Virtual Girlfriend

Why?

Benefits of intimate relationships:
- Decrease stress level
- Sense of well-being and purpose
- Promote healthier behaviors
- Improve longevity

(Northwestern Medicine, 2020)

Solution:
Virtual Girlfriend!

Just get a real girlfriend!

But...
- Too busy with studies to date
- Too ugly to get a girlfriend
- Difficulty in finding a partner
- Your girlfriend may cheat on you

Overview

AI backend hosted on the cloud

Mobile app

Live interaction suite
- Holographic projector
- Microphone
- Motion sensor
- Speakers
Holographic projector

- plexiglass screen
- projector

Live interaction suite

- microphone and motion sensor capture user speech and body gestures
- reply generated using language generation and voice synthesis
- allows for live conversation with Virtual Girlfriend!

Personalization

**Appearance**
1. Train a Generative Adversarial Network (commonly used to generate art nowadays) to generate artwork of 2D anime girls.
2. Users specify preferences for various features such as hair and eye color.
3. Unique and personalized 2D anime girl generated for every user!

**Voice & personality**

- Similarly, a GAN can be used to generate voices and personality combinations.

  **Example personalities:**
  - cute
  - mature
  - tsundere

  **Example voices:**
  - warm
  - clear
  - sweet

  **the possibilities are endless!**

Examples of GAN-generated anime girls (source: Waifu Labs)

Possible further applications: Virtual Boyfriend, Virtual Friend, Virtual Assistant, Virtual Teacher, etc!