

We are all related: Using augmented reality and Indigenous storytelling as reconciliation learning resources

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Project Description: *We are All Related*

Digital technologies can support reconciliation between Indigenous and settler communities: a growing body of research is demonstrating how digital content and technologies support the learning of Indigenous cultures and languages (see Perley, O'Donnell, Beaton & George, 2016). Digital technologies also offer a means to engage instructors and learners in the hands-on development of learning resources. This 'learning by design' approach employs digital technologies as development platforms that instructors and students use to actively engage with community partners in the collaborative production, application and evaluation of learning resources (Kalantzis & Cope, 2016). Augmented Reality (AR) applications provide a platform to explore this digitally enabled integration of process and content learning. By directly engaging with community partners to work through the logistical, ethical, narrative and design choices made in the construction of an AR application and associated digital content, instructors and students gain opportunities to challenge assumptions, build relationships, and establish ongoing dialogue - while also contributing to the production of culturally appropriate digital AR learning resources that can be used in a variety of settings at the Faculty of Extension and beyond.

Objective

The end goal of our project is to generate a reconciliation-oriented pedagogical process and accompanying set of AR digital and print learning resources that **can be adapted** by faculty instructors across the University of Alberta, Indigenous partners, and beyond. This involves collaborating with Indigenous knowledge keepers to create the design process and associated AR resources, and with Indigenous educational organizations to test and evaluate them. By involving students in these activities through a 'learning by design' approach, this project supports reconciliation learning while providing opportunities to create culturally appropriate learning resources.



[Sweetgrass Bear, Faculty of Extension Atrium, 2016; For more information see: <https://www.ualberta.ca/extension/about-us/news/2016/april/art-and-reconciliation>]

The participatory development process will also allow instructors to take up and adapt the AR materials and platform to a range of disciplinary contexts. Project deliverables include an AR platform and accompanying hard-copy guidebook/curriculum guide that includes sets of activities that Faculty and Instructors can use as teaching tools. These materials provide a ‘**proof of concept**’ that the project team will use to demonstrate efficacy to future UofA and Indigenous education partners interested in adapting and expanding it in other contexts. This project focuses on developing and evaluating AR learning resources to showcase stories of Indigenous-settler relations associated with the Sweetgrass Bear sculpture housed at the University of Alberta’s Faculty of Extension. Along with narratives on the history of Sweetgrass Bear and the territory that Enterprise Square is located on, we will consider linking to significant nearby locations that our Elder partners can teach about, such as Beaver House, Amiskwaciy Park and the river valley. Building on this content, we will produce within AR a series of questions and learning activities that support reconciliation learning, and evaluate these resources for educational use.

Guiding Learning Methodologies

This project combines three key educational perspectives/methodologies: **gaming; narrative inquiry; and design learning/learning by design**. It aims at transformational learning that is relevant and authentic. *Gaming (to learn)*: Chee recognizes two types of educational games: games to learn and games to teach. “...games-to-learn position authentic digital games as tools with which students learn within a broader sociocultural context” (Chee, 2016, p. 3). *Narrative Inquiry*: Stories describe single events and moments in time and therefore have the ability to affect the reader by inviting her/him to reflect on broad-to-personal issues and life events (Carter & Culliford, 2005). *Design Learning/Learning by Design*: Design Learning (also known as Design Based Learning) is a form of project-based learning. DBL emphasizes planning and making decisions as students go through iterations in generating ideas based on predictions, experiencing and creating solutions, testing and communicating (Doppelt, Mehalik, Schunn, Silk, & Krysinski, 2008), while engaging students in authentic design-based learning assignments. There are four key tenets within Learning by Design: Experiencing, Conceptualizing, Analyzing, and Applying (New Learning Online, 2016). This project will use all four of these learning tenets.

Relationship of Educational Theory to Practice

In this project we use the AR design process as a means to frame conversations about reconciliation; to “unsettle the settler within” (Regan, 2010). We seek ways that are both context-specific and adaptable across a range of academic disciplines. Research indicates that AR systems can support/enhance learning in a number of contexts, including positive evidence of learning outcomes, motivation, effectiveness and emotional attachment (Cubillo et al, 2015; Huang et al, 2016). Our approach is guided by Hidalgo’s (2015) model of ‘Augmented Scholarship’ for social justice learning. Hidalgo describes, “a collaborative process between researchers and oppressed communities to produce alternative narratives and reveal erased

histories using AR to inform, educate, raise public consciousness, elicit community action, and social change” (p.301). We will adapt this process to the context of Indigenous-settler relations and reconciliation learning. In addition, our project is grounded in the *Calls to Action* issued by the Truth and Reconciliation Commission of Canada (TRC). The TRC’s 62nd *Call to Action* encourages educators to integrate Indigenous knowledge and teaching methods in classroom learning. Our project is guided by these recommendations through our attempts to be inclusive of Indigenous knowledge, history, and understanding in each stage of the production, use and evaluation of the AR application. Ownership of digital content will remain the property of Knowledge Keepers and communities, while the AR platform will be made freely available.

Methods

Ceremony is to be observed to place this project on the pathway of success in Indigenous terms. Within this dimension, spirit is acknowledged, as are the ancestors whose lives were catalysts ensuring that Indigenous Knowledge flowed to the current generations. The responsibility of keeping the stories alive is maintained for the purpose of sharing and preparing the next generations to carry these forward. Ceremony observes the transfer of these processes and invokes the spirit of truth to be present in a relationship guided by kindness, honesty, sharing and determination.

The *We Are All Related* AR project methodology involves collaboratively working through the steps of creating appropriate digital content and learning resources associated with Sweetgrass Bear. Working with Indigenous Knowledge Keepers and education partners to create these resources, students and faculty engage in a number of reconciliation activities, including Building respectful and reciprocal relationships with Indigenous partners; Following Indigenous protocols in the creation and sharing of stories in digital media; Producing learning resources to support goals of everyday reconciliation; and Engaging in conversation about settler-Indigenous relations. All three phases involve students and instructors working in collaboration with Indigenous partners as well as AR developers, who will provide input in their respective areas of expertise. Details on the three phases are available in the ‘Project Management and Timeline’ section.

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