

User Experience Design I **(Interaction Design)**

UX & Digital Service Design

Transition Lecture to the Practical Course UX3

Two fundamental questions...

What is a product ?

What is a service ?

What do they have in
common ?



???



Front Stage



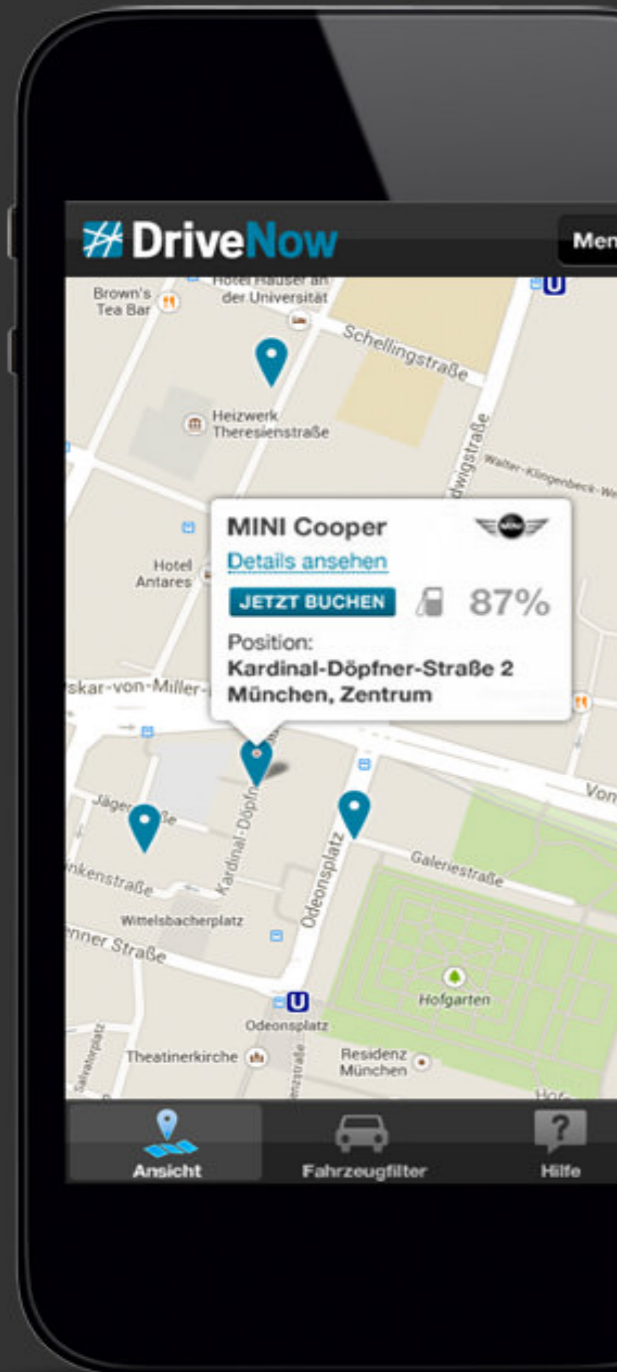
Back Stage

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



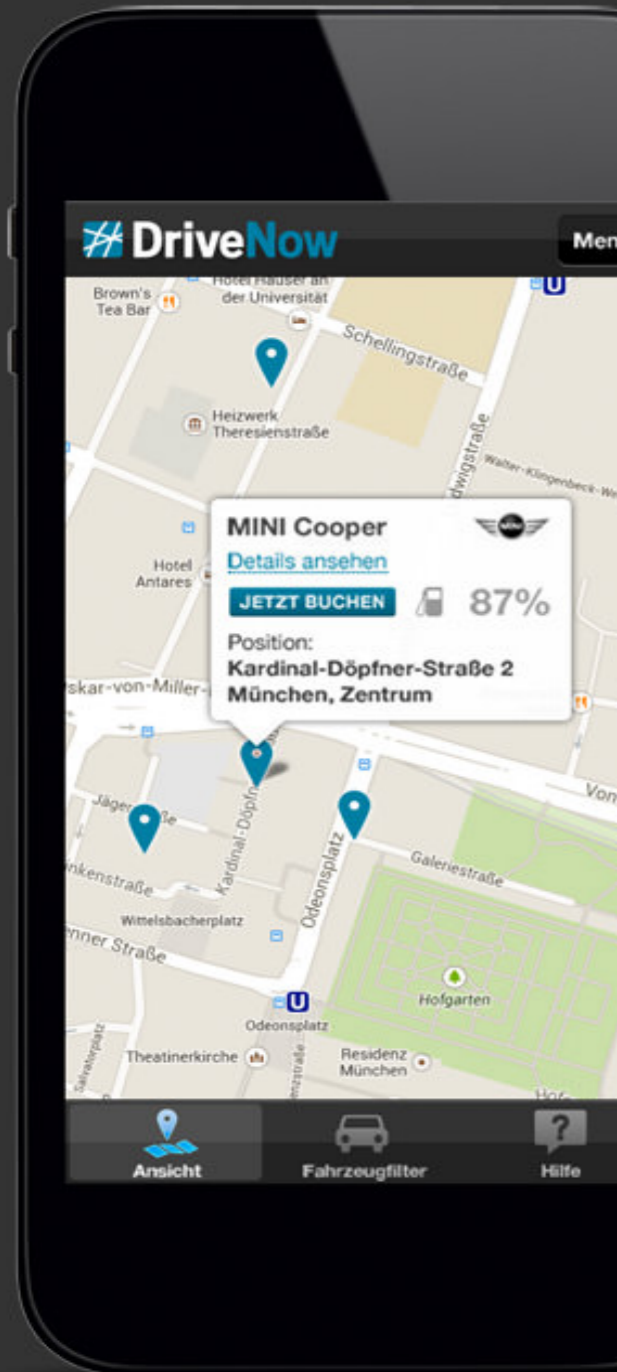
DriveNow

Car Sharing von BMW i, MINI und



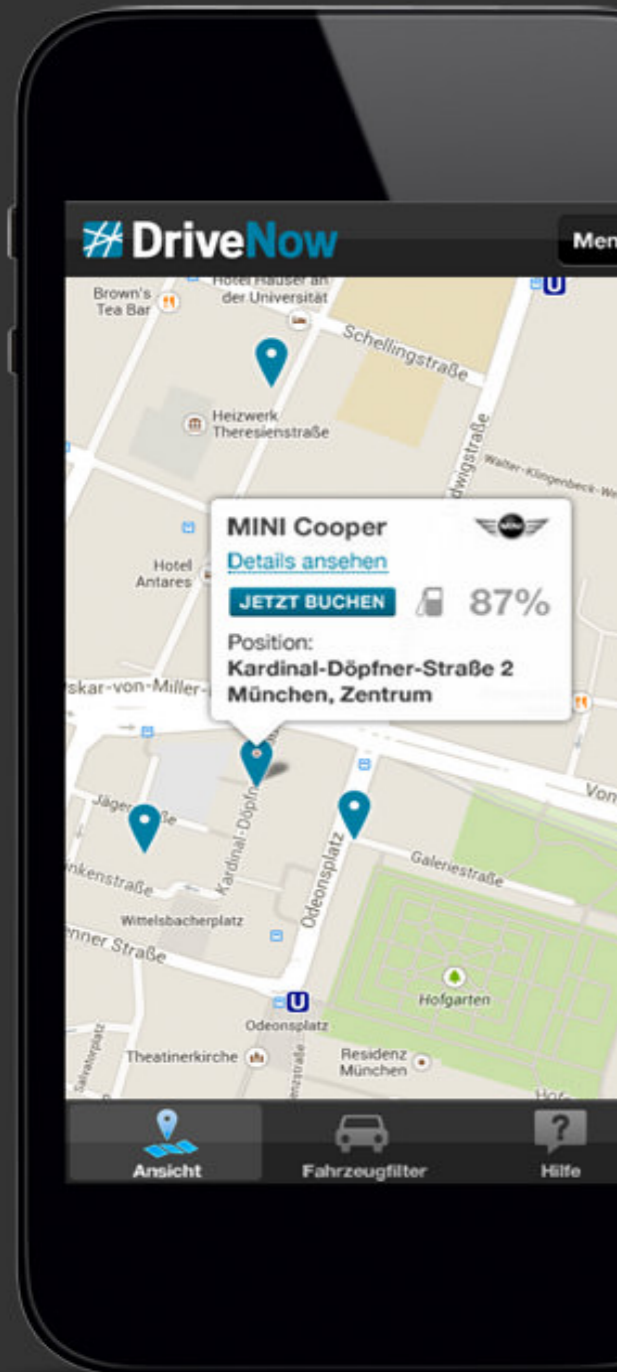
DriveNow

Car Sharing von BMW i, MINI und



DriveNow

Car Sharing von BMW i, MINI und



SERVICE FIRST, PRODUCTS SECOND

Product-dominant logic



– 1950s

Transition



1950–2000+

Service-dominant logic

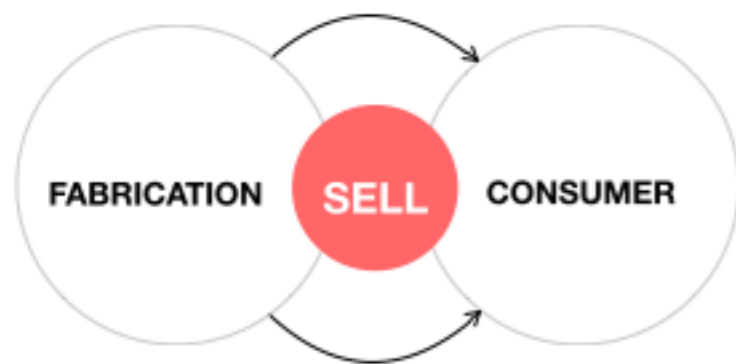


today & tomorrow

Quelle: SinnerSchrader

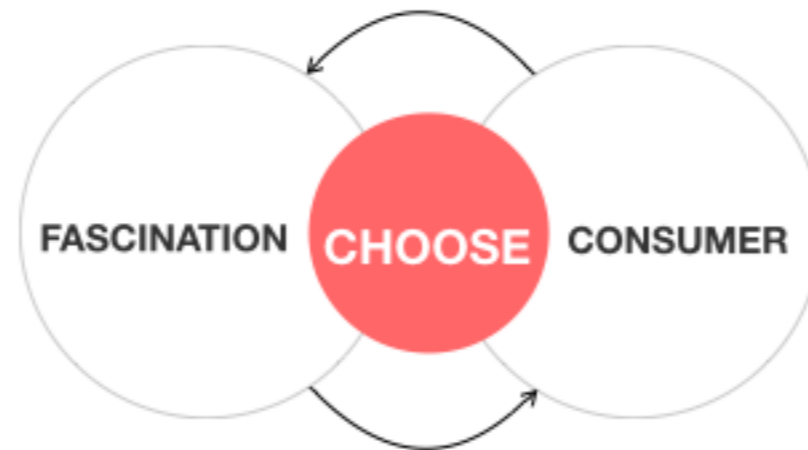
A new marketing logic.

The day before yesterday



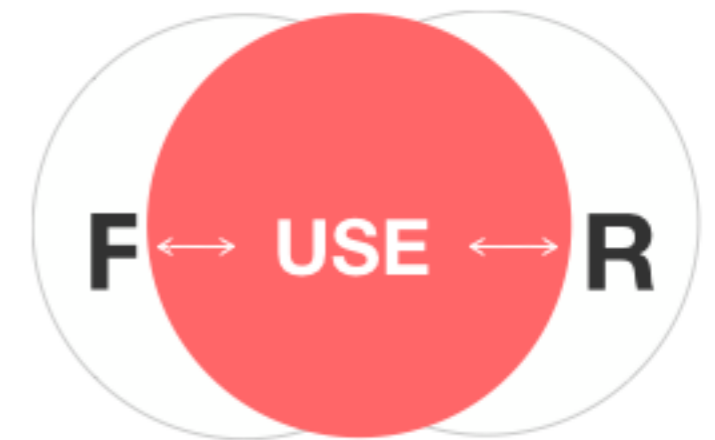
FOCUS:
SALES

Yesterday



FOCUS:
ADVERTISING

Today



FOCUS:
PRODUCTS & SERVICES

Quelle: SinnerSchrader

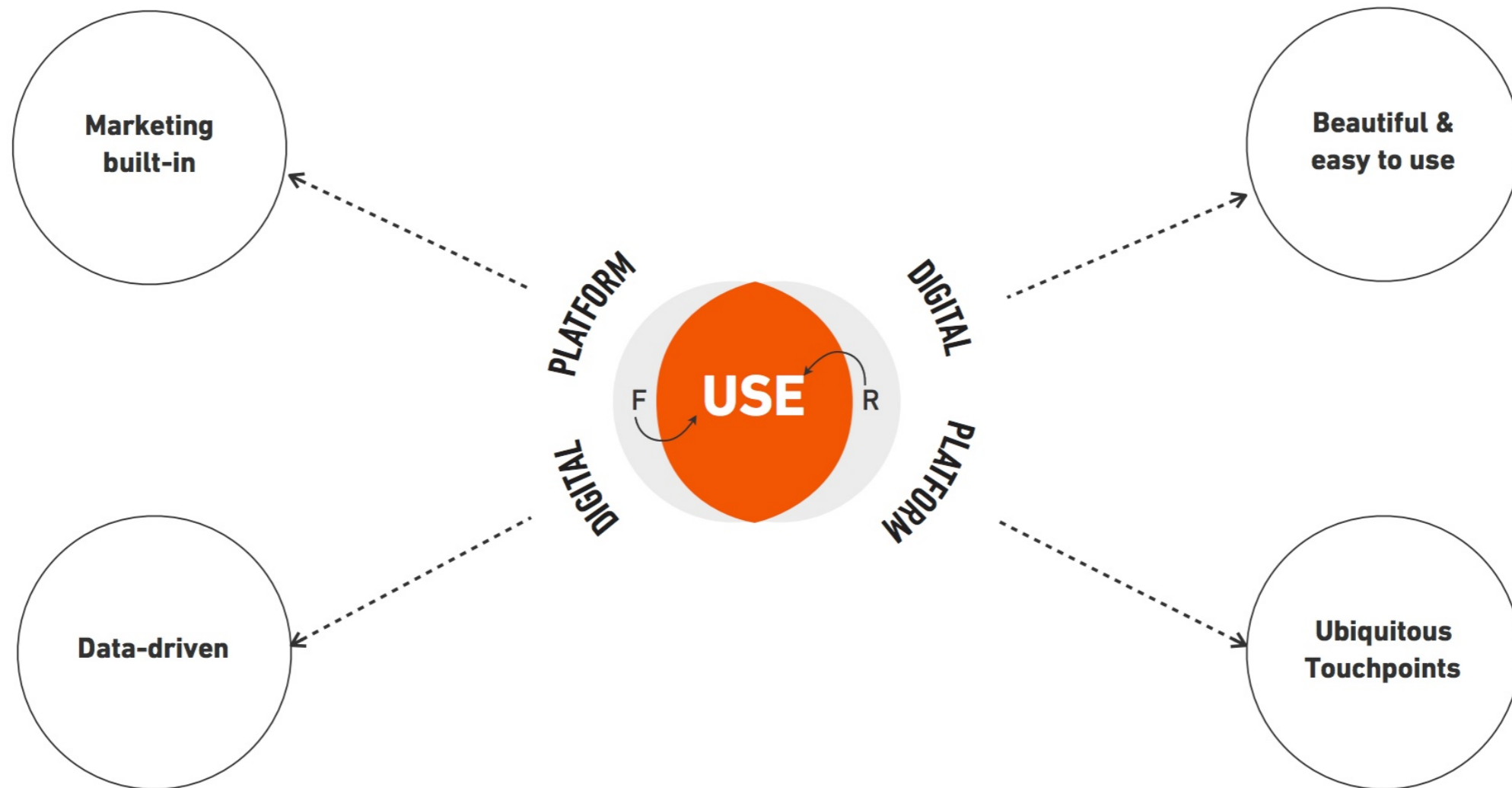
IDENTIFY A RELEVANT INSIGHT



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

Quelle: SinnerSchrader

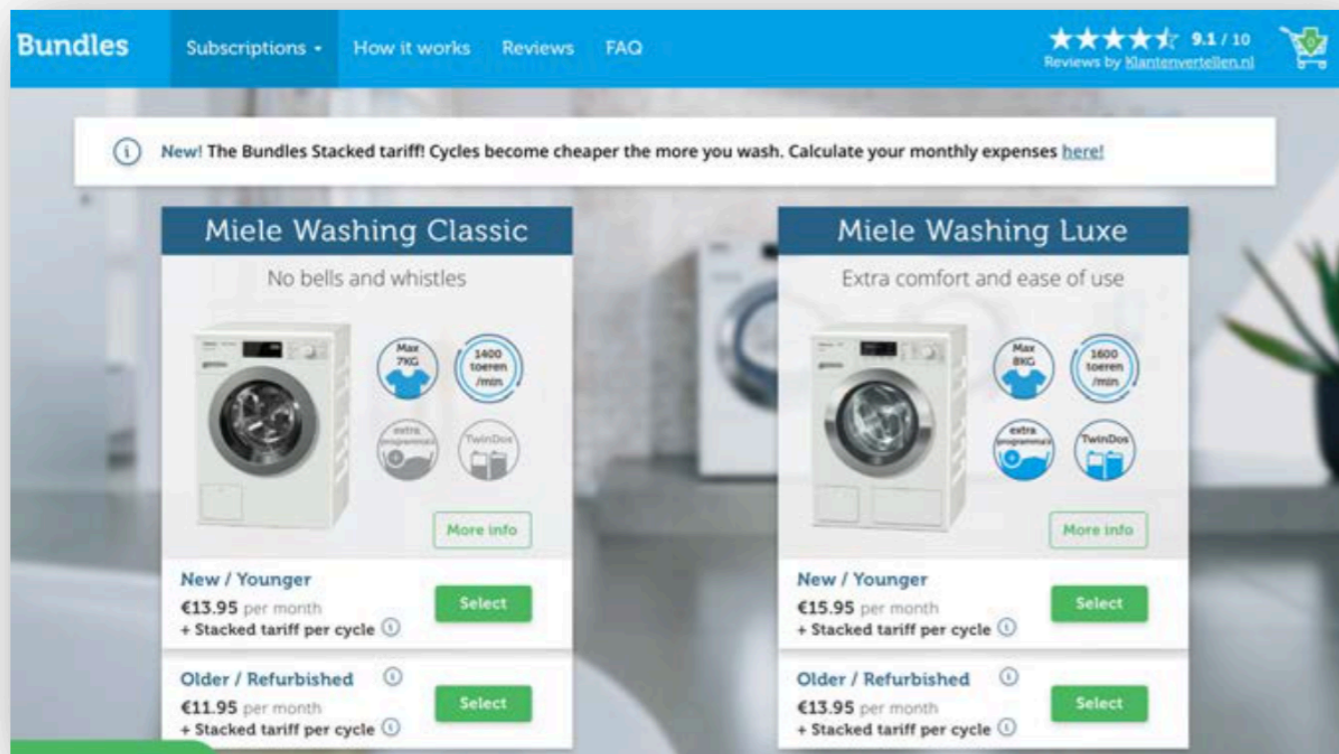
CREATE A DIGITAL PLATFORM



Quelle: SinnerSchrader

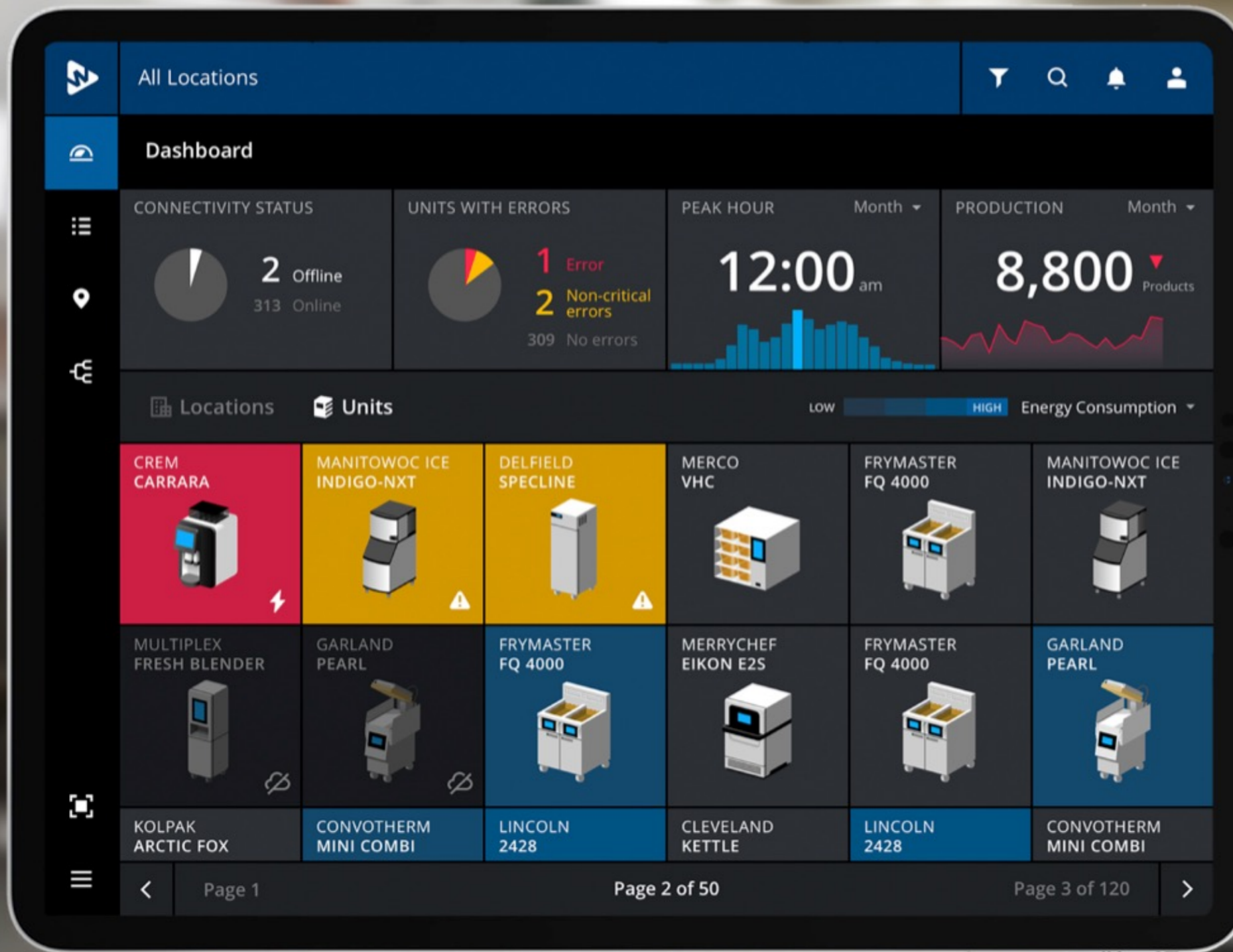
Examples: New Business Models through Digital Service Design

Example: Transform Best-in-Class Products into a Service-based Offering



Screenshot from bundles.nl

Bundles.nl uses **Miele washing machines** who are seen as the most reliable and long-lasting products in the market and add an IoT-enabled “Pay-per-Use” business model to make the **best product in the market** available to a **wide range of audiences**



The app becomes the digital centre for the modern commercial kitchen. By networking the entirety of a kitchen's equipment, resources and time can be efficiently planned and used in the day-to-day running of commercial kitchens.



Production

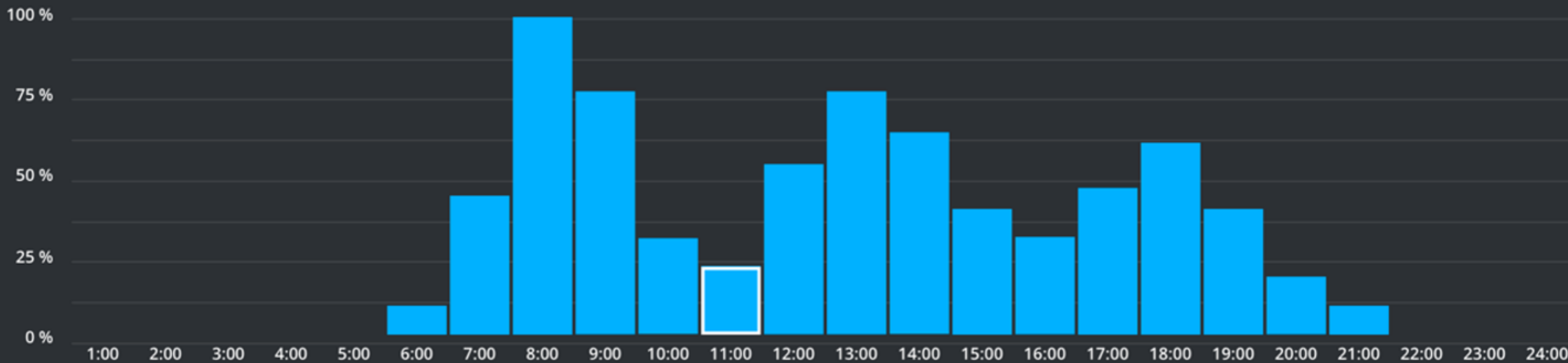
Resource Use

Cycle Rates

Utilization

% UTILIZATION PER HOUR

Day < >



DAILY % UTILIZATION PER WEEK

Day < >

Day	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
Sun	0	0	0	0	25	25	75	100	75	75	50	25	25	50	75	100	100	75	75	75	50	25	25	0
Sat	0	0	0	0	0	25	50	100	100	75	50	25	50	75	100	75	75	75	50	25	25	25	0	0
Fri	0	0	0	0	0	0	25	100	75	75	50	50	50	75	100	100	75	75	75	50	25	0	0	0
Thu	0	0	0	0	25	25	75	100	75	75	50	25	25	50	75	100	75	75	75	75	50	25	0	0
Wed	0	0	0	0	0	25	25	100	75	75	50	50	50	75	100	100	75	75	75	50	25	0	0	0
Tue	0	0	0	25	0	25	50	100	100	75	50	25	50	75	100	75	75	75	50	25	0	0	0	0
Mon	0	0	0	0	0	25	25	100	75	75	50	50	50	75	100	100	75	75	75	50	25	0	0	0



100+ of alternative/additional Digital Service Solutions



The Welbilt product cosmos contains a wide range of different appliances for the professional kitchen. In order to create an homogenous appearance on the product overview pages, we have standardised and created a canon of the appliance illustrations.



What if someone is changing the game ?



Through Digital Service Design ?

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...



source: [3]



Telephone Service

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

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
(service blueprints)

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

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

Service Design....

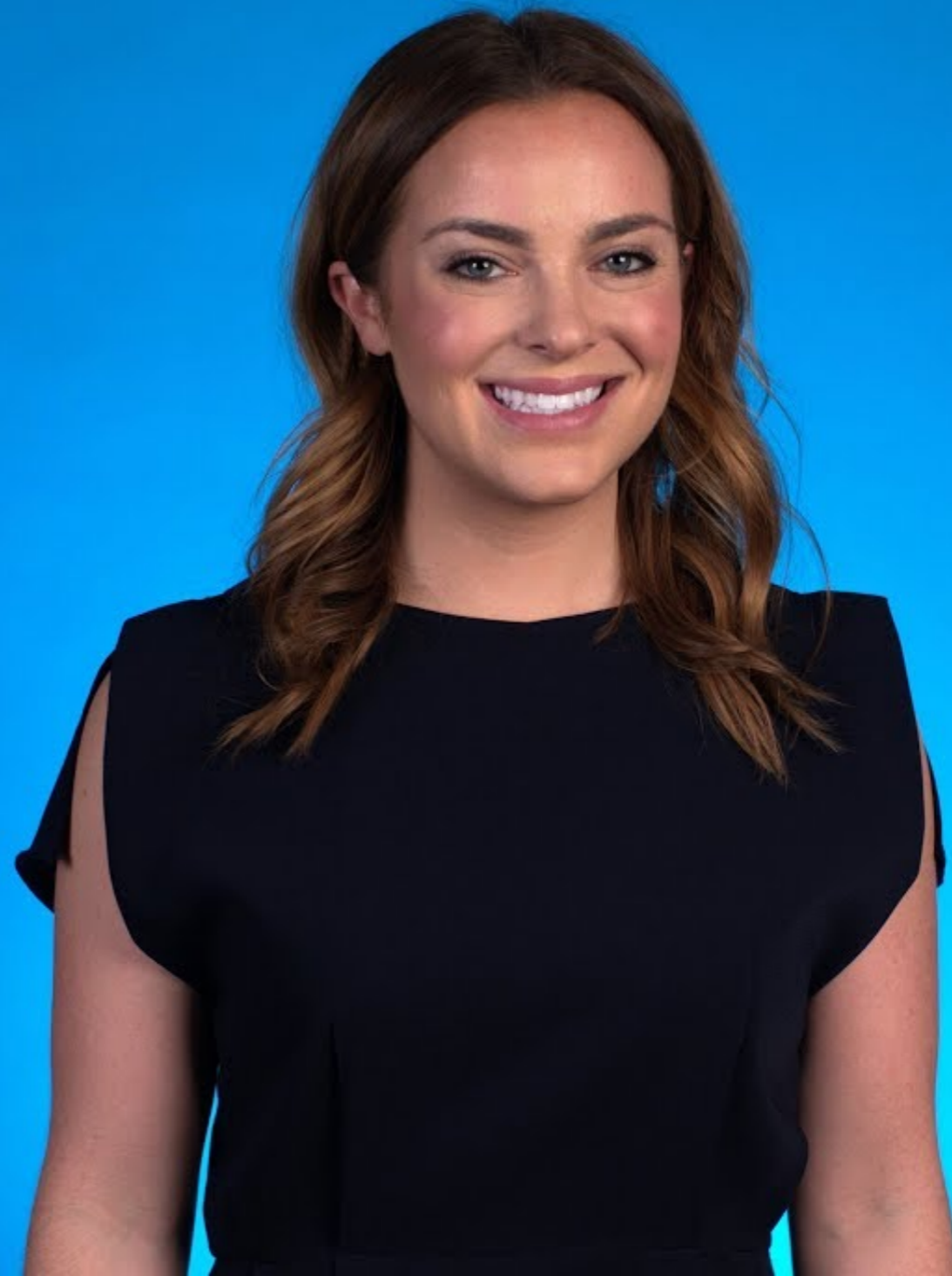
- can lead to environmentally friendly solutions. (Car sharing service)
- can boost good business models: well designed and executed services will increase sales and helping tying users to a specific brand

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.

NN/g

Service Design



<https://www.youtube.com/watch?v=ojqN3tZqcew>

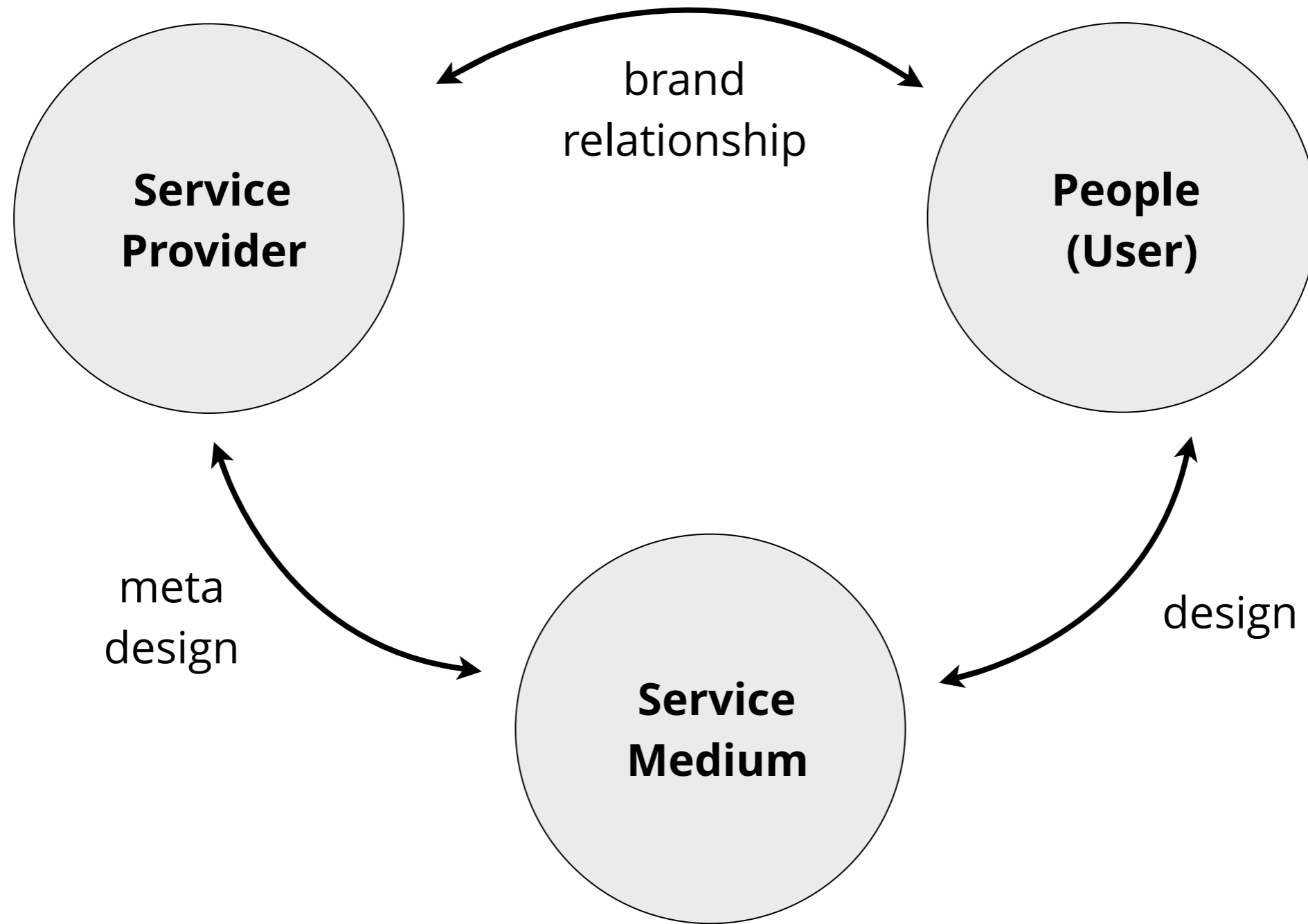
Service design can involve

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

GRAPHIC
DESIGN



2D

PRODUCT
DESIGN



3D

+Z-axis
(spatial depth)

INTERACTION
DESIGN



4D

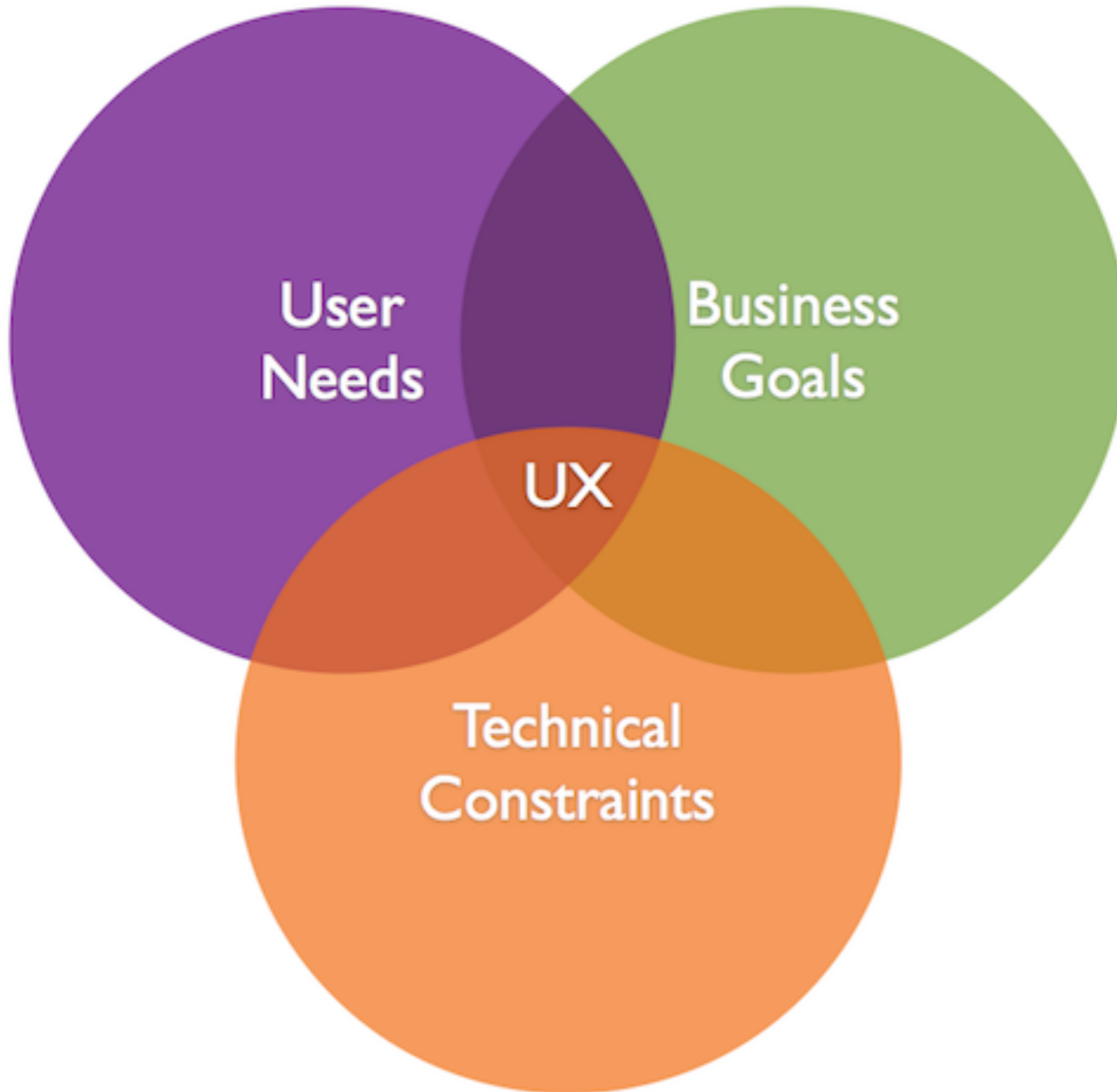
+T-axis
(temporal dimension)

SERVICE
DESIGN



5D

+W-axis
(multi-local simultaneity)



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.

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.

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.

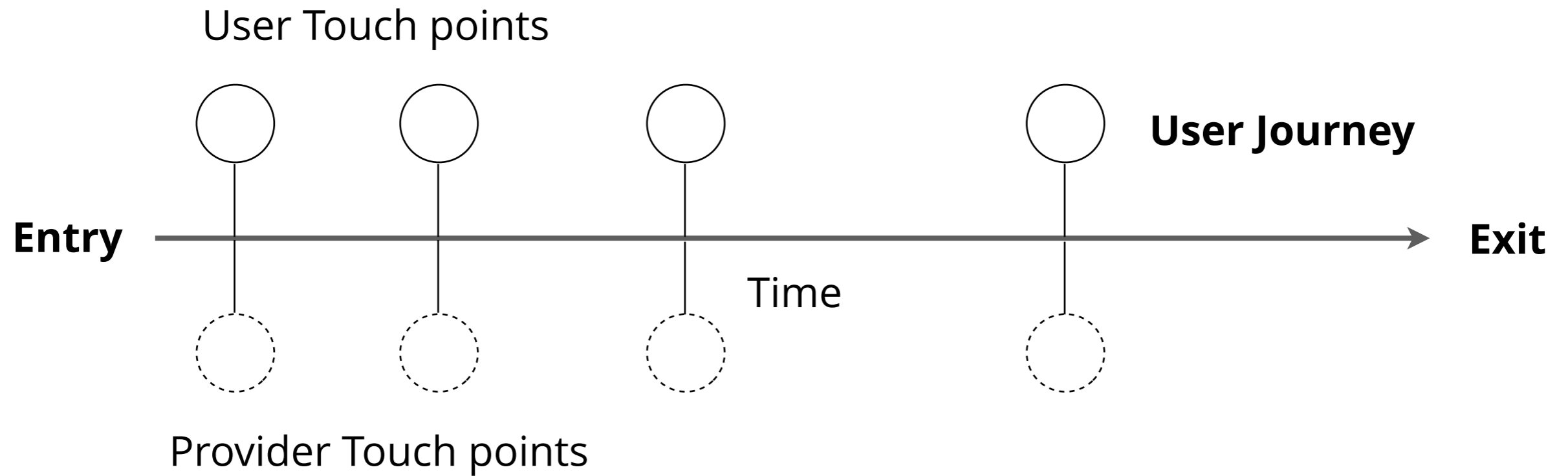
We interpret this in a much broader sense. We look at it as an experience blueprint which covers both the **service elements as well as the product interactions.**

Service Design Vocabulary

Recap

- *Use Case* > A set of user actions that leads to a particular goal
- *Touchpoint* > Points of Interactions with a service
- *Front Stage* > Everything that is visible to the user
- *Back Stage* > Everything that is visible to the provider
- *Blueprint* > Visualisation of touchpoints and use cases
- *Stakeholder* > Internal or external service partner

Front Stage



Support Processes

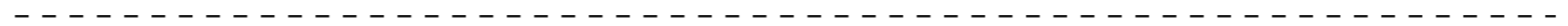
Back Stage

source: [2]

User Actions



Line of interaction



Touch Points



Line of visibility



**Backstage
activity**



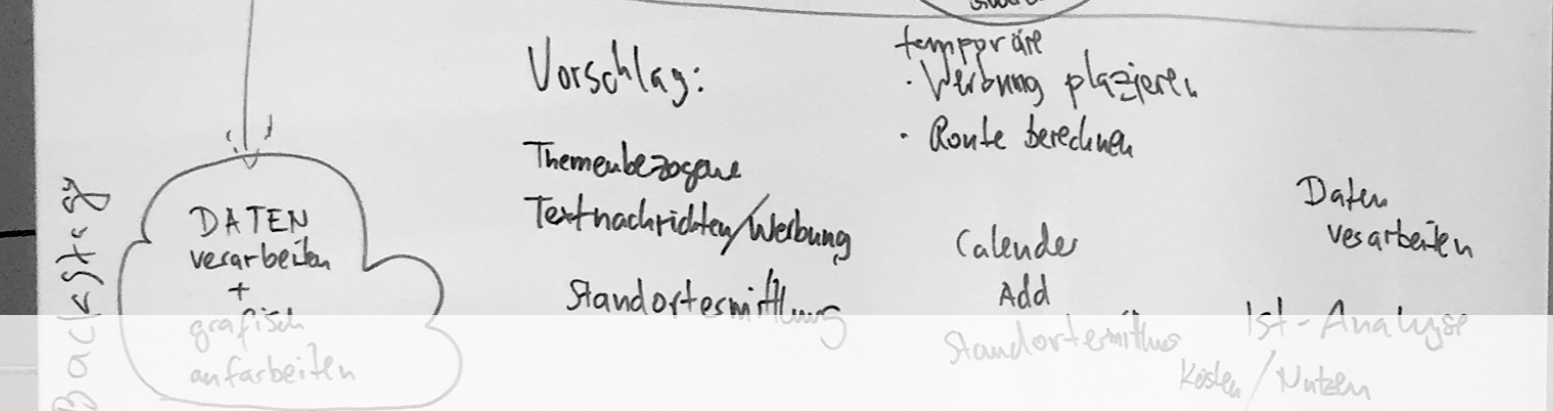
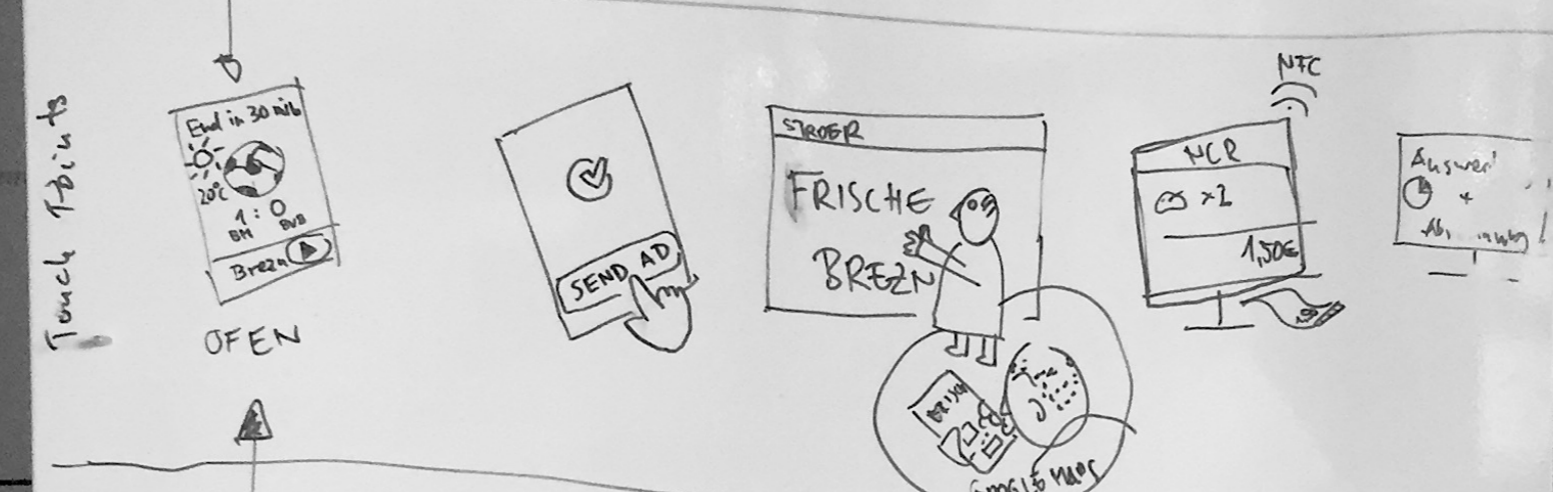
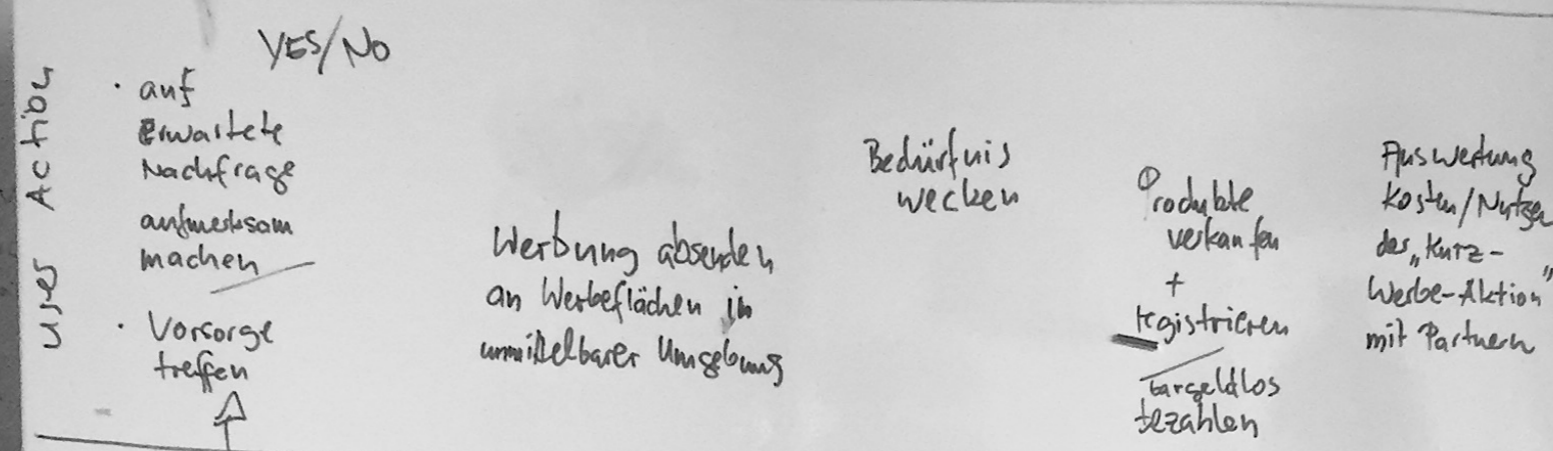
Line of internal
interaction



**Support process / Stake
Holders**



source: [2]



Ideation: Sketching out Experience Blueprint(s)



FOODSENSE®

USE CASES



USER ACTIONS

Reagieren auf Information zu Events

Ofen mit zusätzlichen Produkten bestücken

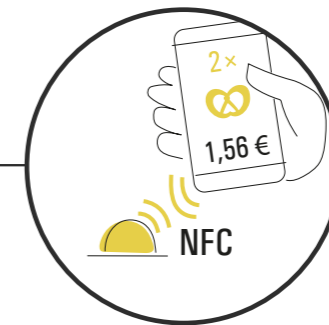
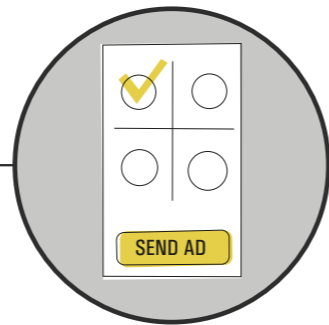
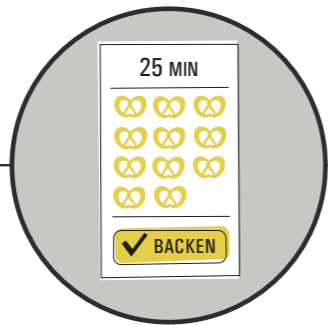
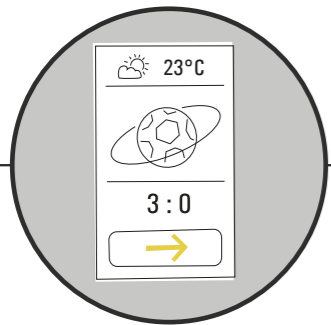
Werbung an digitale Werbeflächen in unmittelbarer Nähe senden (Guerilla-Kurzwerbe-Aktion/Promo-Aktionen)
Sich über neue Events informieren

Information erfassen (Endkunde)
vom Smartphone in den Shop leiten lassen (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
Planung

TOUCHPOINTS



BACKSTAGE

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

Daten verarbeiten

Abrechnung
Daten verarbeiten
Umsätze / Werbekosten vergleichen

Daten verarbeiten und grafisch aufbereiten (Dashboard)
Werbekosten („ABO Sekunden-Ad“) mit Partner abrechnen auf Grundlage der zusätzlich verkauften Produkte

STAKEHOLDER





Dealership

Work place

Home

Call centre

On-line support

Acting Out a Service (Content of UX3)

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.*