Context-awareness in children, patient and aging care

Pei Xu
Xianda Xie
Existing application in industry are mainly based on computer version

**CISCO HEALTH TELEMONITORING SYSTEM**

**COCOON CAM**

![Health telemonitoring system](image1)

![COCOON CAM](image2)
Another context-awareness method is by collecting data from wrist band or smartwatch.
We want to make good use of all the activity data

- acceleration
- location
- body temperature
- pressure
- audio
- humidity
- direction
But can we make such a multi-sensor device wearable?

Levis and google work together and shade a light for us:

Levis Commuter Trucker Jacket with Jacquard by Google
Hypothesis

Can we use clothes as equipment in baby care and aging care?
Clothes in children and health care

why do we need this:

- Many activities are not captured by current context collecting equipment
- Children and aged people cannot self-report in case of danger
- Natural device, doesn’t interfere with your daily life

how should it work

- Put sensors in clothes to detect movements of all parts of arms and back.
- Integrate accelerometer, GPS and optical heart-rate sensors
- Featured with pressure sensor to detect if the user is hit by weapons or falling down
- Etc.
Conclusion