**Foodbot: A goal oriented just in time healthy eating interventions chatbot**

Recent research has identified a couple of design flaws in popular mobile health (mHealth) applications for promoting healthy eating lifestyle, like mobile food journals. These include tediousness of manual food logging, inadequate food database coverage, and a lack of healthy dietary goal setting. to deal with these issues, we present Foodbot, a chatbot-based mHealth application for goaloriented just-in-time (JIT) healthy eating interventions. Poweredby a large-scale food knowledge graph, Foodbot utilizes automatic speech recognition and mobile messaging interface to record food intake. Moreover, Foodbot allows users to line goals and guides their behavior toward the goals via JIT notification prompts, interactive dialogues, and personalized recommendation. Altogether, the Foodbot framework demonstrates the utilization of open-source data, tools, and platforms to create a practical mHealth solution for supportinghealthy eating lifestyle within the general population.

**METHODOLOGY**

Foodbot is an open-source chatbot built on top of Dialogflow platform and accessible through Google Assistant. The Foodbot system consists of three main components, namely conversation engine, core services, and data store. Using Google Assistant, a user can interact with Foodbot via voice commands, clicks, and free-text inputs.

**RESULT**

We present an open-source chatbot for healthy eating intervention that runs on the Google Assistant platform. Powered by a large-scale food knowledge graph, Foodbot provides a natural-language user interface to reduce barriers in dietary self-tracking. In addition, it guides users toward setting realistic healthy eating goals according to evidence-based dietary guidelines and nudges them to achieve their goals via JIT personalized actionable feedback.