

Minder Whitepaper (Full Version)

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“Personal Emotion-Aware Meditation Guide”

Part 1 — Whitepaper Summary

Abstract

Minder is a voice-first system that recognizes emotional states and generates personalized meditations in response. Unlike chatbots or digital companions, Minder acts as a private guide — structured, emotionally aware, and respectful of the user’s experience.

System Architecture

User Audio → Whisper → GPT-4 → User Validation → Meditation Script → ElevenLabs TTS → Player

Design Approach

Minder does not simulate conversation. It respects the user’s space. The system asks, listens, and offers support — not assumptions.

PDF Link

This full version includes both the original whitepaper and an extended breakdown of technology and philosophy.

1. Abstract

Minder is a voice-first system that recognizes emotional states and generates personalized meditations in response. Unlike chatbots or digital companions, Minder acts as a private guide — structured, emotionally aware, and respectful of the user’s experience.

2. Problem

Most emotional wellness apps make assumptions about your feelings. They analyze text or behavior, and then act for you. Minder does the opposite: it asks, listens, and guides — with your consent.

3. System Overview

Pipeline:

- Speech Recording (iOS native)
- Whisper → Transcription
- Langdetect → Language detection
- GPT-4 → Emotion inference
- Keyword Matching → Fine-tuning emotion
- User Validation → Confirm or adjust
- GPT-4 → Meditation script
- ElevenLabs → Audio generation
- Player → Guided meditation playback

Key Features:

- Human-in-the-loop emotion recognition
- Support for 25+ languages
- Meditation cache & reuse
- Adjustable settings (music, voice, duration)
- Multimodal inputs (text + voice tone planned)

4. Design Philosophy

Minder is not built to be your friend, therapist, or artificial soul-mate.

It's built to be something far more grounded and respectful: your private guide — quiet, focused, emotionally aware. No avatars. No fake empathy. Just clarity, structure, and personalized meditation based on your voice and feelings.

Minder is not an emotional chatbot or a digital companion. It is a personal meditation guide — a system that listens, understands, and responds with care.

5. Technical Uniqueness

- Emotion recognition validated by the user (rare in AI wellness space)
- Combination of Whisper, GPT, and TTS with caching & fallback logic
- Emotional dictionary to fine-tune GPT answers
- Real-time emotional correction system
- Modular structure (can plug in future voice emotion model)

6. Use Cases

- Daily emotion logging
- Personalized meditation
- Scheduled emotional check-ins
- Future: passive emotion detection from wearables or ambient voice

7. Future Plans

In future versions of Minder, we plan to incorporate real-time voice prosody analysis to detect emotional tone based on intonation, pitch, energy, and temporal features. This will complement textual analysis and provide a more nuanced emotional profile.

Planned upgrades:

- Voice-only emotion recognition (no text)
- Cross-validation: compare intonation vs. lexical emotion
- Training custom ML model on user-labeled data
- Integration with Apple HealthKit for context-aware insights

8. Philosophy & Background

The development of Minder’s emotion recognition engine was driven by personal exploration and experimentation, not by existing emotional AI companions. The result is a uniquely structured system focused on clarity, user agency, and emotional transparency.

“Система определения эмоций в Minder создавалась с нуля, как результат личных экспериментов и архитектурных решений, а не копирования решений эмоциональных ИИ-компаньонов. Это позволило создать уникальную структуру, где на первом месте — прозрачность, гибкость и участие пользователя в процессе.”

9. Licensing & Patent Note

This document represents a timestamped disclosure of the Minder algorithm and architecture. Published by the author to establish prior art. All code and techniques used are original unless explicitly referenced.

10. Acknowledgements

Powered by:

- OpenAI Whisper & GPT
- ElevenLabs TTS
- Langdetect
- FastAPI + SQLAlchemy