



Aalto University
School of Science

Experiences in Applying Service Design to Digital Services

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Background

- An increasing number of services is mainly provided through **digital channels**
 - Digital services, such as online banking or marketplaces, have replaced some traditional services and new businesses have emerged
- Development can be fast
- Many companies struggle with developing digital services that are considered **valuable**
 - Technically superior solutions are not necessarily sufficient
- Software-as-a-Service (SaaS) and cloud-based services have become popular
 - However, these models often refer to a change in the revenue or delivery model

Service Design

- Emerged as an approach to design *better user experience* for services
 - Brings design thinking and designer's methods into services
 - First focuses on identifying the problem and exploring possible solutions; only after that, how to implement these solutions
 - The most commonly used service design methods are prototyping and visualizations
 - *Service-dominant logic* (S-D logic) merely considers goods as mechanisms for the distribution of services
 - Value-in-use that means the value as perceived by the customer, which arises and changes over time
 - *Five principles*, which should guide the service design process: user-centered, co-creative, sequencing, evidencing, and holistic
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Prototyping in Service Design

- Prototypes as a “*representation of a design idea*”
- Prototyping as “*the activity of creating prototypes, or activities made possible by or with the prototype*”
- Technical prototypes are commonly used in software development to validate the technical feasibility of a solution
 - however, this is only one aspect of a whole solution



Problem



- How to apply service design in general and prototyping in particular to the development of digital services to gain better understanding of users' needs?
 - RQ1 How does the development of digital services benefit from service design?
 - RQ2 What are the challenges in applying service design to the development of digital services?

Case: Scheduling a Meeting in a Heterogeneous Environment (MUM2014)

Company A

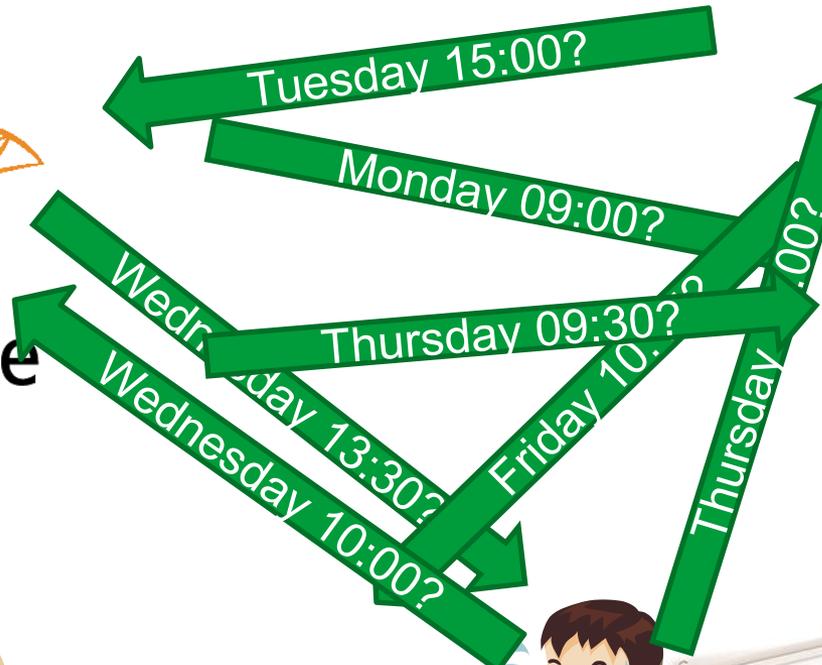
With e-mail:



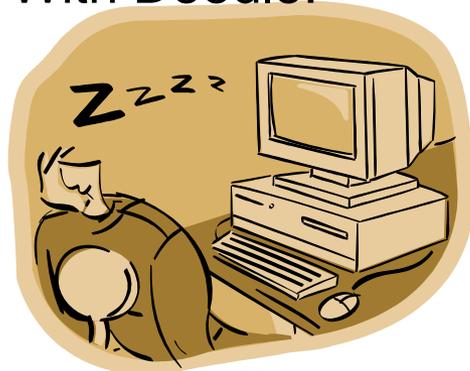
Company C



Google calendar

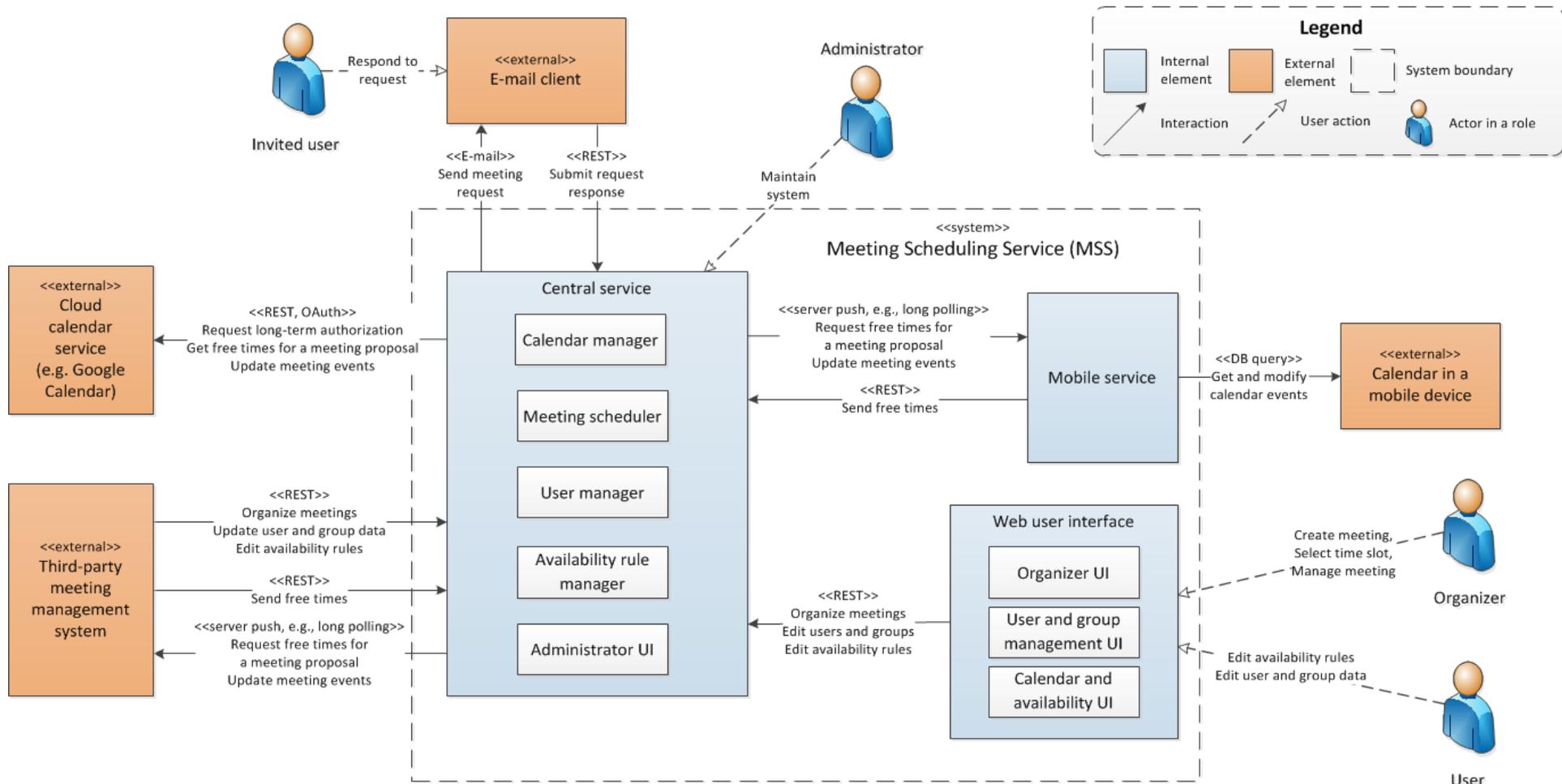


With Doodle:



Company B

The meeting scheduling service: architecture design (MUM2014)



Research Method

- Explorative design science research approach
- The phases include
 - Gaining understanding about meeting scheduling context in a case study at Steeri
 - Creating the interactive (Axure) and paper prototypes
 - A prototype test session with potential users



Create a new meeting

Topic

Date range
 to

Duration

Location

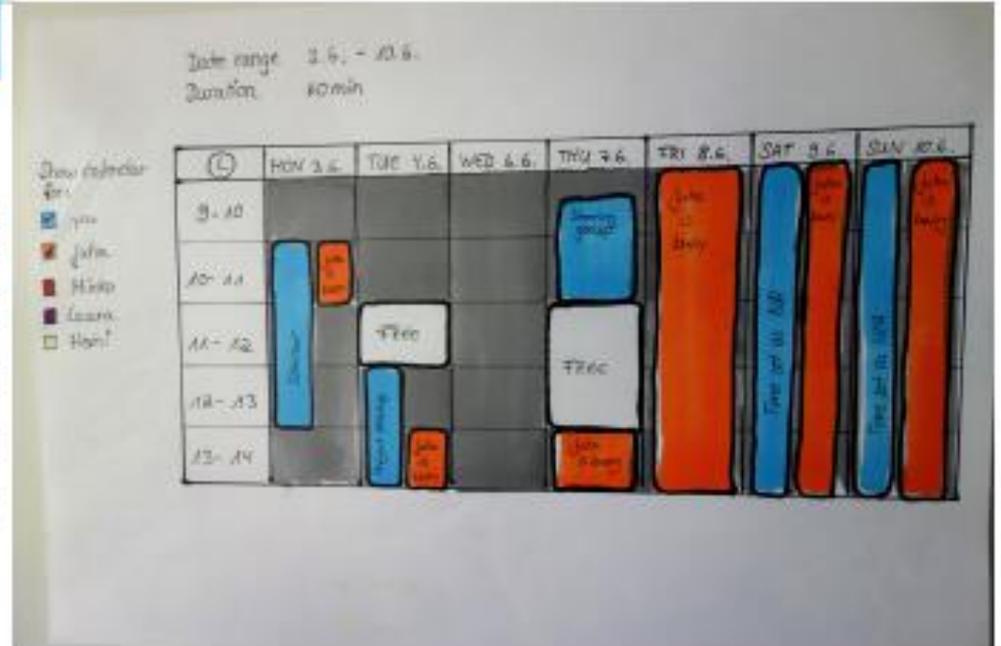
Group

Invited

Choose an available time slot
 Free time slots were collected based on availability rule settings for the group and calendar bookings of the invited.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue
8:00 AM									
9:00 AM									
10:00 AM									
11:00 AM		Free		Free					
12:00 PM				Free					
1:00 PM									
2:00 PM									
3:00 PM									
4:00 PM									

Select time slot



Experiences: Change in the Perception of Value

- E.g., the access model to calendar data differs and sharing information from their calendar did not constitute much privacy concerns.
 - Rather, a reoccurring worry was the amount of meetings
- The *perception of value*
 - Little value in a feature per-se but in value-in-use
 - Varies subjectively from user to user and over time
 - Rarely a ‘one size fits all’

Experiences: Challenge to Consider the Whole Customer Journey

- E.g. the focus of the technical prototype was on the functionality of scheduling meetings with people from different companies
 - People do not clearly distinguish between internal meetings and meetings with externals.
 - They desire not to have a separate service
- While technical design sets borders clearly, *these borders do not exist similarly in the users' mind*
 - Similarly, the technical design focuses on features rather than the holistic customer journey, such as easy adoption.

Experiences: Applying Service Design to Existing Technical Prototype

- E.g., a service design process typically starts from the scratch to explore possibilities
 - The technical prototype limited exploration
 - The resulting service concept is an incremental change rather than radically new
 - Applying service design methods and principles, nevertheless, *helped exploring and gaining deeper understanding of users' needs.*
 - Furthermore, the prototypes and visualizations *facilitate better communication* among the different stakeholders.
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Experiences: Service Design in Digital World

- E.g., the aim of many digital services, such as MSS, is to facilitate interaction between different users
- Many service design methods *focus on traditional services* and thus, are not directly applicable when designing digital services
 - No front stage employees or a specific physical space but a digital system
- Overall, service design provides *little guidelines* on methods for prototyping and implementing digital services

Experiences: Challenges and Nature of Prototyping Techniques

- E.g., the paper prototypes and the sketchy interactive prototype seemed to encourage open feedback
 - However, the chosen method did not seem to encourage proposing own ideas of the participants
 - The interactive prototype could be more beneficial in a later stage
- It is beneficial to have different *design alternatives*.
 - The alternatives reduce the likelihood of receiving purely affirmative feedback for a proposed solution
- *A plethora of different techniques*

Summary: Digital Service Design

- Service design focuses first on *exploring* before solution design
- Service design requires *a change in the mindset*; more than the business or delivery model
 - From value-in-exchange to value-in-use focusing on the holistic customer journey
 - Value of a certain feature varies between different users that is traditionally addressed by front stage employees
- Service design artifacts cover *holistically the customer experience* for different groups of stakeholders rather than being specifications
 - Technical design sets clear borders of the scope that can differ in the customers' minds
 - Different service design artifacts facilitate the communication between different stakeholders
- However, service design largely focuses on *traditional services*, rather than digital services.
 - Adaptations and further application guidelines are needed

Summary: Prototyping in Digital Service Design

- Service design prototypes explorative rather than a solution evaluative
 - From ‘specification-drive prototypes’ to ‘*prototype-driven specification*’
- Different design alternatives, especially low-fi prototypes, can facilitate an open mindset and open discussion
 - Challenge to encourage the stakeholders to create and share own ideas, and be critical
- A challenge to prototype the whole service experience
 - Enacting techniques are often suggested for traditional services, but they do not seem to be suitable for many digital services



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Thank You!

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