HEALTH INFORMATICS: FROM RESEARCH TO ORDINARY USE

Professor Gunnar Hartvigsen
Medical Informatics & Telemedicine Group
Department of Computer Science
Faculty of Science and Technology
University of Tromsø – The Arctic University of Norway

Professor II, Faculty of Health and Sport Sciences
University of Agder, Norway
WHAT DO WE NEED?

• PRODUCTS
  – PROFESSIONAL
  – NON-PROFESSIONAL
WHAT DO WE NEED?

• MARKETS
  – PUBLIC (NON-PROFIT)
  – PRIVATE (FOR-PROFIT)
PRODUCTS

- PATIENTS
- HEALTH PROFESSIONALS
- OTHERS
We are working with self-management systems for people with diabetes
Example of research that has ended up in ordinary use
Example of research that has ended up in ordinary use
Diabetesdagboka er et selvjelvverktøy for deg som har diabetes, utviklet av Nasjonalt senter for samhandling og telemedisinsk tjeneste (NST) i Tromsø. Dette appen gir deg mulighet til å registrere og lagre blokesukker, insulin dosering, kæroossier, tidpunkt for trening og fysiske aktiviteter som i en vanlig dagbok. Alt som registreres i dagboka bygger opp en database som etter hvert vil kunne gi deg oversikt over tidligere hendelser og situasjoner, og dermed være til veiledning og hjelp med valg av mat og medisinering.

Diabetesdagboka er tilgjengelig i Google Play og App Store.

Since April 2013
Since January 2014
One of the users ...
What does the specialist say?
Almost two decades with mDiabetes
Child – Parent Communication

Traditional BGM

Child with Type 1 Diabetes

Works also with a CGM
Developer: Alexandra Makhlysheva
Hi! My name is Otis, and I'm a goldfish who has been diagnosed with diabetes.
E.g. Automatic Juice-machine (enables the correct low-glucose refill amount)

We are playing with technology
MARKET(S)
- PUBLIC (NON-PROFIT)
- PRIVAT (FOR-PROFIT)
WORLDWIDE MEDICAL TECHNOLOGY
Total global medical technology revenue from 2009 to 2022 (in billion U.S. dollars)

Note: Worldwide; 2009 to 2017
Further information regarding this statistic can be found on page 48.
Source: Evaluate ID 325809
Worldwide research and development spending in medical technology from 2009 to 2022 (in billion U.S. dollars)

Note: Worldwide; 2009 to 2017

Further information regarding this statistic can be found on page 60.

Source: Evaluate ID 309297
Background

The use of telehealth/telemedicine/mHealth is rapidly growing due to:

1. **Health authorities’ approval** of remote diagnostic tools, in particular US’ FDA
2. The advancement of different **telehealth platforms** for managing chronic conditions and achieving specific patient outcomes
3. The development of different **telehealth services** offered by private and public healthcare organizations and systems
Background

The use of telehealth/telemedicine/mHealth is rapidly growing due to (cont.):

4. Innovative **direct-to-consumer initiative** by Samsung, Apple, American Well and others

5. **DIY (Do-It-Yourself) initiatives** that force health care institutions and industry to change their business models and open up their devices and systems

6. **Social media and cloud-based solutions** have moved healthcare initiatives from healthcare professionals to patients and relatives

7. **Standardization** enables exchange of health data between all stakeholders in health care
ALSO ...

QUALIFIED PERSONNEL
• WE NEED MORE PROFESSORS & RESEARCHERS
Technology - Telemedicine and E-health - master

The Master's program in Telemedicine and E-health qualifies students for challenging careers in health sectors and organizations as well as research and teaching in academic institutions.

Ready for the Challenge?

FACTS

Duration: 2 Years
Location: Tromsø
Credits (ECTS): 120
Qualification: Master's of Science in Telemedicine and E-health
Admission requirements: Bachelor's degree or equivalent
Application deadline: 15 April
Application code: 3016

KONTAKT

Judy Yu-Ying Au
Telefon: 776 20889
judy.au@uit.no

Jan Fuglesteg
Telefon: 776 44056
jan.fuglesteg@uit.no
We need BSc and MSc candidates.
WE NEED TO WORK TOGETHER TO GET MORE HEALTH INFORMATICS STUDENTS, PROFESSORS, RESEARCHERS AND MODERN INDUSTRIAL WORKERS