Interaction Design

Chapter 9 (July 13, 2017, 9am-12pm):
Service Design
Recap Day 8:
Requirements:

Type (variations of the original design)
Basic shape - few simple parts (industrial manufacturing)
Functionality (design for human needs)

source: [7]
Gestalt Psychology

• The Gestalt laws prescribe for us what we are to recognise as one thing’ (Köhler, 1920)

• How smaller objects are grouped to form larger ones

• Rules of the organisation of perceptual scenes (Heuristics)
Proximity & Grouping
Constraints are closely related to real affordances: For example, it is not possible to move the cursor outside the screen: this is a physical constraint.

Locking the mouse button when clicking is not desired would be a physical constraint. Restricting the cursor to exist only in screen locations where its position is meaningful is a physical constraint.

source : [2]
Reduction means that you eliminate whatever isn’t necessary. This technique has three steps: (1) decide what essentially needs to be conveyed by the design; (2) critically examine every element (feature, label, UI widget, etc.) to decide whether it serves an essential purpose; (3) remove it if it isn’t essential.
Interaction Design

Chapter 9 (July 13, 2017, 9am-12pm):
Service Design
III Beyond the Desktop

May  
June  
July
Two fundamental questions...
What is a product?
What is a service?
What do they have in common?
Front Stage
Back Stage
GRAPHIC DESIGN

PRODUCT DESIGN

INTERACTION DESIGN

SERVICE DESIGN

2D

3D
+Z-axis
(spatial depth)

4D
+T-axis
(temporal dimension)

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

Model: Benjamin N.N. Schulz; Icons: Dima Yagnyuk, Daphne Espinosa, George Agpoon / The Noun Project
SERVICE FIRST, PRODUCTS SECOND

Product-dominant logic
- 1950s

Transition
1950–2000+

Service-dominant logic
today & tomorrow

Quelle: SinnerSchrader
A new marketing logic.

The day before yesterday

Focus: Sales

Fabrication ➔ Sell ➔ Consumer ➔ Sell ➔ Fabrication

Yesterday

Focus: Advertising

Fascination ➔ Choose ➔ Consumer ➔ Choose ➔ Fascination

Today

Focus: Products & Services

F ➔ Use ➔ R ➔ F

Quelle: SinnerSchrader
IDENTIFY A RELEVANT INSIGHT

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

Quelle: SinnerSchrader
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
You are what you use...not what you own

Slogan From Live/Work
Designing technology enabled services is nothing new...
source: [3]
The 5 P of Service Design...
People, Places, Products...
Processes and Performance
Urban Interfaces
Urban Interfaces
Service Design in a Nutshell

One (over-)view form a company called LiveIWork...
IF A COMMUNITY SHARES A CAR
IN A PARTICULAR LOCATION
THEN WHAT ACCESS MECHANISM
DO THEY USE TO GET INTO THE CAR?
Service Design

ensures that all the **touchpoints** work brilliantly...

source: http://www.livework.co.uk/
Service Design

ensures that the touchpoints work together to create wonderful experiences

source: http://www.livework.co.uk/
Service Design

involves people that use and provide the service

source: http://www.livework.co.uk/
Service Design

tests a new service with users to make sure all works

source: http://www.livework.co.uk/
Service Design

ensures that all parts work together throughout the **customer journey**

source: http://www.livework.co.uk/
Service Design leads to:

- better customer experience
- reduced costs
- increased return on investment
- great new opportunities

source: http://www.livework.co.uk/
Summary: 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]
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

source: [5]

http://www.flickr.com/photos/wensi/320468481/sizes/l/in/photostream/
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/26418562@N02/4530226295/sizes/l/in/photostream/

source: [5]
5. Time Based

Services take time to perform, and that time cannot be recovered if lost.

[source: [5]]
6. Active

Services a created by human labor and are thus difficult to scale.
7. Fluctuating demand.

Most services vary by time of the day, season, and cultural mood.

source: [5]
Elements of Service Design:

Service design focuses on multiple “touchpoints” and the users interactions with these touch-points over time.

These touchpoints are typically places, products, processes and people.

source: http://www.livework.co.uk/
Touchpoints

some examples (but not limited):

- physical locations
- specific parts of locations
- signage
- objects
- web sites
- mailing
- spoken communication
- printed communications
- applications
- machinery
- customer service
- partners

source: [5]
Touchpoints

**Touchpoints** are the raw material interaction designers work with. Once a map of existing and potential touch-points is created designers can brainstorm on further details for each touchpoint.

source: [5]
In order to build on our strengths, we began to develop our new service around ten critical points of customer contact: steps on a passenger’s journey.

We designed our new service to blend those ten steps into one liberating experience. We call it the “Mittleres Journey.”

<table>
<thead>
<tr>
<th>Steps</th>
<th>Physical Aspects</th>
<th>Digital Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learning</td>
<td>Advertising, Travel Agent, Word of Mouth</td>
<td>On-line, Phone info., Intranet</td>
</tr>
<tr>
<td>2. Planning</td>
<td>Station Staff, Travel Agent, Brochure,</td>
<td>On-line, Phone info.</td>
</tr>
<tr>
<td></td>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td>3. Starting</td>
<td>Other form of transportation</td>
<td>Radio – up to the minute info.</td>
</tr>
<tr>
<td>4. Entering</td>
<td>Station Architecture</td>
<td>Signage</td>
</tr>
<tr>
<td>5. Ticketing</td>
<td>Ticket Office, Travel Agent</td>
<td>On-line, Phone info., kiosks</td>
</tr>
<tr>
<td>6. Waiting</td>
<td>Waiting Room, Station Facilities</td>
<td>Signage, On-line services</td>
</tr>
<tr>
<td>7. Boarding</td>
<td>Doors and Luggage Storage</td>
<td>Auto Doors, Dynamic signage</td>
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<tr>
<td>8. Riding</td>
<td>Seats, Meal Services</td>
<td>Info., Media, Comms</td>
</tr>
<tr>
<td>9. Arriving</td>
<td>Station Architecture</td>
<td>Signage</td>
</tr>
<tr>
<td>10. Continuing</td>
<td>Other form of transportation</td>
<td></td>
</tr>
</tbody>
</table>

source: [3]
Place

-the settings for the service delivery
-the environment needs to provide the space necessary to perform the actions of the service
-it needs to tell the user cues for these actions such as signs, costumed menus or displays

http://upload.wikimedia.org/wikipedia/commons/2/29/Heathrow_Terminal_5_-_Flight_Connections.jpg

source: [5]
Products

- artifacts that facilitate interaction
- products populate the environment (place)
- they provide the potential for users’ active participation

source: [5]

http://www.patentlyapple.com/a/6a0120a5580826970c0133ed29ab4c970b-800wi
Processes

-the process describes “how” the service is ordered, created and delivered to the user
-processes can change subtly or radically within the service through different environments and over time
-often there are multiple pathways and therefore processes through a service experience

source: [5]
People

- through people services come alive, usually through complex choreography
- users and employees perform different parts of the service for achieving a particular result

source: [5]

http://www.flickr.com/photos/nivium/3857680299/
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 (sensors, smart-phones) makes this discipline highly relevant for interaction designers as their expertise involves bridging the gap between technology and people.

Applying 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)
- Meta design
- Service medium
- Design

A 'service as design' triangle.
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:
- From Service Provider to People (User) labeled "brand relationship"
- From People (User) to Service Provider labeled "design"
- From Service Provider to Service Medium labeled "brand relationship"
- From Service Medium to People (User) labeled "design"
- From People (User) to Service Medium labeled "meta design"
- From Service Medium to Service Provider labeled "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 person's point of view.

after Birgit Mager
Prototyping services

-is different from prototyping products since services don't come alive until someone is using them
-involves creating scenarios based on the service moments and acting them out physically
Fran Samalionis

-is the service design lead at IDEO
-MA in ergonomics from UCL

http://www.designinginteractions.com/interviews/FranSamanionis

source: [3]
Research → Analysis → Concepts → Prototypes

Validate Concepts
<table>
<thead>
<tr>
<th>subjects</th>
<th>truth</th>
<th>inspiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>traditional market research</td>
<td></td>
<td>(?)</td>
</tr>
<tr>
<td>empathic research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DREAMER

Long-term view

PATHFINDER

Low engagement

High engagement

ONLOOKER

Short-term view

ORGANIZER

source: [3]
Research → Analysis → Concepts → Prototypes

Validate Concepts
Interaction Design: Short term view vs long term view.

- Dreamer: Low engagement
- Pathfinder: High engagement
- Onlooker: Short term view
- Organizer: Long term view

Source: [3]
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 map which covers both the service elements as well as the product interactions.
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]
User Actions

Line of interaction

Touch Points

Line of visibility

Backstage activity

Line of internal interaction

Support process / Stake Holders

source: [2]
Sketching a Service Blueprint

source: [2]
Sketching a Stakeholder Map

source: [2]
Example: Insights + Touch-points + Blueprints
The SERVICE

SHAREWAY is a free and safe ride-sharing service offered to citizens by local authorities, with the help of other citizens willing to be useful. It provides people living in rural areas or small cities with a new form of mobility.
SHAREWAY is designed to compliment the public transportation system and to offer an attractive alternative to personal vehicles.

The goal is to make local travel easier and more flexible for citizens, both those who want a lift and drivers who suffer from current traffic congestion problems, giving and getting rides in total security.
Therefore, we established strictly followed rules respecting privacy: to subscribe to the service both drivers and passengers have to register, filling the form with their personal data, and have a mobile phone.

This service provides the subscribers with a membership card and a blinking light. Drivers will display the light on their dashboard so that it is visible from the outside, showing their availability to give a ride. Passengers who wish to get a ride will wear the it.

When driver and passenger meet, they will show their cards to each other and will call the service free number to register the ride, dialing on their mobile phones the id numbers written on each card.
4 Touchpoints: Multi+Access

IF the Multipla becomes a community vehicle,

THEN users need to be able to personalise their access devices.

5 Touchpoints: Multi+Rules

IF the Multipla is used as a service vehicle

THEN there needs to be a mechanism for recording rules.
### Touchpoints: Multi+Time

If the Multipla is shared by a community,

then they need some way to record who is using it and when.

### Touchpoints: Multi+Syncronisation

If the Multipla is to become part of a larger system,

then it needs to synchronise with other modes of transport.

- ShareWay
- Passenger
- Driver
- Local Community
- Ridesharing Services
- Automobile Clubs
- Driving Schools
- Schools & Universities
- Police
- Governmental Home Office
- Associations for Elderly
- Other SHAREWAY Drivers
- Other SHAREWAY Passengers
- Pedestrians
- Ecological Institutions
- Social Institutions
- Local Authorities
- Phone Companies
- Public Transportation
- Taxi Drivers
- Car Rental Services
- Insurance Company
- Light Device Suppliers

source: [3]
Refined Service Blueprint
The service blueprint enables organisations to see how channels must work together to enable a great service experience.

Refined Service Blueprint

source: http://www.livework.co.uk/
Touchpoint Prototype
Acting Out a Service

source: [2]
References (Books):