

Home Assistant Health Monitor (HAHM)

Computing for the Common Good App Proposal

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Inspiration

- ▶ Many of my friends seek therapy and/or check in regularly with a physician to monitor health and mental issues
- ▶ They often struggle to keep a daily log of their pain and progress, and have a hard time remembering specific details when talking to doctors
- ▶ This causes them to be lazy about scheduling meetings and appointments at pertinent times



App Idea

- ▶ HAHM (Home Assistant Health Monitor) - A home assistant app that checks in with the user daily to gauge mood, pain, and quality of the user's day
- ▶ User would be able to come home and talk to HAHM via Amazon Alexa or Google Home and tell the device about how the user is feeling



Example Interaction

User: Hey Alexa, I want to speak with HAHM

HAHM: Hey Jagath, How was your day today?

User: HAHM I had a really tough day, nothing went right for me and I just want to cry.

HAHM: Jagath I'm so sorry to hear that -
let's listen to your favorite playlist on Spotify!

HAHM would then record the User's response, counting the instance of negative words like "tough", "nothing", "cry", and recognize this as a bad day for the user.



Example Usage

- ▶ Over several weeks, HAHM will keep a log of the user's mood
- ▶ User's can check in with the HAHM mobile app to see how they have been feeling, or remember specific dates
- ▶ Therapists and doctors can have up-to-date records of their patients mood, and will be able to ask specific questions to patients



Technical Details

- ▶ Amazon Alexa Skills are free to develop and launch
- ▶ iOS Companion app in Swift would be a very basic app just showing the general mood of the user over time
- ▶ Therapist Web portal would allow mental health professionals to monitor several patients at once



Tentative Build Plan

- ▶ Build Amazon Alexa skill with number mood ranking (1-10 based on quality of day), save response to cloud DB
- ▶ Build iOS app to read from DB and display daily log to user
- ▶ Build Web companion App for health professionals to monitor multiple users



Tentative Build Plan

- ▶ Upgrade Alexa skill to include NLP for phrase responses
- ▶ Upgrade Alexa skill to include support for pain/trauma response (1-10 user pain during health recovery)
- ▶ Build Android companion app



New Ideas

- ▶ Thank you for listening!
- ▶ I would love to hear your ideas on this project and future directions I could take it in

