User Experience Design I
(Interaction Design)

Service Design Beyond the Desktop
Transition Lecture to the Course UX3
Two fundamental questions...
What is a product?
What is a service?
What do they have in common?
Front Stage
Back Stage
SERVICE FIRST, PRODUCTS SECOND

Product-dominant logic

Transition

Service-dominant logic

– 1950s

1950–2000+

today & tomorrow

Quelle: SinnerSchrader
A new marketing logic.

The day before yesterday

Yesterday

Today

Quelle: SinnerSchrader
IDENTIFY A RELEVANT INSIGHT

People don’t want to buy and own cars, but drive and experience integrated mobility.
CREATE A DIGITAL PLATFORM

Marketing built-in

Beautiful & easy to use

Data-driven

Ubiquitous Touchpoints

Quelle: SinnerSchrader
What if someone is changing the game?
Through Service?
Disruptive Innovation

…an innovation that creates a new market and value network and eventually disrupts an existing market and value network, displacing established market leading firms, products, services and alliances…

Clayton M. Christensen
Designing technology enabled services is nothing new...
Telephone Service

http://3.bp.blogspot.com/_Tjn2n1CMss0/TTsJZ_GCTII/AAAAAAAAFXI/QvUK4TfntBY/s400/telephone_operators_springfield_il_.jpg

LMU München – Medieninformatik – Alexander Wiethoff – UX1
Service Design

ensures that all parts work together throughout the **customer journey**
a customer journey describes the way from an entry point to an exit point of a service

source: [http://www.livework.co.uk/](http://www.livework.co.uk/)
What is a service?

-a chain of activities that form a process and have value for the end user (customer journey)

-services affect our daily qualify of life (user experience)

-service design is somehow similar to systems design (service blueprints)

-service design focuses on the entire system of use (via touchpoints)

source: [5]
Some Key-Characteristics of Service:

1. Intangible

Although services are often populated with objects, the service itself is ephemeral, customers can’t see or touch the service itself-only the physical embodiments.

2. Provider ownership

Customers who use a service may come away from it with an owned object such as a cup of coffee or used car, but they don’t own the service itself.

3. Co-created

Services aren’t made by the service provider alone; they require the involvement and engagement of the customers as well.

4. Flexible

Each new situation or customer requires that the service adapt to it.

http://www.flickr.com/photos/wensi/320468481/sizes/l/in/photostream/

source: [5]
Service Design....

-can lead to environmentally friendly solutions. (Car sharing service)
-can boost good business models: well designed and executed services will increase sales and helping tying users to a specific brand

The introduction of new technology (IoT, Sensors, AR, VR, etc.) makes this discipline highly relevant for UX/interaction designers/software engineers as their expertise involves bridging the gap between technology and people.

Applying UX/interaction design techniques to service design can lead to richer experiences.
Shelley Evenson

-teaches service and interaction design at CMU, Pittsburgh
-Co-founder of seeSpace and chief experience scientist for Scient
Service as design triangle

service provider → brand relationship → people (user) → design → service medium → meta design

A ‘service as design’ triangle for service design.
Service design can involve

**person2person interaction** = check in desk

**person2machine interaction** = self check in kiosk

**machine2machine interaction** = airport baggage system
Service as Design Triangle:

- **Service Provider**
- **People (User)**
- **Service Medium**

Arrows indicate:
- Meta design
- Brand relationship
- Design
Service design addresses the functionality and form of the service medium. The aim is to ensure that service interfaces are **usable** and **useful**, **effective** and **efficient**, **desirable** and **differentiated** from the provider and the persons point of view.

*after Birgit Mager*
Prototyping Digital Service Design:

#1 Experience Blueprints
#2 Video-prototypes and
# 3 IoT Prototyping Wall
User Centered Design Process
GRAPHIC DESIGN
2D

PRODUCT DESIGN
3D
+Z-axis
(spatial depth)

INTERACTION DESIGN
4D
+T-axis
(temporal dimension)

SERVICE DESIGN
5D
+W-axis
(multi-local simultaneity)

Model: Benjamin N.N. Schulz; Icons: Dima Yagnyuk, Daphne Espinosa, George Agpoon / The Noun Project
UX Tool #1: Experience Blueprints

Experience Blueprints

User Centered Design

Project Scope → Key Data Collection → User Research → Data Analysis → Use Case Definition → Design Concepts → Experience Prototyping → User Testing → Engineering
What is an Experience Blueprint?

An experience blueprint is a diagrammatic representation of the user journey that maps processes, touch points, people and support activities involved in creating the experience.

It helps in visualising the correlation between the front stage (user end) and the back stage (provider end). It also helps to interconnect the tangible elements with intangible and deal with them more objectively.

source: [2]
History and Use

Blueprinting services was pioneered by G. Lynn Shostack, former VP of Citibank, in the 1980’s as a way to plan the cost and revenue associated with operating a service.

Ever since it has been interpreted in many different ways and used by many leading design and management consultancies.

source: [2]
Definition

In the British Standard for Service Design (BS 7000 -3, BS 7000 -10, BS EN ISO 9000), blueprinting is described as the mapping out of a service journey identifying the processes that constitute the service, isolating possible fail points and establishing the time frame for the journey.

We interpret this in a much broader sense. We look at it as an experience blueprint which covers both the service elements as well as the product interactions.
Front Stage

User Touch points

Provider Touch points

User Journey

Support Processes

Back Stage

source: [2]
<table>
<thead>
<tr>
<th>User Actions</th>
<th>Touch Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line of interaction</td>
<td>Line of visibility</td>
</tr>
<tr>
<td>Backstage activity</td>
<td>Line of internal interaction</td>
</tr>
<tr>
<td>Support process / Stake Holders</td>
<td></td>
</tr>
</tbody>
</table>
## UX Blueprint Template

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>BACKSTAGE</th>
<th>TOUCHPOINTS</th>
<th>USER ACTIONS</th>
<th>USE CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAKEHOLDER 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAKEHOLDER 2</td>
<td></td>
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<tr>
<td>STAKEHOLDER 3</td>
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<td>STAKEHOLDER 4</td>
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<td>STAKEHOLDER 5</td>
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<tr>
<td>STAKEHOLDER 6</td>
<td></td>
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</tr>
</tbody>
</table>
Example: FoodSense® Connected Kitchen
Professional Foodservice Equipment
Ideation: Sketching out Experience Blueprint(s)
**FOODSENSE®**

**USE CASES**
- Reagieren auf Information zu Events
- Ofen mit zusätzlichen Produkten bestücken
- Werbung an digitale Werbeflächen in unmittelbarer Nähe senden (Guerilla-Kurzwerbe-Aktion/Promo-Aktionen)
- Sich über neue Events informieren
- Information erfassen (Endkunde)
- Mit Eintrittskarte Rabatt erhalten (Endkunde)
- Produkte verkaufen und über das Kassensystem registrieren
- Bargeldlos bezahlen (z.B. per Smartphone / NFC)
- Auswertung von Kosten und Nutzen der Kurzwerbe-Aktion mit Partnern

**USER ACTIONS**
- Daten verarbeiten und Informationen bereitstellen
- Über erhöhte Nachfrage informieren
- Standortermittlung
- Ofen vorheizen (automatisch)
- Rezepte vorschlagen (passend zu Event / Saison / Tageszeit / Wetter)
- Werbetext generieren (passend zum Rezept / Backgut)
- Standortvorschläge digitaler City-Light-Poster
- Temporäre Werbung platzieren
- Neue Events anzeigen

**TOUCHPOINTS**
- Daten verarbeiten
- Über erhöhte Nachfrage informieren
- Standortermittlung
- Ofen vorheizen (automatisch)
- Rezepte vorschlagen (passend zu Event / Saison / Tageszeit / Wetter)
- Werbetext generieren (passend zum Rezept / Backgut)
- Standortvorschläge digitaler City-Light-Poster
- Temporäre Werbung platzieren
- Neue Events anzeigen

**BACKSTAGE**
- Daten verarbeiten
- Über erhöhte Nachfrage informieren
- Standortermittlung
- Ofen vorheizen (automatisch)
- Rezepte vorschlagen (passend zu Event / Saison / Tageszeit / Wetter)
- Werbetext generieren (passend zum Rezept / Backgut)
- Standortvorschläge digitaler City-Light-Poster
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**STAKEHOLDER**
- EVENTIM
- STROER
- PAYPAL
- WETTER.DE
- MVV / ÖPNV
- APPLE / GOOGLE MAPS
- SAP
- TELEKOM
- PAASPHERE
- BACKOFENHERSTELLER

**Selection: Refined Experience Blueprint**
UX Tool #2: Video-Prototypes
Why Video-Prototypes?

Representing complex relationships, new behaviours and attitudes are an integral part of user experience design.

These can be represented through many means including sketching and making physical prototypes.

However, capturing a journey over time and at multiple locations requires a linear medium like video.
Example: 2 Video-Prototypes for IoT Kitchen Services
WARNING
CLEANING NEEDED!
Proceed to first cleaning step
UX Tool #3: IoT Prototyping Wall
Sketching in Technology: IoT Prototyping Wall
Acting Out a Service (Content of UX3)
References (Books):