

# 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

© 2005 Ted Goff www.newslettercartoons.com



**“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

<http://www.markabull.com/wp-content/uploads/2011/01/stage.jpg>





# Back Stage

<http://blog.entrepreneurhearts.com/etablog/wp-content/uploads/2010/08/backstage.jpg>



source: [3]





# Phone Service

[http://3.bp.blogspot.com/\\_Tjn2n1CMss0/TTsJZ\\_GCTII/AAAAAAAAFXI/QvUK4TfntBY/s400/telephone\\_operators\\_springfield\\_il.jpg](http://3.bp.blogspot.com/_Tjn2n1CMss0/TTsJZ_GCTII/AAAAAAAAFXI/QvUK4TfntBY/s400/telephone_operators_springfield_il.jpg)





## People, Places, Products...

source: [3]





Processes...

source: [3]





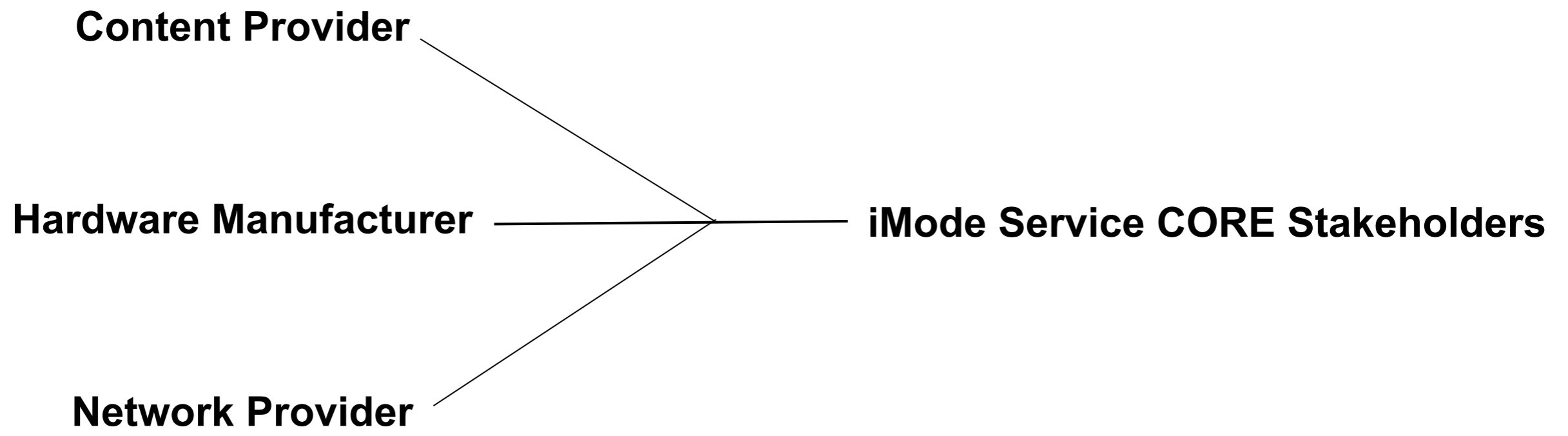
## Takeshi Natsuno

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

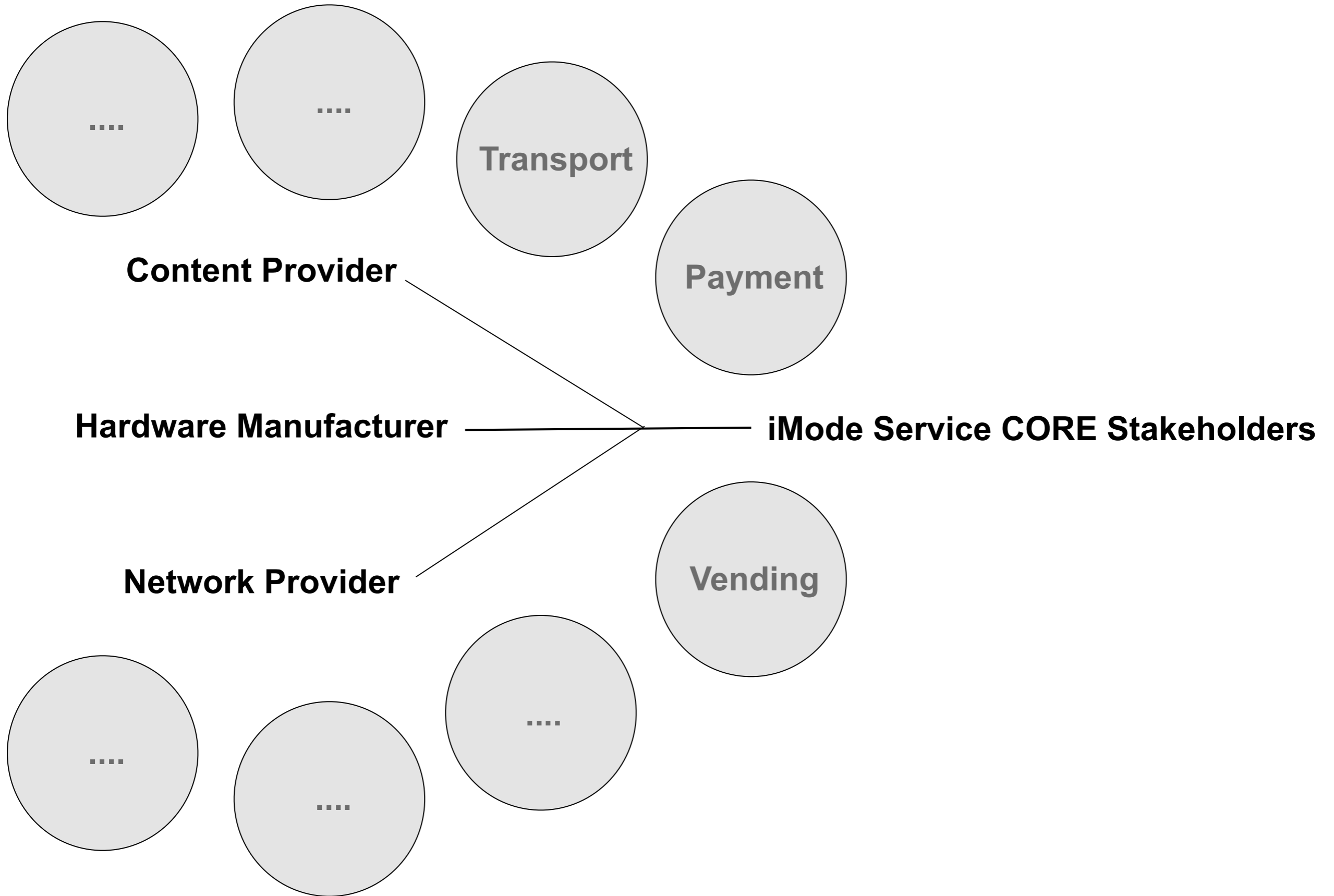














# Traveling with an Airline

<http://www.tropicalisland.de/CPT%20Cape%20Town%20International%20Airport%20South%20African%20Airways%20B747-400%20aircraft%20b.jpg>

# 1998

**go to travel agent**



**receive tickets by mail**



**go to the check in desk**



**receive boarding pass**



**check in bags**



**board plane**

# Today

**go to airlines website**



**receive mobile boarding pass**



**drop bags at self check in**



**board plane**



# **Service Design in a Nutshell**

One (over-) view from a company called LiveWork...



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...

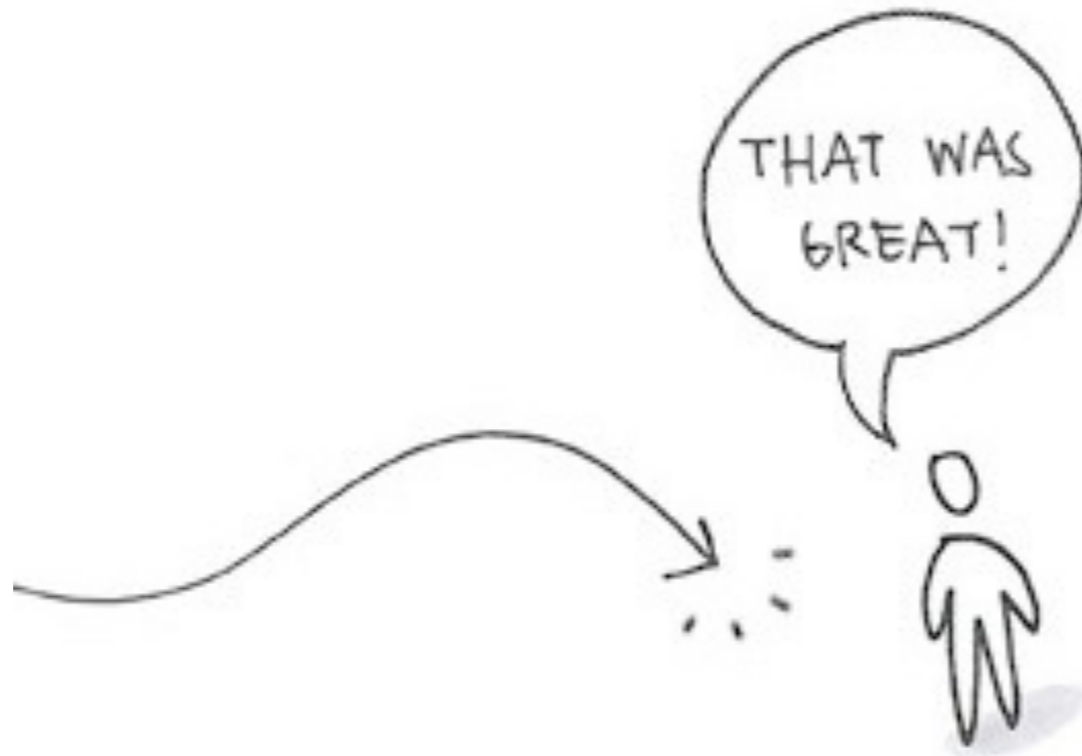


source: <http://www.livework.co.uk/>



# Service Design

ensures that the touchpoints work together to create wonderful **experiences**



source: <http://www.livework.co.uk/>

# Service Design

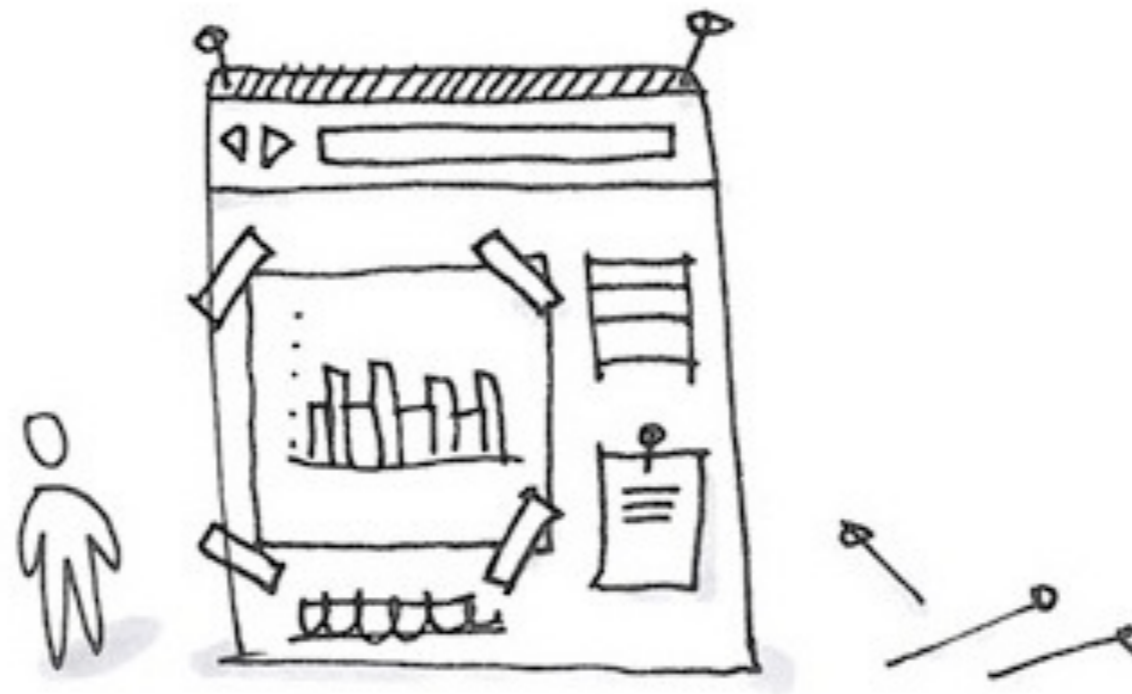
**involves** people that use and provide the service



source: <http://www.livework.co.uk/>

# Service Design

**tests** a new service with users to make sure all works

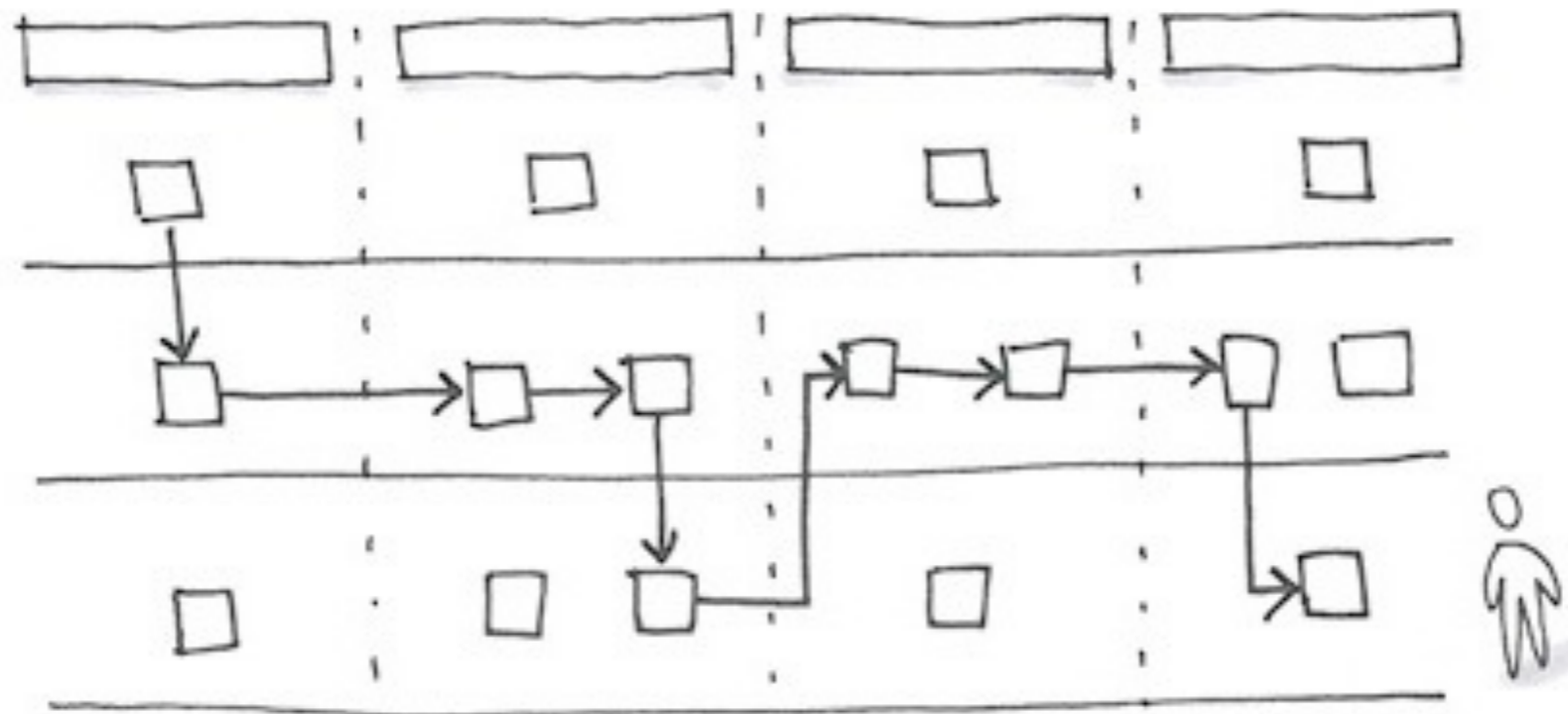


source: <http://www.livework.co.uk/>



# Service Design

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



source: <http://www.livework.co.uk/>

**The self-service pay-as-you-go car**

Streetcar's range of self-service cars and vans are available 24/7 for rent by the hour, day, week or month.

Book any car in the fleet online or by phone, and then use your Streetcar smartcard to pick up and return the car. Hourly rates start from £4.95, or £49.50 for 24 hours.



[Register for the Club](#)

[Book a Car](#)

[Member Login](#)

**Find your nearest**  
Enter your postcode  
 [Go](#)

[Or click here to browse all UK locations >>](#)

**Streetcar For Business**  
Streetcar for Companies, Public Sector and Property Developers. [More>>](#)

**How does it work?**

**1. Book**  
By phone or use our easy online booking engine

10.00AM ✓

**2. Unlock**  
Your Streetcard will let you into the car.



**3. PIN**  
Type a unique PIN into the dashboard

\*\*\*\*

**4. Drive**  
Use the car like it's your own



# Service Example: Streetcar

Join our Great Getaway! | eas

www.easyjet.com/en/book/the\_great\_getaway\_february\_2011.html

easyJet.com

Flights Where to stay Getting around Essentials What to do

Join our Great Getaway!

**The Great Getaway!**  
**2.5 million seats for £29.99\* or less**  
 Book your flights here

There are 2.5 million seats at £29.99\* or less  
 For travel between 1 March and 13 July 2011.  
 So whether you want to see the spring flowers in **Amsterdam**, get a new season's wardrobe in **Milan** or kick off a summer of partying in **Barcelona**, there could be a bargain seat with your name on it.  
 Below are just some of the top routes available. Hurry these prices are only available while stocks last.

- London Gatwick
- Edinburgh £23.99<sup>1</sup>
- Glasgow £23.99<sup>1</sup>
- Nice £25.99<sup>1</sup>
- Barcelona £27.99<sup>1</sup>
- Geneva £27.99<sup>1</sup>
- Malaga £27.99<sup>1</sup>
- Milan Malpensa £27.99<sup>1</sup>
- Toulouse £27.99<sup>1</sup>
- Faro £29.99<sup>1</sup>
- London Luton
- Edinburgh £29.99<sup>1</sup>

Book a cheap flight

Flights Hotels Holidays

Flying from

Going to

One way only  Flexible on dates

Outbound: 12/02/2011 Return: 13/02/2011

Adults: 1 Children (<16): 0 Infants (<2): 0

Show flights!

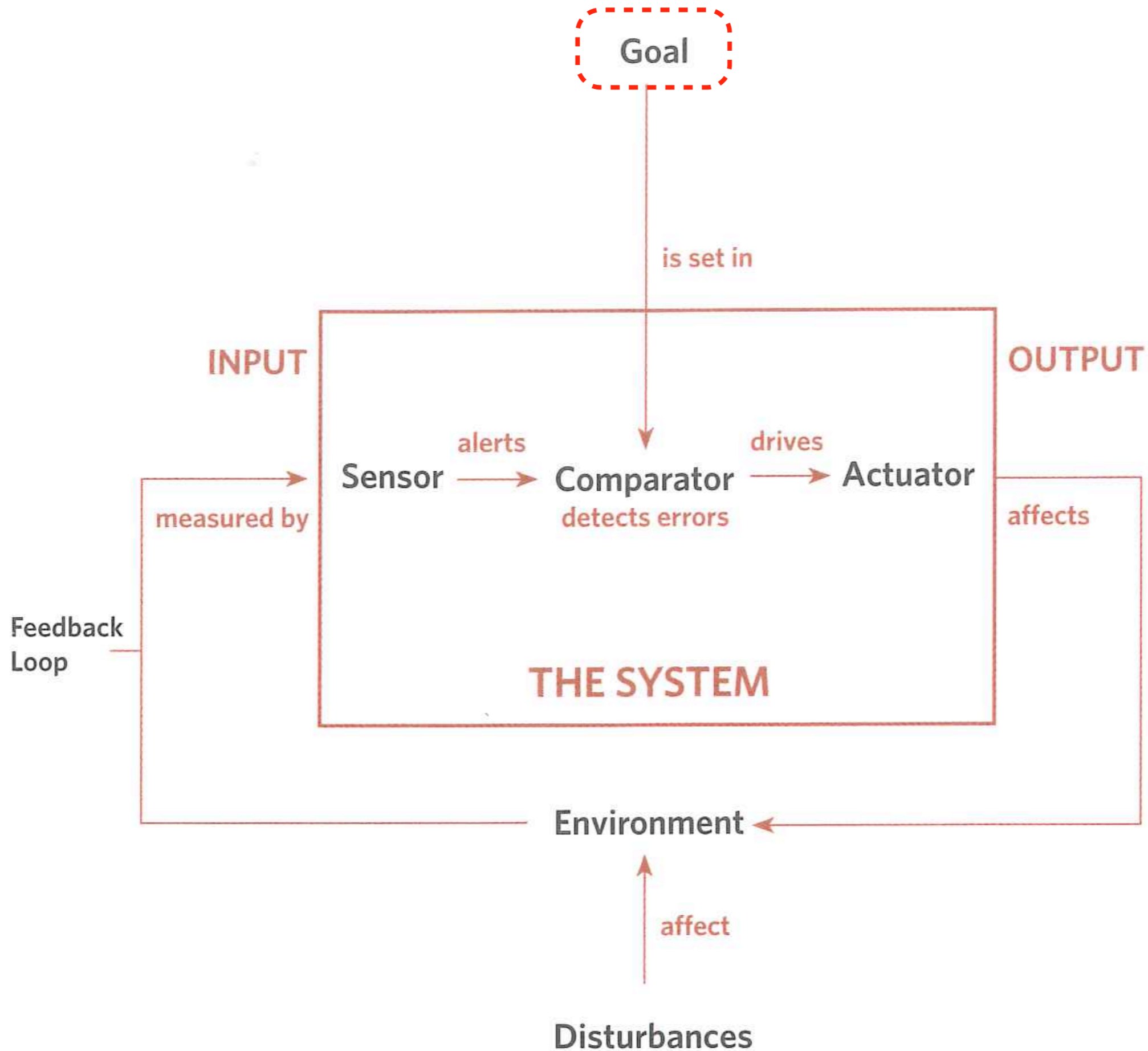
Check in online  
 Manage bookings

# 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 quality 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]

# Service Design

- What is a Service ?
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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



## 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.



[http://filecache.drivetheweb.com/mr4enh\\_zipcar/71/photo\\_zipcar\\_prius.jpg](http://filecache.drivetheweb.com/mr4enh_zipcar/71/photo_zipcar_prius.jpg)

source: [5]



### 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



## 5. Time Based

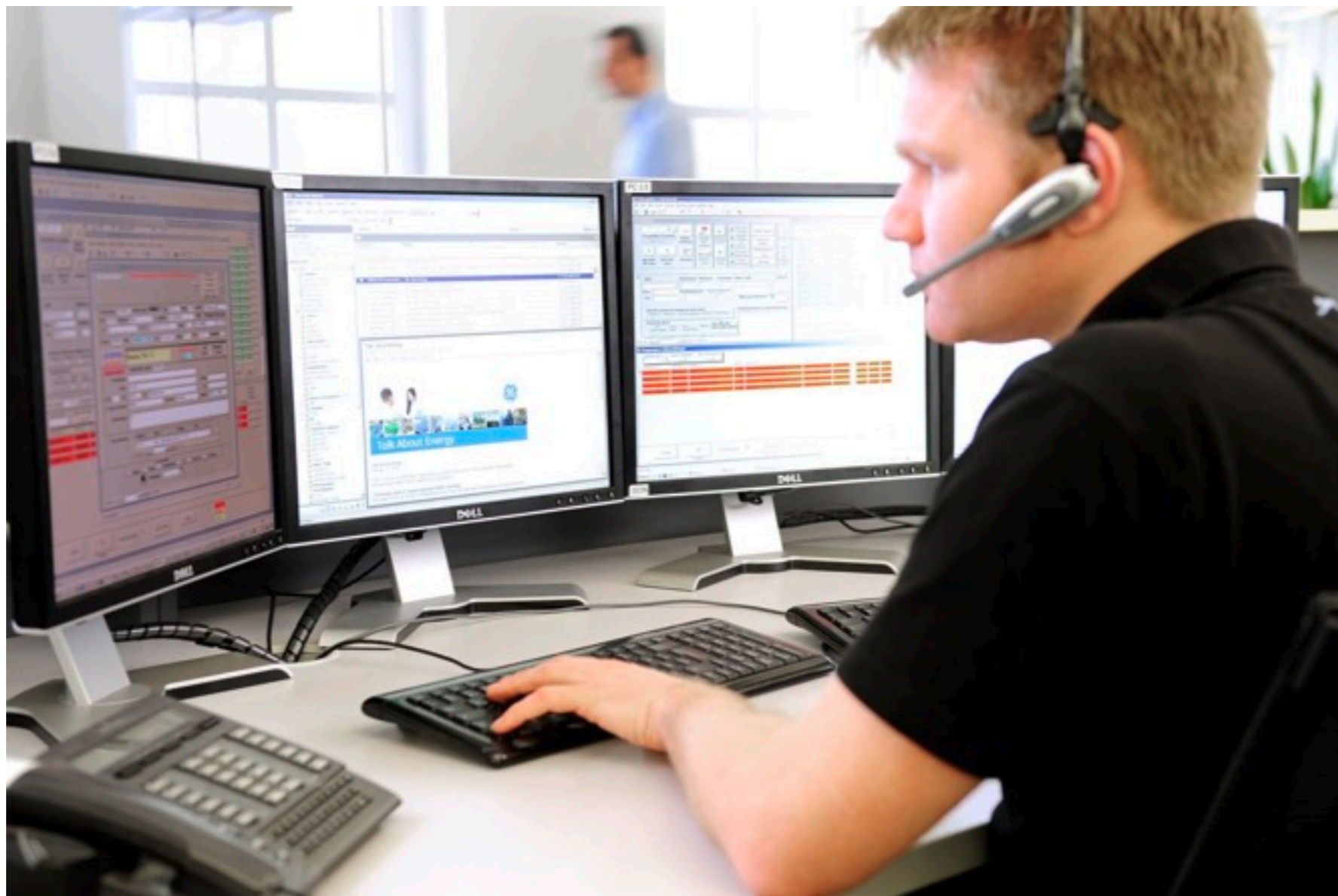
Services take time to perform, and that time cannot be recovered if lost.





## 6. Active

Services are 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.



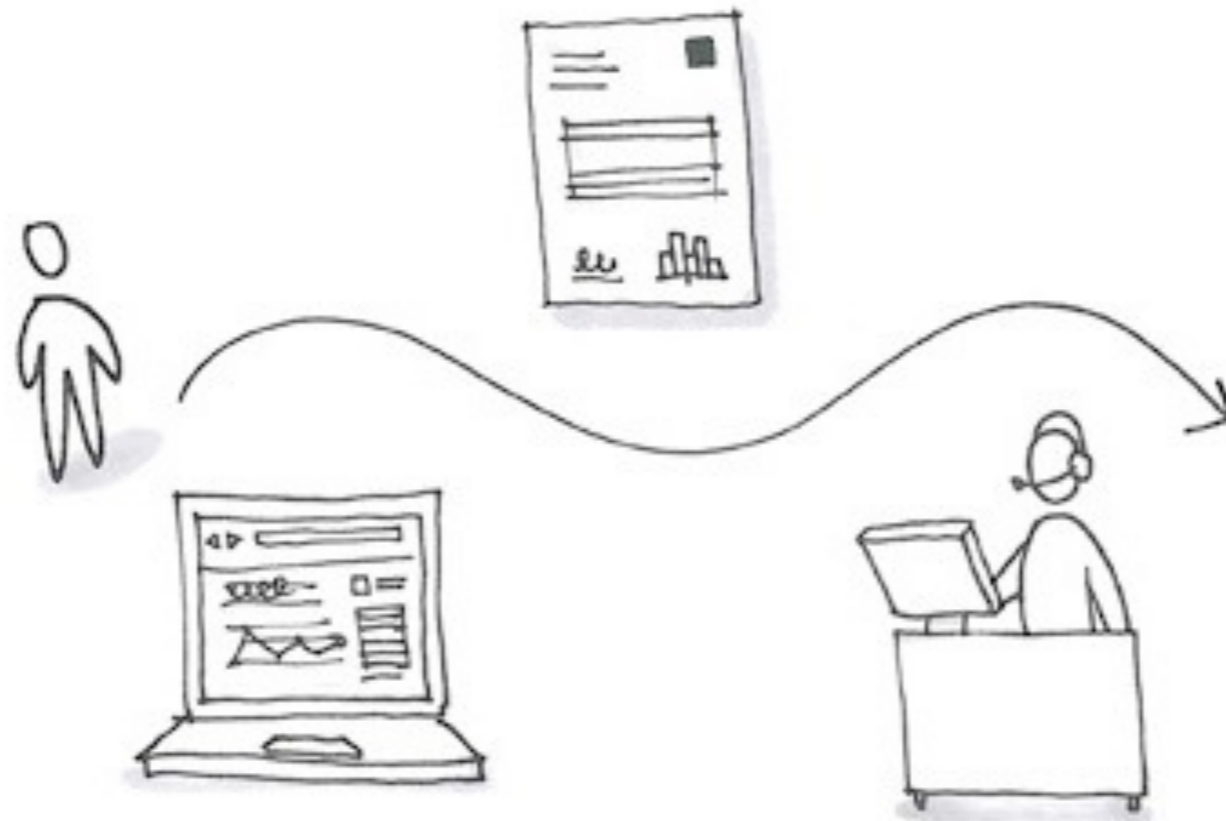
# Service Design

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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/>



# 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.



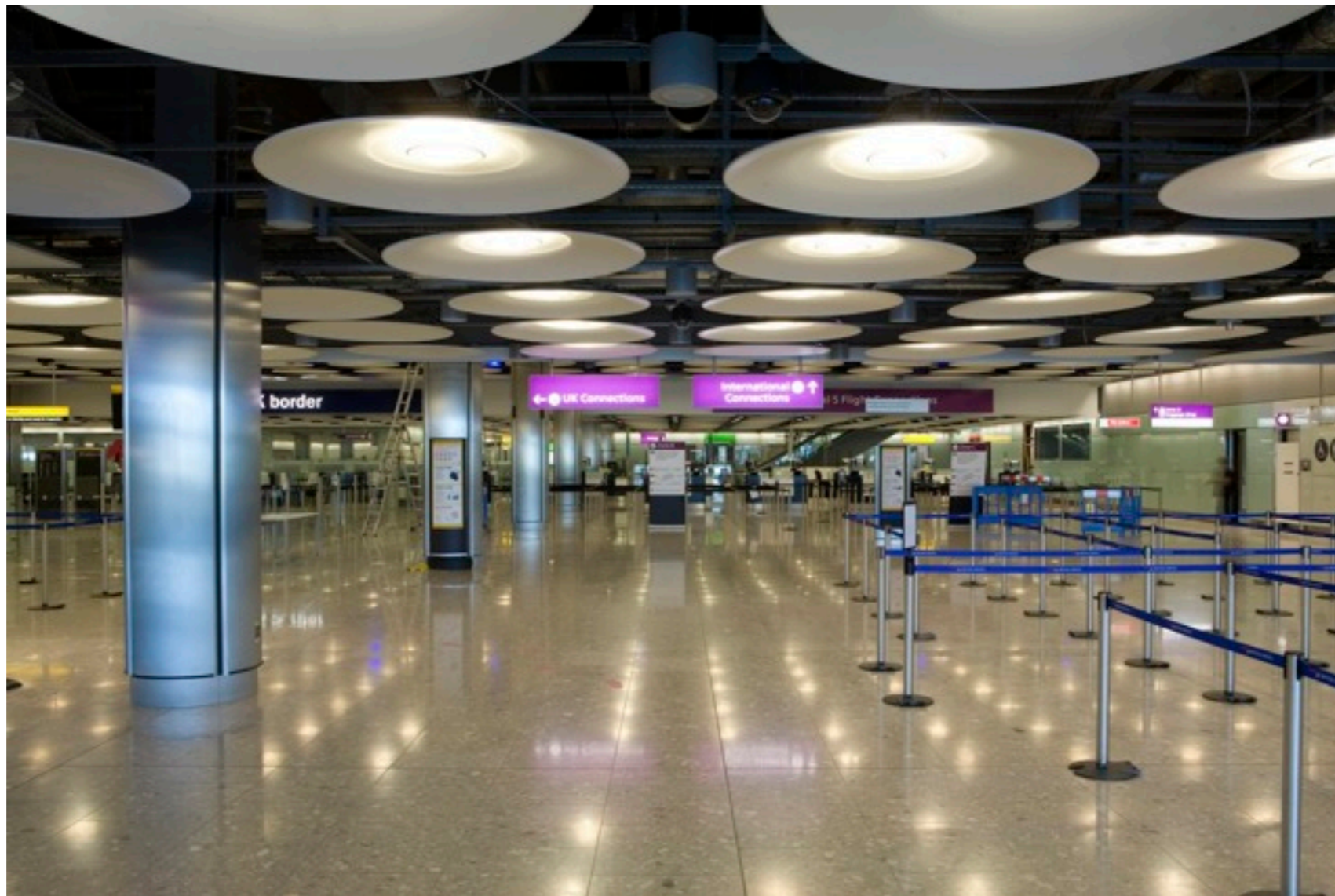
<i>Steps</i>	<i>Physical Aspects</i>	<i>Digital Aspects</i>
1. Learning	Advertising, Travel Agent, Word of Mouth	On-line, Phone info., Intranet
2. Planning	Station Staff, Travel Agent, Brochure, Phone	On-line, Phone info.
3. Starting	Other form of transportation	Radio – up to the minute info.
4. Entering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

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/d/d2/Jinan\\_Yaoqiang\\_Airport\\_waiting\\_area\\_2005\\_10\\_15.jpg](http://upload.wikimedia.org/wikipedia/commons/d/d2/Jinan_Yaoqiang_Airport_waiting_area_2005_10_15.jpg) <http://sakurasky.files.wordpress.com/2010/01/businesslounge.jpg>



# Products

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

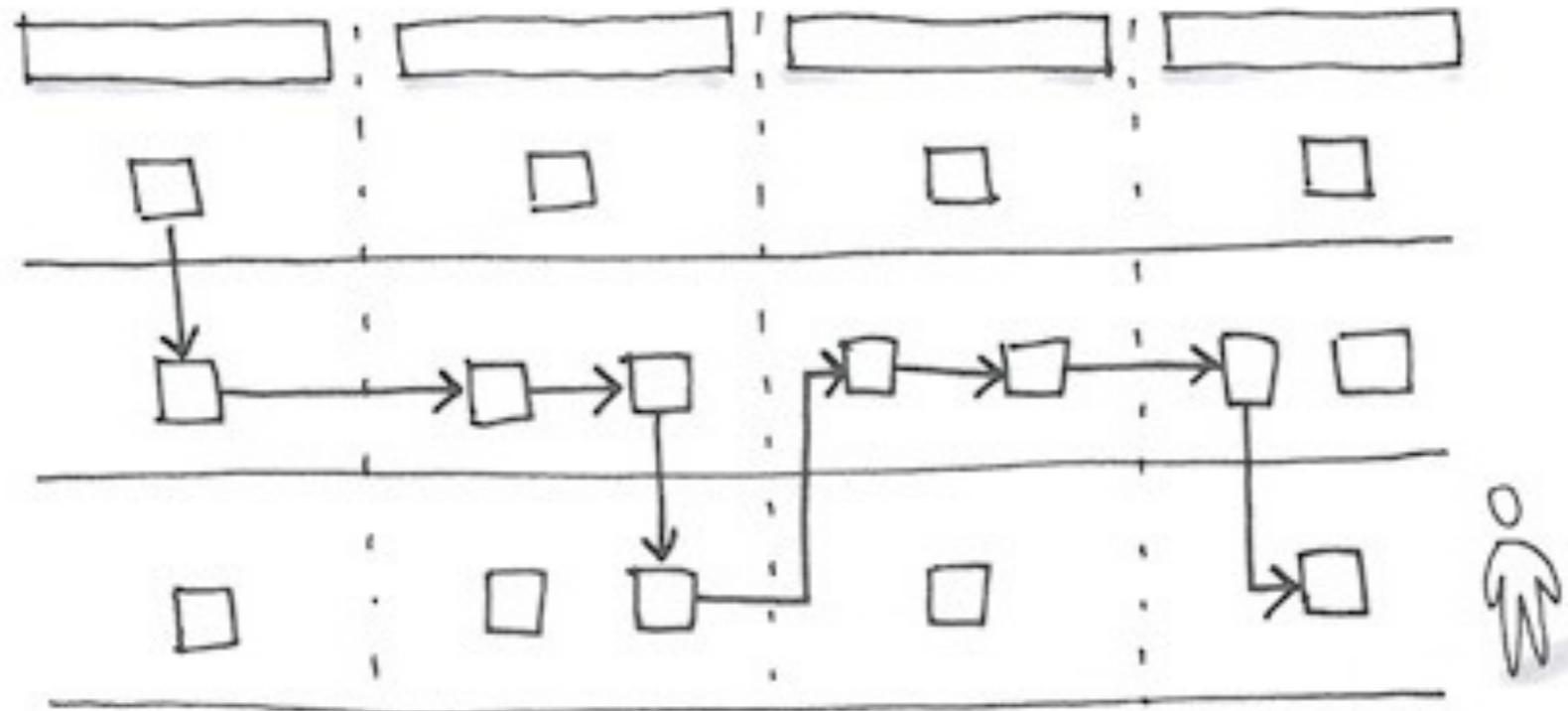


source: [5]



# Processes

- the process describes “how” the service is ordered, created and delivered to the user
- processes can change subtle 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



<http://www.flickr.com/photos/nivium/3857680299/>

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/>

# 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.

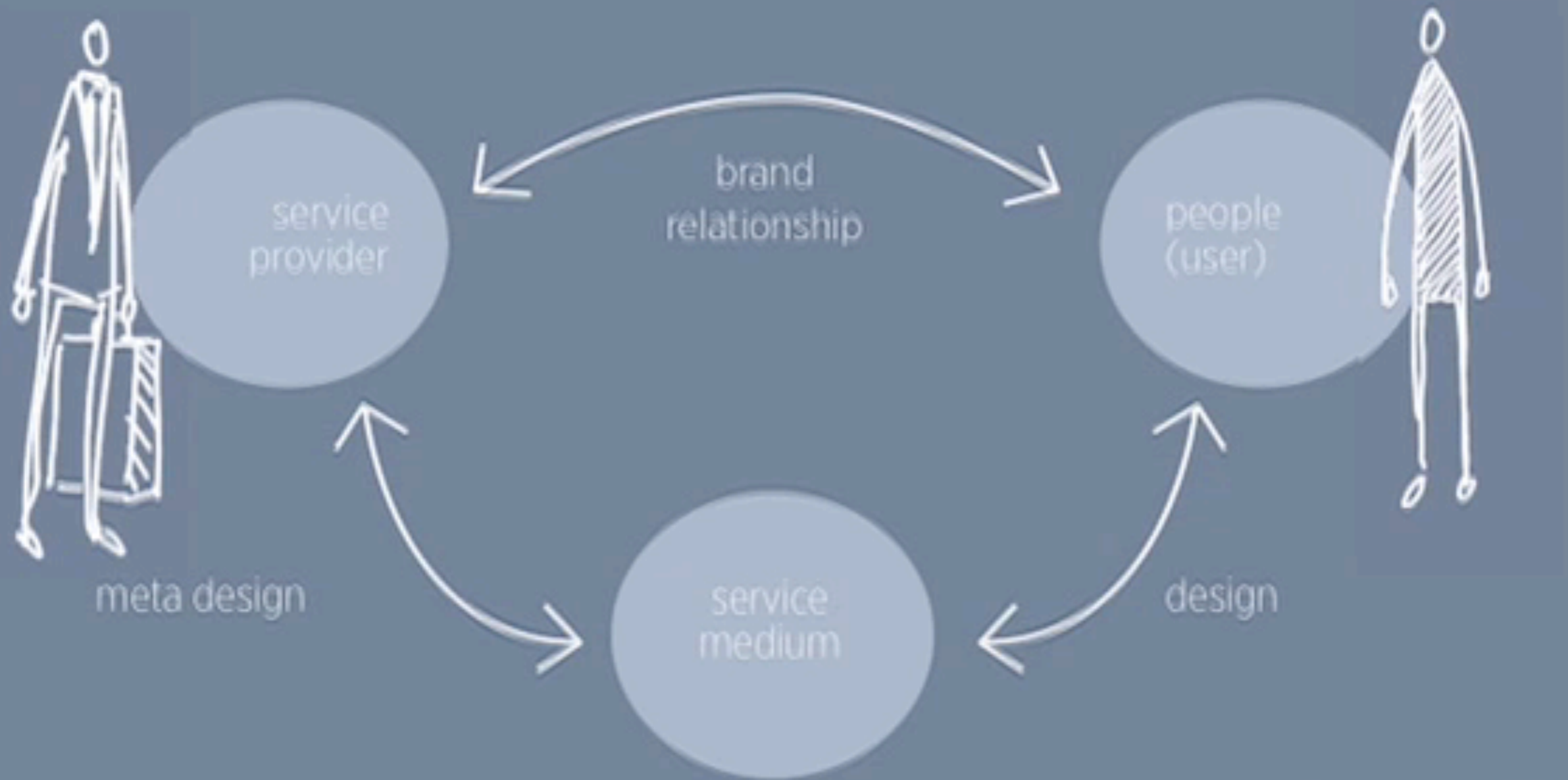
## Shelley Evenson

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





# Service as design triangle



A 'service as design' triangle

**interaction 10**

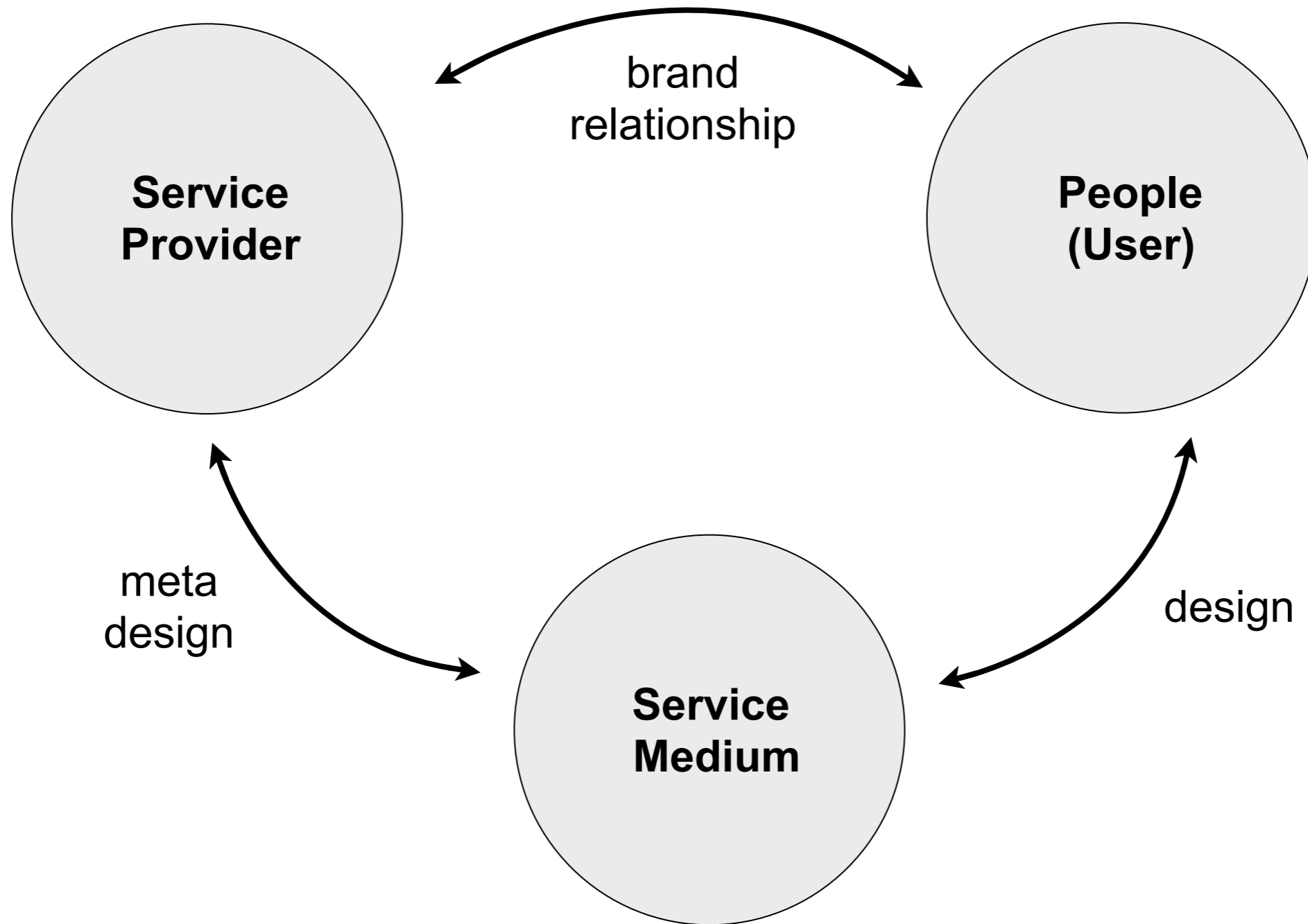
# Service design can involve

**person2person interaction** = check in desk

**person2machine interaction** = self check in kiosk

**machine2machine interaction** = airport baggage system

# Service as Design Triangle:





Service 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**

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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



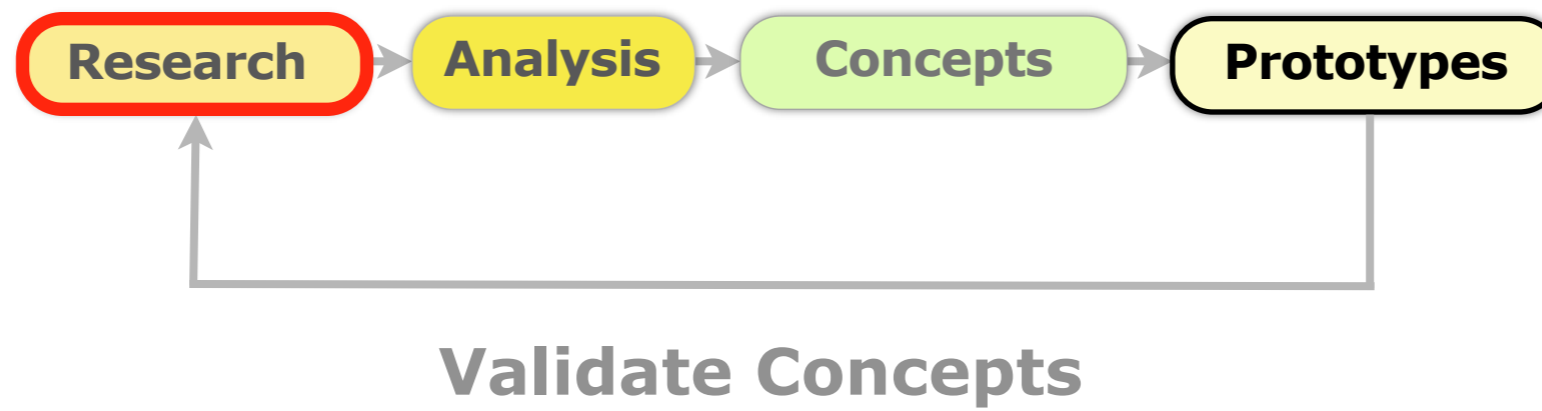
## Fran Samalionis

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

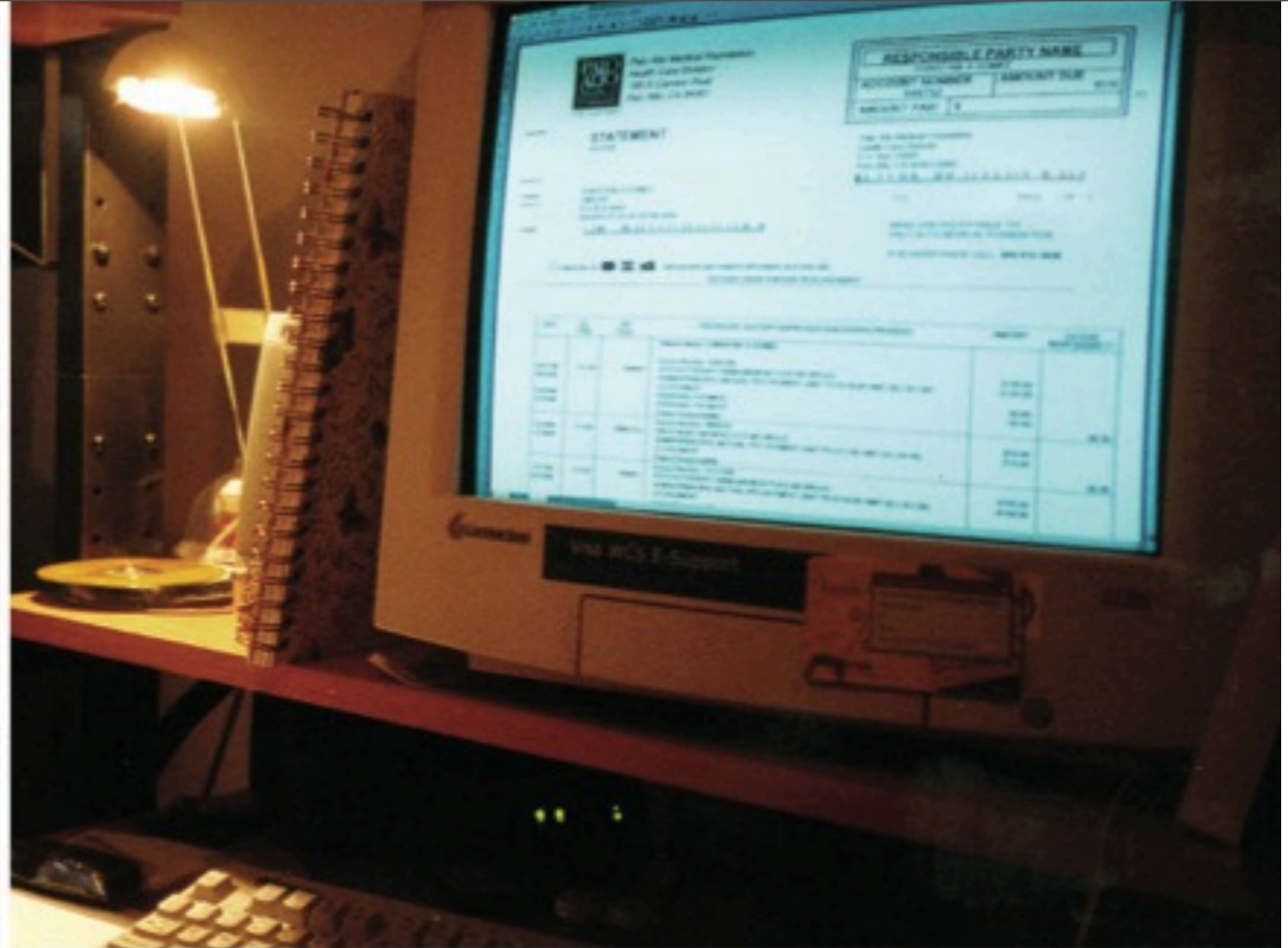




EAR PHONE







source: [3]



Long-term view

DREAMER

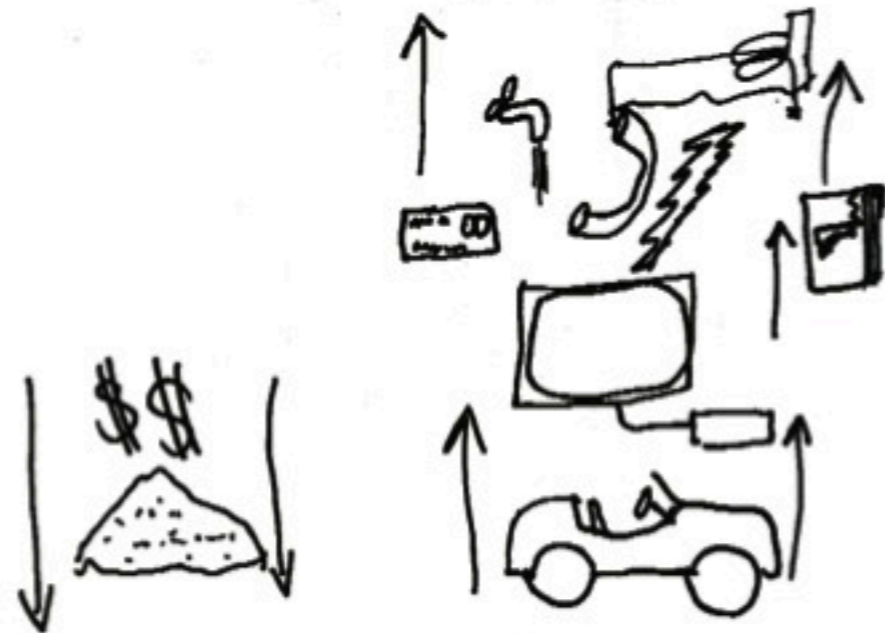


Low engagement

PATHFINDER



High engagement



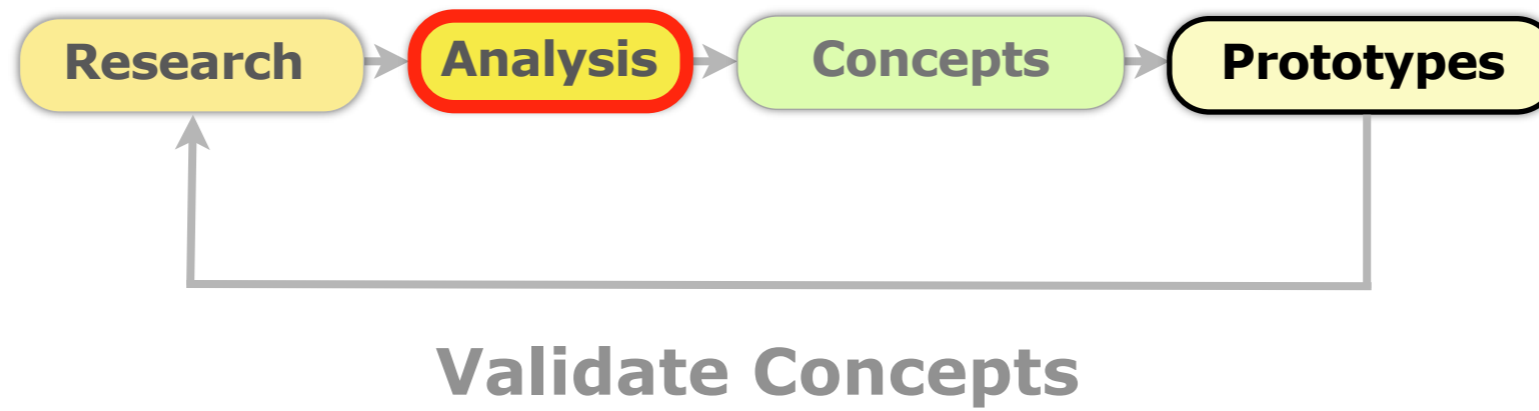
ONLOOKER

Short-term view

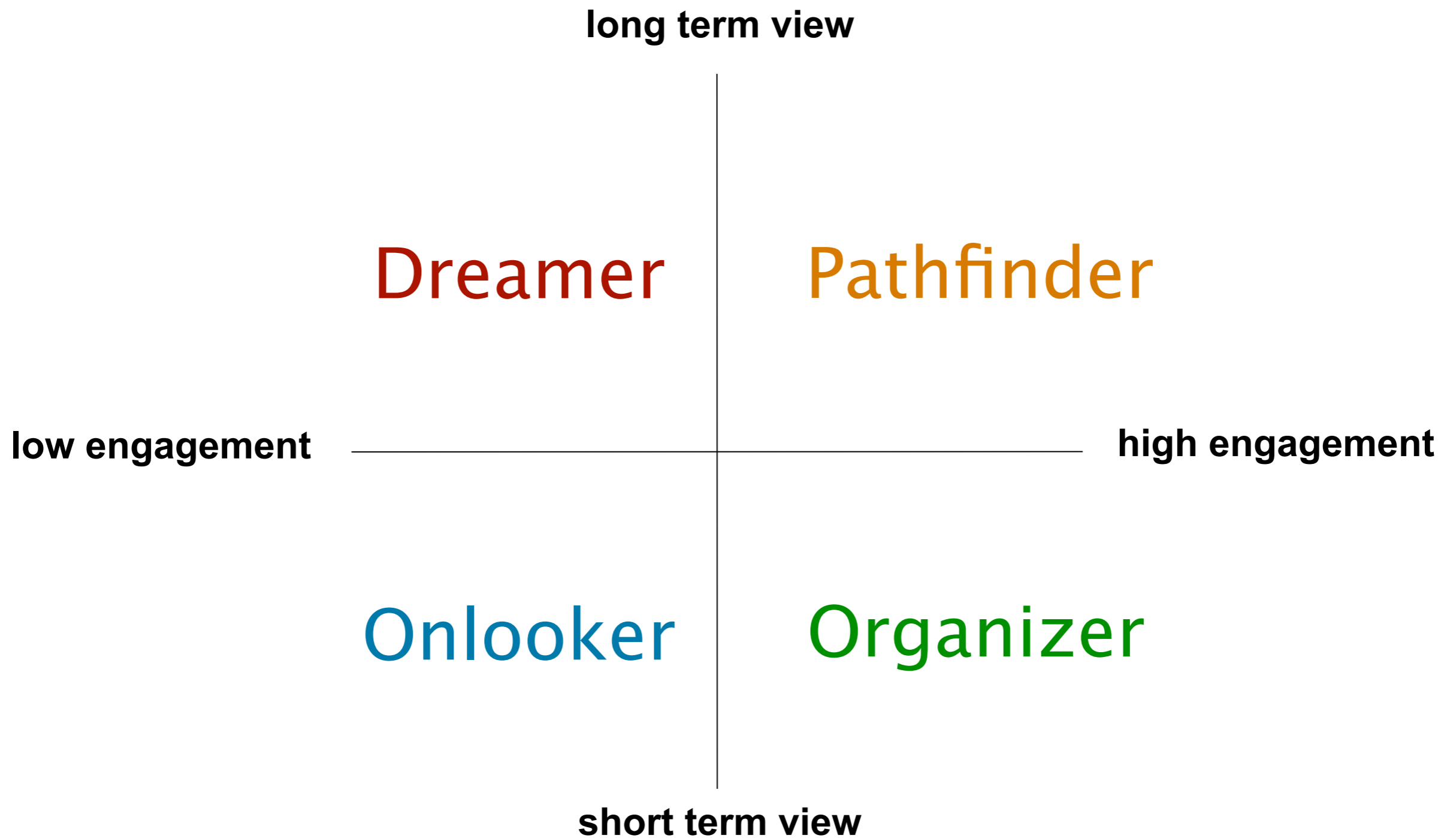


ORGANIZER

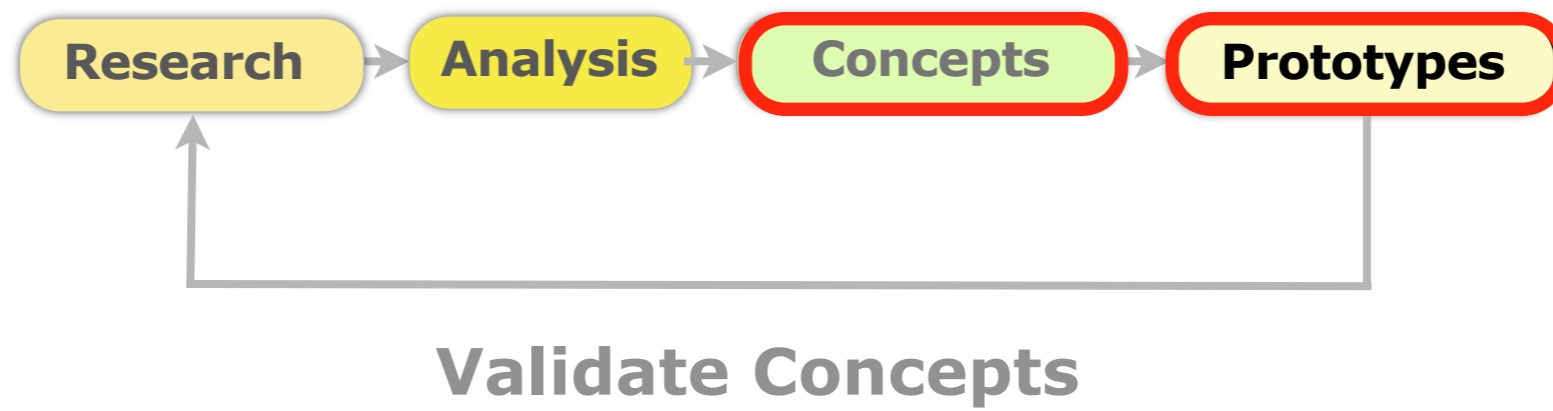
source: [3]







source: [3]



**Bill Jones** [sign off](#)

▶ **Message Center**

▶ **Message Center**

**Paycenter Profile** - 132.00

---

**House Checking** ∞ 2,000.00

**Checking** 3,000.00

IN 05/14/00 256.00

OUT 05/14/00 512.00

**Mastercard** -753.00

**House Deposit (SA)** 6,000.00

IN 05/14/00 1000.00

OUT 05/14/00

**College CD** 10,640.00

8.62% 12/12/00

**Boat CD** 6,120.00

---

▶ **Message Center**

## 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](#)

- Reduce your %APR  
Click for [more info](#)

- MCI bills go electronic  
Click to [sign up](#)

- MCI bills go electronic  
Click to [read more](#)

**Services** ▾

**Notifications**

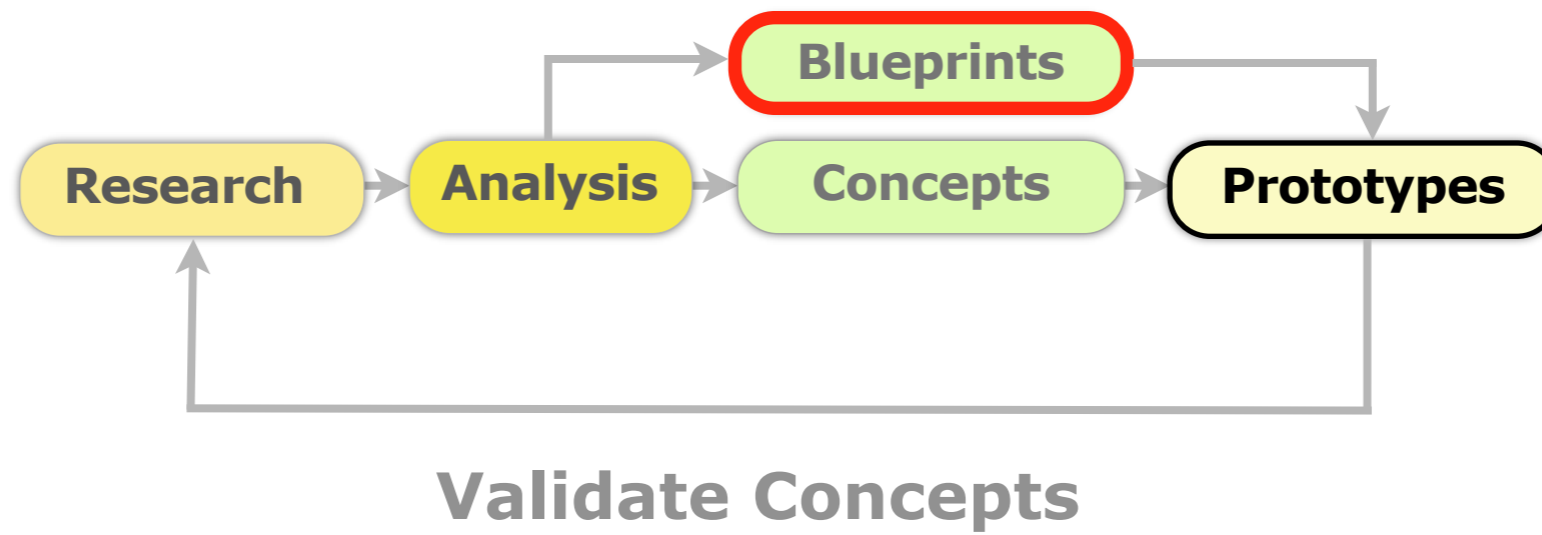
Today	2:15 pm :	ATM/Debit Card "House Checking" is reported Lost/Stolen. Click to <a href="#">replace</a> .
Monday	4:45 pm :	Your PG&E bill is due. Click to <a href="#">Pay this Bill</a> .
Monday	1:45 pm :	Your Checking Account " <a href="#">House Checking</a> " balance is below \$500.00 <a href="#">OK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

source: [3]



# Service Design

- What is a Service ?
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- Service Blueprints



# 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.



# 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.

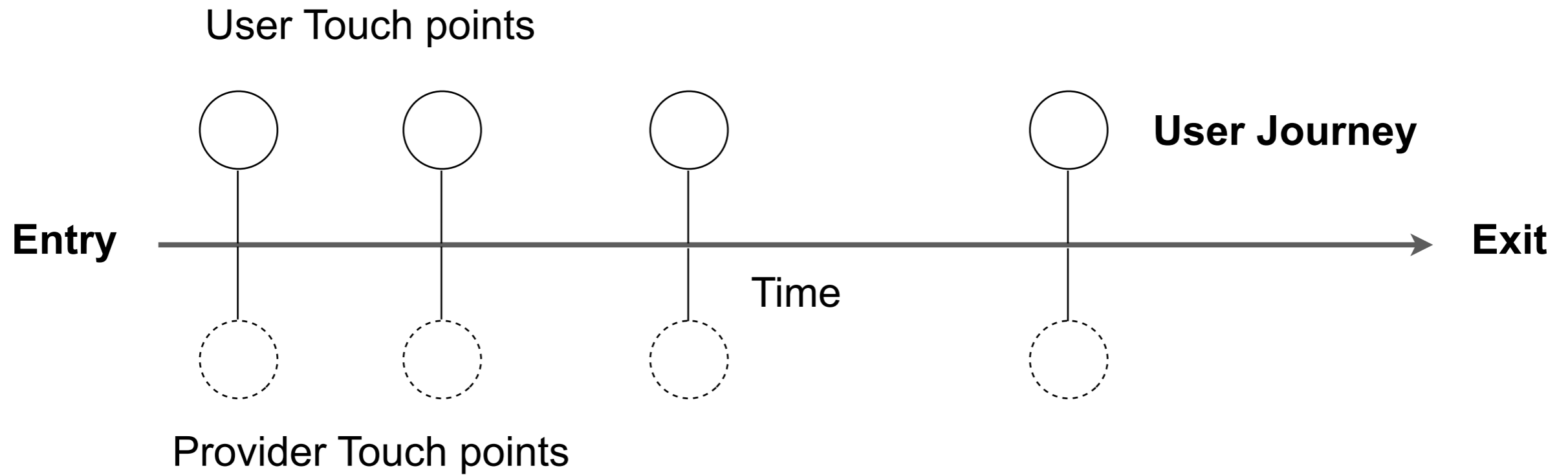
It helps in visualizing the correlation between the front stage (user end) and the back stage (provider end). It also helps to interconnect the tangible elements with intangible and deal with them more objectively.

# 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.

# Front Stage



Support Processes

# Back Stage

source: [2]

**User Actions**



Line of interaction



**Touch Points**



Line of visibility



**Backstage activity**



Line of internal interaction



**Support process / Stake  
Holders**



source: [2]



# BLUEPRINT MAP

SCENARIOS:

USER ACTIONS:

ENTRY

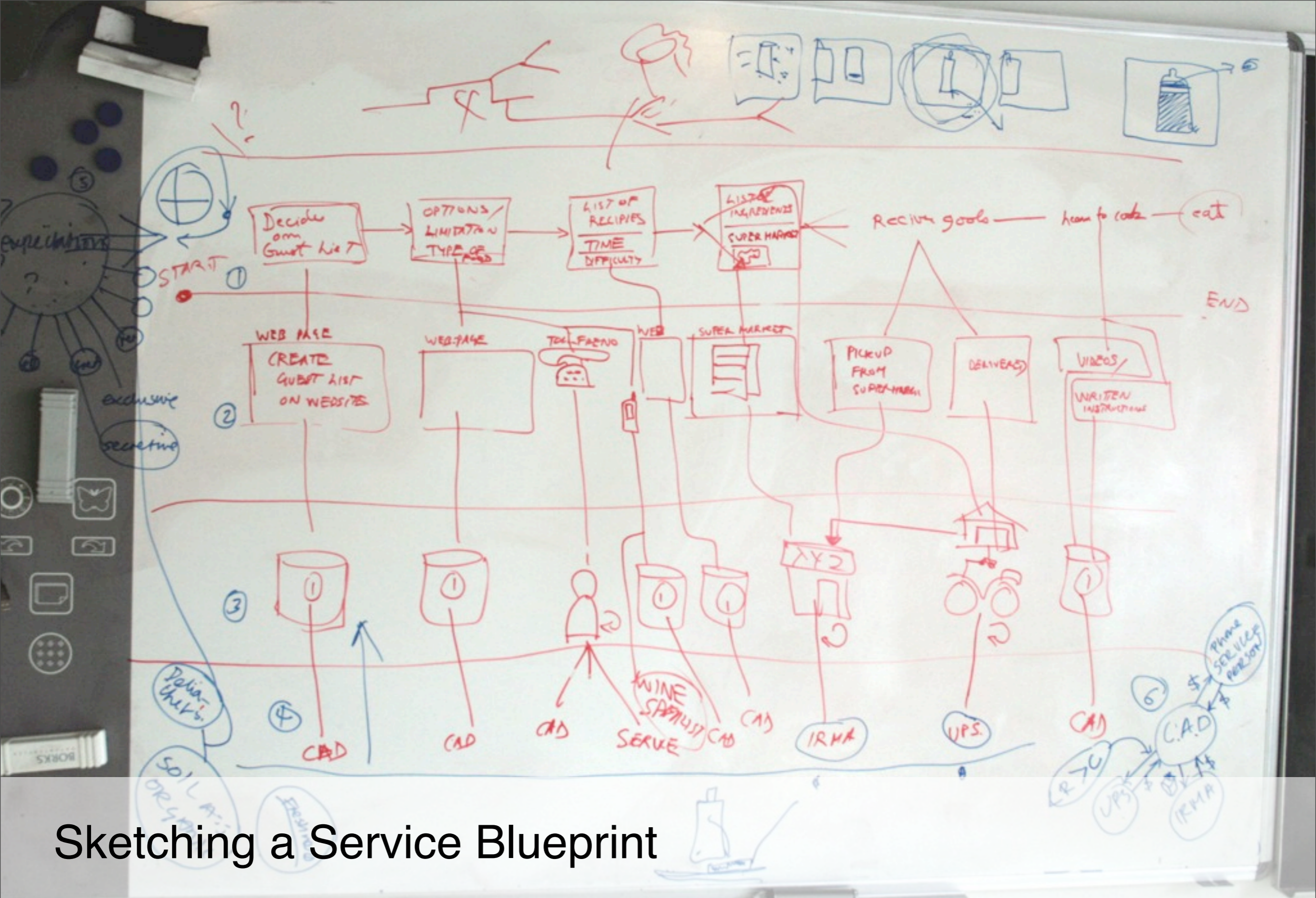
USER JOURNEY

EXIT

TOUCHPOINTS:  
POINTS OF INTERACTION

BACKSTAGE:  
OPERATIONAL PROVIDERS

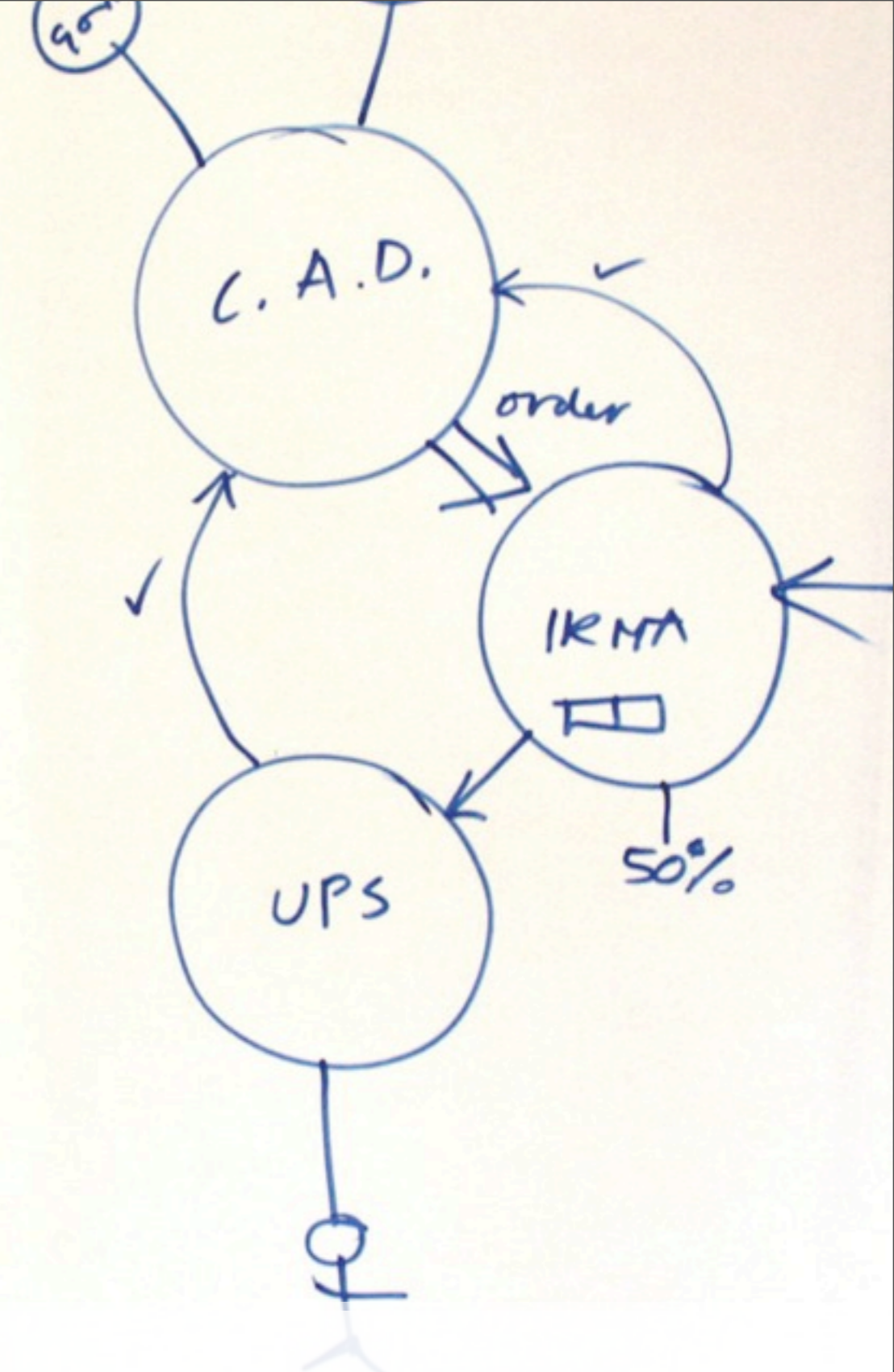
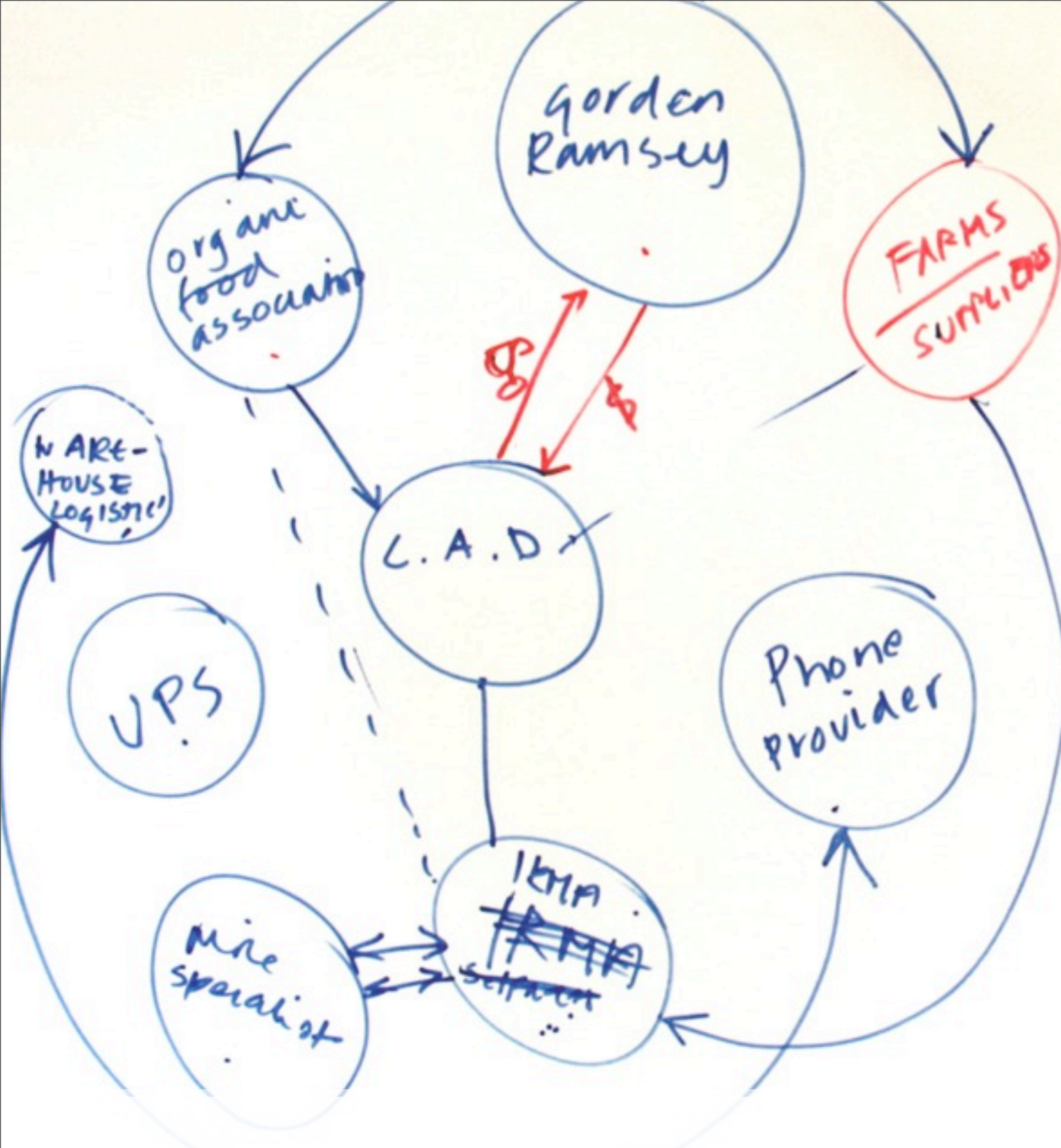
STAKEHOLDERS:



# Sketching a Service Blueprint

source: [2]





## Sketching a Stakeholder Map

source: [2]



Valentina Novello & Peggy Thoeny - Interaction Design Institute Ivrea (2003)

## 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.

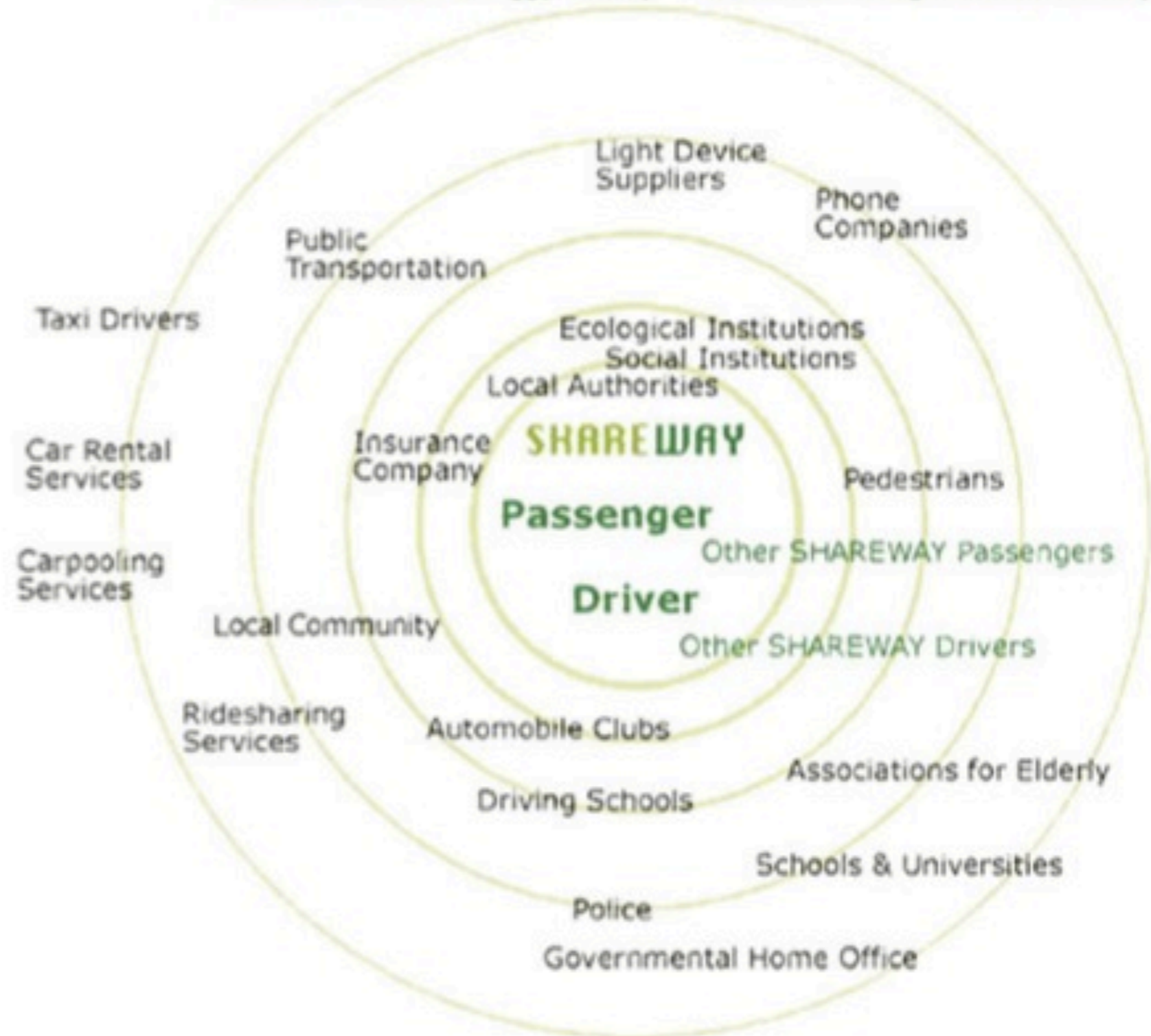
When driver and passenger meet, they will show their cards to each other and will call the service free number to register the ride, dialing on their mobile phones the id numbers written on each card.



source: [3]



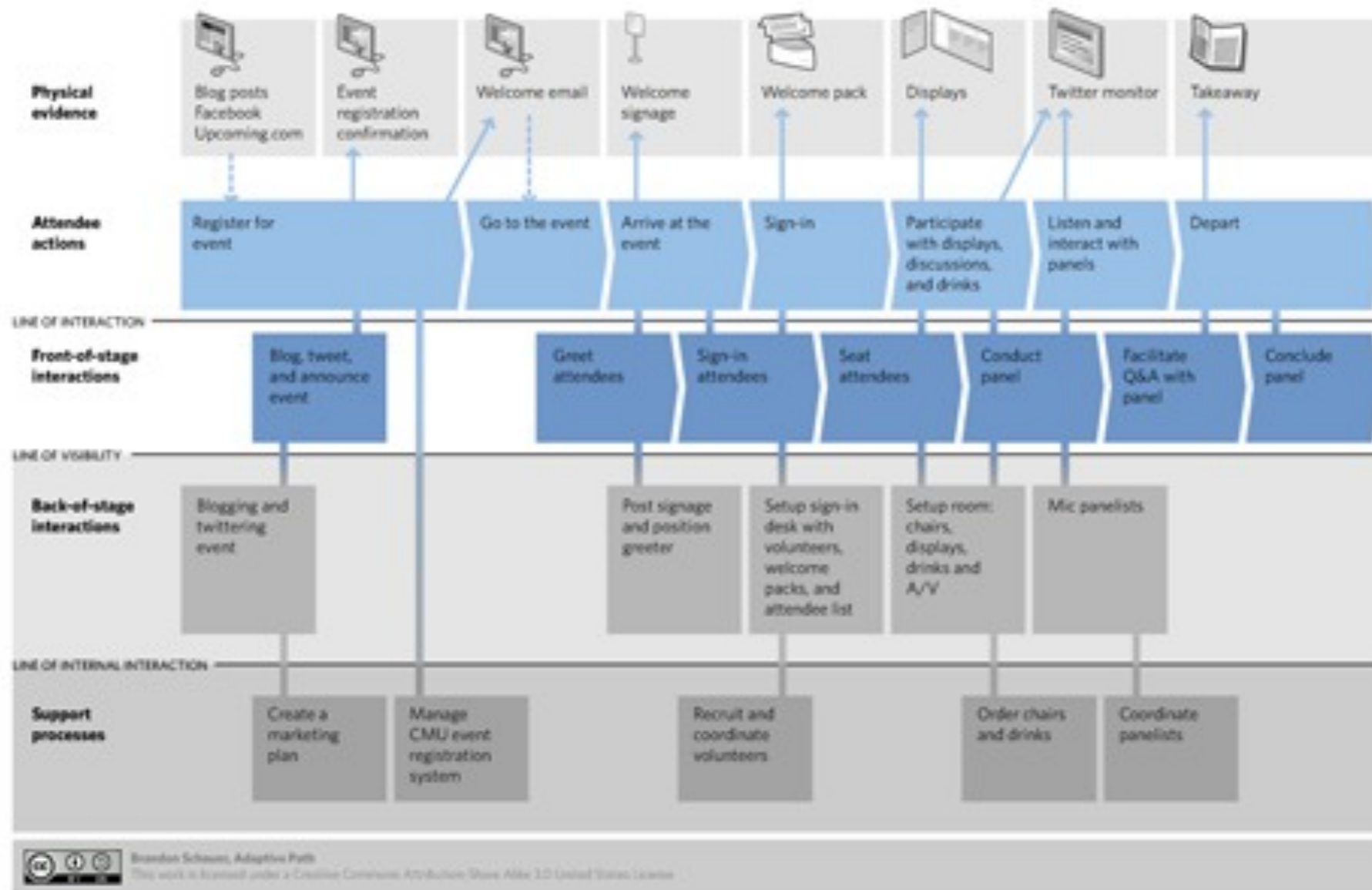
Valentina Novello & Peggy Thoeny - Interaction Design Institute Ivrea (2003)



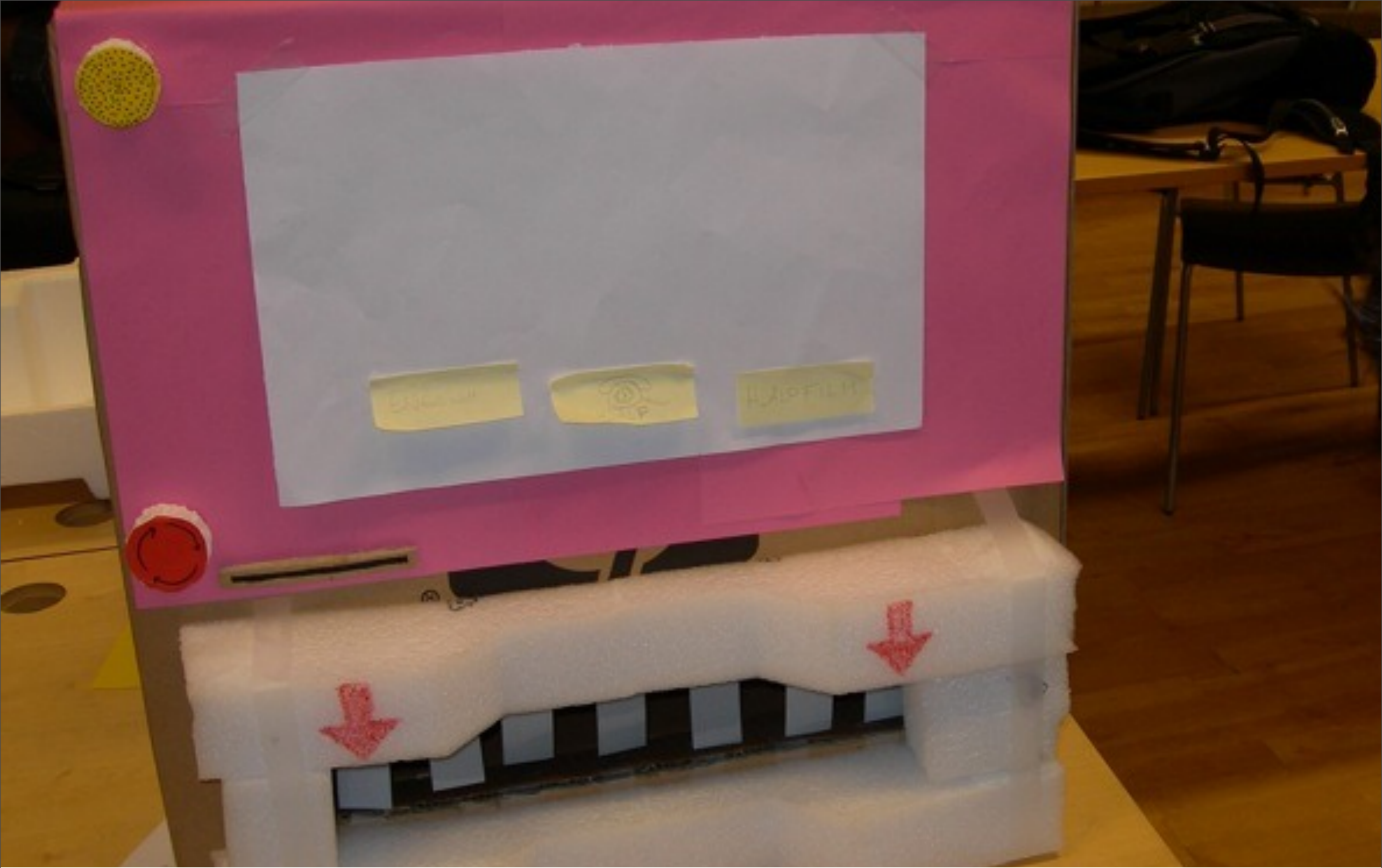
source: [3]

## Service Blueprint for Seeing Tomorrow's Services Panel

Find out more: <http://upcoming.yahoo.com/event/1768041>

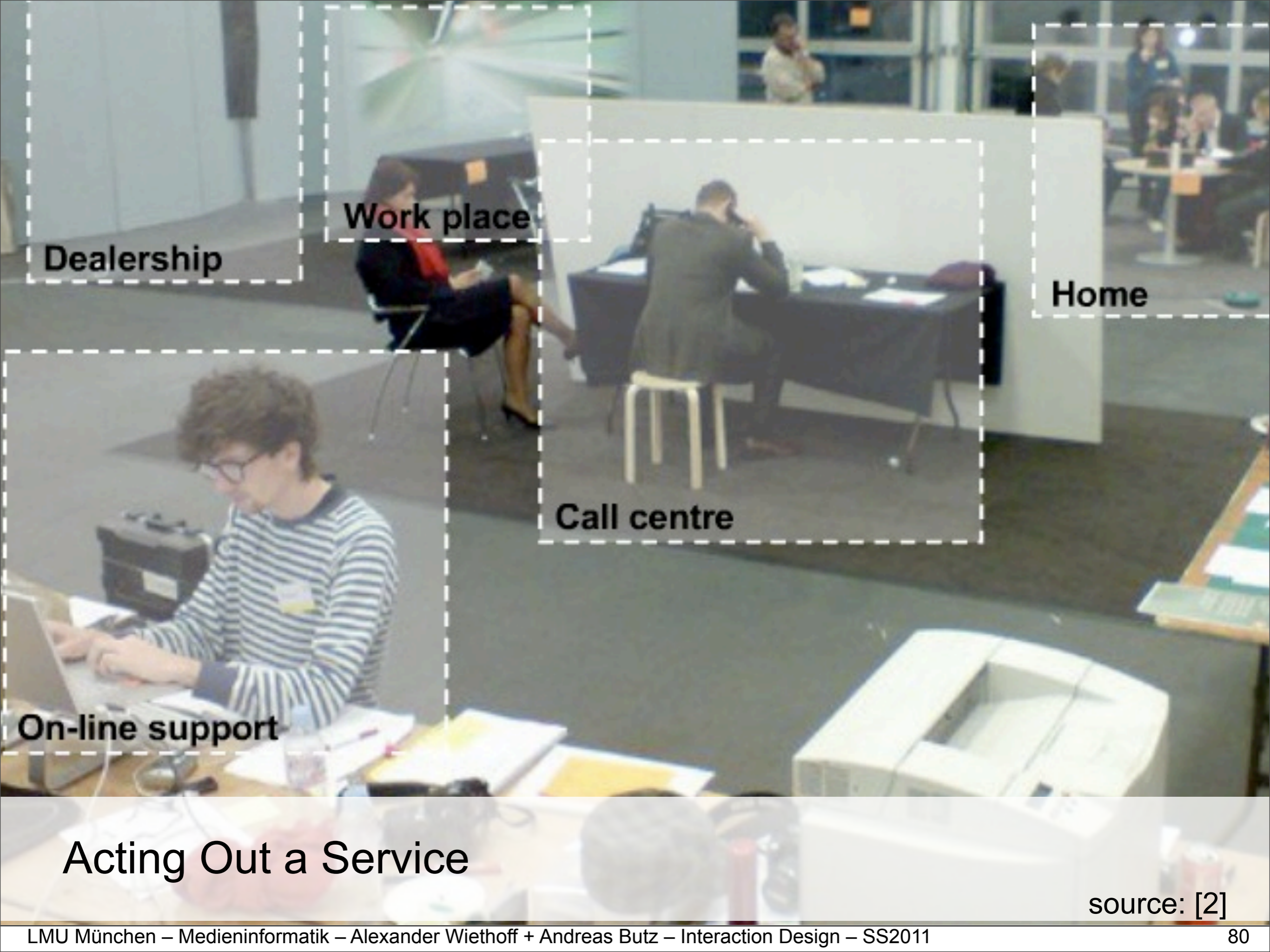


# Refined Service Blueprint



Touchpoint Prototype





**Dealership**

**Work place**

**Home**

**Call centre**

**On-line support**

# Acting Out a Service

source: [2]

## References (Books):

- [1] Buxton, W. Sketching User Experiences, *Morgan Kaufmann 2007.*
- [2] Copenhagen Institute of Interaction Design, *Service Design Workshop 2008.*
- [3] Moggridge, B. Designing Interactions, *MIT Press, 2006.*
- [4] Rogers, Y., Preece, J. & Sharp, H. Interaction Design, *Wiley & Sons 2011.*
- [5] Saffer, D. Designing for Interaction, *New Riders 2009.*