



KAIYA

A Tamagotchi-style virtual pet that helps you keep track of your moods

Peggy Li, Gushu Qin, Diana Rachvak • 10.31.2018

Overview

- Motivation & Purpose
- Solution
- Competitors
- Design Strategy
- Technical Overview
- Next Steps

Motivation & Purpose

- Approximately **44.7 million adults** in the U.S. or **18.3% of the total American adult population**, were estimated to have had a mental illness in 2016
 - **20 percent of children** ages 13-18 currently have and/or previously had a seriously debilitating mental disorder
 - In 2016, only **43.1% of adults** with any mental illness received treatment
 - Only **20% to 25% of children and youth** in need of mental health services receive them
-

Solution: Kaiya

- A Tamagotchi-style virtual pet and chatbot that also doubles as a mood-tracking app
 - Progresses or grows with each conversation that the user has with her
 - Utilizes sentiment analysis to deduce the user's mood in each of these conversations
 - Allows the user to track and view their moods over time, as well as any previous conversations
-

Competitors

BetterHelp - online counseling

Replika - AI friend & journal

Habitica - gamified habit-tracking & goal-setting

Tamagotchi - virtual pet

Wysa - therapy chatbot

Daylio - mood-tracker & journal

Design Strategy

Implement core features screen-by-screen

First task: main conversation screen

- Create mockup/layout
 - Implement mockup
 - Design basic conversation flow
 - Integrate communication with backend & chat flow
 - Display data from external sources
 - Integrate other features (voice-to-voice communication)
-

Technical Overview

Resources (other than React, Express, Node)

- Material Design: color tool & icons
 - Google fonts: better fonts
 - Material UI library: React components
 - Google Cloud Platform: Natural Language Processing API, chatbot tools, voice-to-text, text-to-voice
 - react-spring: animations
 - react-charts: data visualization
 - react-router-dom: screen navigation
-

Technical Overview

Models

- User
- Message
- Conversation

Controllers

- User, Message, Conversation: POST, GET, & DELETE
 - Message: POST -> Backend -> Google NLP API
-

Next steps

Version 1: A chatbot

Version 2: A mood-tracker

Version 3: A virtual pet

Version 4: A communicator

Version 5: A helper

Version 6: A platform

Next steps

Version 1: A chatbot

Main interaction screen (mobile & desktop, voice & text)

Basic conversation flow

Voice-to-voice integration

Version 2: A mood-tracker

Data storage & visualization

Journal & stats screen

Version 3: A virtual pet

Animations & additional actions

Growth stage integration

Next steps

Version 4: A communicator

Data-sharing with designation trusted individual
Integration with Google Assistant & Twilio SMS service

Version 5: A helper

Additional conversation paths & trend detection
Integration of cognitive behavioral therapy (CBT) techniques and positive habit suggestions
Habit/health/medication tracking

Version 6: A platform

Listings for & live chatting with mental health professionals
Static pages with mental health resources

Feedback?

Thank you
