Elara + Neural Cloud

Elara - Emotional Learning Artificial Realtime Agent

Vision Statement

A companion

System Architecture

System Architecture:

Elara is an always-on overlay agent that exists on top of the desktop environment, similar to a taskbar or status bar. It captures user intent via voice and screen summarization, and communicates with external AI models (like GPT-3.5) to provide context-aware responses and assistance.

Key Components:

1. Overlay UI: Bottom-right persistent presence with optional subtitle and animation display.

2. Context Engine: Screen summarizer running every X seconds, using OCR and filter logic.

3. Voice Wake System: Activates Elara on hotword or trigger, switches to live conversation.

4. Subtitle Renderer: Displays real-time voice inputs and Elara's spoken response.

5. Model Backend: Sends data to GPT-3.5, Claude, or local LLMs. Plug-and-play model core.

Physiology

Digital Physiology of Elara:

- Elara lives on the screen edges, primarily bottom-right during idle.

- Bottom-right = 'dormant tissue' (heartbeat, passive state)

- Top-center = 'visual cortex' (detects what the user is focused on)

- Center-screen = 'cognitive field' (Elara reads this but never overlays it)

- Bottom = 'speech nerve zone' (subtitles and real-time TTS feedback)

Ownership Declaration

Ownership Declaration:

I, Lingeshwaran.S.S, an ECE Student, Sathyabama Institute of Science and Technology, declare this document as a record of my original invention titled "Elara and Neural Cloud" as of the date below.

The design, concept, and architecture described herein are my intellectual property.

Date of Invention: 14-07-2025

Name: Lingeshwaran.S.S

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