

## **Towards Using Context Personas to Support Prototyping of Mobile Business Apps**

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# Understanding the 'mobile context'





## Understand the impact of context to User Experience





## Understand the impact of context to behaviour



finding a bank nearby

checking the time  
of the next bus

sending a text

playing a  
game

# Usage Context

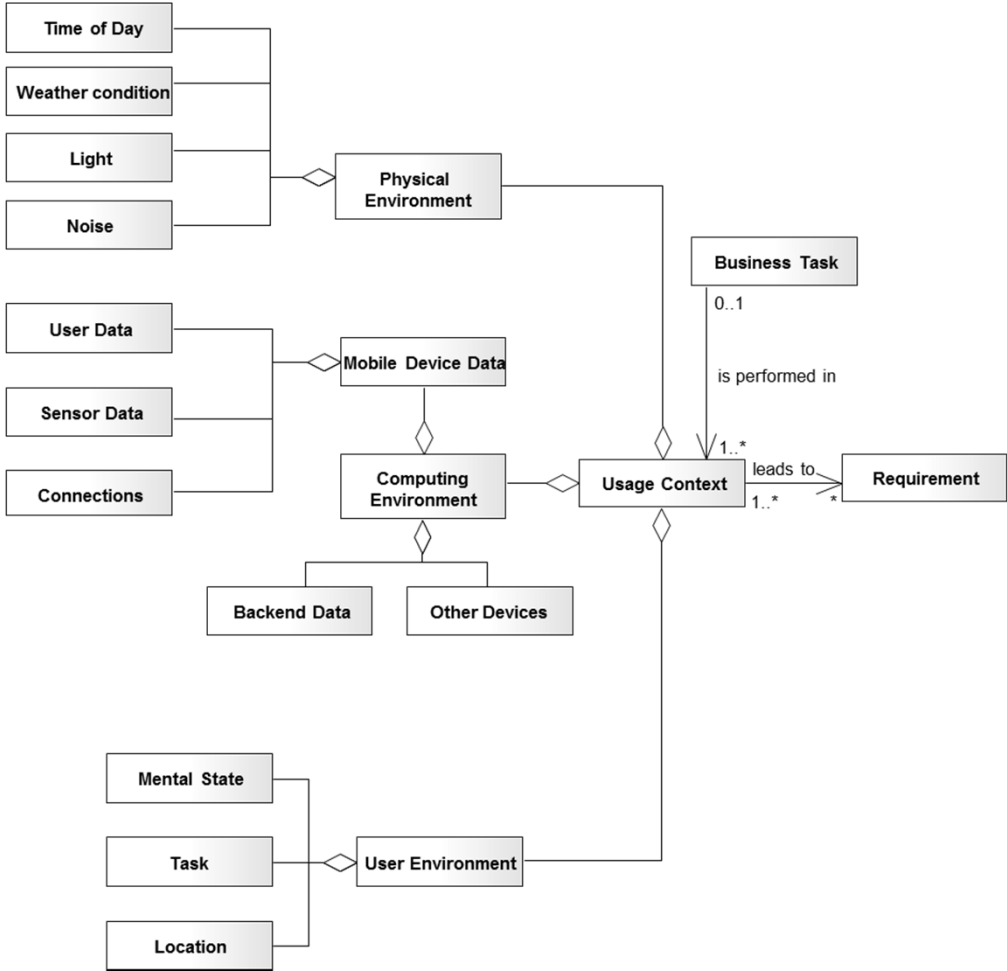
- Importance of usage context for mobile apps and prototyping
- In Literature, context is described as a location, identities of nearby people and objects, and changes over time'. Important aspects of context are: '**where** you are, **who** you are with, and **what resources** are nearby'<sup>1</sup>
- **Computing context:** 'such as network, connectivity, communication costs, and communication bandwidth, and nearby resources such as printers, displays, and workstations'
- **User context:** 'such as the user's profile, location, people nearby, even the current social situation'

<sup>1</sup>Schilit, B., Adams, N., & Want, R. (1994). Context-Aware Computing Applications. *1994 First Workshop on Mobile Computing Systems and Applications* (pp. 85–90). IEEE. doi:10.1109/WMCSA.1994.16

# Context

- **Physical context:** 'such as lighting, noise levels, traffic conditions, and temperature'
- **Time context:** 'such as time of a day, week, month, and season of the year'
- Usage context of a business task can be predicted (to some extent)
- Derive requirements for the prototype from the combination of usage context and business task

# Conceptual Context Model



# Problems

- Considering the context of use during prototyping
- The context of use of a mobile application is hard to predict and changes very often
- Concrete methods and/or tool support are still lacking

## But

- A proper use of context information bears a **huge potential** to create a high User Experience
- Modern mobile devices offer **great possibilities** to design context-aware mobile apps
- Most innovative apps **use context information** in a smart way



## Solution Idea

*Adopting existing approaches and tools towards  
the challenges of context-awareness*

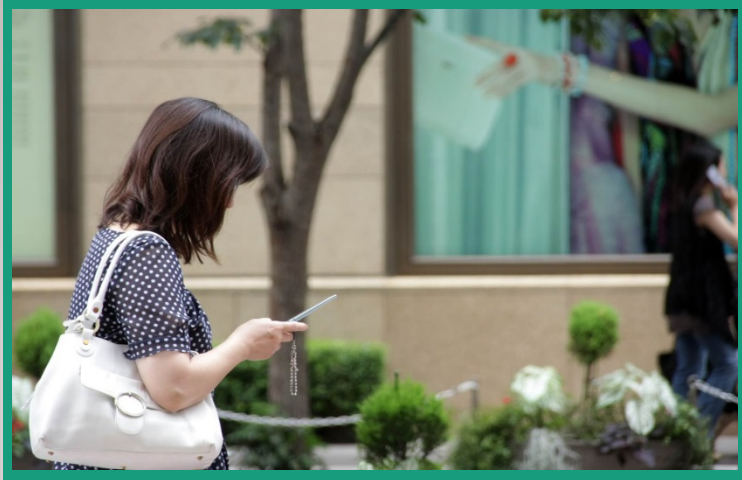
*Using Context Personas in early prototyping  
activities*

# Context Personas

- Mixture of a traditional persona and description of context scenarios
- Different usage scenarios



- Focus on the concrete environment of a task
- Several versions of context personas might exist during the development process
- Multiple attributes for the description of context



# Yoko Watanabe

Personal Assistant at Toyota

30

single

Addicted to new technologies

***„Social media increases my business productivity“***

## **Core characteristics (general):**

- Stress resistant
- Loves to manage multiple tasks

## **Core goals (general):**

- Take the load off from the CEO
- Care about friends & colleagues

## **Current challenge:**

- Schedule multiple appointments of CEO

## **Current working place:**

- Public environment

## **Mental model:**

- Accustomed to using her Android phone in business; apps should be simple and clear (focus on productivity); it is important to be connected to colleagues and friends

## **Current smart device context:**

- docomo Arrows V F-04E; 4.7 inch HD display; Android 4.2.2 Jelly Bean; GPS available; LTE available; connection quality to backend: strong

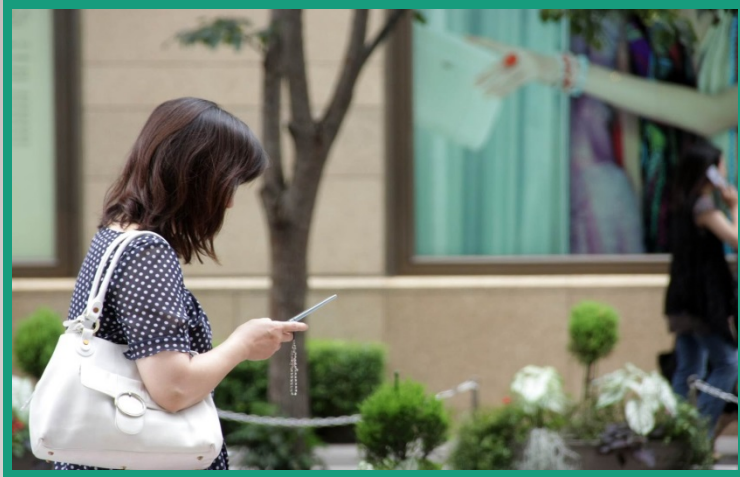
## **Current user context:**

- Medium cognitive load and stress level; walking in public and noisy environment surrounded by people

## **Current business context:**

- Schedule several meetings with customer on the afternoon; CEO is only available at 3PM to 4PM; Customer will also meet with Mr. Nakazato and Mr. Hiroshi





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## Context scenario:

1. In the morning, Yoko receives an email of the customer Takahara that he requests an appointment with Mr. Nakazato, Mr. Hiroshi and the CEO.
2. Yoko takes out her smart device and checks the availability and actual location of the people requested as they might not have their calendar updated on business trips.
3. Yoko creates immediate meeting requests for the requested people
4. Requested people are receiving an urgent meeting notification and confirm the meeting request – in case they are busy right now an automated notification is send to Yoko
5. Yoko schedules the meeting and responds to Mr. Takahara
6. Yoko gains reward for scheduling a meeting within 10 minutes after the request

## Requirements:

- App provides simple and fast method of checking availability of several persons for a certain timeframe
- App provides the ability to see the location of related persons
- App provides the opportunity to send instant meeting requests for confirmation
- App provides reward system
- App provides direct communication to other app users

# Conclusion and Future Work

- Usage of context personas in prototyping is a first step towards engineering of context-aware apps
- Familiar approach to interaction designer
- Perform evaluation about feasibility of the approach
- Extending conceptional context model



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