

# **Project Summary Report**

*Spin the Wheel!*

*Interactive Storytelling About Gender Identities Across  
Different Times and Places in Sweden*

**Group 01**

**Stakeholder:** Umeå Kommun – Gender Equality Office

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# 1. Summary

This report summarizes the pre-prototype development progress of "Spin the Wheel!", an interactive storytelling system that generates historically and culturally accurate life scenarios of individuals across different times and places in Sweden. Our project addresses the challenge of understanding gender inequality through historical context by developing an AI-based system that ensures trustworthiness, traceability, and bias mitigation in generated content. We have progressed from conceptual design to initial prototyping, established a technical architecture, and begun implementing core components.

## 2. Problem Statement & Background

The original "Spin the Wheel!" project demonstrated how interactive storytelling can foster empathy and reflection by placing users in randomized identities across Swedish history. However, manual scenario creation limited scalability and depth. Our project addresses three critical challenges:

- Scalability: Manual creation of historically accurate scenarios is labor-intensive
- Accuracy: Commercial generative AI models often reflect dominant cultural narratives that distort historical realities
- Trustworthiness: Lack of traceability to reliable sources undermines educational value

The Gender Equality Office of Umeå Kommun requires a system that can automatically generate scenarios while maintaining historical accuracy and cultural sensitivity, particularly regarding gender identities across different Swedish regions and time periods.

## 3. Design Approach & User Experience

Github repository link for Spin the Wheel! - <https://github.com/serac01/spin-the-wheel>

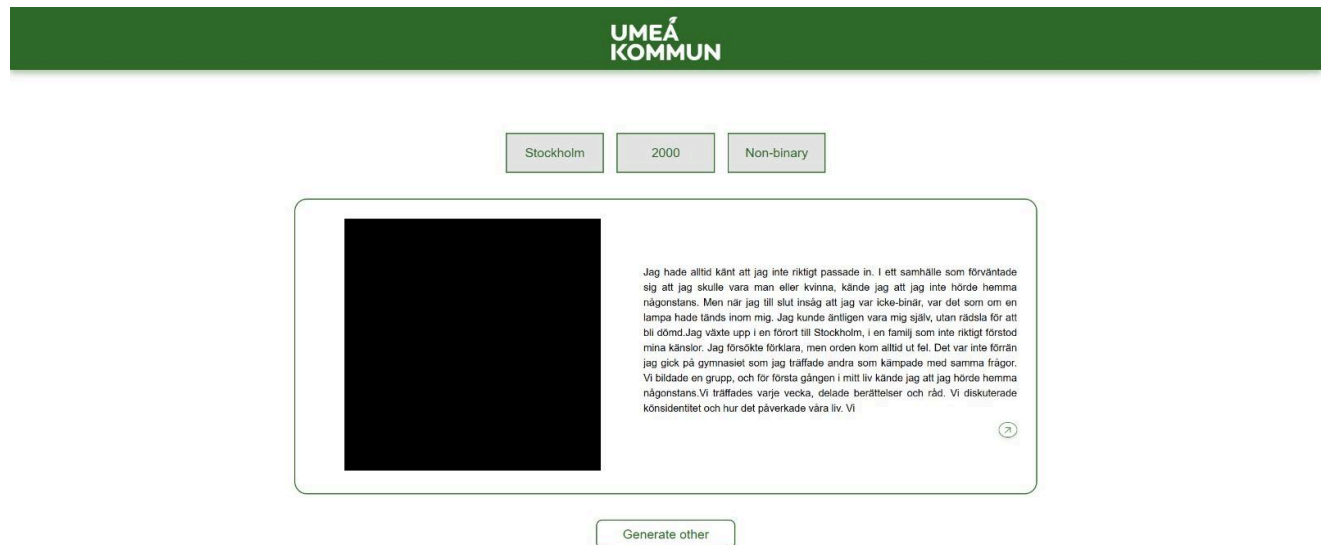
### 3.1 User-Centered Design Principles

Our design maintains the original project's engaging "spin" interaction while enhancing educational value through:

- Gamified interaction: Preserving the wheel-spinning metaphor for random scenario selection
- Transparent sourcing: Clear attribution of historical sources for generated content
- Comparative analysis: Enabling side-by-side comparison of gender experiences across time/region
- Reflective prompts: Encouraging critical thinking about gender norms and inequality

### 3.2 User Journey Flow

1. Entry Point: User arrives at a visually engaging interface featuring an interactive wheel
2. Interaction: User "spins" the wheel to randomly select a time period, gender, and Swedish region
3. Generation: System produces a historically contextualized life scenario with text and image
4. Exploration: The User can view source materials, compare with other scenarios, and access reflection questions
5. Learning Integration: Educational modules for classroom or workshop use



*Figure 01 - Generating a scenario based on randomly selected place in Sweden, year and gender*

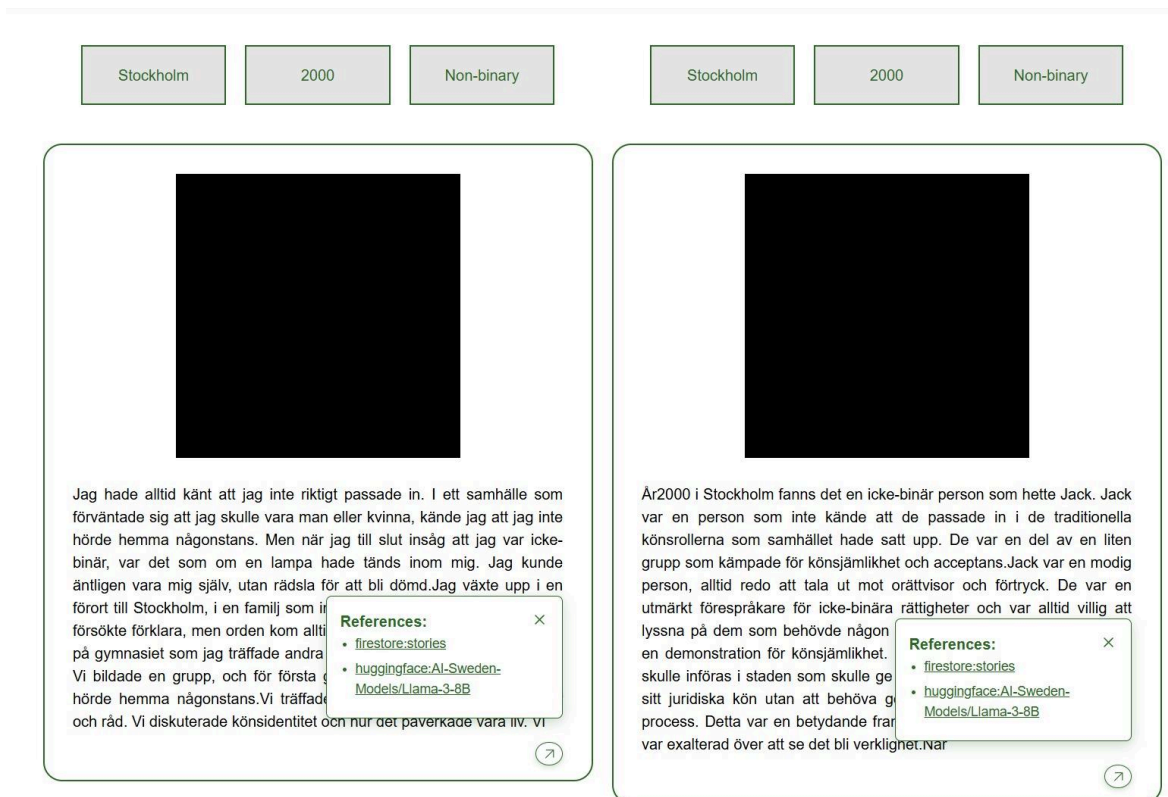


Figure 02 - Generate two scenarios and viewing the resources of data

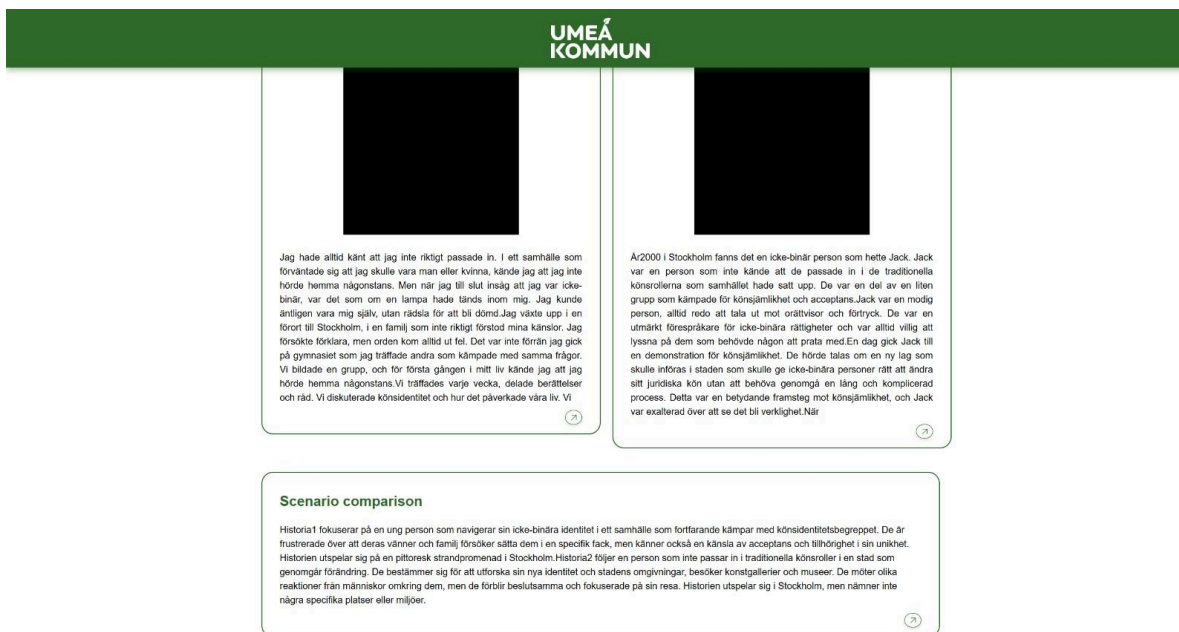


Figure 03 - Compare two scenarios

## 4. Prototype Architecture

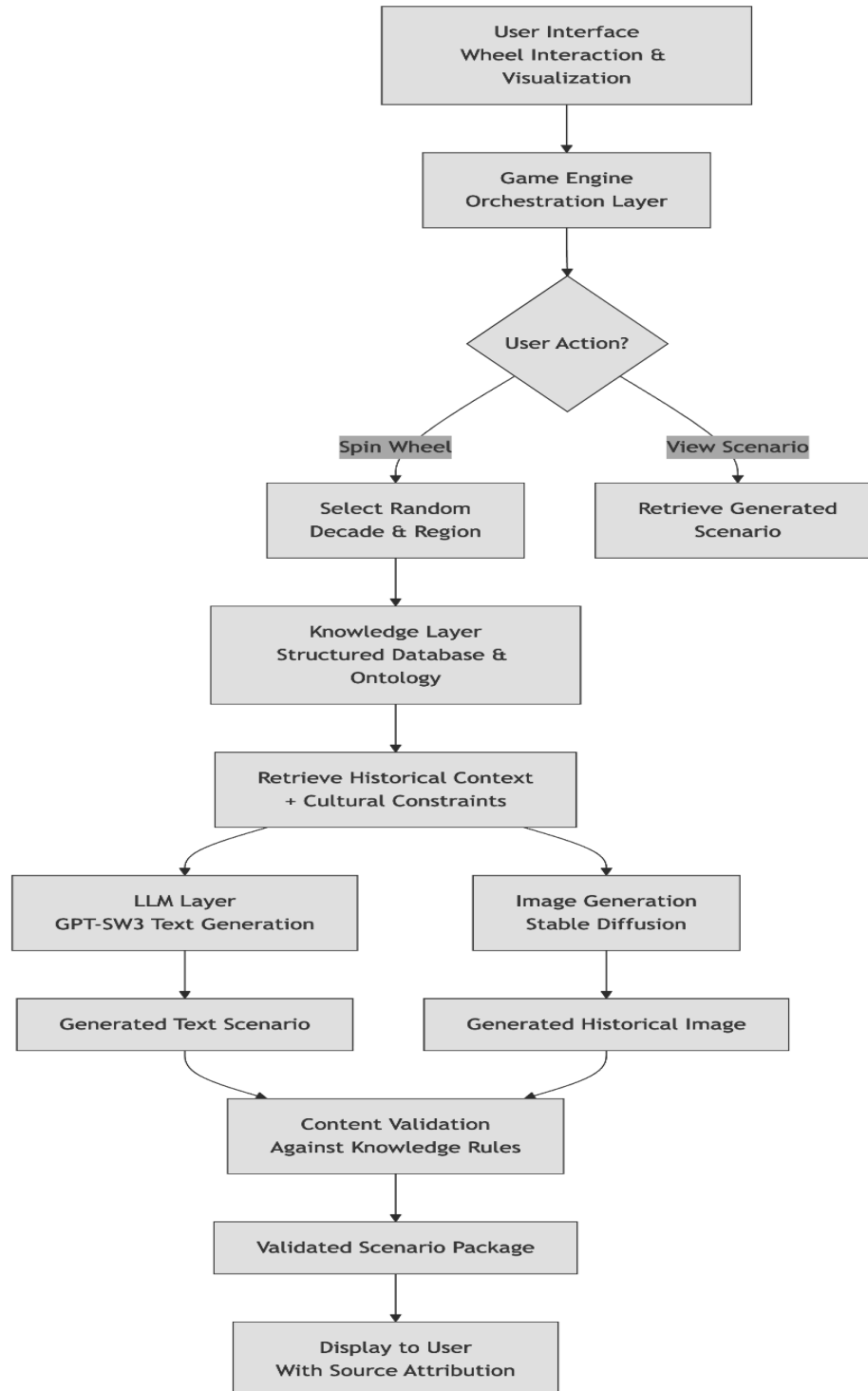


Figure 4 - Prototype Artchitecture

The prototype follows a modular architecture with four distinct layers for reliability and transparency. The User Interface provides the interactive wheel and scenario display. The Game Engine orchestrates user actions and coordinates between components. The core Knowledge Layer contains a structured database of verified historical facts, regional data, gender information, and source-ensuring accuracy and traceability. This knowledge guides the Generative AI Layer, where GPT-SW3 creates text scenarios and Stable Diffusion generates images using constrained prompts. All output is validated against the Knowledge Layer before presentation, creating a closed loop that prioritizes historical fidelity and bias control for educational trustworthiness.

## 5. Conclusion

The "Spin the Wheel!" project successfully creates a prototype that makes exploring Sweden's gender history both engaging and trustworthy. Its four-layer design, separating a solid Knowledge Base of verified facts from the creative AI Generators, ensures every story is historically accurate and traceable to real sources. By using controlled prompts and strict validation, the system minimizes AI bias and maintains educational integrity. This approach proves that generative AI can be a responsible tool for public education when guided by expert knowledge and transparent processes. The result is a scalable, interactive model that helps users understand the diverse realities of gender across time and region, supporting Umeå Kommun's mission to foster equality through historical awareness.

## 6. Group Responsibilities and Task Distribution

Group Member Name	Assigned Task
Sérgio Costa	Frontend development
Michail	Backend development
Chathumini Kavishya	Slide design & documentation