

HEALTH AND WELLNESS IN A CONNECTED SOCIETY

Roadmap

HOW CAN COMBINATIONS OF NEW TECHNOLOGIES CONTRIBUTE TO IMPROVING CARE, HEALTH AND WELL-BEING?

TECHNOLOGIES

How can technologies be used to measure physical activity in-the-wild (i.e. at home) and be integrated into everyday life.

2ND19



IMPACT

Identify technological issues and the effects these technologies have on their users.

2ND20



INTERVENTIONS

Collect data from these technologies, their combinations, and utilize this for intervention methods.

COLLABORATE

Develop guidelines for using (combinations of) new technologies to support care, treatment and intervention plans.

1st19

1st20

Introduction

The application of new technological innovations is finding its way into the health and wellness sector where it is increasingly used for various purposes. Although these technologies offer many new possibilities, they also come with individual challenges and limitations. How combinations of these new technologies can contribute to improving care, health and well-being will be the central topic of the research project 'Health and Wellness in a Connected Society'.

This poster presents the current layout and roadmap of the project which will be looking at new technologies to measure, monitor and stimulate physical activity for health care patients (e.g. people with diabetes, chronic pain, heart failure). In particular how they can facilitate 24/7 monitoring to support care, treatment and interventions plans.

Chronic Pain & Depression

Which factors affect chronic pain and/or depression, what is the relation between them, and how they can be influenced?

1. Analyse

Provide insights into patient treatment plan

2. Update

Suggest changes into personal goals and/or strategy

3. Supervise

Combine digital and face-to-face supervision

<http://bit.ly/iwobbs>

Diabetes

Help teenagers with type 1 diabetes to adhere to good health habits and manage their blood sugar levels.

1. Analyse

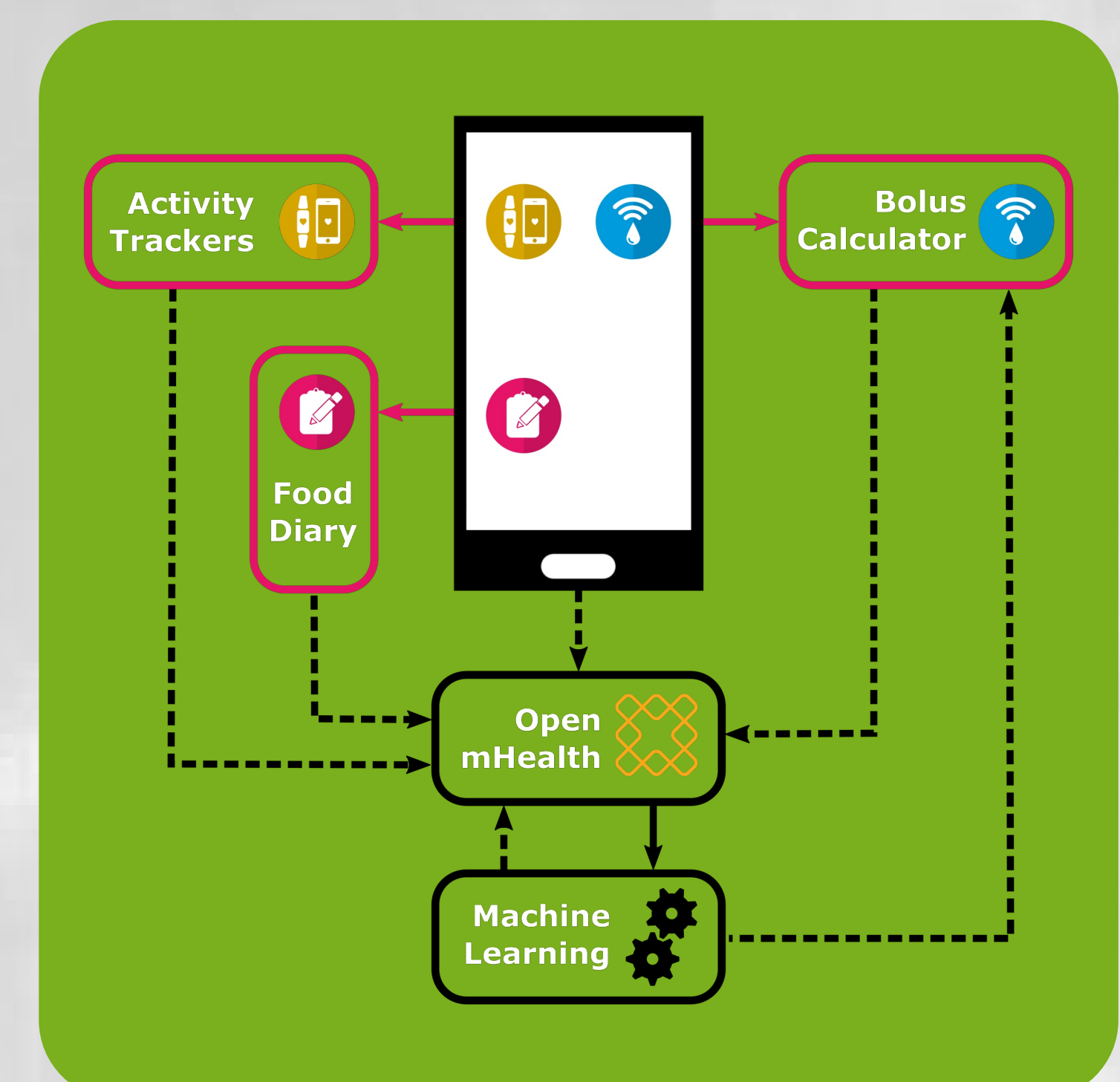
Track carbohydrate intake, suggested and actual insulin dose and physical activity

2. Predict

Use machine learning to adjust for individual treatment plans and anticipate upcoming physical activity

3. Supervise

What is the minimum amount of data needed to predict upcoming physical activity



Open mHealth

Combining new technologies means combining different data formats and structures. Converting these into unique common schemas increases the utility of their application. Open mHealth defines data storage schemas which facilitate data standardization.

<http://bit.ly/openmhealth>

Acknowledgements

This research has been funded by the Taskforce for Applied Research (NPRO-SIA) - part of the Netherlands Organisation for Scientific Research (NWO), HBO-ICT and Research Group IT innovation in Health Care (Windesheim University of Applied Sciences).

Research Group IT innovations in Health Care

Gido Hakvoort, Marike Hettinga
{g.a.hakvoort, m.hettinga}@windesheim.nl



Windesheim

SiA

