

We are all related: Using augmented reality as a learning resource for Indigenous-settler relations

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Efforts to improve Indigenous-settler relations include recognizing and learning the truths of past and ongoing settler-colonialism in Canada, as well as challenging them. Access to appropriate educational resources is one important approach, as are projects that support critical, reflective and reciprocal relationship-building through the co-development of resources by teams comprised of members from Indigenous and settler communities. In this context the *We are all related: Using augmented reality as a learning resource for Indigenous-settler relations* project invites participants to co-create and share digital stories to build and strengthen understandings of treaty and Indigenous-settler relations. It also provides a set of freely available Open Educational Resources (OER) to guide learners through the process.

Using augmented reality (AR) as a storytelling platform, our project develops and tests a participatory design process where participants layer digital information over a “real-world” object or view in real time (Azuma, 1997; Azuma et al., 2001). Perhaps the most popular current example of AR is the game Pokémon Go, where users navigate the real world to collect animated figures. AR is an emerging form of location-based digital media that uses mobile devices as a storytelling lens. Applied to learning about Indigenous-settler relations, this layering of digital information provides an opportunity for participants to take part in a creative storymaking process while sharing insights and perspectives with one another. The end goal of this collaborative process is to produce publicly available digital AR content that reveals histories and truths about Indigenous-settler relations beyond what is immediately observed in our everyday environments.

We are all related: Using augmented reality as a learning resource for Indigenous-settler relations involves a team of members from the University of Alberta and Saddle Lake Cree Nation working with

an app called Wikiup. Funded by the Teaching and Learning Enhancement Fund at the University of Alberta, the project includes several visits to Saddle Lake Cree Nation to plan and record teachings to be shared in Wikiup as a means to share contextual knowledge, history and language. Wikiup is a free mobile app owned and operated by Vancouver Native Housing Society, a registered charity engaged in social housing and social enterprise initiatives. The capabilities of AR allow us to reveal the settler and Indigenous histories, present activities, and potential futures that are co-present in our shared spaces.

As noted above, the primary focus of this project is to learn and build relationships as we work together to create the AR stories. Projects to improve Indigenous-settler relations must prioritize the development and support of relationships throughout the process, not just through project outcomes. Over the past year, our team of Saddle Lake Cree Nation Knowledge Keepers and University of Alberta students and instructors have co-developed a “learn by design” process (Kalantzis & Cope, 2016) to guide students through the critical, reflective and reciprocal relationship-building that goes into planning, documenting, sharing and archiving AR stories. By working through a series of curated steps developed by the project team, future learners will engage in conversations on topics such as treaty-making, settler-colonialism, respectful relationship-building, traditional and contemporary forms of data and information governance (including OCAP™ principles), ownership of cultural knowledge, and language revitalization, among other considerations.

The process we have developed encompasses traditional protocols from Saddle Lake Cree Nation, as well as written, legal and technical means to explore these issues. One reason we chose the Wikiup AR app is because its “story catching” (media storage) process includes community-based authentication and vetting processes

designed to authenticate and protect cultural content. The team was also advised by university researchers working in the area of Indigenous digital cultural heritage, and the Alberta First Nations Information Governance Centre, an organization dedicated to finding ways to support First Nations control, ownership, access and possession of their data and information.

Our project began with a sweat lodge ceremony and offerings of tobacco and cloth to invite the project onto the pathway of success, while a written project agreement outlines ownership, responsibilities, communication and roles for each party. The project agreement is a living document; it is updated and revised continuously through feedback from the team. We will conclude the project with a sweat lodge to bring closure in an appropriate way. This approach aims to be critical, reflective and reciprocal; a living relationship informed by understandings of treaty, as shared with and discussed by the team. It also aims to support Cree language revitalization through the digital documentation and archiving of stories.

We are creating AR storytelling content about the Sweetgrass Bear sculpture (Figure 1). AR projects require an object or GPS location to activate digital content. We selected a Treaty 6 marker bear by Saddle Lake Cree granite carver and project team member Stewart Steinhauer. Sweetgrass Bear is one of a series of Treaty 6 marker bears carved by Stewart in response to Knowledge Keeper Dr. Diana Steinhauer's vision of marking the treaty territory to affirm entitlement for future generations, accorded by the internationally recognized Numbered Treaties.

Sweetgrass Bear embodies Cree knowledge and teachings and is designed as a physical expression of treaty relationships between the Cree Nation (Anishnabe, Nakoda-Sioux and Dene Nations) and the British Crown to allow colonial settlement and immigration upon the treaty territories. Sweetgrass Bear currently resides in the foyer of the Enterprise Square building in amiskwaciwâskahikan (Edmonton), a former Hudson's Bay Company building located just north of the North Saskatchewan river and a riverbank camping and gathering site used for thousands of years by Indigenous peoples including Cree, Nakoda and Blackfoot (Goyette & Roemmich, 2004). The AR stories we are creating through this project will reveal histories and knowledge associated with the area by using Sweetgrass Bear as a physical trigger for digital AR content,

bringing to life the sculpture's role as a marker for treaty knowledge. The first We are all related AR stories for Sweetgrass Bear will include a welcome message as well as stories about the inspiration for sculpture, the significance of the location of the sculpture, and treaty. These stories are retained by the Knowledge Keepers and shared with the public.

To document the AR story process to share with others, graduate student Amanda Almond is working with the project team to develop OER guidebooks. As OER resources, the guidebooks will be made freely available for educational purposes. These guidebooks will help instructors and students navigate the storymaking process, and feature topics for discussion, instructions, resources, and pedagogy prompts such as discussion questions and reflection points. Organized in stages that align with steps in the AR design process, the guidebooks include introductory information to help learners prepare to engage respectfully with Knowledge Keepers, Elders and other storytellers. The first section discusses settler colonialism and its ongoing impact on truth and stories. Specific topics include Indigenous-settler relations and relationship-building, and respectful ways for teams to co-create and share cultural content with careful negotiation of issues of representation and appropriation. Here, the emphasis is on respectful knowledge sharing with ongoing communication, collaboration and consent among all team members throughout the process. Learners will be provided instructions with recurring prompts or "check-in points" to pause and reflect.

The guidebooks will also review technical considerations: forms of AR content (image, audio, video, or animation), how to record a digital AR story, and types of AR platforms. Graduate student Greg Whistance-Smith has led the development of these sections of the guidebook, which illustrate how issues of ownership, control, access and possession are embedded in seemingly technical decisions. These sections highlight the importance of building points of dialogue and collaboration throughout the design process. A final section on sharing stories will emphasize stewardship in digital environments. These stewardship considerations take into account various systems of knowledge rights and responsibilities, including: Indigenous law (e.g. protocol, transferred rights); written agreements (including OCAP™ principles); legal mechanisms (e.g. intellectual property rights, copyright); and tech-



Photo Credit: Greg Whistance-Smith.

Figure 1. Sweetgrass Bear, a Treaty 6 maker bear located in the Enterprise Square building in amiskwaciwâskahikan (Edmonton), Alberta. Sculpted by Stewart Steinhauer from Saddle Lake Cree Nation.

nical mechanisms (e.g. technical access rights to online databases like Wikiup or Mukurtu CMS).

The guidebooks will document and share the AR storymaking process to support the integration of Indigenous knowledge and teaching methods into post-secondary education and share the process with other interested communities and users. With the approval and support of the project team, this process will be made available as an OER for a range of learners to adapt and apply. The OERs identify resources, share relevant digital stories, and describe the process and decision-making we applied to create the first *We are all related* AR stories. Importantly, the end result of the relationships created and sustained through our design process are the AR stories that feature Saddle Lake Cree knowledge.

Moving forward, our learning by design process will be further adapted in fall 2018 for a graduate course offered at the University of Alberta through the Faculty of Extension. Students will explore Indigenous-settler relations and relationship-building and create augmented reality stories exploring meanings of treaty with Diana and Stewart. It is our hope to continue to build on what we have learned to make this process available and accessible to anyone interested in exploring Indigenous-settler relations through AR storymaking. ●

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Dr. Rob McMahon is an Assistant Professor in the Faculty of Extension at the University of Alberta. He teaches in the Master of Arts in Communication and Technology and Master of Arts in Community Engagement programs. Rob co-founded the First Mile Connectivity Consortium, a national nonprofit association of Indigenous technology organizations (see: www.firstmile.ca).

Dr. Diane P. Janes is an Instructional Designer with the Learning Engagement Office (LEO), Faculty of Extension, University of Alberta and has worked in senior teaching and academic positions in educational technology and instructional design in both Education and Business. Diane has served as President of the Canadian Network for Innovation in Education (CNIE) and she currently serves as Secretary-Treasurer. She is co-editor of "Making the Transition to E-learning: Strategies and Issues" (2007).

Greg Whistance-Smith is an interdisciplinary scholar and designer. Building on a background in architecture, his work explores the design of virtual spaces and their possibilities for communication and expression.

Dr. Diana Steinhauer, Cree, from Saddle Lake Cree Nation in Treaty No. 6 Territory, is an educator with 30 years of experience in teaching, curriculum development, and administration in K-12 schools and post-secondary institutions. Recognizing the value and work of iyiniw pimātisiwin, Diana's work as a change agent in language, education, and governance is grounded upon her late father's adage, pimātisitotetân kimiyikowisiwininaw, Let us live life the way our Creator intended us to live.

Stewart Steinhauer is self-taught as a stone sculptor/foolish person, beginning his adventures in stone sculpture the day after the birth of his first child, in July 1973. For uncounted millennia before the beginning of the colonial period there was a Turtle Island; that is where his creative work springs up from, working under the direction of the Rock Spirit.

Notes

1. Following the lead of our team members from Saddle Lake Cree Nation, our work is predicated upon the original intention of the Royal Proclamation of 1763 (and 1764 Treaty of Niagara) set forth to form peaceful alliances and allow settlement, through treaty-making, between the British Crown and the original Nations and tribes of Indians (Indigenous Peoples). These treaties of peace and friendship pay homage to the 'Grandfather of all Treaties,' the Two-Row Wampum belt depicting the relationship between the Haudenosaunee and the Dutch (1500s). This belt depicts a design of two parallel purple beaded rows symbolizing a canoe and a ship: a visual representation of two paths of peaceful co-existence that do not interfere with one another (Gadacz, 2006).

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