Measuring User Interactions with a Contextual One-Button-Interface

Jan van Zadelhoff
j_vanz01@uni-muenster.de
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Structure

• Idea/Motivation
• The Contextual Button
• Use Case
• Prototype
• Future Work
Idea/Motivation

- Amazon Dash Button
  - Wi-Fi enabled
  - Place order online
- Context
The Contextual Button

• Wi-Fi enabled button
• Independent from Amazon infrastructure
• Measure user interactions
• Integrate as sensor into Sensor Observation Service
Use Case

• Why would we even want something like this?
  • Physical interactions in direct context
  • Privacy
  • Independent of device

• What kind of interactions are we talking about?
  • Use humans as sensor to measure something that cannot be measured otherwise

• Limitations
  • Only count data
Use Case

Assessing people’s perception of security
Prototype

- **Hardware**
  - Contextual Button
  - Based on ESP-8266

- **Software**
  - Base on 52North SOS Docker image
  - Flask API + small web app for visualization
Future Work

• Use (Time-)Series API v2 for visualization
• Extend button to have binary options
• WiFi/power supply independence (LoRaWAN)
Thank You!

Jan van Zadelhoff
j__vanz01@uni-muenster.de
Questions?

Jan van Zadelhoff
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