CREATING A GIFT-GIVING EXPERIENCE THAT REDUCES TEEN STRESS

From trouble with school to issues with family, teens encounter many types of stress every day. When teens are unable to cope with this stress, they can experience symptoms such as a weakened immune system, lower grades, and an overall inability to take care of their responsibilities. Our system, the EMAR Chatbot and EMAR Locker, aims to provide stress relief to teens in the form of conversation and gifts.

Teens expressed much interest in media recommendations as a gift, and some interest in spa products or snacks. While gifts can be generic, they must convey personal meaning to the receiver. Teens expressed interest in having a sense of choice before receiving a gift. Teens do not expect EMAR to understand their complex problems; interactions with EMAR should be an enhancement to human-to-human interactions, not a replacement.

Through secondary research, we discovered that teens are comfortable using chatbots to learn about sensitive subject areas like sex, drugs, and alcohol. With this in mind, we decided to incorporate a chatbot experience into our project and brainstormed on different gift retrieval systems like going to the school library and/or creating an EMAR vending machine or locker. We also researched common types of teen stress and came up with a list of gifts to match each stress type.

We tested two different concepts: 1) Teens speaking to and receiving gifts from the physical EMAR robot. 2) Teens texting the EMAR Chatbot and then picking up their gifts from an EMAR Locker. The majority of teens preferred the EMAR chatbot, citing that the interaction felt more private. Additionally, the majority of teens chose the “surprise me” function before receiving a gift, even though teens indicated an interest in sense of choice during our exploratory research.

Project EMAR (Ecological Momentary Assessment Robot) is a University of Washington research project that began as a way to measure stress in teenagers using a social robot that will live in high schools. In addition to engaging with teens on what the robot should look like and the kind of data it will collect, researchers have been exploring teens’ comfort level with telling the robot about their stress. Through their research, they found three potential robot-teen interaction modes: 1) I want to give EMAR something (ex. a teen tells EMAR their stress story), 2) I want EMAR to give me something (ex. EMAR gives the teen a snack or shows them a funny video to reduce their stress), and 3) I just want EMAR to be with me (ex. ambient mode). Our project explores the second mode with a specific focus on physical gifts.

EMAR is the architect of Microsoft’s Virtual Assistant Cortana. Through secondary research and an expert interview with an architect of Microsoft’s Virtual Assistant Cortana, we developed our chatbot prototype to 1) Be transparent about its limitations, 2) Not pretend being human, and 3) Provide a balance of spontaneity with guided conversation flows. In addition to the chatbot, we created Wizard of Oz versions of the physical EMAR bot and an EMAR Locker where students could “enter” a code and retrieve gifts.

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