indigenous Peoples to share posts and media such as pictures and videos related to culture, language, humour, beadwork, activism, and everyday life, often reaching global audiences.

Online Indigenous beading communities

Online Indigenous beading communities, where Indigenous beadwork artists connect via virtual beading circles, is one example of such informal networks (Ansloos et al., 2022). For many Indigenous beadwork artists, beading circles are not merely social events, they are a way of practicing culture, sharing with each other, and healing (Allaire, 2020; Ansloos et al., 2022). Ansloos et al. (2022) argued that through beading, "Indigenous community members can experience a holistic form of well-being grounded in collective and intergenerational histories, cultures, spiritualities, identities, dreams, and teachings" (p. 2).

Online Indigenous beading communities often recreate the relational, cultural, and healing aspects of traditional beading circles in digital form (Allaire, 2020; Ansloos et al., 2022). By tagging their work with shared hashtags such as #IndigenousBeadwork and #NativeBeading, artists make their work visible to others who are searching for similar content. This allows beadwork artists to discover one another's works, follow new artists, and participate in ongoing conversations about techniques, materials, cultural teachings, and creative inspiration (Ansloos et al., 2022). Hashtag-based initiatives also foster collective creativity and interaction. #BeadSoupChallenge, where beadwork artists create beadwork using leftover beads that have been shared by other beadwork artists, is an example of one such social-media–based creative challenge (Ansloos et al., 2022). The challenge is to create a piece of beadwork using those materials, thus encouraging creativity and experimentation. Artists share their finished pieces online using the hashtag #BeadSoupChallenge, which allows other artists to see the results and participate in the challenge (Ansloos et al., 2022). In this way, hashtags function as digital gathering points and contribute to the formation of supportive networks in which Indigenous artists celebrate each other's work, provide encouragement, and sustain cultural practices, helping to transform social media platforms into relational spaces and "a form of therapy if you will, that is experienced one stitch at a time" (Allaire, 2020, para 1).

...hashtags function as digital gathering points and contribute to the formation of supportive networks in which Indigenous artists celebrate each other's work, provide encouragement, and sustain cultural practices, helping to transform social media platforms into relational spaces...

(Allaire, 2020, para 1).

In addition to mainstream social media platforms, a growing number of Indigenous-specific digital apps have been developed to facilitate connection, knowledge sharing, and community building. Two Canadian examples include the **Talking Stick** app and the **Indigenous Friends** app.

Talking Stick

The **Talking Stick** app is a digital platform created by Indigenous People for Indigenous Peoples (Office of the Treaty Commissioner, 2016). It is a social networking and support app designed to provide a safe space where Indigenous users can connect by text with trained Indigenous peer advocates to talk about concerns, anxiety, or stress (Soaring Together Tools for Life, n.d.). The platform is free, anonymous, and text-based, making it accessible and confidential for users.

Indigenous peer advocates are available 24 hours a day, seven days a week, throughout the year to offer culturally grounded support that is rooted in compassion, understanding, and respect (Office of the Treaty Commissioner, 2016). More recently, an additional feature was introduced that allows users of the app to anonymously search for and connect with service providers from Friendship Centres and Indigenous wellness programs (Talking Stick – Indigenous, 2026).

Since its launch, the app has reached more than 10,000 users and their feedback has been overwhelmingly positive (Office of the Treaty Commissioner, 2016). Many users report feeling heard, supported, and emotionally relieved, sharing responses such as "I feel heard," "Thank you for listening," and "I feel better." At present, the Talking Stick app is available only in Saskatchewan, Canada.

FIGURE 7: TALKING STICK



Source: *Talking Stick app* [Photograph] from Google Play Store. **play.google.com/store/apps/details?id=app.talkingstick.**

Indigenous Friends

The **Indigenous Friends** app is a mobile social networking platform developed by an Indigenous community at York University in Ontario, Canada. Designed specifically for Indigenous youth and students within educational settings (Mayoral-Baños, 2018, 2021), the app is meant to provide "a home away from home for Indigenous students to connect with one another" by offering a safe, supportive, and culturally grounded digital space where Indigenous students can share information about Indigenous resources, connect and build Indigenous social networks, and access supports, including from peers, Elders, and traditional counselors (Excalibur Publications, 2016; para 1; see also Indigenous Friends Association, 2018). The app includes interactive features such as private chats, public forums, and a directory that allows users to identify and connect with Indigenous community members nearby, helping to reduce feelings of isolation, abandonment, and loneliness often experienced by Indigenous youth and students. It also acts as an online gallery and knowledge-sharing space where cultural content and community voices can be highlighted.

The Indigenous Friends app was created with extensive input from community Elders, traditional Knowledge Keepers, faculty, staff, alumni, and students. User safety and cultural integrity are central to the app's design. Registration is restricted to individuals who identify as Indigenous, and York University students must hold a free membership tag from the Centre for Aboriginal Student Services (Excalibur Publications, 2016). Although the app is currently in a testing phase, it is fully operational and available for free download by Indigenous users on both the Apple App Store and Google Play Store.

Overall, social media and social networking apps are widely used among youth and young adults, including Indigenous youth (Rice et al, 2016). Many urban Indigenous organizations, therefore, use social media such as Facebook as a means of engaging vulnerable youth and connecting them to social programs and outreach (Intahchomphoo et al., 2019). In addition, these platforms can support connections with distant family and friends, while also facilitating the formation of new online communities (Rice et al., 2016). As Lumby (2010) notes, "Facebook acts as a modern site for kinship connectivity and continuity," and a growing body of research suggests that digital social media platforms and apps can strengthen kinship ties and support relational connections within Indigenous communities (as cited in Rice et al., 2016, p. 11). The resulting sense of connection and support may contribute to reinforcing

Indigenous People's mental health and wellness, particularly for Indigenous youth living far from their home communities (Rice et al., 2016).

Beyond strengthening existing relationships, the self-directed nature of social media enables individuals to form communities they may not otherwise have access to (Rice et al, 2016). This can be particularly important for Indigenous people who are disconnected from their culture and seek to reconnect with their identities through online groups and spaces. Online environments may also provide more accessible and, at times, safer spaces for Indigenous LGBTQ2S+ youth where they can discover community and explore their identities, with online platforms offering opportunities for peer connection and support when offline resources are limited (Martin-Storey et al., 2024). Notably, many Indigenous LGBTQ2S+ youth are not only users of these spaces but active contributors who shape online environments through community-building and efforts to foster safer, more inclusive digital spaces (Martin-Storey et al., 2024).

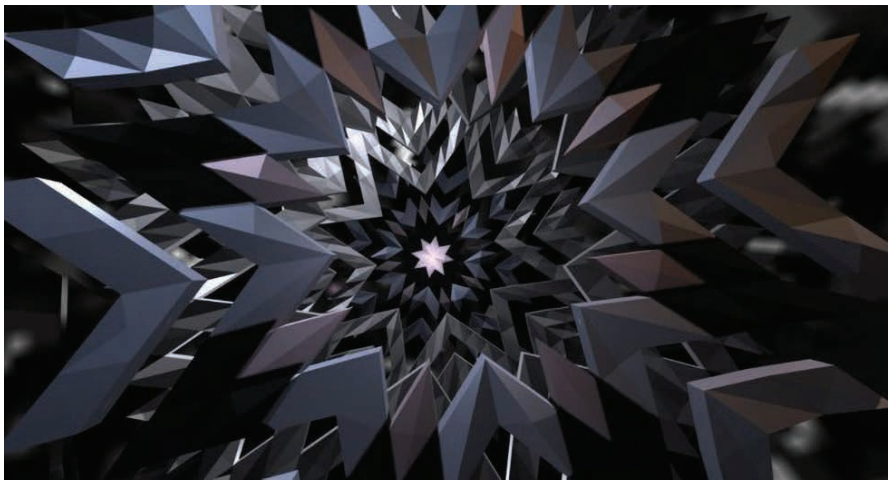
Pathway 5: Indigenous digital artistry

Indigenous art serves as a vital pathway to mental wellness by fostering cultural (re)vitalization, strengthening pride and connection, countering anti-Indigenous racism, and supporting Indigenous sovereignty (Stahl et al., 2025). Indigenous digital artistry refers to the creation and sharing of artistic expression through digital technologies that are both creative and culturally grounded. Today, Indigenous artists engage a wide range of digital media. Digital collage, digital painting, photography, virtual reality (VR), augmented reality (AR), game design, and film are discussed here.

Virtual reality: Imagining Indigenous futures

Many Indigenous media artists use digital art as a powerful medium to explore relationships between past, present, and future; reclaim and assert cultural identity; challenge colonial narratives; and imagine a future grounded in Indigenous self-determination. One example is 2167, an immersive Canadian media series in which six Indigenous artists and filmmakers created VR artworks that envision the world 150 years into the future (Hampton, 2017). Within this artworks series, Anishinaabe intermedia artist Scott Benesiinaabandan of Lac Seul First Nation in northwestern Ontario, Canada

FIGURE 8: BLUEBERRY PIE UNDER THE MARTIAN SKY

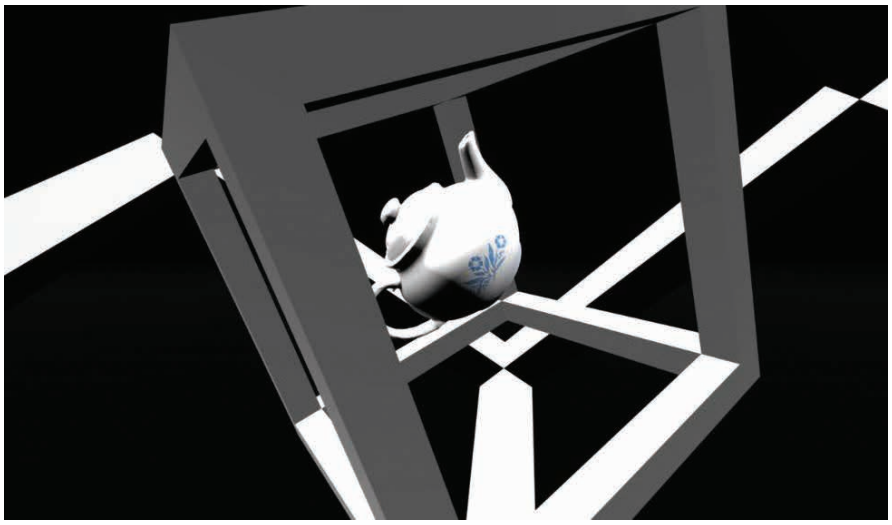


Source: *Blueberry Pie under the Martian Sky* [Photograph], by Scott Benesiinaabandan (2016). **indigenousfutures.net/residencies/blueberry-pie-under-a-martian-sky-2016**.

created **Blueberry Pie Under the Martian Sky**, which is an immersive VR experience that features narrative elements based on stories shared by Ininiw (Cree) Elder, educator, and star knowledge keeper, Wilfred Buck of Opaskwayak Cree Nation in northern Manitoba, Canada (Benesiinaabandan, 2016a). Unlike traditional films that present a fixed narrative, VR situates viewers within the story, fostering an embodied sense of presence. Blueberry Pie Under the Martian Sky explores a story about Spider Woman weaving a thread from her home at the centre of the Seven Sisters (Pleiades constellation) to Earth. The artwork reimagines this thread as a "wormhole" through which a young Anishinaabe boy travels to reconnect with his people's place of origin (Benesiinaabandan, 2016b).

By weaving together Indigenous cosmology and futurist imagination, Blueberry Pie Under the Martian Sky bridges ancestral knowledge with contemporary scientific concepts, exploring themes of cultural continuity, language evolution, and Indigenous presence in future worlds (Hampton, 2017). In doing so, the work disrupts colonial narratives that confine Indigenous Peoples to the past, instead asserting Indigenous futurity through visions of space travel, new worlds, and evolving knowledge systems.

FIGURE 9: TEAPOT WORMHOLE



Source: *Teapot Wormhole* [Photograph] by Scott Benesiinaabandan (2016). **indigenousfutures.net/residencies/blueberry-pie-under-a-martian-sky-2016**.

The Hunt, another work in the 2167 series, offers an innovative example of live-action immersive cinema by Toronto-based Cree/Métis filmmaker Danis Goulet. This dystopian science fiction story follows a Mohawk family hunting on their own territory when they encounter a trespassing police surveillance orb. As Goulet explains, the narrative explores how First Nations peoples navigate ongoing colonial intrusions onto their lands, while creatively resisting and repurposing technologies designed to control them (Hampton, 2017). In doing so, The Hunt exposes contemporary forms of colonial surveillance and territorial control, while simultaneously asserting First Nations sovereignty and agency through acts of resistance and technological subversion. The work challenges deficit-based and static portrayals of Indigenous Peoples by foregrounding strength, adaptability, and futurity.

Digital collage and painting: Meaning-making

Other examples of digital creative practices that promote healing and challenge racism and colonial relations include digital collaging and digital painting. Digital collage-making is a visual art practice in which images, textures, and shapes are digitally assembled. Yet, for many Indigenous collage artists, collage-making is more than an art practice; it is about stories, identity, and healing (Arctic Youth Network, 2022;

Boivin, 2019; CBC News, 2022; Charlie, 2016). Collaging creates a space where fragmented stories and identities can be pieced together as a new, meaningful whole, which is what makes collaging healing (CBC News, 2022; Charlie, 2016). Lisa Boivin, a member of Deninu Kųę́ First Nation in Denendeh (Northwest Territories), Canada, is an Indigenous digital artist whose works span both digital collage and digital painting. As she explains, "There's something about texturizing, layering and cutting that helps a person heal – it's about putting things into place" (CBC News, 2022, para. 20). Drawing on her own family story, which is shaped by the intergenerational impacts of residential schools and the Sixties Scoop, Boivin describes how digital collaging became a way to "piece together my identity or my relationship with my dad with the tools that I had around me" (CBC News, 2022, para. 20).

Boivin's collages bring together imagery of western culture with elements of the natural world – animals, flowers, and landscapes – that reflect deep relationships with land and non-human beings in many Indigenous worldviews (CBC News, 2022; Crawford, 2018). In doing so, Boivin creates a space where the two worlds meet (Boivin, 2019). Animals such as wolves, caribou, eagles, and deer carry Dene medicine teachings that have been central to her healing. Boivin articulated, "I look to animals to help us make sense of the world around us" (Arctic Youth Wellbeing Network, 2021, n.p.). For example, the wolf teaches humility, tenacity, family, and community, while the deer embodies generosity, kindness, and quiet resilience (Boivin, 2019).

As an image-based storyteller, Boivin uses her animal collages to share ancestral teachings and promote healing. She facilitates digital collage workshops where participants create their own animal collages to reflect on and create visual narratives of who they are and how they move through the world (Arctic Youth Wellbeing Network, 2021; Boivin, 2023). This process of assembling and layering images to "piece together" identity can support meaning-making of lived experiences, including colonial displacement, disconnection, trauma, and grief, while fostering reflection, self-expression, and creativity (Boivin, 2019; CBC News, 2022) – factors that promote healing (Muirhead & de Leeuw, 2012). For many Indigenous people, engaging in digital art becomes a way to reconnect with culture, explore personal and collective histories, and express experiences that may be difficult to articulate through other forms.

In her digital painting practice, Boivin creates image-based stories that explore the gap between medical and land-based Dene ethics and illuminate ethical issues that arise in clinical care, stemming from anti-Indigenous racism, stereotyping, and the disconnect between biomedical and Indigenous approaches to care. As Boivin explains, "There are certain stories that cannot be confined in the structure of printed words" (Easton, 2016, para.4). As such, she creates her digital paintings by using her finger on a trackpad, working much like a brush on canvas. Boivin begins with a black background to represent colonial violence, then layers vibrant imagery such as flowers, fruit, animals, and human figures to foreground the resilience and vitality of Indigenous cultures (Easton, 2016). In her digital painting, ***Sharing Bioethics***, Boivin visually represents multiple land-based teachings through the image of two intersecting circles of care (Crawford, 2018). As she illustrates, one circle centres a clinician equipped with biomedical tools such as a stethoscope and x-rays, while the other reflects Dene approaches to healing, symbolized through plant medicines, a medicine bundle, strawberries, and antlers. Where the circles overlap, the two systems come into relationship, creating a shared space of connection and possibility. In this meeting space, neither knowledge system is diminished. Instead, both are held together, suggesting a more holistic and relational approach to care.

FIGURE 10: SHARING BIOETHICS



Source: *Sharing Bioethics* [Photograph] by Lisa Boivin (Crawford, 2018). **cmaj.ca/content/190/36/e1085**.

Although Boivin's work often depicts the realities of racism, it is intended to prompt reflection and support reconciliation among healthcare practitioners and Indigenous Peoples. Boivin underscores that acknowledging the ongoing impacts of colonialism is essential for building respectful, culturally safe relationships between healthcare practitioners and patients, alongside recognizing Indigenous knowledge systems, healing practices, and resilience. Indigenous artwork can be a powerful medium for conveying these messages.

Overall, these examples of digital art represent only a small fraction of the breadth of Indigenous digital artistry that exists, yet they highlight the powerful role that Indigenous-created digital artworks can play in influencing the determinants of Indigenous Peoples' health and promoting mental wellness at both individual and community levels, particularly through strengthening identity, cultural continuity, and belonging. The growing visibility of Indigenous arts in digital spaces also plays a critical role in fostering social inclusion and advancing decolonization. Online exhibitions and digital platforms not only celebrate the richness and diversity of Indigenous artistic practices but also challenge the historical exclusion of Indigenous artists from mainstream cultural institutions and the ongoing appropriation of Indigenous knowledges and aesthetics (Stahl et al., 2025). In addition, digital artwork creates new entrepreneurial opportunities that support economic self-determination, Indigenous employment, and income generation (Stahl et al., 2025). Online marketplaces and virtual sales platforms such as IndigenARTSY.com expand access to broader audiences and create meaningful opportunities for Indigenous artists – particularly in rural and remote communities – to share, sustain, and benefit from their artworks.

Pathway 6: Online Indigenous knowledges

In the digital age, online spaces represent an increasingly important pathway for Indigenous Peoples and communities to preserve, share, and pass on Indigenous knowledges through community-led and owned mobile applications, digital archives, and interactive platforms (Liew et al., 2021). When guided by principles of Indigenous data sovereignty and local protocols, these digital knowledge spaces can challenge colonial histories of extraction and misrepresentation and create environments that affirm Indigenous self-determination and support the (re)vitalization of First Nations, Inuit, and Métis ways of knowing and being, including languages and cultural teachings. In doing so, online Indigenous knowledge-sharing fosters

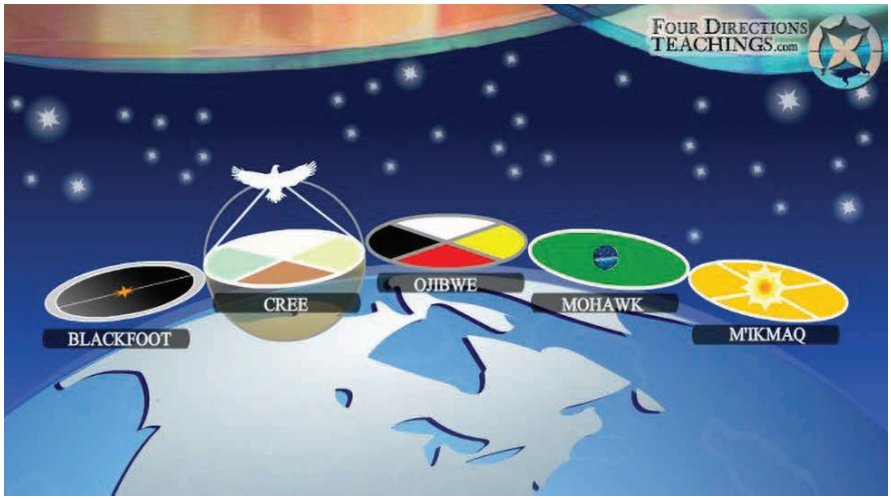
cultural continuity, strengthens identity and belonging, and creates opportunities for intergenerational transmission and community connection across geographic distances.

As Indigenous scholars and activists, Jennifer Wemigwans (2008, 2018), an Anishinaabe (Ojibwe/Potawatomi) scholar from Wikwemikong Unceded Territory in Ontario, Canada, and Marisa Duarte (2017), a member of the Pascua Yaqui Tribe in Arizona, United States, emphasize that Indigenous approaches to online knowledge projects typically move beyond the mere archival of knowledge toward a more community-engaged and relational approach grounded in a shared understanding that Indigenous knowledge is alive, continuous, and future-oriented. This understanding contrasts sharply with colonial narratives that portray Indigenous knowledges as merely historical and at risk of extinction, if not archived. In her book, *A digital bundle: Protecting and promoting Indigenous knowledge online*, Wemigwans (2018) describes her collaboration with Elders and Knowledge Keepers to create **Four Directions Teachings**, an Indigenous online education resource site for cultural teachings from five distinct Indigenous Nations, including Mi'kmaq people of the Atlantic region in Canada; Mohawk and Haudenosaunee people of southern Quebec and Ontario, Canada, and Upstate New York, United States; Ojibwe and Anishinaabeg people of the Great Lakes regions of Canada; Cree and Nēhiyawak people of the Canadian prairies and woodlands; and Piikani Blackfoot people of southern Alberta, Canada, and northern Montana, United States. Grounded in local Indigenous cultural protocols, Four Directions Teachings demonstrates the possibility of applying cultural protocol to the development and production of Indigenous knowledge projects online, forming what Wemigwans (2018) calls "digital bundles." As explained, in many Indigenous cultures, community knowledge bundles consist of sacred teachings or items that are carefully held and stewarded with ceremony. Digital bundles can be understood as their online counterparts – space where sacred knowledges are represented in ways that are guided by Indigenous cultural protocols, with traditional Knowledge Keepers and Elders leading and shaping their creation (Wemigwans, 2018).


© Credit: USAY, 2025

...Indigenous approaches to online knowledge projects typically move beyond the mere archival of knowledge toward a more community-engaged and relational approach grounded in a shared understanding that Indigenous knowledge is alive, continuous, and future-oriented.

FIGURE 11: FOUR DIRECTIONS TEACHINGS



Source: *Fourdirections.com* [Screenshot], by FourDirectionsTeachings.com. **fourdirectionsteachings.com/interactive.html**

Four Directions Teachings

Four Directions Teachings (**fourdirectionsteachings.com**) is an engaging and thoughtfully crafted Canadian-based online platform that celebrates and shares First Nations knowledges through story, voice, and art (Wemigwans, 2008), in accordance with First Nations cultural protocols to ensure a respectful, community-based, and accountable process (Wemigwans, 2018). Honouring the oral traditions of First Nations cultures and the practice of listening with intent, the site features audio narrations by respected Elders and traditional teachers from five First Nations in Canada: Dr. Reg Crowshoe and Geoff Crow Eagle (Blackfoot), Mary Lee (Cree), Lillian Pitawanakwat (Ojibwe), Tom Porter (Mohawk), and Stephen Augustine (Mi'kmaq). The platform includes detailed biographies of each Elder, positioning them within their respective communities and avoiding a pan-Indigenous approach (Wemigwans, 2018). The teachings are brought to life through vibrant animations that reflect the traditions, landscapes, and worldviews from which the teachings emerge (Wemigwans, 2018). The site interface is organized as a circle, depicting the four directions teachings specific to each Elder's First Nation, with the direction and placement of each quadrant carrying cultural significance (Wemigwans, 2018). As Four Directions Teachings show us, Indigenous knowledges can be shared in respectful and meaningful ways online (Wemigwans, 2018), thereby strengthening Indigenous knowledge systems and fostering cultural identity and pride. The site also offers a free teacher resource kit and curriculum materials for Grades 1 through 12, thus supporting the respectful integration of Indigenous knowledges into classrooms (Faculty of Education, 2022).

The Sq'éwlets Virtual Museum

Another unique example of Indigenous knowledges online from Canada is the **Sq'éwlets Virtual Museum**. It is the centerpiece of an interactive multimedia website (**digitalsqewlets.ca**) that is owned and operated by the Sq'éwlets First Nation in southwestern British Columbia, Canada (Sq'éwlets First Nation et al., n.d.). Both the virtual museum and the broader Digital Sq'éwlets website emerged from the **Origins Experience**, a community-led collaborative initiative designed to promote resilience against youth suicide and enhance community well-being by combining archaeological fieldwork, cultural education, and digital storytelling (Schaepe et al., 2021). As part of this initiative, Sq'éwlets youth worked alongside Elders, community members, and archaeologists. They visited ancestral and culturally significant places, engaged in hands-on archaeological work, and listened to oral histories and personal stories tied to those places. For



Created by and for Inuit, [SIKU: The Indigenous Knowledge app] ensures that Inuit retain ownership and control over their data, reflecting principles of Indigenous data sovereignty.

example, when youth handled fire-cracked rocks or tools, Elders shared how their ancestors used them for cooking, fishing, hunting, and ceremonies (Schaepe et al., 2021). Community members also recounted personal and family histories, reflecting on what it means to live as Sq'éwlets today (Schaepe et al., 2021). The virtual museum weaves these stories together – presented in video and audio formats – using maps, photographs, and images of ancestral belongings (Á:wkw') from the sites visited. The result is a living digital record of Sq'éwlets people, places, belongings, and stories that connect past, present, and future.

Other digital knowledge initiatives

Sq'éwlets Virtual Museum and Four Directions Teachings are not the only examples of innovative, digital knowledge initiatives developed and owned by First Nations communities in Canada. Other examples include, but are not limited to, the **Apani Blackfoot Digital Library**, which serves as a platform for the celebration and honoring of knowledge and culture of Blackfoot communities using diverse media forms (Apani Blackfoot Digital Library, n.d.); the **Squamish History Archives**, which includes historical photographs and historical newspaper articles from 1948-2001 (Squamish Times Archive, 2012); **Voices of Amiskwaciy**, an online public platform developed by the Edmonton Public Library together with Indigenous communities, through which communities create, share, and celebrate local Indigenous knowledges via various digital texts, videos, sound files, and images (Voices of the Land, n.d.); and the **Musqueam Place Names Map**, an interactive multimedia map that showcases hən̓q̓əmin̓əm̓ place names across Musqueam traditional territory (Musqueam: A Living Culture, n.d.) and includes audio recordings in the hən̓q̓əmin̓əm̓ language from both past and present Musqueam Elders, along with historical photographs.

Finally, and beyond these archival and storytelling platforms, mobile technologies are also enabling more dynamic, land-based forms of knowledge sharing. For



example, **SIKU: The Indigenous Knowledge** app enables Inuit users to connect through the sharing of land-based knowledge and environmental observations such as sea ice (siku) conditions, wildlife behaviours, and harvesting practices in their own languages (Arctic Elder Society, n.d.). Created by and for Inuit, the platform ensures that Inuit retain ownership and control over their data, reflecting principles of Indigenous data sovereignty. Together, these online digital knowledge initiatives highlight how Indigenous communities are leveraging digital technologies to preserve, revitalize, and enact knowledge in culturally grounded, relational, and community-led ways.

Although relatively few studies have examined the impacts of accessing digitalized Indigenous knowledge collections, emerging evidence highlights their important role in supporting holistic mental wellness and the broader determinants of Indigenous Peoples' health. For example, cultural wellness assessments of youth participating in the Sq'éwlets Virtual Museum project demonstrated stronger feelings of connection to family, community, and traditional activities (Schaepe et al., 2021). While the evaluation did not isolate the specific impact of the museum, findings suggest that digital tools, when grounded in land-based experiences and guided by cultural protocols, can meaningfully strengthen cultural identity, belonging, intergenerational connection, and relationships to land, water, and territory, thereby supporting both individual and community well-being. In a small phenomenological study with eight Māori participants, Liew et al. (2021) found that online collections of digitized and digital traditional Māori knowledge (mātauranga) not only enhanced cultural knowledge transmission, but also strengthened social, cultural, and spiritual connections at both individual and community levels. Taken together, these findings affirm that online Indigenous knowledge collections, such as **Four Directions Teachings,** function not merely as knowledge repositories, but as dynamic infrastructures that support cultural resurgence, Indigenous sovereignty, and solidarity (Wemigwans, 2018). This is discussed in more detail in Pathway 7.

Pathway 7: Indigenous digital activism and social movements

The final pathway highlighted in this report centres on Indigenous digital activism and social movements, which have emerged as powerful sites of resistance, resurgence, and collective solidarity in digital spaces. Across the colonized world, Indigenous Peoples, especially youth activists, are leveraging digital technologies – including social media, online platforms, and digital storytelling – to assert sovereignty, challenge colonial narratives, and organize collective action (Brown & Knowles, 2022; Coates, 2015; Tupper, 2014). This is evident in the thousands of posts, blogs, and videos created by Indigenous Peoples on platforms such as Facebook, Instagram, Twitter/X, YouTube, TikTok, and so on. Through these digital activist spaces, Indigenous Peoples and communities raise awareness, build solidarity, demand accountability, and mobilize collective action against ongoing colonial injustices (Carlson & Berglund, 2021; Jardine, 2022; Duarte, 2017).

As Henderson, an Inuk artist and culture writer, explained, "sharing information through social media … is allowing people to convey messages that aren't always shared in the mainstream media" (Monkman, 2021, para 14). Many Indigenous activists use social media to counter misinformation and challenge colonial narratives in mainstream discourse. For example, during events like the Wet'suwet'en resistance to the Coastal GasLink pipeline, social media captured images and videos of heavily armed police removing peaceful land defenders, which sparked widespread outrage. Platforms like Twitter/X, Facebook, Instagram, YouTube, and TikTok allowed Indigenous protesters and land defenders to livestream and post videos of confrontations, which often went viral, drawing attention to the disproportionate use of force and the militarized response to Indigenous-led protests.

Duarte (2017) observed, through social-media platforms, "[i]ndividuals who may not have imagined themselves as 'political' in the sense of being an elected official or direct action protestor" become political actors by "post[ing] and re-post[ing] politicised images, phrases, narratives, and survival stories within their digital networks of belonging" (p. 2), often turning the spotlight onto otherwise underreported causes. Social media has played an important role in the emergence of numerous powerful Indigenous-led social movements such as Idle No More (#IdleNoMore), LandBack (#LandBack), the Moose Hide (#MooseHide) campaign, and the Red Dress Project (#REDdress), many of which garnered national and international support (Carlson & Berglund, 2021; Jardine, 2022). In these social and political movements, Indigenous youth are often at the forefront (Coates, 2015; Tupper, 2014). Movements like Idle No More and Standing Rock protests demonstrate how digital platforms can amplify grassroots organizing, foster transnational solidarity, and draw global attention to issues of land, water, and Indigenous rights. Through hashtags, livestreaming, and online campaigns, Indigenous activists have disrupted dominant narratives and created counter-spaces that centre Indigenous voices and lived experiences.

Idle No More

#IdleNoMore was among the earliest examples of Indigenous-led social movements leveraging social media to gain widespread visibility, mobilize, and rally support for a particular social issue. The movement aimed to garner support for opposing the potential passing of the then federal Bill C-45 (Duarte, 2017; Tupper, 2014). #IdleNoMore originated in a Facebook group chat among three Indigenous women (Jessica Gordon, Sylvia McAdam, and Nina Wilson) and their supporters who were concerned about the lack of consultation with First Nations peoples regarding the proposed Bill and its repercussions for Indigenous sovereignty, First Nations' treaty rights, and environmental stewardship (Brown & Knowles, 2022;

Tupper, 2014). Driven forward by the unwavering determination of young Indigenous Peoples, and through the creation of an IdleNoMore Facebook page and the use of Twitter/X, the Idle No More movement quickly grew, facilitating various events and actions such as teach-ins, rallies, protests, flash mobs and round dances, and connecting people across Canada, and globally (Coates, 2015; Tupper, 2014). Although Bill C-45 was passed in 2012, the movement is regarded by many as one of the most powerful assertions of Indigenous identity, cultural survival, and resilience in Canadian history (Coates, 2015; Tupper, 2014). According to Coates (2015), Idle No More is "a simple but powerful assertion that Indigenous Peoples – First Nations, Inuit, and Métis – are a permanent feature in Canada's political, social, cultural, economic, and environmental life and future" (p. 199).

MMIWG2S+ movements

Social media also plays an important role in the MMIWG2S+ movements. Inspired by Métis artist Jaime Black's **REDress Project**, the red dress has become a powerful symbol in raising awareness about missing and murdered Indigenous women, girls, and Two-Spirit people (MMIWG2S+) in North America. Indigenous Peoples developed image macros of the red dress and supported the use of Facebook groups and Twitter hashtags, allowing activists in many different places around the world to re-post, share, re-tweet, and index the emerging movement, raise awareness, and call on governments to take action in addressing the racialized and gendered violence inflicted upon MMIWG2S+ (Gwiazda, 2022).

The use of social media allowed Indigenous communities to not only raise awareness about MMIWG2S+ and share information that had been ignored by mainstream media and law enforcement, but also rally together to support MMIWG2S+, survivors and loved ones (Gwiazda, 2022; Watson, 2019). A MMIWG2S+ Facebook page (https://www.facebook.com/mmiwg2s/) with over 31,000 followers provides a virtual space for Indigenous families, friends, and groups to share their stories about MMIWG2S+, post photos of their missing or murdered loved ones, and circulate news, images, and messages. Amidst ongoing, contemporary colonialism, these images and phrases raise a critical consciousness of the ongoing gendered, racialized, and colonial violence inflicted on MMIWG2S+, unsettling wider colonial imaginations that provide justification for the status quo, while also cultivating solidarity in bringing about recognition of Indigenous People's rights, as well as justice for MMIWG2S+.

Although the IdleNoMore movement primarily relied on Twitter and Facebook, current MMIWG2S+ movements also make use of other social media platforms (Brown & Knowles, 2022). Prominent hashtags used by many Indigenous people on Twitter, Instagram, Tumblr and TikTok to share news articles, pictures, and information about missing or murdered loved ones and discuss related issues include:

- #MMIWG
- #MMIWG2S
- #NoMoreStolenSisters
- #callsforjustice
- #SistersInSpirit
- #RedDressDay

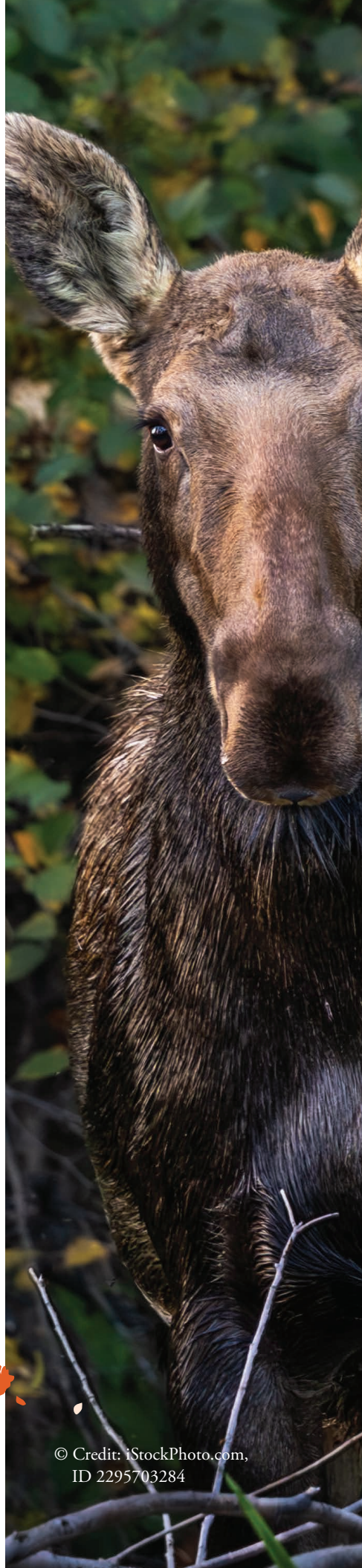
Moose Hide Campaign

Also aimed at ending gender-based violence but with a specific focus on engaging Indigenous men and boys is the **Moose Hide Campaign** (**moosehidecampaign.ca**). The Moose Hide Campaign originated in 2011 as an Indigenous-led grassroots movement. Founded by Paul Lacerte and his daughter Raven Lacerte, members of the Carrier Nation in northern British Columbia, Canada, the campaign was inspired by the tragic reality of the Highway of Tears – a 750 km stretch of Highway 16 in British Columbia, Canada, which is notorious for the alarming number of Indigenous women and girls who have been murdered or gone missing along

its route (Moose Hide Campaign, 2026). The campaign, which uses moose hide as a symbol of men's commitment to honour, protect, and respect Indigenous women and girls, has grown into a Canada-wide movement engaging Indigenous and non-Indigenous people in taking action to end violence against women, children, and gender-diverse people. Social media has played a crucial role in the campaign's expansion, with platforms like Facebook, Instagram, TikTok, Twitter, and Threads providing avenues for connection and advocacy. The campaign's hashtags – such as **#MooseHideCampaignDay**, **#MooseHideCampaign**, and **#Reconciliation** – link it to broader discussions on justice and reconciliation.

LandBack

Digital activism has played a significant role in amplifying the **LandBack** movement, leveraging online platforms to raise awareness, mobilize supporters, and pressure institutions and governments. The LandBack movement is both a symbolic and practical assertion of Indigenous sovereignty and self-determination. It challenges the ongoing effects of colonization and land dispossession that have historically marginalized Indigenous Peoples and stripped them of their lands and resources. Activists use social media platforms to spread information about the LandBack movement, share stories and testimonials from Indigenous communities, and organize virtual protests. Hashtags like #LandBack and related tags help to unify the conversation and make it easier for people to find and contribute to the movement. Digital platforms are used to create interactive maps and visualizations that show the lands, waters, and territories traditionally occupied by Indigenous Peoples, the current status of these geographic locations, and areas of conflict. Social media also highlights Indigenous art, music, and traditions as central components of the LandBack movement, reinforcing deep connections between land and cultural identity for many Indigenous Peoples. Through these methods, digital activism not only helps to spread the message of the LandBack movement globally but also connects disparate Indigenous communities in a shared struggle for land reclamation and sovereignty.



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ADVANCING INDIGENOUS DIGITAL INNOVATIONS FOR MENTAL WELLNESS: OPPORTUNITIES, TENSIONS, AND FUTURE DIRECTIONS

Opportunities: Harnessing digital technologies for Indigenous mental wellness

Accounting for diversity among Indigenous Peoples, the findings of this report demonstrate that Indigenous Peoples are not passive users of technology but active creators, innovators, and knowledge holders, shaping digital tools and spaces to reflect Indigenous values, identities, and futures (Carlson et al., 2021). Digital tools (e.g., apps and platforms) include both novel creations and culturally adapted technologies, developed through Indigenous leadership and collaborative engagements with Indigenous Elders, Knowledge Keepers, communities, artists, youth, and researchers. Technologies developed or adapted by Indigenous Peoples for Indigenous Peoples are innovative because they are grounded in Indigenous ways of knowing and healing that support mental wellness in holistic ways, often influencing multiple, intersecting determinants of Indigenous Peoples' health across the individual, family, community, and structural levels of health and well-being. Importantly, these digital approaches are not intended to replace in-person, relational, and land-based forms of care but, rather, complement and extend them in ways that are responsive to community needs, priorities, and contexts.

Digital resurgence: Anti-Indigenous racism and Indigenous self-determination

At the structural level, Indigenous Peoples and communities are leveraging technologies to actively challenge the enduring impacts of colonialism and contemporary settler-colonial expressions – including anti-Indigenous racism, deterritorialization, and cultural disconnection – that continue to adversely affect the mental health and wellness of Indigenous People across Turtle Island and worldwide (Greenwood & Larstone, 2022). Anti-Indigenous racism is a product of settler colonialism, wherein settler-colonial logics of racial hierarchy were used to legitimize the dispossession, genocide, and systemic oppression of Indigenous Peoples (Smylie, et al., 2022). Although many overtly racist and colonial policies have been dismantled, anti-Indigenous racism persists in more insidious forms, including the exclusion and erasure of Indigenous voices and knowledge, the cultural appropriation and commodification of Indigenous cultural expressions, deficit-based stereotypes, and enduring assumptions that position Indigenous ways of knowing and doing as inferior to European knowledge systems, and portray Indigenous Peoples and cultures as non-scientific or relics of the past (Loppie et al., 2014; Stahl et al., 2025). Anti-Indigenous racism and coloniality have far-reaching and enduring

impacts on Indigenous Peoples' mental health and wellness, particularly among youth facing forced disconnections to culture, language, land, and community – core foundations of Indigenous wellness – alongside historic and intergenerational trauma that is relationally transmitted across generations and experienced at the individual level (Loppie et al., 2014). Other more downstream determinants of Indigenous Peoples' health can also be directly traced back to colonialism and anti-Indigenous racism, including disproportionate rates of poverty and unemployment (National Collaborating Centre for Indigenous Health, 2020), geographic isolation (Stahl et al., 2025), and inequitable access to culturally safe mental health services (Smye et al., 2023).

Indigenous Peoples around the world use online spaces and digital networks to "cultivate solidarity, diffuse an Indigenous consciousness, enforce dominant governments' trust and treaty responsibilities, and remind many of the irrevocable injustice of colonialism" (Duarte, 2017, p. 1). Although Indigenous resurgence and decolonization are not new, digital technologies have expanded the ability of Indigenous Peoples to share knowledge and perspectives, raise awareness of Indigenous rights, and mobilize collective action across geographic boundaries (Brown & Knowles, 2022; Gupta et al., 2026; Young, 2024). Digital campaigns such as #MMIWG2S, #NoMoreStolenSisters, #IdleNoMore, and #LandBack demonstrate how Indigenous Peoples use digital networks to draw attention to ongoing colonial violence, advocate for Indigenous sovereignty, and build networks of solidarity and action (Brown & Knowles, 2022). Through hashtags, digital storytelling, and visual media, Indigenous activists and content creators are able to challenge colonial narratives, reclaim representation, and build networks of solidarity that extend beyond local communities, calling both Indigenous and non-Indigenous audiences into awareness and action (Gupta et al., 2026; Young, 2024). Importantly, social media also serves as a tool for holding governments and authorities accountable, as illustrated by the #NoDAPL movement at Standing Rock, where activists used live streaming to document state actions and instances of violence in real time (Brown & Knowles, 2022). More broadly, Indigenous digital storytelling, social media engagement, and the development of Indigenous-led knowledge platforms and apps contribute to a "politics of visibility" (Duarte, 2017, p. 1), enabling Indigenous content creators and activists to reclaim control over narratives and imagery while legitimizing and mobilizing Indigenous knowledge systems within digital environments (Brown & Knowles, 2022). By highlighting Indigenous strength, creativity, and futurity, Indigenous narratives and online artworks counter deficit-based and colonial logics that construct First Nations, Inuit, and Métis peoples as vulnerable, deficient, and confined to the past. At the same time, Indigenous creators, artists, and communities use technology to resist the appropriation of cultural expressions by asserting ownership, contextualizing cultural meanings, and educating broader audiences about protocols and relational responsibilities, while also creating markets that can support Indigenous livelihoods and advance economic self-determination (Stahl et al., 2025).

Although Indigenous resurgence and decolonization are not new, digital technologies have expanded the ability of Indigenous Peoples to share knowledge and perspectives, raise awareness of Indigenous rights, and mobilize collective action across geographic boundaries

(Brown & Knowles, 2022; Gupta et al., 2026; Young, 2024).

Connections to culture, language, land, and community

Many technologies foster reconnection to culture, language, land, and community – key foundations of Indigenous wellness – while creating spaces for intergenerational knowledge sharing, identity formation, and collective healing. Online spaces have been created and taken up by Indigenous Peoples as tools to foster and support community building and healing (Molyneaux et al., 2014). While social networking apps and platforms are typically places where people can connect and share with friends and family, they can be much more than that, especially for Indigenous women, youth, and gender-diverse people. Many LGBTQ2S+ youth, for instance, use online spaces to safely explore their identities and find community, actively contributing to the resurgence of Two-Spirit/IndigiQueer identities in ways that they may otherwise not be able to do (Brown & Knowles, 2022). Sharing cultural knowledge through social media and online platforms also serves as a catalyst for the preservation and (re)vitalization of Indigenous cultures, languages, and traditional knowledges (Molyneaux et al., 2014). In doing so, Indigenous digital practices not only mitigate the harms of anti-Indigenous racism, but also actively contribute to cultural resurgence, community resilience, and healing at large (Molyneaux et al., 2014).

Cultural identity and healing

At the individual level, social media platforms and apps serve as powerful sites for self-expression and the negotiation of Indigenous identities, contributing to the reclamation and revitalization of Indigenous identities (Young, 2024). When designed with Indigenous leadership and input, Indigenous mental wellness apps have shown to support coping skills, improve mental, social, and emotional well-being, as well as strengthen cultural identity and community connection in Indigenous youth users (Hicks et al., 2024). Unlike many western mental health interventions, these approaches integrate Indigenous cultural teachings and support holistic healing and wellness, making them more meaningful and responsive to Indigenous users (Hicks et al., 2024). Indigenous digital storytelling initiatives, in particular, have been shown to support healing processes related to intergenerational trauma by enabling individuals, families, and communities to share lived experiences, reclaim narratives, and strengthen intergenerational connections, cultural identity, and collective resilience (Adelson & Olding, 2013; Freeman et al., 2020).



Ongoing tensions and challenges

Although Indigenous-led technological innovations offer important pathways to support mental health and wellness, they are also accompanied by ongoing tensions and ethical challenges that require careful and deliberate attention. As Carlson et al. (2021) notes, digital technologies have complex and ambivalent implications for Indigenous Peoples, simultaneously enabling resistance and the imagining of more just futures, while also extending settler-colonial processes of marginalization, disenfranchisement, and erasure (Brown & Knowles, 2022).

The digital divide and equitable access

Inequitable access to digital environments – often referred to as the "digital divide" – remains a significant barrier (Intahchomphoo, 2018; McMahon, 2014). Many Indigenous communities, particularly in rural, remote, and northern regions, face limited broadband infrastructure, high costs, and inconsistent connectivity (Intahchomphoo, 2018). These disparities, shaped by broader colonial and geographic inequities, limit who can benefit from digital mental health tools.

As a result, even though digital interventions may expand access for some Indigenous people, they may simultaneously deepen disparities for other Indigenous people. These structural inequities underscore the need for sustained investment in infrastructure (Young, 2024), alongside self-determined approaches that enable Indigenous communities to design, build, and manage digital infrastructures in ways that reflect local priorities, cultural values, and service needs (McMahon, 2018).

Safety in digital spaces

Despite opportunities to explore identity and build supportive communities, digital platforms are not inherently safe spaces (Brown & Knowles, 2022), as they can expose youth to harms such as cyberbullying, racism, and sexual exploitation (Martin-Storey et al., 2021). These risks are compounded for Indigenous and LGBTQ2S+ youth who experience higher levels of online harassment linked to adverse mental health outcomes (Louie, 2017; Martin-Storey et al., 2024; Tanni et al., 2024). Addressing these harms requires multi-level approaches, including culturally responsive media literacy, supportive environments, safer and more representative platform design, and strengthened legal protections against online harms (Louie, 2017; Women and Gender Equality Canada, 2022).

Cultural appropriation, and Indigenous data sovereignty

The widespread circulation and reproducibility of online content also increase the risk that Indigenous knowledges and artworks shared online can be copied, modified, and commercialized without consent or compensation, reinforcing colonial patterns of extraction, commodification, and cultural appropriation (Carroll et al., 2020; Schwientek, 2024). While intellectual property (IP) frameworks and tools such as trademarks, copyright, and authenticity labels offer some protection, they remain limited in their ability to account for the collective, relational, and intergenerational nature of Indigenous knowledge systems (Carroll et al., 2020; Prażmowska-Marcinowska, 2020). More comprehensive approaches are grounded in Indigenous data sovereignty and ethical frameworks such as the CARE Principles and OCAP®, which emphasize community governance, consent, and collective benefit (Carroll et al., 2020; First Nations Information Governance Centre [FNIGC], 2014; Global Indigenous Data Alliance, 2019).

The CARE Principles for Indigenous Data Governance (Collective Benefit, Authority to Control, Responsibility, and Ethics), developed by the Global Indigenous Data Alliance (2019), provide a framework to ensure data involving Indigenous Peoples is governed in ways that respect Indigenous rights, support community well-being, and uphold Indigenous values, rather than reproducing extractive or colonial practices (Carroll et al., 2020). Applying these principles to Indigenous digital technologies highlights the importance of ensuring such tools generate collective benefits, remain under the authority and control of Indigenous communities, and are developed through responsible, relational, and ethical practices. In this context, digital platforms should support community-defined priorities while safeguarding Indigenous knowledges through data sovereignty; free, prior, and informed consent; the embedding of cultural protocols; and the development of Indigenous-led systems of knowledge, governance, and protection, as illustrated by initiatives such as the SIKU: Indigenous Knowledge app.

Quality assurance and effectiveness

The rapid growth of commercially available mental health and wellness apps also raises concerns about their safety, quality, and effectiveness. In response, the Mental Health Commission of Canada (MHCC, 2026) developed an assessment framework aimed at improving the quality and safety of digital

mental health apps. Notably, the framework extends beyond conventional measures of clinical effectiveness to consider cultural safety, social responsibility and equity, and enhanced data sovereignty, while recognizing that the type and level of evidence required should reflect an app's intended function and level of risk. This is particularly relevant to Indigenous mental wellness technologies, as an Indigenous language app, digital storytelling initiative, or cultural-connection platform may not be appropriately evaluated against the same clinical effectiveness standards as an app intended to treat a mental health condition. At the same time, evaluating Indigenous mental wellness technologies may require moving further toward community-defined and culturally grounded understandings of effectiveness, including contributions to cultural identity, language, connection, belonging, collective healing, and self-determination. Evaluation therefore needs to consider not only whether a technology achieves its intended outcomes, but also whose knowledges inform its design, who defines meaningful outcomes, who governs its development and evaluation, and whether it strengthens the relationships and determinants of health that Indigenous Peoples and communities identify as important to wellness.

These challenges are further intensified by emerging technologies such as artificial intelligence (AI). Specifically, concerns have been raised about AI generated Indigenous language dictionaries, Elders' teachings, and cultural histories circulating online, which may undermine cultural and language revitalization efforts by producing fabricated content and fostering "pan-Indigenous" representations that flatten the distinct identities of Indigenous nations and communities (Maracle, 2026). Yet, Indigenous language experts emphasize that AI can support revitalization when communities retain ownership and governance over their data (Maracle, 2024). Grounding AI in community-verified knowledge systems, therefore, reinforces the importance of Indigenous data sovereignty and community governance in digital innovation (Maracle, 2024, 2026).

Digital surveillance

Finally, digital platforms that enable Indigenous activism – such as movements related to LandBack and MMIWG2S+ – also create new avenues for surveillance, monitoring, and control (Brown & Knowles, 2022). Publicly shared content (e.g., posts, hashtags, livestreams) can be tracked not only by broader audiences but also by state actors, law enforcement, and private entities. Evidence from movements such as Standing Rock indicates that social media activity has been monitored to identify and track activists, thus raising significant concerns about the use of digital data in surveillance and policing practices, and its potential role in the criminalization of Indigenous resistance (Brown & Knowles, 2022; Jardine, 2022). Platform governance mechanisms, including algorithmic suppression and shadow banning of Indigenous content, further challenge assumptions of digital spaces as open and neutral (Brown & Knowles, 2022; Fellows & Smith, 2022). These dynamics highlight how digital technologies simultaneously enable visibility and resistance, while reproducing colonial systems of surveillance and control. Navigating these risks reinforces the importance of Indigenous data sovereignty and community-led digital governance, including principles discussed earlier, such as CARE and OCAP®, alongside stronger platform accountability and safeguards against the use of Indigenous digital data for surveillance and policing.



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CONCLUSION

Fellows and Smith (2022) remind us that technologies are often perceived as neutral, yet systems of oppression extend into, and are reproduced within, digital environments, rendering social media a "double-edged sword" for Indigenous Peoples (Brown & Knowles, 2022, p. 258). Digital spaces expose Indigenous users to surveillance, silencing, shadow banning, and colonial and gendered violence. As this report suggests, however, digital technologies also offer important pathways for promoting mental wellness by addressing key determinants of Indigenous Peoples' health. As Lewis and Fragnito (2010) argue, cyberspace offers Indigenous communities "an unprecedented opportunity to assert control over how we represent ourselves" (para. 1), positioning digital environments as critical sites of self-determination, cultural resurgence, and narrative sovereignty.

Realizing this potential requires that technologies be created by, with, and for Indigenous People, and be grounded in Indigenous principles, values, and ways of knowing and doing. Moving beyond colonial and patriarchal structures embedded in digital systems toward holistic, Indigenous-led approaches – particularly in mental health and wellness – is essential. Indigenous leadership, meaningful participation, and self-determination must remain central to the development of digital tools to ensure they are culturally safe, relational, and responsive to community priorities. By centring Indigenous perspectives and governance, digital technologies can move beyond reproducing harm to supporting innovation, healing, and well-being (Carlson & Berglund, 2021).

Building on this foundation, there are important opportunities to further strengthen Indigenous digital mental wellness innovations. Future research can advance clarity around ownership, governance, and control of digital tools; expand culturally grounded evaluation of their impacts and effectiveness; and more clearly articulate what meaningful Indigenous community engagement, co-creation, and partnership look like in practice. Strengthening these areas will support the continued growth of Indigenous led, culturally grounded, and impactful digital innovations that contribute to mental wellness and self-determined futures.

APPENDIX A

List of Indigenous apps, podcasts, interactive websites, and online platforms.

This is not an exhaustive list of available technologies but, rather, is meant to provide a brief overview of selected apps, podcasts, websites, and platforms.

Canada

Apani Blackfoot Digital Library (**blackfootdigitallibrary.com/digital/collection/bdl**) is a platform which celebrates and honors the knowledge and culture of Blackfoot communities using diverse media forms.

Buddy Quest (**buddysquest.com**) is a gamified mental wellness app that provides a space for Indigenous youth aged seven to 14+ years to play mini-games, participate in activities, and connect, aimed at supporting emotional wellness (Laskaris, 2025).

Cedar Project WelTel is a trial project that uses text messaging to prevent HIV and hepatitis in young Indigenous people using illicit drugs (Jongbloed et al., 2016, 2020). Youth engage with Cedar Case Managers via text messaging, who send a check-in text at the beginning of each week, followed by support or referrals if youth communicate that they are not okay or have a problem that requires support. The messaging intervention aimed to reduce HIV risk and associated distress, while empowering youth through resource sharing and connection to cultural support.

Ditidaht Kids (**fpcc.ca/stories/new-ditidaht-kids-video-game**) is an app for youth to learn about Ditidaht territory and Ditidaqiic̓aq cicqi, the Ditidaht language. It teaches children about traditional ways of living as they travel through the territory by canoe in the game. Kids explore canoe rides, a matching game, new vocabulary, a smokehouse, storytelling, fishing, and much more (FPCC, 2021).

FirstVoices (**firstvoices.com**) is a collaborative online platform from Canada that supports Indigenous communities in documenting, sharing, and promoting their languages. The platform hosts interactive learning resources – including audio recordings, vocabulary, phrases, songs, and stories – developed collaboratively with Indigenous Elders, youth, and language speakers.

Four Directions Teachings (**fourdirectionsteachings.com**) is an engaging and thoughtfully crafted online platform that celebrates and shares Indigenous knowledges through story, voice, and art (Wemigwans, 2008). Users can learn more about the teachings of five distinct First Nations, including Blackfoot, Cree, Ojibwe, Mohawk, and Mi'kmaq.

Heritage Michif to Go and **Northern Michif to Go** (**metismuseum.ca/michif-app**) are mobile dictionary applications that translate English words and phrases into Michif, the orally-based language of the Métis people. Both apps were developed by the Gabriel Dumont Institute to support the preservation and revitalization of Michif, a language spoken by a small proportion of the Métis population – estimated at approximately 5–10%, most of whom are Elders (GDI, n.d.).

Indigenous Friends (**indigenousfriends.org/media/indigenous-friends-app-thrivehire**) is a mobile social networking platform designed specifically for Indigenous youth

and students within educational settings that was developed by an Indigenous community at York University in Ontario (Mayoral-Baños, 2018, 2021). The app offers a safe, supportive, and culturally grounded digital space where Indigenous students can share information about Indigenous resources, connect and build Indigenous social networks, and access supports (Indigenous Friends Association; 2018; Excalibur Publications, 2016).

I-SPARX (**isparxnunavut.com**) is a self-administered psychoeducational, therapeutic game created in Canada for Inuit users (Bohr et al., 2023, 2024). The app was originally developed with and for Māori youth and Elders but has been adapted for Inuit communities with the assistance of Inuit youth. The app supports Inuit users in how to cope and deal with negative thoughts and feelings (Litwin et al., 2023). The app is a 3-D environment wherein users must complete missions (challenges and puzzles) that support young people in managing their depressive symptoms, using cognitive behavioural therapy techniques and tools (Shepherd et al., 2018).

Isumajunnattiarniq (**inuusiq.com/resource/isumajunnattiarniq-app**), an app developed by the Embrace Life Council in collaboration with Inuit artists and family wellness experts, focuses on supporting the mental health and wellness of Nunavummiut (IIKELC, 2026).

Land(ing) Back audio blog series (**4rsyouth.ca/landing-back-audio-blog-series**) is a podcast hosted by three young Indigenous activists in collaboration with two youth artists. Each episode features conversations with Indigenous youth who are creating change within their communities. The series amplifies a diversity of Indigenous youth perspectives, including voices from queer and Two-Spirit youth, all-gender and transgender youth, young mothers, and individuals with mixed Black-Indigenous identities (4Rs Youth Movement, n.d.).

Mino Bimaadiziwin Podcast: Conversations on addictions and mental wellness (**thunderbirdpf.org/new-podcast-page**)is a podcast hosted by the Thunderbird Partnership Foundation and features leading voices in Indigenous wellness who explore and share their perspectives on Indigenous addictions and mental health.

Musqueam Place Names Map (**musqueam.bc.ca/our-story/our-territory/place-names-map**) is an interactive multimedia map showcasing hən̓q̓əmin̓əm̓ place names across the Traditional Territory of the Musqueam. It includes audio recordings in the hən̓q̓əmin̓əm̓ language from both past and present Musqueam Elders, along with historical photographs (Musqueam: A Living Culture, n.d.).

SENĆOŦEN mobile app (**firstvoices.com/sencoten/apps**) is a language tool that draws on words and phrases from the online Indigenous language database FirstVoices.com. Definitions are supported with audio recordings and images, and users can create personalized, theme-based flashcards as well as bookmark words and phrases to build their own customized lists.

The Sq'éwlets Virtual Museum is the centerpiece of an interactive multimedia website (**digitalsqewlets.ca**) that is owned and operated by the Sq'éwlets First Nation, located in southwestern British Columbia, Canada (Sq'éwlets First Nation, Stó:lō Research and Resource Management Centre, & University of British Columbia, n.d.). The virtual museum weaves together stories – presented in video and audio formats – together with maps, photographs, and images of ancestral belongings (Á:wkw'). The result is a living digital record of Sq'éwlets people, places, belongings and stories that connects past, present, and future.

Squamish History Archives (**library.biblioboard.com/curation/squamish-history-archives**) includes historical photographs, and historical newspapers articles (1948-2001) (Squamish Times Archive, 2012).

Talking Stick (**play.google.com/store/apps/details?id=app.talkingstick**) is a digital platform created by Indigenous Peoples for Indigenous Peoples (Office of the Treaty Commissioner, 2016). It is a social networking and support app designed to provide a safe space where Indigenous users can connect via text with a trained Indigenous peer advocate to talk about concerns, anxiety, or stress (Soaring Together Tools for Life, n.d.). The platform is free, anonymous, and text-based, making it accessible and confidential for users.

This Place (**cbc.ca/listen/cbc-podcasts/1020-this-place**) is a podcast based on the bestselling graphic novel anthology "*This Place: 150 Years Retold*" that tells 150-plus years of Canadian history through Indigenous stories featuring Indigenous creators like David. A Robertson, Richard Van Camp, Katherena Vermette and Brandon Mitchell.

Thunderbird Wellness (**thunderbirdpf.org/thunderbird-wellness-app**) is a freely available culturally grounded, strengths-based, trauma-informed app for Indigenous youth (aged 12+ years) and adults (TPF, 2024).

Telling our Twisted Histories (**cbc.ca/listen/cbc-podcasts/906-telling-our-twisted-histories**) is a podcast series that features conversations with over 70 Indigenous people from 11 communities, exploring 11 words whose meanings have been twisted by colonization and reclaiming Indigenous history in the process.

Virtual Qaggiq (**virtualqaggiq.com**) is a digital video game for Inuit youth in Nunavut inspired by the traditional Inuit Qaggiq, a gathering place for knowledge-sharing and social connection (VQ Project, 2025). Users explore Inuit storytelling, cultural teachings, and interactive gaming elements, with the goal of supporting youth mental wellness.

Voices of Amiskwaciy (**voicesoftheland.org/community/voices-amiskwaciy**) is an online public platform developed by the Edmonton Public Library together with Indigenous communities, through which communities create, share, and celebrate local Indigenous knowledge(s) via various digital texts, videos, sound files, and images (Voices of the Land, n.d.).

Aotearoa New Zealand

LiveCurve is a training tool to help Indigenous people understand how they are ageing. The app, which reflects Aotearoa New Zealand socio-cultural norms and national identity, promotes healthy, positive ageing in Māori/Pasifika aged 60+ years and supports Elders in optimizing their functioning and well-being in their older years (Lord et al., 2022).

OL@-OR@ (**healthierlives.co.nz/research/ol-or**) is an Aotearoa New Zealand app developed to manage or reduce key risk factors such as diet, physical activity, smoking, and alcohol use. The app was co-designed by Aotearoa New Zealand health researchers along with Māori and Pasifika communities to ensure that health is measured in a holistic way that is grounded in Pasifika values and includes family and cultural identity as foundational to health and wellness. In the app, users are encouraged to set goals, invite others to join them on their journey online, share their progress online, privately track progress using lifestyle trackers, and receive reminders of their goal through the app. OL@-OR@ also utilizes culturally grounded motivational messages. (Firestone et al., 2020; Ni Mhurchu et al., 2019; Verbiest et al., 2019; Te Morenga et al., 2018).

Quest – Te Whitianga is a mobile app for Māori young people which uses gamification to engage youth in online cognitive behavioural therapy, supporting their emotional health. The app connects youth to available services in a way that is engaging and fun (Christie et al., 2019; Warren et al., 2020).

Whitu: 7 Ways in 7 Days (**healthify.nz/apps/w/whitu-7-ways-in-7-days-app**) is a mobile wellness application (suitable for both android and iOS) that is focused on teaching mindfulness to support young people, specifically Māori and Pacific young people ages 16-30 with managing emotional distress. The app has seven different modules, with the recommendation to complete one module each week (Serlachius et al., 2021; Thabrew et al., 2022).

Australia

AIMhi Stay Strong app (**staystrong.org.au/stay-strong-app**), developed to support Indigenous communities in Australia, uses motivational interviewing techniques to guide users in identifying personal strengths, support networks, and meaningful relationships as part of resilience-building and mental wellness planning (Dingwall et al., 2019, 2021, 2023; Nagel et al., 2022; Perdacher et al., 2022; Povey et al., 2020, 2022).

iBobbly is a suicide prevention trial app designed for young Indigenous Australian people aged 18 to 30 years (Tighe et al., 2017). iBobbly was developed by the Black Dog Institute in partnership with Indigenous community members, with Indigenous artists and designers creating its visual elements (Shand et al., 2013). The free, password protected app allows offline access and includes three modules: identifying and defusing unhelpful thoughts, mindfulness and acceptance practices, and values-based goal setting with an action plan. It also provides 24-hour helpline contacts (Tighe et al., 2017).

INSIST (**apps.apple.com/ca/app/insist/id1417679221**) is a "gatekeeper" suicide intervention skills training program for Australian Indigenous communities. The app was informed by a series of workshops that involved community members and explored the knowledge, skills, and support that suicide prevention gatekeepers in Indigenous communities may require, and how technology can support their needs (Brown et al., 2020).

Strong and Deadly Futures (**strongdeadly.org.au**) is a web-based well-being and substance use prevention program for Aboriginal and Torres Strait Islander and non-Aboriginal adolescents (Snijder et al., 2021; Stapinski et al., 2022; Routledge et al., 2022).

YArnhem is a digital platform trial which assists with the connection and coordination of services and cultural resources for Indigenous youth in Australia, with the goal of establishing a centralized referral pathway for youth people (Black et al., 2022).

United States

ARORA (Amplifying Resilience Over Restricted Internet Access) is a prototype for a future mHealth app for American Native youth (aged 12 to 18 years) specifically tailored for Hopi and Navajo communities to provide mental health support. ARORA was developed with guidance from a community advisory board and youth, and builds resilience and mindfulness skills through individual and group-based games, activities, and reflections that emphasize connection to the place, cooperation and art. The prototype was designed to support users in rural areas by enabling access through local networks rather than relying on the internet. So far, no official ARORA mobile app has been released (Vigil-Hayes et al., 2021).



BRAVE is a trial intervention for Indigenous youth aged 15 to 24 years in the United States that is delivered through text messages. The messages intend to support youth by encouraging asking for help, providing resilience strategies, sharing resources, and demonstrating healthy decisions through modelling videos (Craig Rushing et al., 2021).

LANDBACK FOR THE PEOPLE! (**ndncollective.org/podcasts**) is a podcast, created by NDN Collective, that explores the meaning of LandBack through conversations with Indigenous leaders, activists, and allies.

Native It's Your Game (**healthynativeyouth.npaihb.org/curricula/native-its-your-game-2-0**) is an adapted internet-delivered, evidence-based sexual health promotion program adapted for American Indian and Alaska Native (AI/AN) youth. Its focus is mainly on sexual health but additionally addresses alcohol use, tobacco use, drug use, nutrition, and physical activity (Markham et al., 2016; Shegog et al., 2017).

Native WYSE Choices is an alcohol-exposed pregnancy prevention mobile app trial for urban AI/AN young women. The app has six sessions covering alcohol use, contraceptive information, AEP and FASD, risk assessment, goal-setting, and sustaining choices. The app also features quizzes, risk assessment vignettes, decisional balance and readiness to change exercises, and options for support and resilience (Kaufman et al., 2023; Tuitt et al., 2022).

ourCircle is a secure, interactive, and personalized app that supports decisions to increase safety and reduce barriers to multiple services for Native American women exposed to intimate partner violence (Bagwell-Gray et al., 2021). The app formulates a personally tailored safety plan for users with links to resources and services. The app's design was informed by the experiences and stories of Native American women who had experienced intimate partner violence (IPV), which shaped the app to better support other Native American women seeking resources in the face of IPV (Koziol-McLain et al., 2018).



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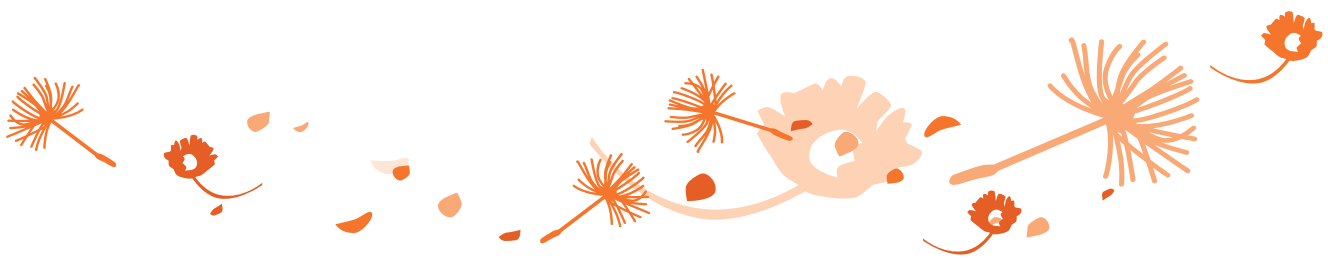
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Centre de collaboration nationale de la santé autochtone

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