

## **Industrial Project**

**Project Proposal: Personalized AI Journey for the Upstander Program  
at Manitoba Human Rights Museum**

**Group Member:  
Chin Wei, Mak 7951379  
Rafia Rafa Islam 7870927**

## Abstract

The proposed project aims to enhance the Manitoba Human Rights Museum's Upstander Program by integrating AI-driven personalized journeys for users. The Upstander Program encourages individuals, particularly youth, to take a stand for human rights by identifying injustices, recognizing their own strengths, and using those strengths to create change.

This project will leverage artificial intelligence to tailor the user experience, offering personalized pathways through the museum's Upstander content, such as examples of notable figures like Malala and Viola Desmond. AI will guide visitors through an engaging, interactive experience, which could manifest as a self-guided tour, chatbot interactions, or web-based applications. The goal is to create an immersive, accessible experience that deepens the personal connection with human rights issues and empowers users to take action in their own lives.

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## Background

The team members have prepared to do this project by taking courses such as

- Chin Wei, Mak
- COMP 3350 (Software Engineering 1)
  - COMP 3190 (Introduction to Artificial Intelligence)
  - COMP 3380 (Databases: Concepts and Usage)
  - COMP 4710 (Introduction to Data Mining)

Upcoming Semester:

- COMP 4190 (Artificial Intelligence)
- COMP 4360 (Machine Learning)

Rafia Rafa Islam

- COMP 3350 (Software Engineering 1)
- COMP 3190 (Introduction to Artificial Intelligence)
- COMP 3380 (Databases: Concepts and Usage)
- COMP 3020 (Human Computer Interaction)

Upcoming Semester:

- COMP 4190 (Artificial Intelligence)
- COMP 4020 (Human Computer Interaction-2)

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## **Problem Statement**

The Manitoba Human Rights Museum's Upstander Program seeks to enhance visitor engagement by personalizing the user journey through AI. While the current digital resources provide examples of human rights leaders, there is a need to tailor the experience to individual users, guiding them through recognizing injustice, identifying their strengths, and taking actions. This project will deepen engagement, making the experience more relevant and empowering for visitors. It aligns with the museum's mission to educate and inspire action, leveraging AI for personalized, interactive learning.

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## **Methodology and Timeline**

To successfully complete this project the following methodology will be followed. The project will involve several stages, from conceptualization and design to prototyping and user testing.

### **Methodology:**

#### **1. Research and Planning (Due on Feb 7th):**

- Analyze the existing Upstander Program to identify key requirements.
- Conduct stakeholder interviews to understand user needs and expectations.
- Research AI techniques suitable for personalization, such as natural language processing (NLP) and recommendation systems.
- Develop detailed specifications and a project plan, including a breakdown of tasks.

#### **2. Initial Development and Prototyping (Due on Feb 28th):**

- Start implementing foundational features, such as data processing and content integration.
- Develop a basic chatbot or user interaction module for testing the AI's feasibility.
- Create a prototype for user feedback, focusing on a single feature or use case.

#### **3. Refinement and Feature Expansion (Due on March 21st):**

- Refine the prototype based on initial feedback.

- Add more advanced features, such as personalized recommendations and multi-platform compatibility.
- Implement interactions tailored for different contexts (in-gallery, online, and classrooms).
- Focus on ensuring the AI solution aligns with program goals

4. **Testing and Finalization** (Due on April 4th):

- Iterate on the design and implementation to address any issues or gaps.
- Testing the final product
- Finalize features and ensure stability for the final presentation.

5. **Final Presentation and Delivery** (Due on April 10th):

- Prepare a polished demo of the AI-driven Upstander Program journey.

**Timeline:**

**Course Duration:** January 6, 2025, to April 10, 2025

**Weeks Count:** 14 weeks

Course Week	Date	Phrase
1-5	January 6 – February 7	Research and Planning
6-8	February 10 – 28	Initial Development and Prototyping
9-11	March 3 – 21	Refinement and Feature Expansion
12-13	March 24 – April 4	Testing and Finalization
14	April 10	Final Presentation and Delivery

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**Infrastructure, Facilities, and Expert Personnel Required**

The infrastructure required for this project includes access to the museum's existing digital resources, such as the website and content on the Upstander Program, as well as potential access to in-gallery technology (QR codes, interactive displays) for testing and user engagement.

Additionally, our team will collaborate with industry partner (CMHR) to ensure the AI system aligns with the museum's content and educational goals and be honored to have Benjamin Bergman from CMHR as the main consultant of this project.

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## **Outcome and Deliverables**

The primary deliverables for this project include:

- **AI-Driven Personalized Journey:**  
A functional AI system that tailors the user's journey through the Upstander Program, providing personalized interactions and guiding them through the three core components of the program.
- **User Interface (UI):**  
An intuitive user interface that allows visitors to engage with the program online, in-gallery, or in classrooms.
- **Final Presentation:**  
A comprehensive presentation showcasing the AI journey, key learnings, and outcomes of the project.

### **Stretch Goals:**

- Develop a version of the AI journey that can integrate with other educational tools or platforms used by the museum.
- Implement additional features such as multilingual support to make the program more accessible and interactable.

### **Shrink Goals:**

- If development is delayed, the bare minimum deliverable should be a working prototype of the personalized AI journey with a focus on one or two key interactions (e.g., a simple chatbot guiding users through a basic version of the program).