

# User Experience Design I (Interaction Design)

(July 18, 2019, 9am-12pm):

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

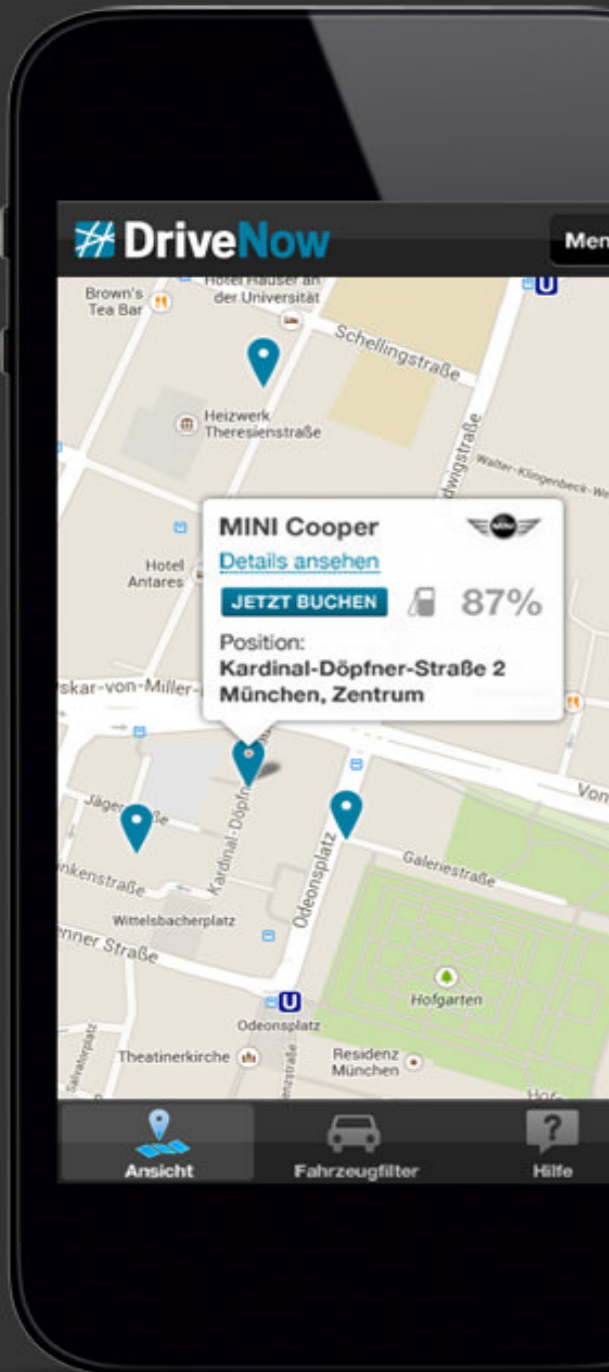
<http://blog.entrepreneurhearts.com/etablog/wp-content/uploads/2010/08/backstage.jpg>





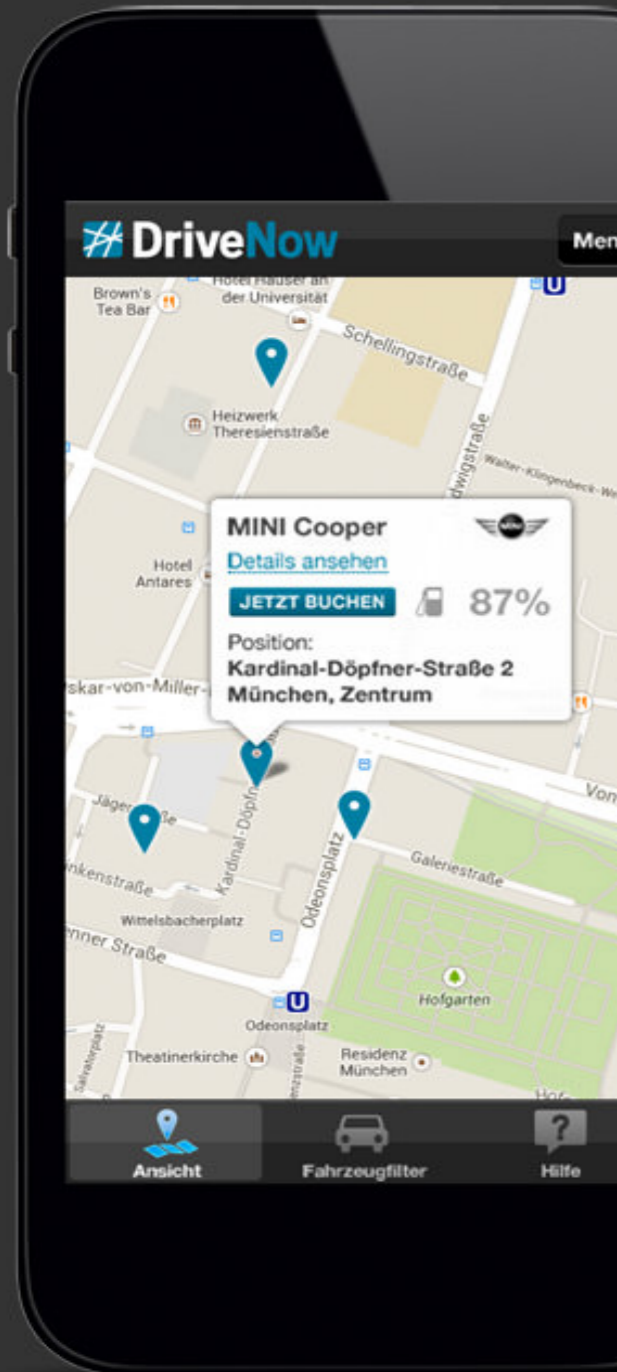
# DriveNow

Car Sharing von BMW i, MINI u



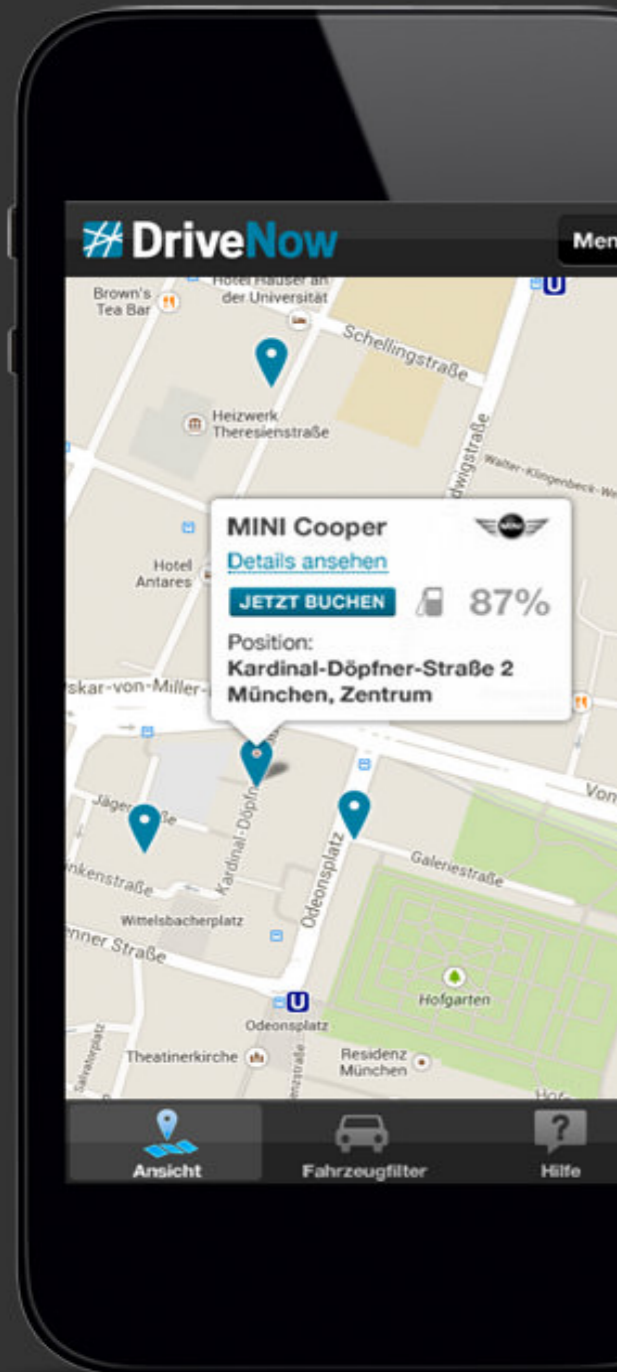
# DriveNow

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

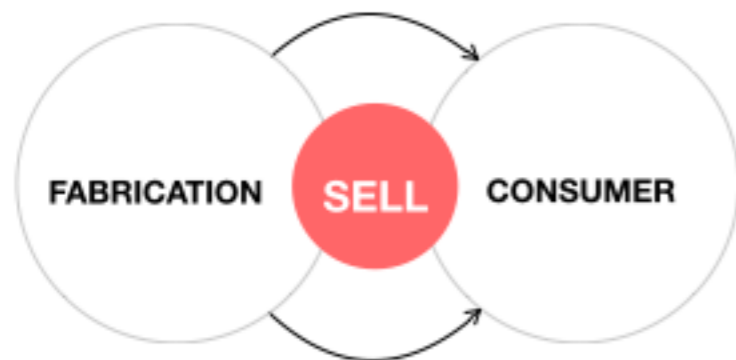


today & tomorrow

Quelle: SinnerSchrader

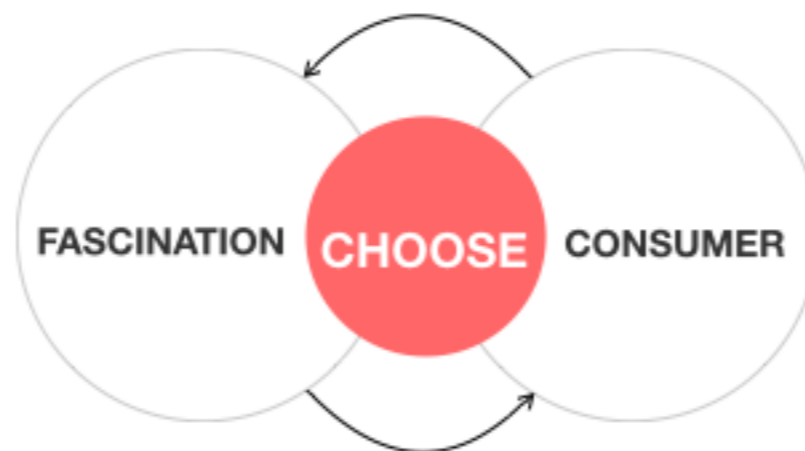
# A new marketing logic.

The day before yesterday



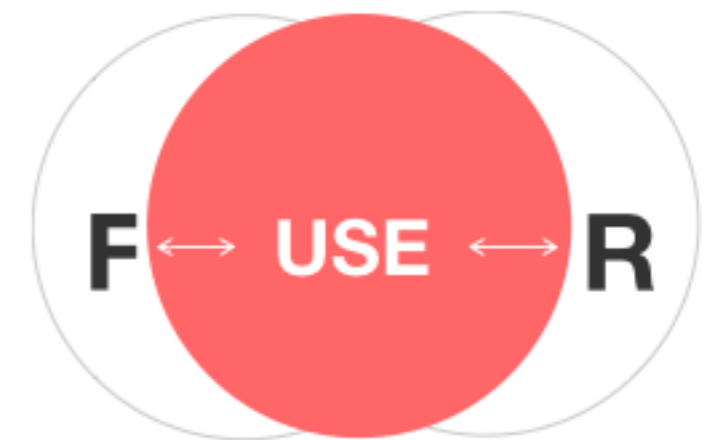
FOCUS:  
SALES

Yesterday



FOCUS:  
ADVERTISING

Today



FOCUS:  
PRODUCTS & SERVICES

Quelle: SinnerSchrader

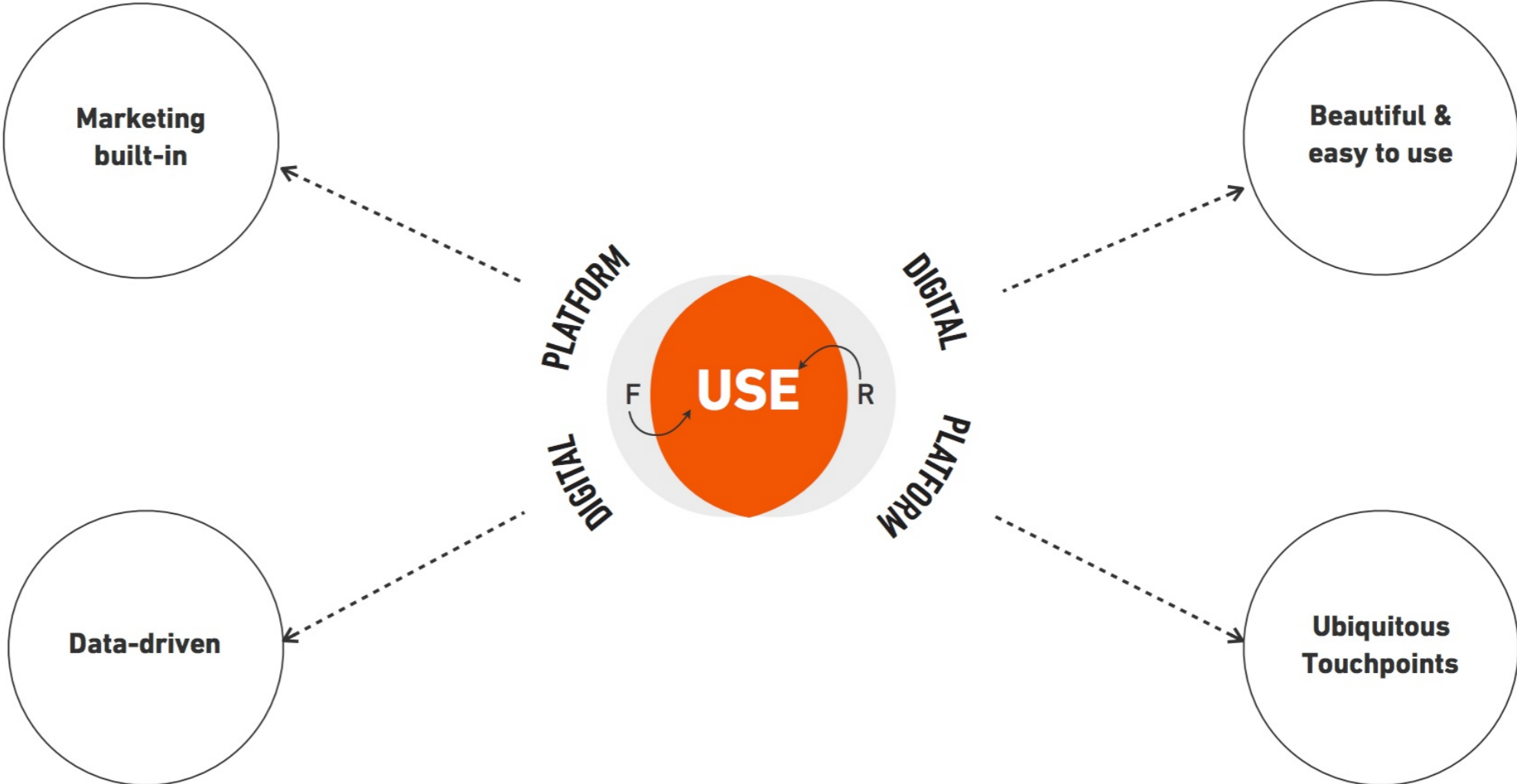
# IDENTIFY A RELEVANT INSIGHT



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

Quelle: SinnerSchrader

# CREATE A DIGITAL PLATFORM



Quelle: SinnerSchrader





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...



source: [3]

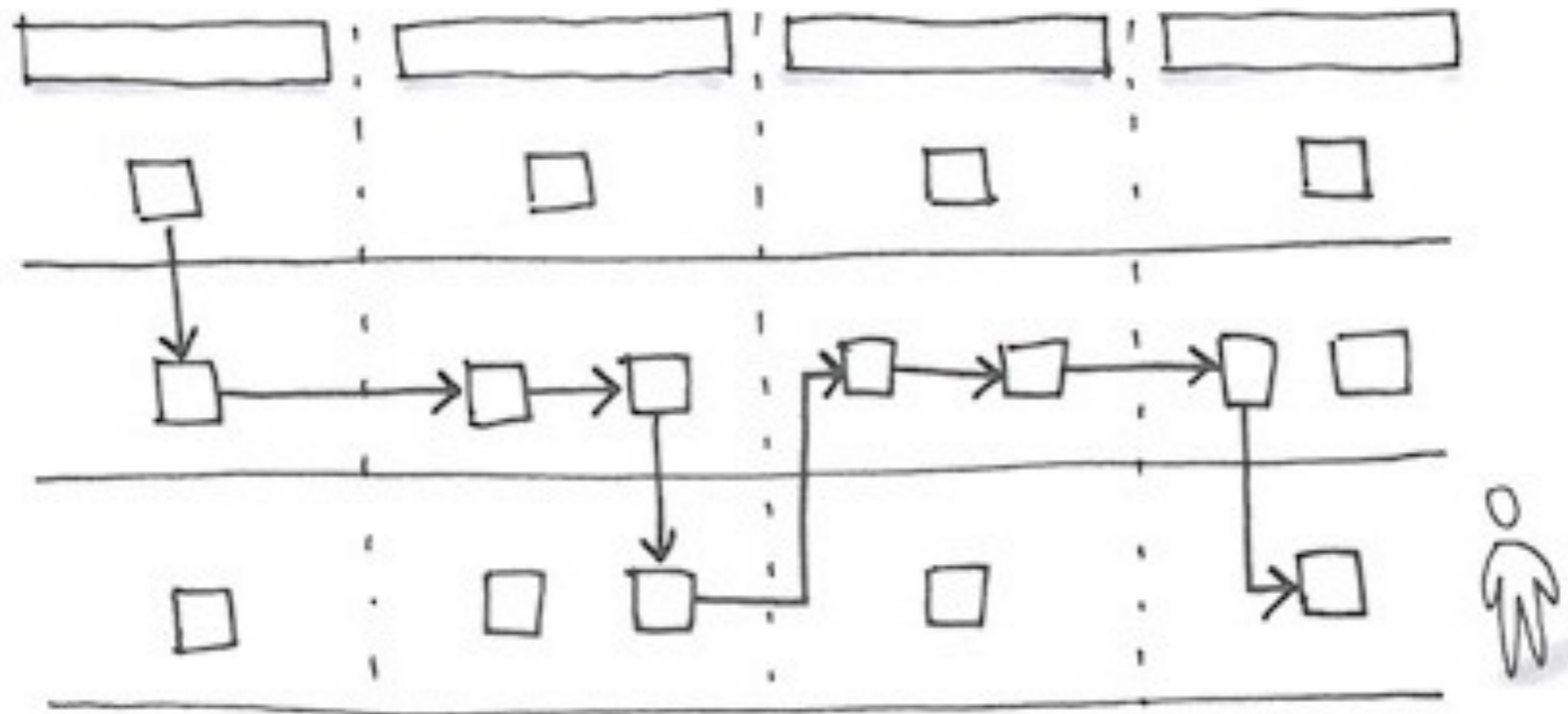


# Telephone Service

[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)

# 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/>

# 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.

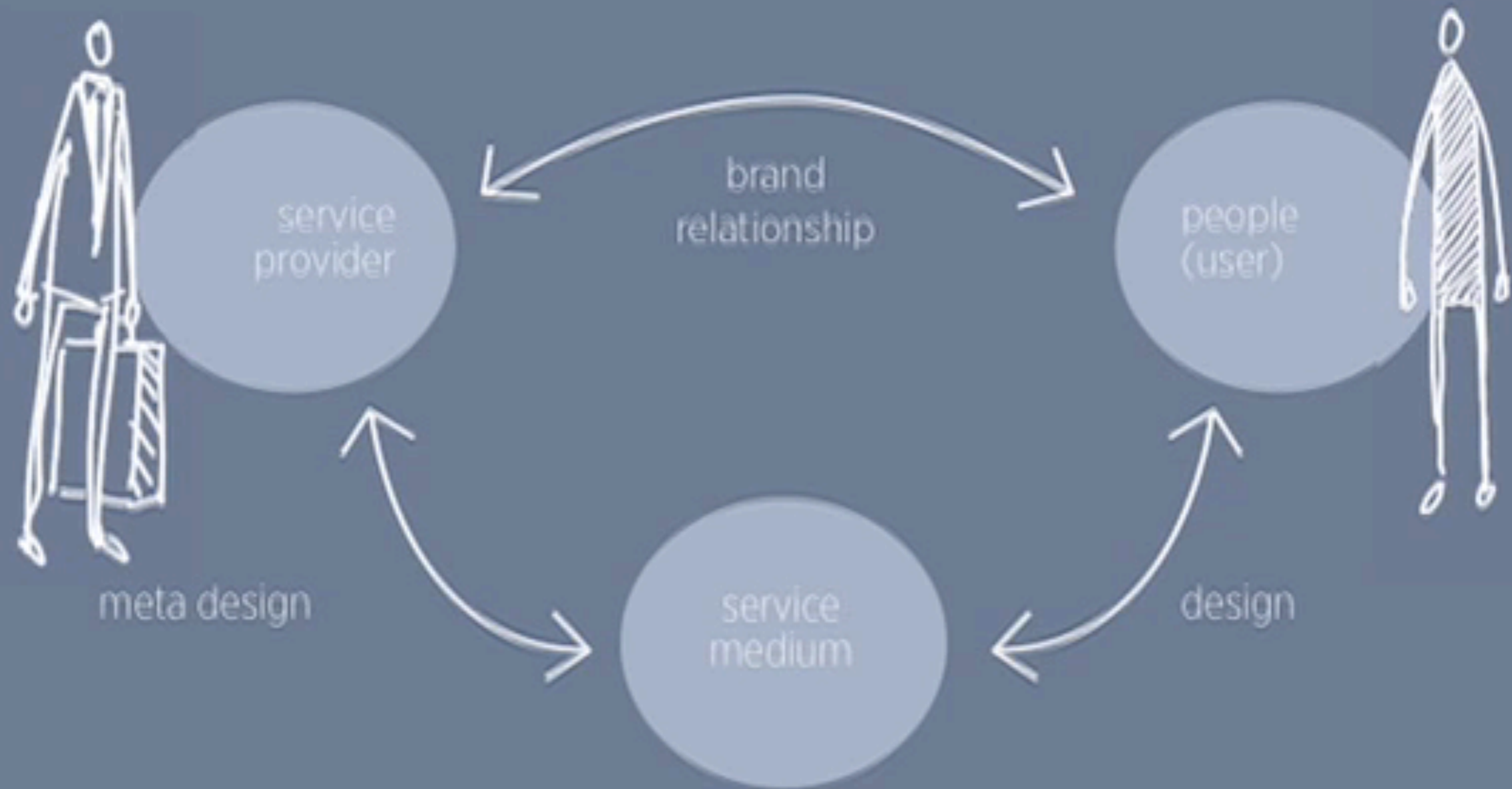
Applying UX/interaction design techniques to service design can lead to richer experiences.

## 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**

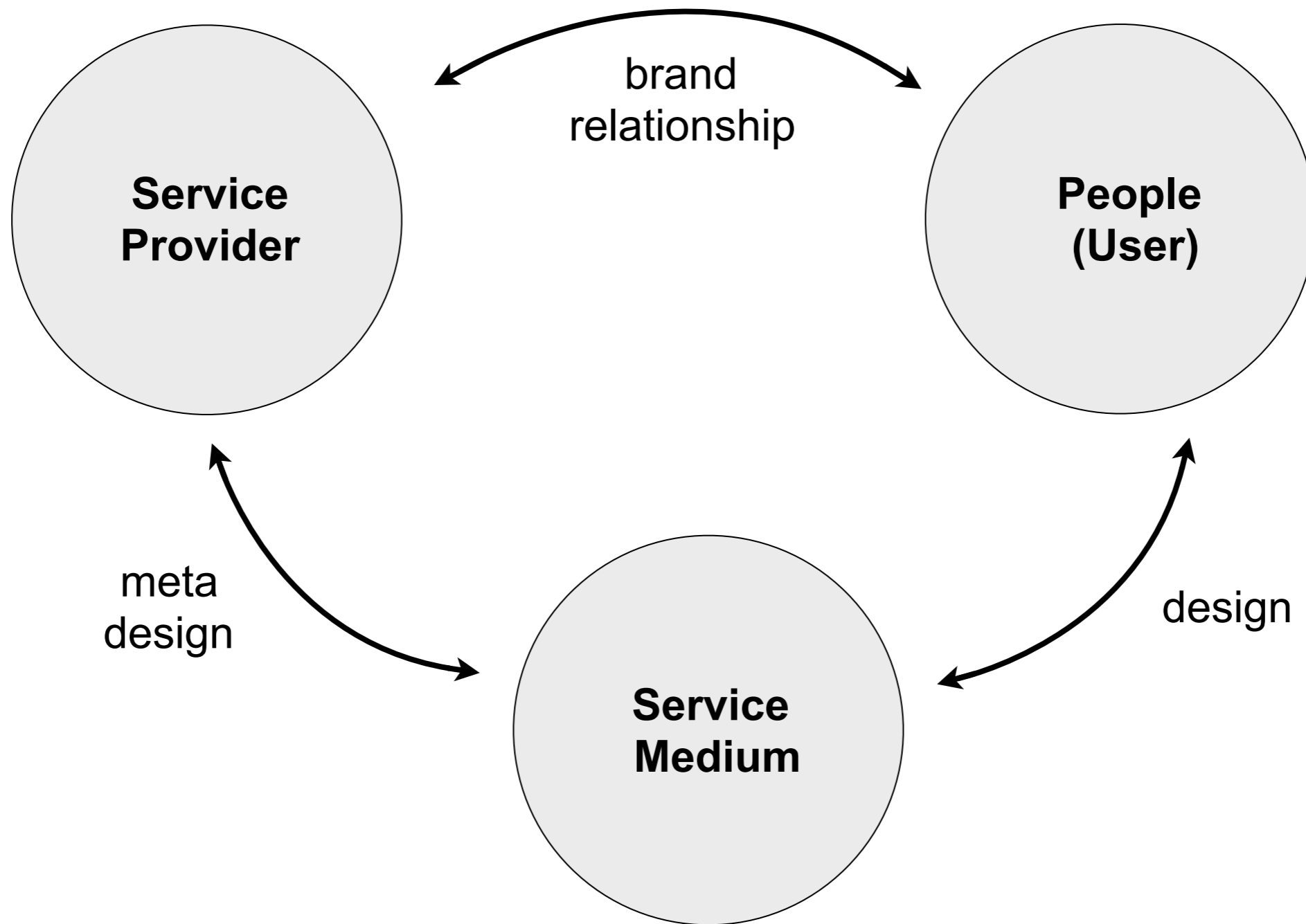
# Service design can involve

**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**

# **Prototyping Digital Service Design:**

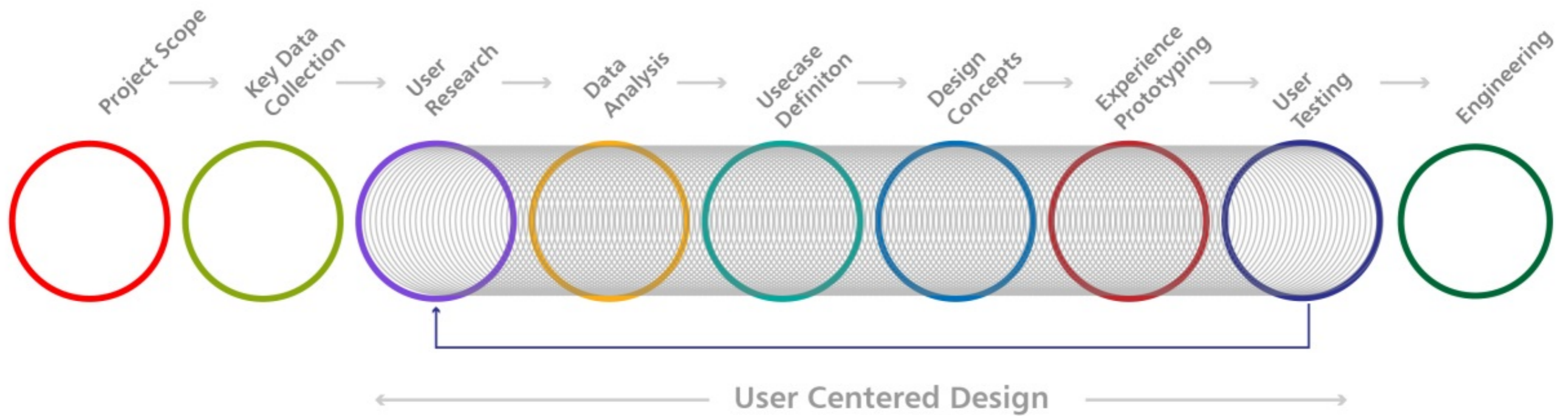
#1 Experience Blueprints

#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)

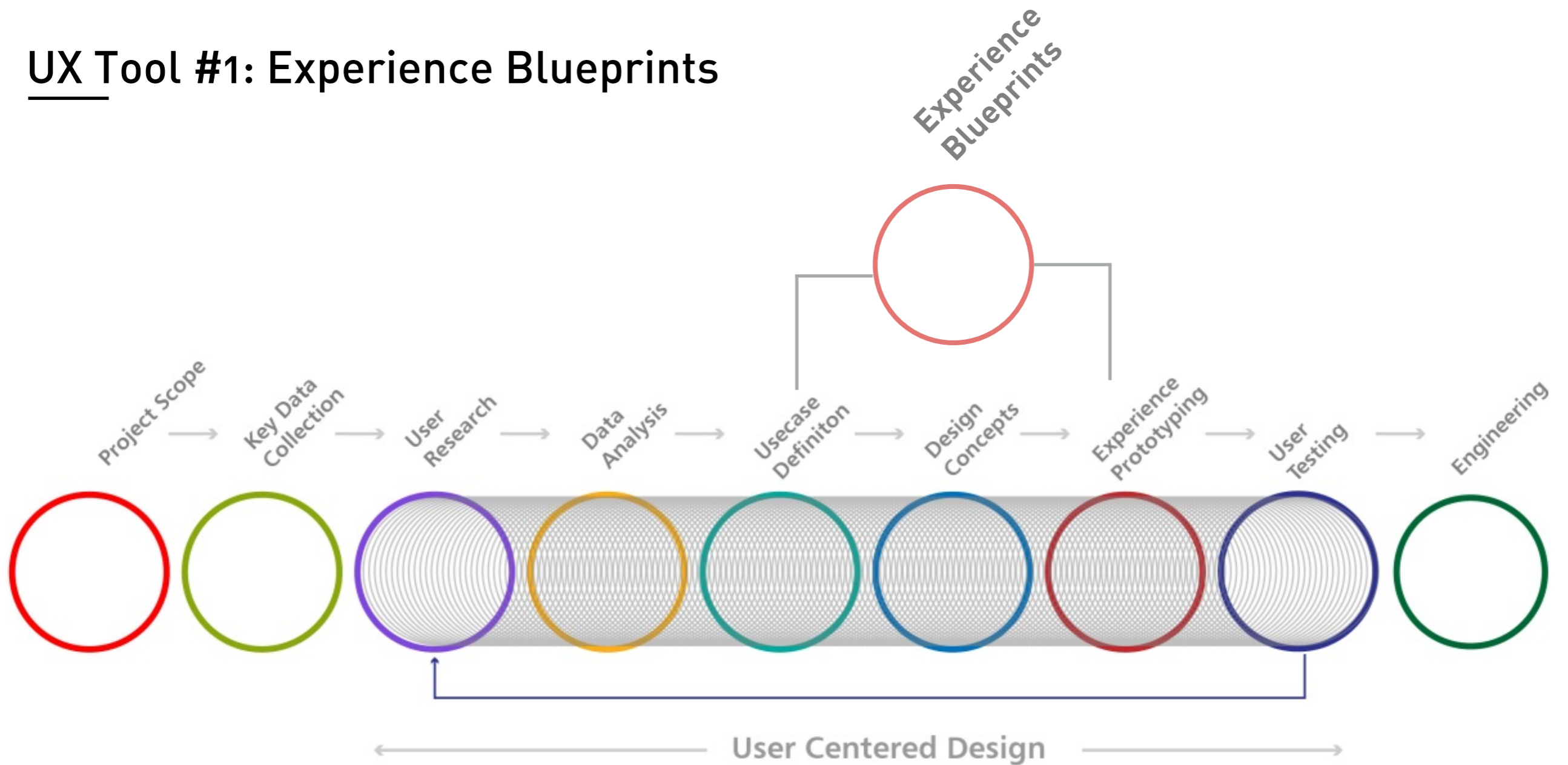
SERVICE  
DESIGN



**5D**

+W-axis  
(multi-local simultaneity)

# UX Tool #1: Experience Blueprints



# 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]

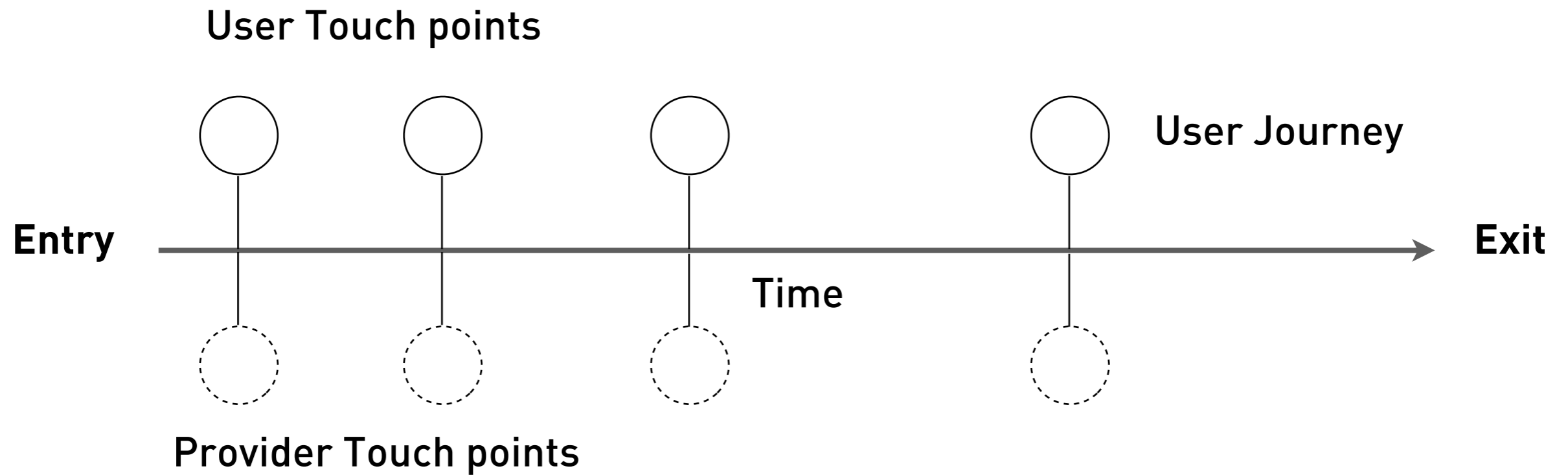
# Definition

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.**

source: [2]

# 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]



USE CASES

USER ACTIONS

TOUCHPOINTS

BACKSTAGE

STAKEHOLDER

STAKEHOLDER 1

STAKEHOLDER 2

STAKEHOLDER 3

STAKEHOLDER 4

STAKEHOLDER 5

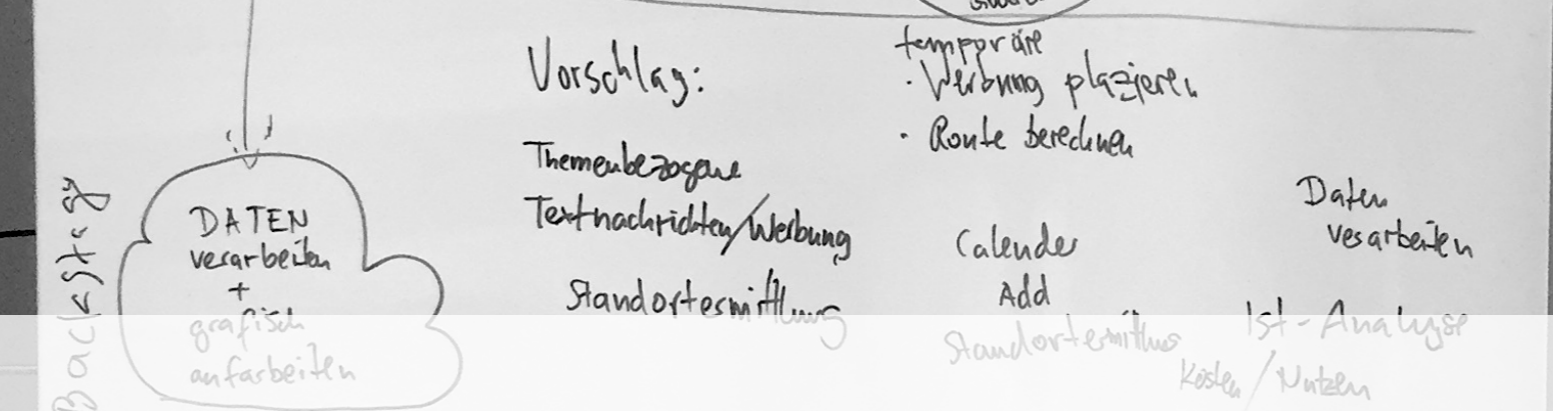
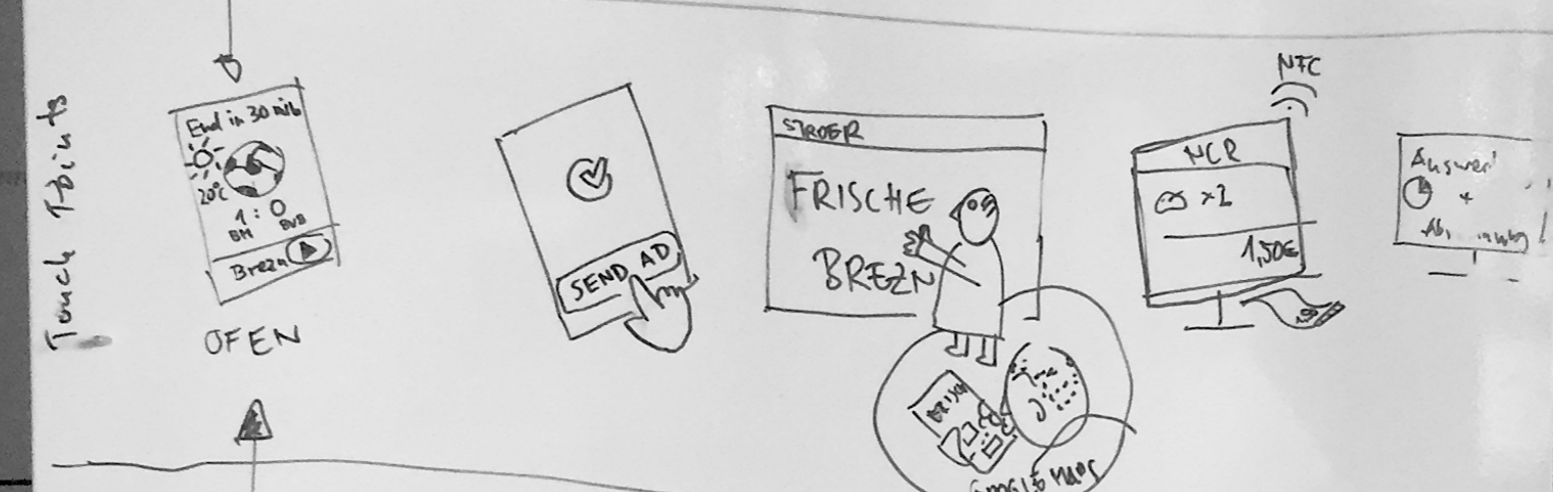
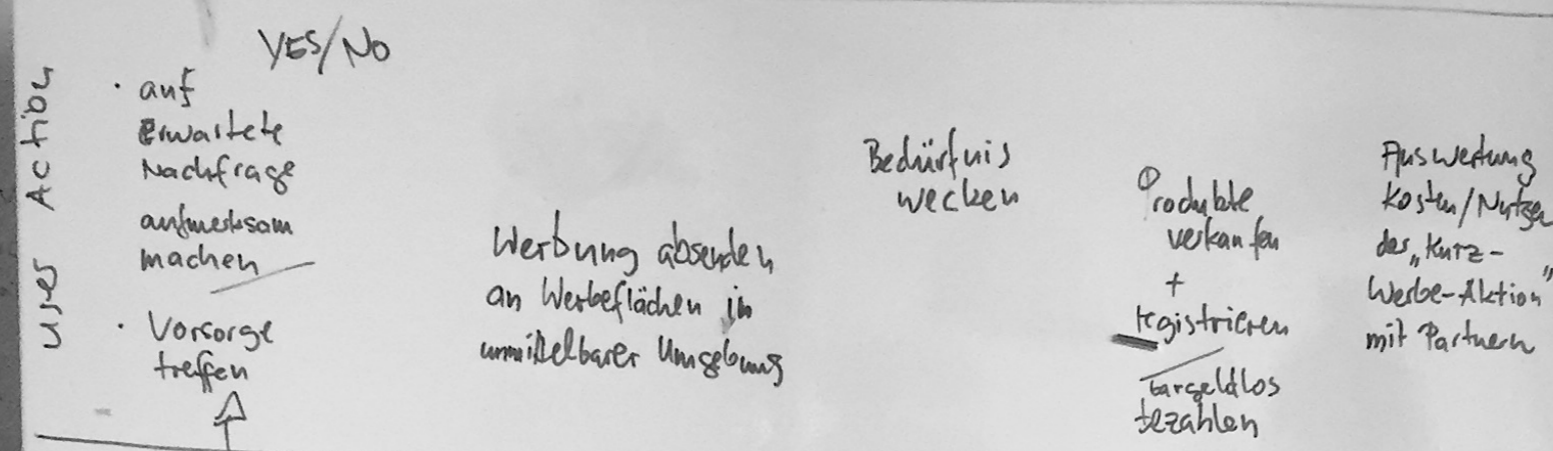
STAKEHOLDER 6

# UX Blueprint Template

# Example: FoodSense® Connected Kitchen

# Professional Foodservice Equipment





# Ideation: Sketching out Experience Blueprint(s)



# FOODSENSE®

USE CASES



USER ACTIONS

Reagieren auf Information zu Events

Ofen mit zusätzlichen Produkten bestücken

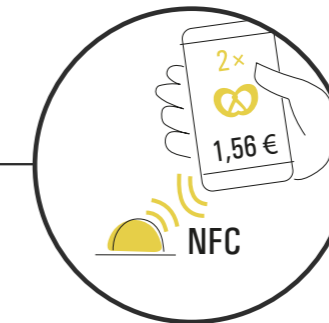
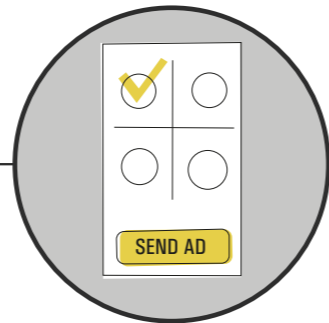
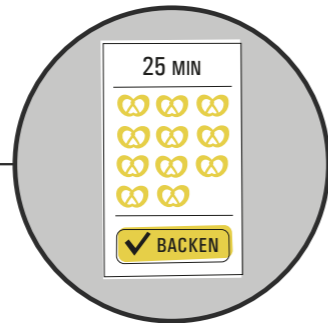
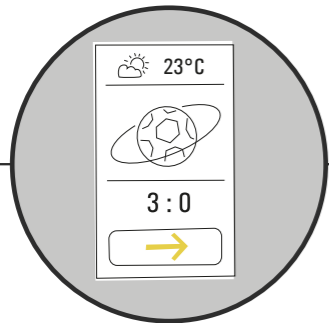
Werbung an digitale Werbeflächen in unmittelbarer Nähe senden (Guerilla-Kurzwerbeaktion/Promo-Aktionen)  
Sich über neue Events informieren

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)

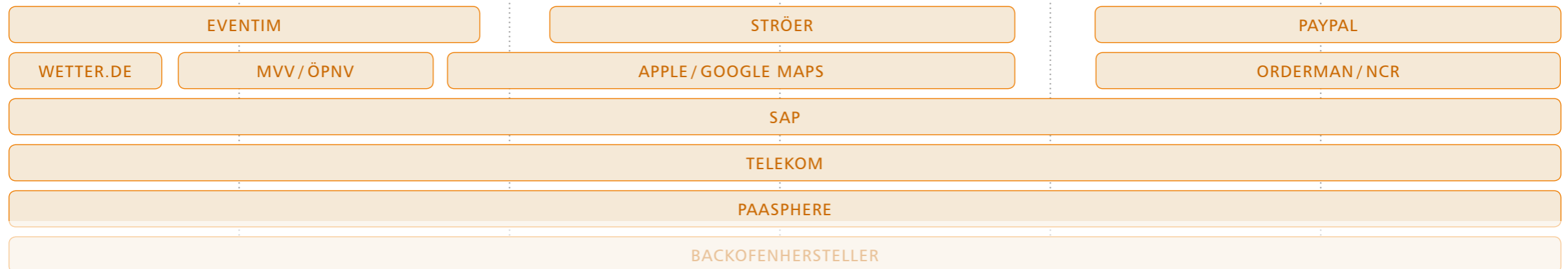
Werbetext generieren (passend zum Rezept / Backgut)  
Standortvorschläge digitaler City-Light-Poster  
Temporäre Werbung platzieren  
Neue Events anzeigen

Daten verarbeiten

Abrechnung  
Daten verarbeiten  
Umsätze / Werbekosten vergleichen

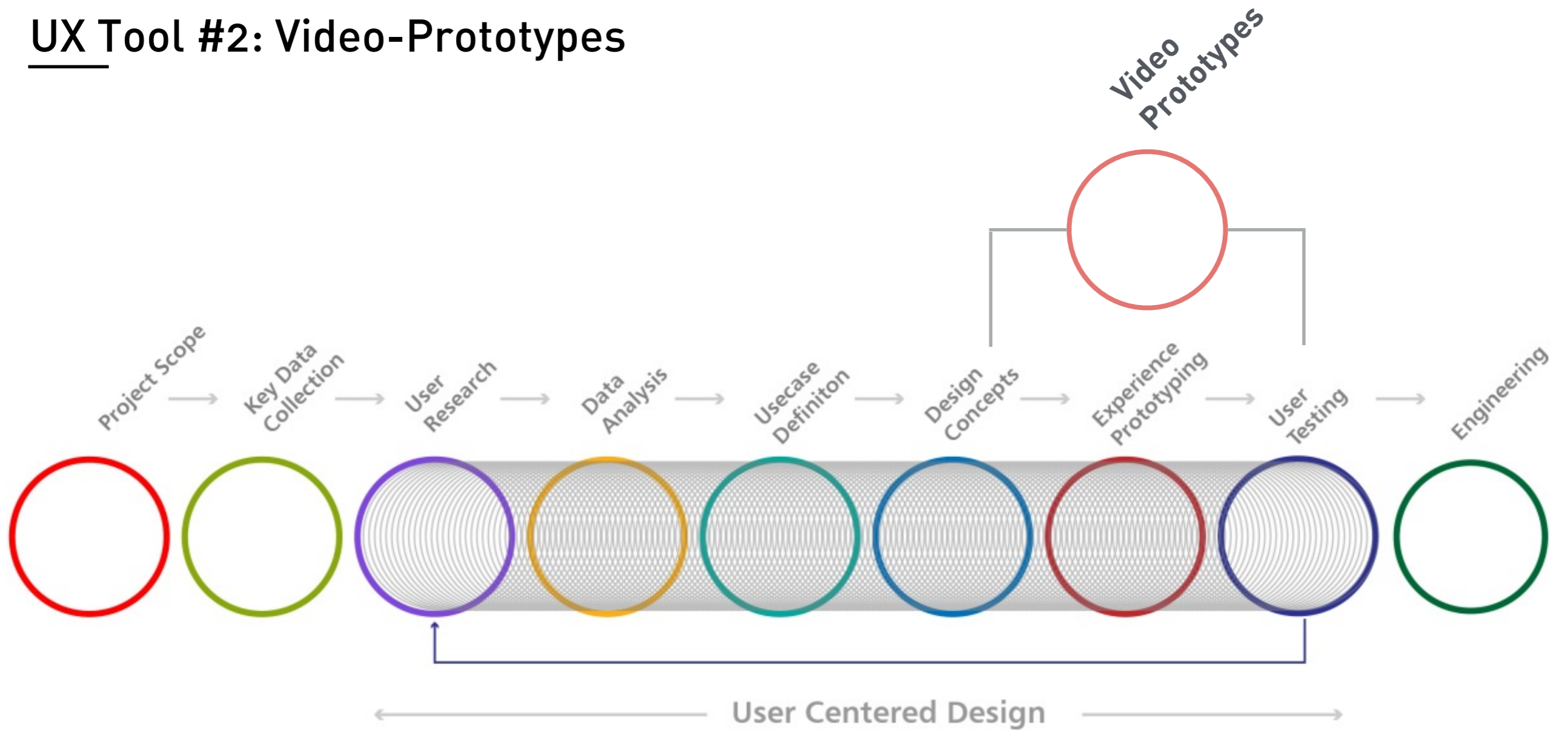
Daten verarbeiten und grafisch aufbereiten (Dashboard)  
Werbekosten („ABO Sekunden-Ad“) mit Partner abrechnen auf Grundlage der zusätzlich verkauften Produkte

STAKEHOLDER



## Selection: Refined Experience Blueprint

# UX Tool #2: Video-Prototypes



# Why Video-Prototypes ?

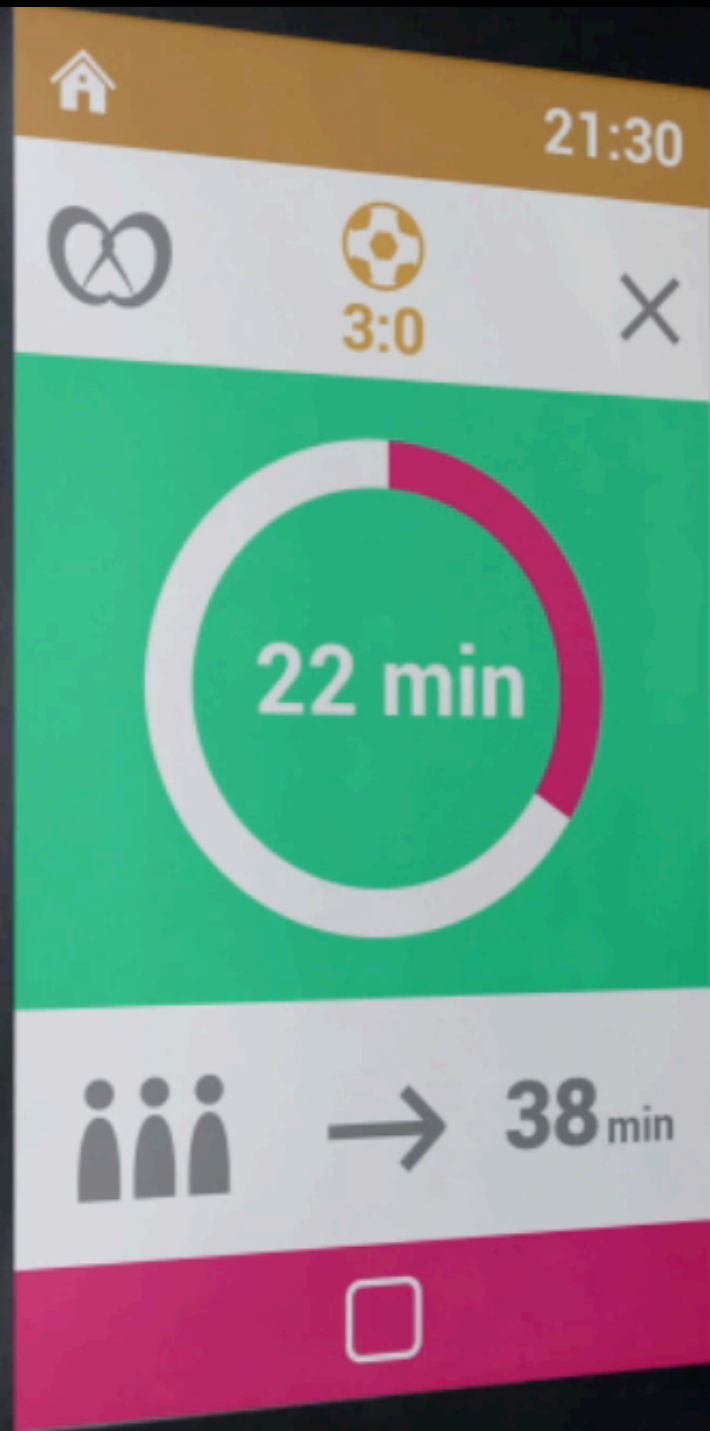
Representing complex relationships, new behaviours and attitudes are an integral part of user experience design.

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.

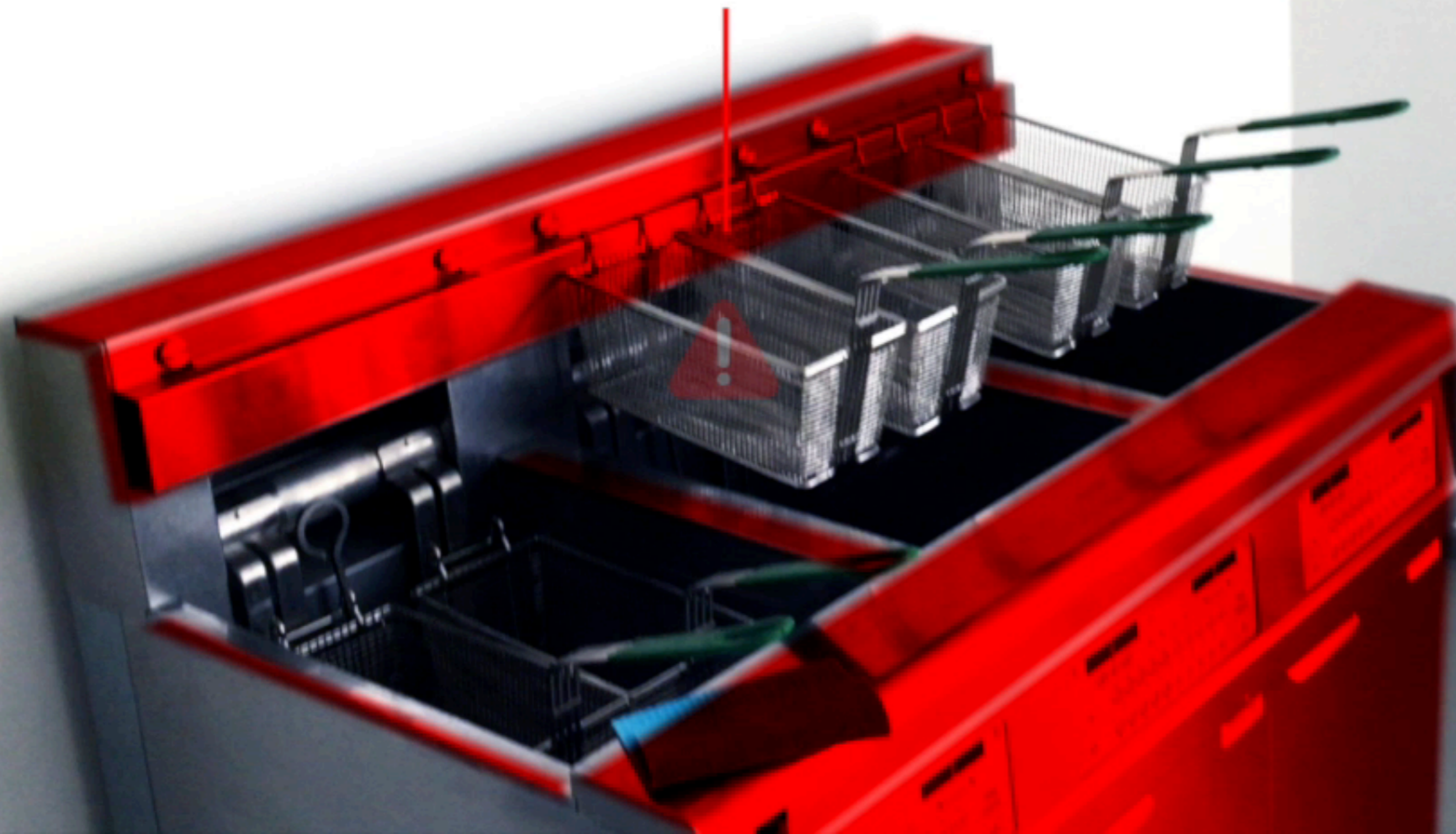
# Example: 2 Video-Prototypes for IoT Kitchen Services



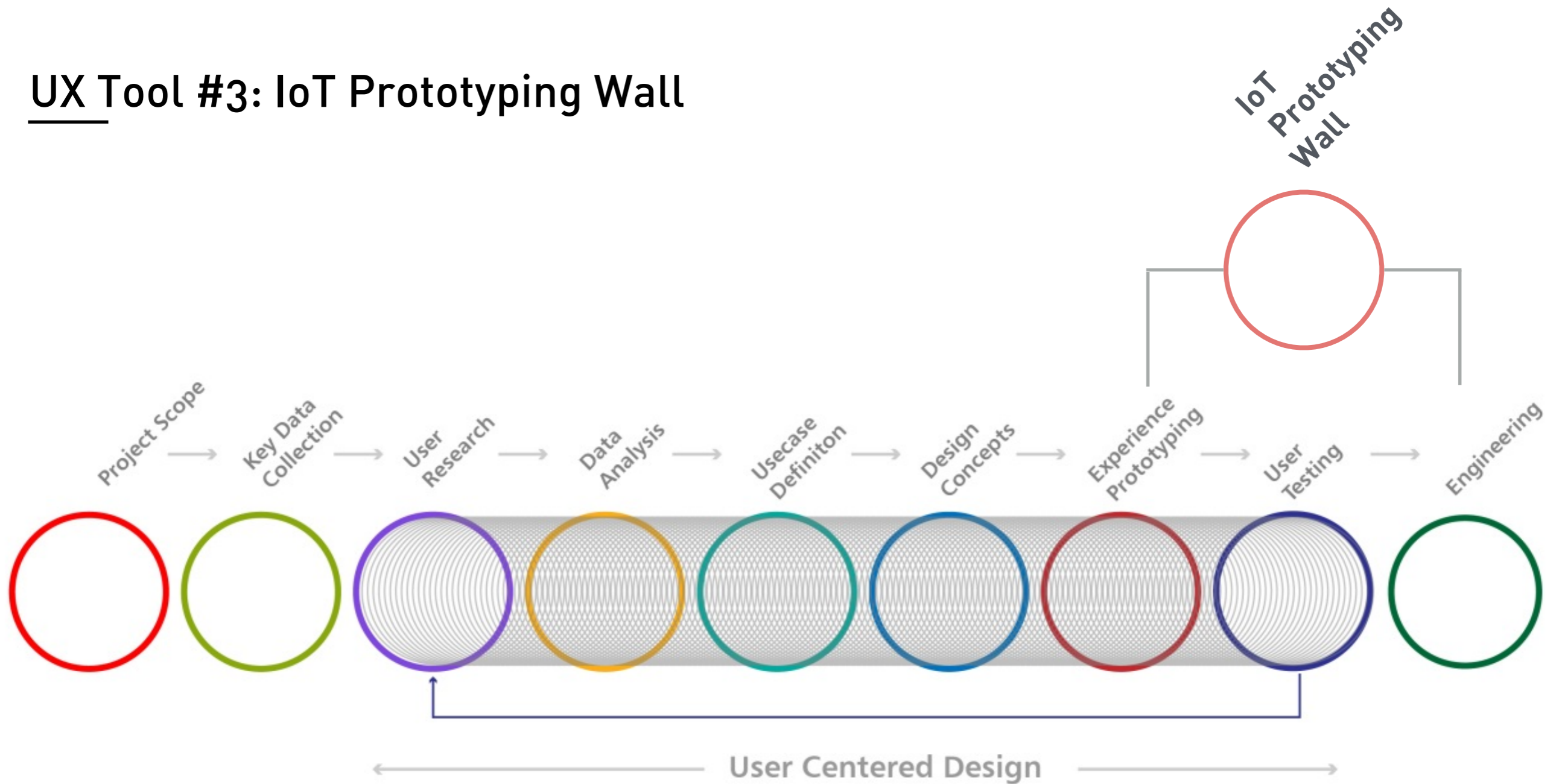


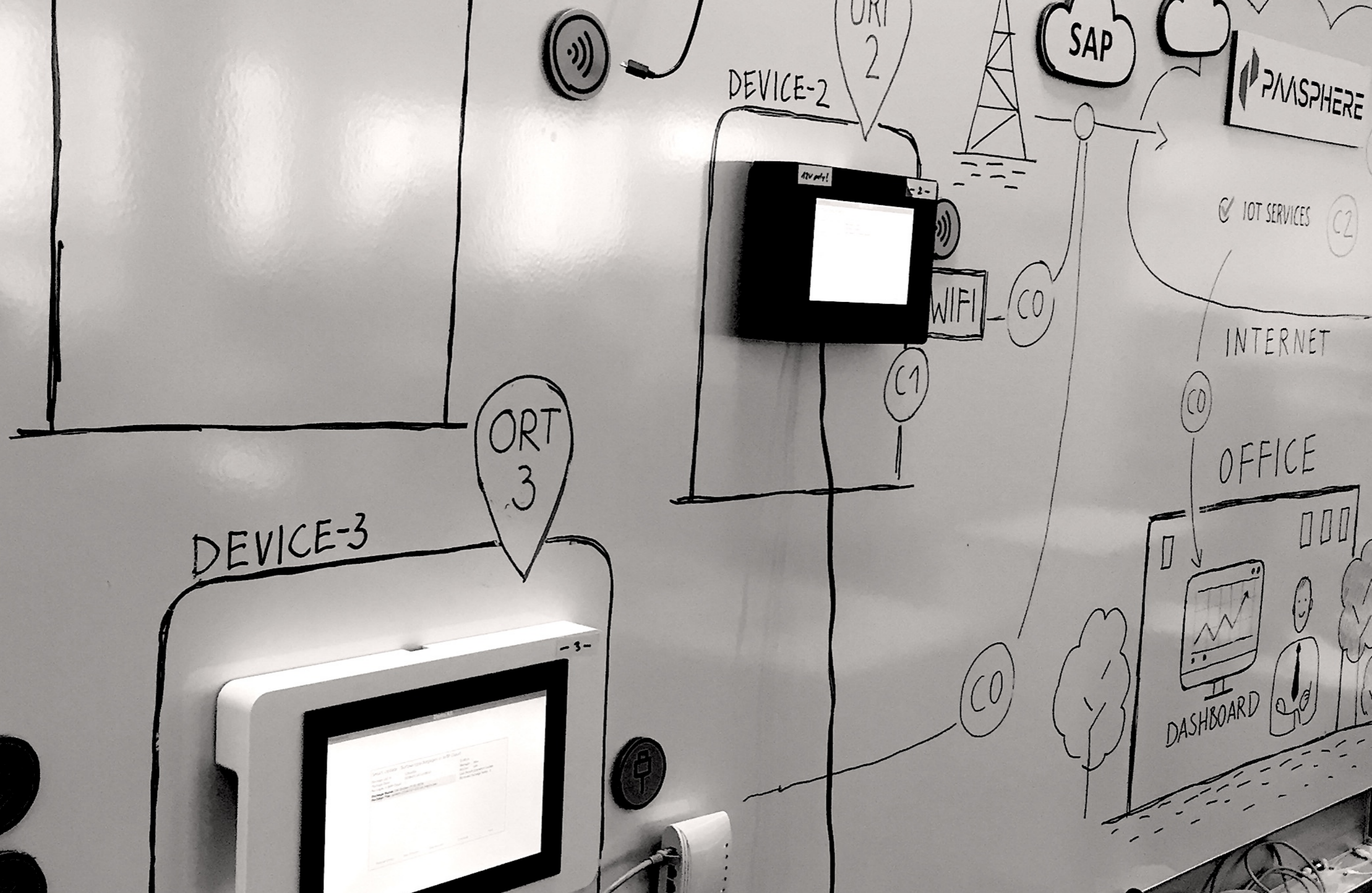
# WARNING CLEANING NEEDED!

Proceed to first cleaning step



# UX Tool #3: IoT Prototyping Wall





## Sketching in Technology: IoT Prototyping Wall



**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.*