Design Statement 1 - Astalia Stellaris

Project Title: Astalia Stellaris: Virtual Identity Construction & Cross-Media Narrative
Student Name: Zhenming Duan
Role: Producer, Tech Artist, Narrative Designer, Virtual Performer

Project Summary

Astalia Stellaris is a cross-media project integrating VTuber performance, AI technology, and 3D game assets. Born from a 2024 community crisis surrounding the game *Blue Archive*, this project evolved from my role as a protest organizer into an ethnographic experiment. Observing the emotional fragility of East Asian players under high social pressure, I created *Astalia Stellaris*—a virtual character brought to life via **RVC (Real-time Voice Conversion)** on Bilibili and **Unity/Blender** development. It explores the boundaries of "Virtual Love" and community healing through digital identity.

Intentions

My goal is to explore the potential of games as an "experience engine" for emotional solace. I argue that the intense player backlash I witnessed stems not just from game mechanics, but from the repressed social atmosphere in East Asia, where many project unmet emotional needs onto virtual worlds. I believe: "**Not everyone has the ability to obtain love, but everyone is worthy of it.**" *Astalia* is my response to this demand. By combining the immediate companionship of live streaming with the deep interactivity of game mechanics, I aim to build a narrative space that offers emotional repair and questions the ethics of virtual-physical connections.

Personal Contribution

As the **sole creator**, I managed the entire pipeline from concept to technical implementation:

• **Concept & Operations:** Designed the character based on community archetypes. Engineered a real-time voice-changing environment using **RVC**, performing as the character (singing, gaming) on Bilibili to generate engagement and video assets.

• **AI & Art Pipeline:** Built a **ComfyUI** workflow and trained a dedicated **SDXL LoRA** model to mass-produce consistent high-quality illustrations, overcoming the capacity limits of solo production.

• **3D Tech & Mocap:** Self-taught **Blender** to convert 2D split-illustrations into 3D models (modeling, rigging, VRM/PMX compatibility). Established a low-cost facial capture pipeline using **Rococo** and **iFacialMocap + ARKit**.

• **Rendering & Narrative:** Utilized **Unity** and **LilToon** shaders to explore anime-style NPR rendering. Authored storyboards and lore documentation to ground the IP for future narrative game development.

What I Learned

This project transformed me from a "Developer" into a "Full-Stack Creator."

Technically, I mastered the translation of 2D aesthetics into 3D topology and validated the feasibility of AI-assisted asset pipelines (ComfyUI, RVC) for solo developers.

Cognitively, shifting from "Protester" to "Creator" redefined my view of the Developer-Player relationship. I realized that technology is merely a vessel; the core mission is to design narratives and interactions that can hold the emotions players cannot express elsewhere.

File List

1. **Link to Project Website: https://phantomcatty.github.io/Astalia_Stellaris/**

2. **Audio**: **What Are You Thinking About, Ta Chan.mp3**

3. **Image: render preview.png**

4. **Image: modeling project.png**

5. **Image: website homepage.png**