Interaction Design

Chapter 10 (July 13, 2011, 9am-12pm):
Service Design
Service Design

• What is a Service?
  • Characteristics of a Service
  • Elements of Service Design
  • Core Values of Service Design
  • Prototyping Service Design
  • Service Blueprints
“Someone calling themselves a customer says they want something called service.”
You are what you use...not what you own

Slogan From Live/Work
Front Stage
Back Stage

Phone Service

http://3.bp.blogspot.com/_Tjn2n1CMss0/TTsJZ_GCTII/AAAAAAAAFXI/QvUK4TfntBY/s400/telephone_operators_springfield_il_.jpg
People, Places, Products...

source: [3]
Processes...
Takeshi Natsuno

- works for NTT Docomo Japan
- developed the iMode Service
- drove the service to 32 million subscribers within 5 years

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

source: [3]
Content Provider

Hardware Manufacturer

Network Provider

Transport

Payment

Vending

iMode Service CORE Stakeholders
Traveling with an Airline
<table>
<thead>
<tr>
<th>1998</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>go to travel agent</td>
<td>go to airlines website</td>
</tr>
<tr>
<td>receive tickets by mail</td>
<td>receive mobile boarding pass</td>
</tr>
<tr>
<td>go to the check in desk</td>
<td>drop bags at self check in</td>
</tr>
<tr>
<td>receive boarding pass</td>
<td>board plane</td>
</tr>
<tr>
<td>check in bags</td>
<td></td>
</tr>
<tr>
<td>board plane</td>
<td></td>
</tr>
</tbody>
</table>
Service Design in a Nutshell

One (over-) view from 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/](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/
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 Example: Streetcar
Service Example: EasyJet
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 (Chapter 2) (service blueprints)

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

source: [5]
The diagram illustrates a basic system model with feedback loops. It consists of:

- **Goal**: Set in a higher level context.
- **Input** and **Output** blocks are connected through:
  - **Sensor** measures by **Feedback Loop**.
  - **Comparator** detects errors and drives **Actuator**.
  - **Environment** affects and is affected by **Disturbances**.

The flow of information is as follows:

- **Goal** influences the system through the **Input** block.
- The **Sensor** measures data and sends it to the **Comparator**.
- The **Comparator** detects errors and drives the **Actuator**.
- The **Actuator** affects the **Environment**.
- The **Environment**, in turn, affects the system through **Disturbances**.

Source: [5]
Service Design

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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]
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.

[source: 5]
4. Flexible

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

[source: [5]]
5. Time Based

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

http://www.flickr.com/photos/wink/2134042761/sizes/o/in/photostream/
Service Design

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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/](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** 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 “smartest journey.”

### Steps

<table>
<thead>
<tr>
<th></th>
<th><strong>Physical Aspects</strong></th>
<th><strong>Digital Aspects</strong></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, Phone</td>
<td>On-line, Phone info.</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>
</tr>
<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

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

source: [5]
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]
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Service Design leads to:

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

source: [http://www.livework.co.uk/](http://www.livework.co.uk/)
Service Design....

can lead to environmentally friendly solutions. (Car sharing service)
can boost good business models: well designed and executed
gas 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

interaction10
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

Service Medium

People (User)

brand relationship

meta design

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
Service Design

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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/FranSamationis

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

**Validate Concepts**
short term view

Pathfinder

Dreamer

long term view

Onlooker

Organizer

source: [3]
Validate Concepts
Saving for your child's education

SPECIAL REPORT
Tax incentives and rising fees are spurring a new trend among parents. Saving for your child's education from their first birthday. Click to see how america is saving

Notifications

Today 2:15 pm :  ATM:Debit Card "House Checking" is reported Lost/Stolen. Click to replace.
Monday 4:45 pm :  Your PG&E bill is due. Click to Pay this Bill.
Monday 1:45 pm :  Your Checking Account "House Checking" balance is below $500.00 OK
Friday 4:40 pm :  Your Checking Account "House Checking" balance is approaching $500.00 OK
Wednesday 4:40 pm :  "College CD" account (CD) has completed its term. Click to extend, or transfer.
05/12/00 9:00 am :  Your Checking Account "House Checking" balance is approaching $500.00 OK
05/10/00 11:00 am :  Your Checkbook "Checking" is running low. Click to Reorder.

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

Blueprints

Validate Concepts
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 map which covers both the service elements as well as the product interactions.

source: [2]
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 visualizing 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]
Front Stage

User Touch points

User Journey

Entry

Support Processes

Provider Touch points

Time

Back Stage

source: [2]
Sketching a Service Blueprint

source: [2]
Sketching a Stakeholder Map

source: [2]
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.
Source: [3]
Refined Service Blueprint
Touchpoint Prototype
Acting Out a Service

source: [2]
References (Books):