ПрофсоUX

29 февраля 2020. Санкт-Петербург

What is the Role of Mobile in the New Physical Marketplace?

Brock Dubbels Ph.D.

3/2/20

Dubbels (2020)

Yoga

- Is it enough to ask questions?
- It is better to observe actual behavior and have participants think aloud
- Avoid demand characteristic bias

Ericsson & Simon (May 1980).

Dubbels (2020)

Methods – places that spark joy

- Review of existing research on automated marketplace

- Audit of examples of automated marketplace

- Context discovery and observation

- Subject matter expert interviews

- 100 conversations on goals for visits to automated marketplace through intercepts

- 25 online moderated (60 minute) interviews on places that spark joy

- 8 walking tours, contextual inquiry (3 hour) conversational interviews to find places that spark joy

- Diary 24 people over 28 days

Dubbels (2020)

How will customers respond to the removal of human support in the physical marketplace?

Dubbels (2020)
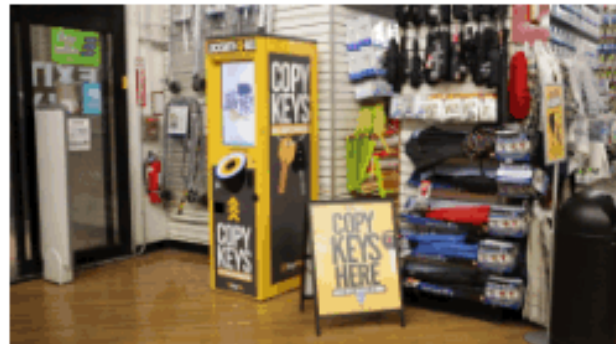
Advantages of autonomous market

Smaller footprint

- Less cost for square footage
  - A marketplace staffed with employees requires a break room and a washroom

- Allocate savings and invest into location with more foot traffic
- A smaller footprint offers better high traffic locations
- Many people want to avoid making contact
  - They want privacy
  - Unless they need help
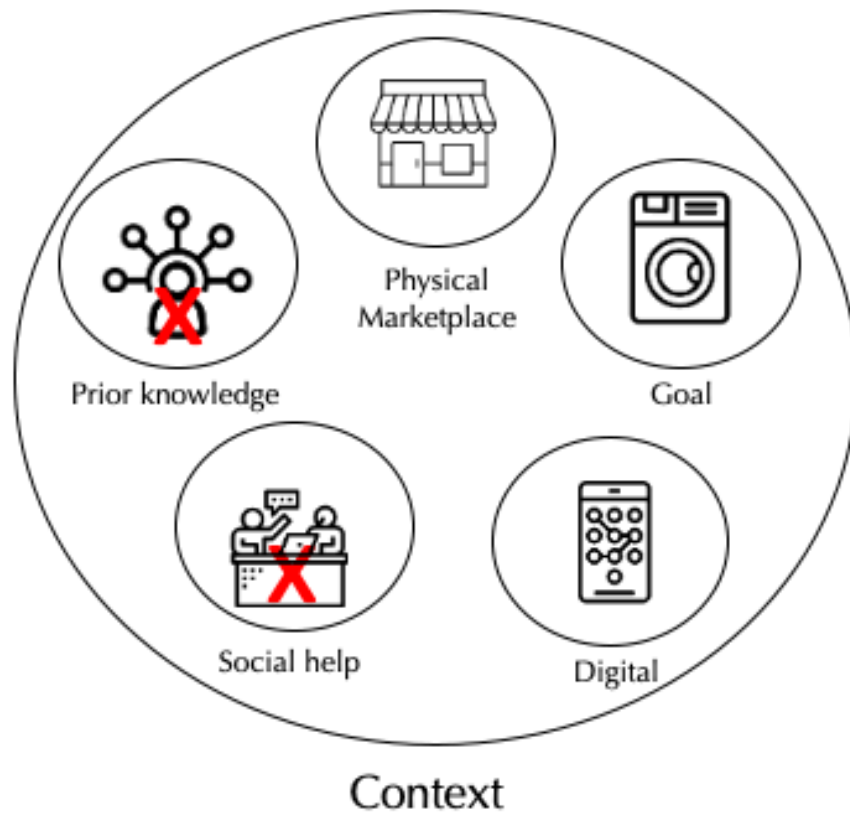
Context

Prior knowledge · Physical Marketplace · Goal · Social help · Digital

Evolutionary advantage

1. Individual Agency
   a. Affordances & Constraints
      i. Why do things look and act like they do?
   b. Prior Knowledge – familiarity
      a. recency, frequency, and congruence
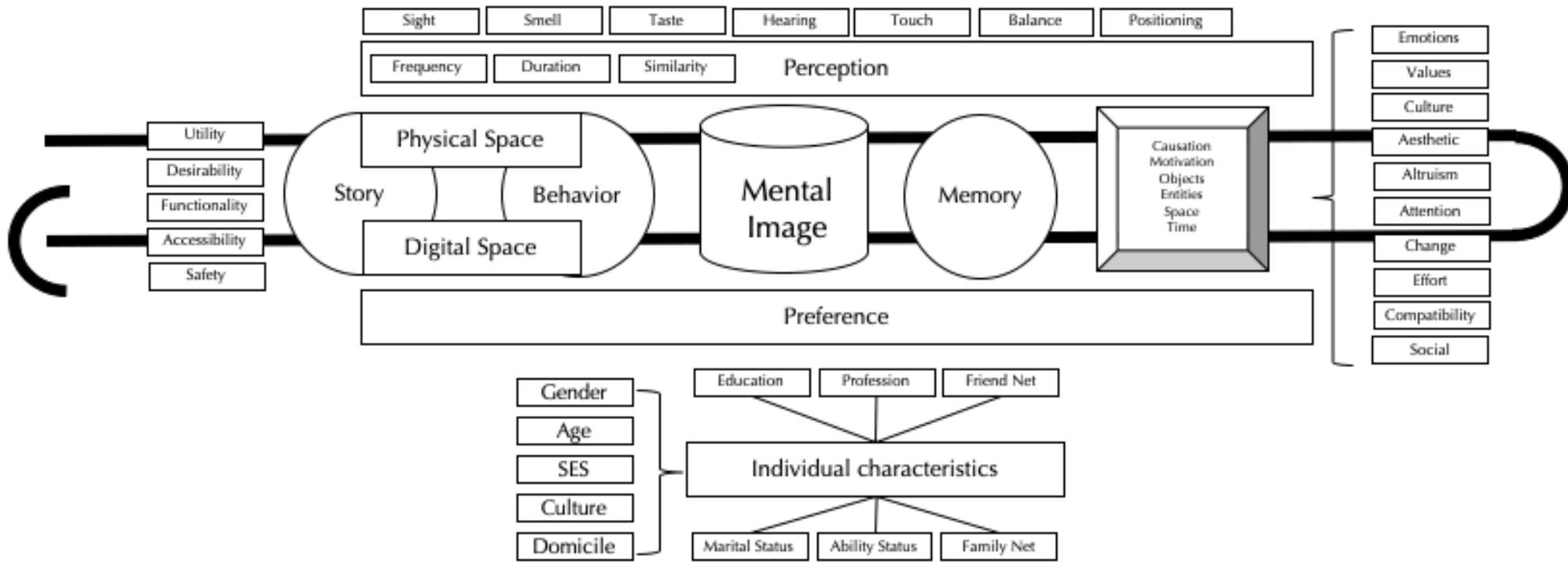   c. Privacy in competence
2. Paired Agency
3. Group Agency

Tomasello, 2019

Context

Prior knowledge · Physical Marketplace · Goal · Social help · Digital

Evolutionary advantage

1. Individual Agency
   a. Affordances & Constraints
      i. Why do things look and act like they do?
   b. Prior Knowledge – familiarity
      a. recency, frequency, and congruence
   c. Privacy in competence
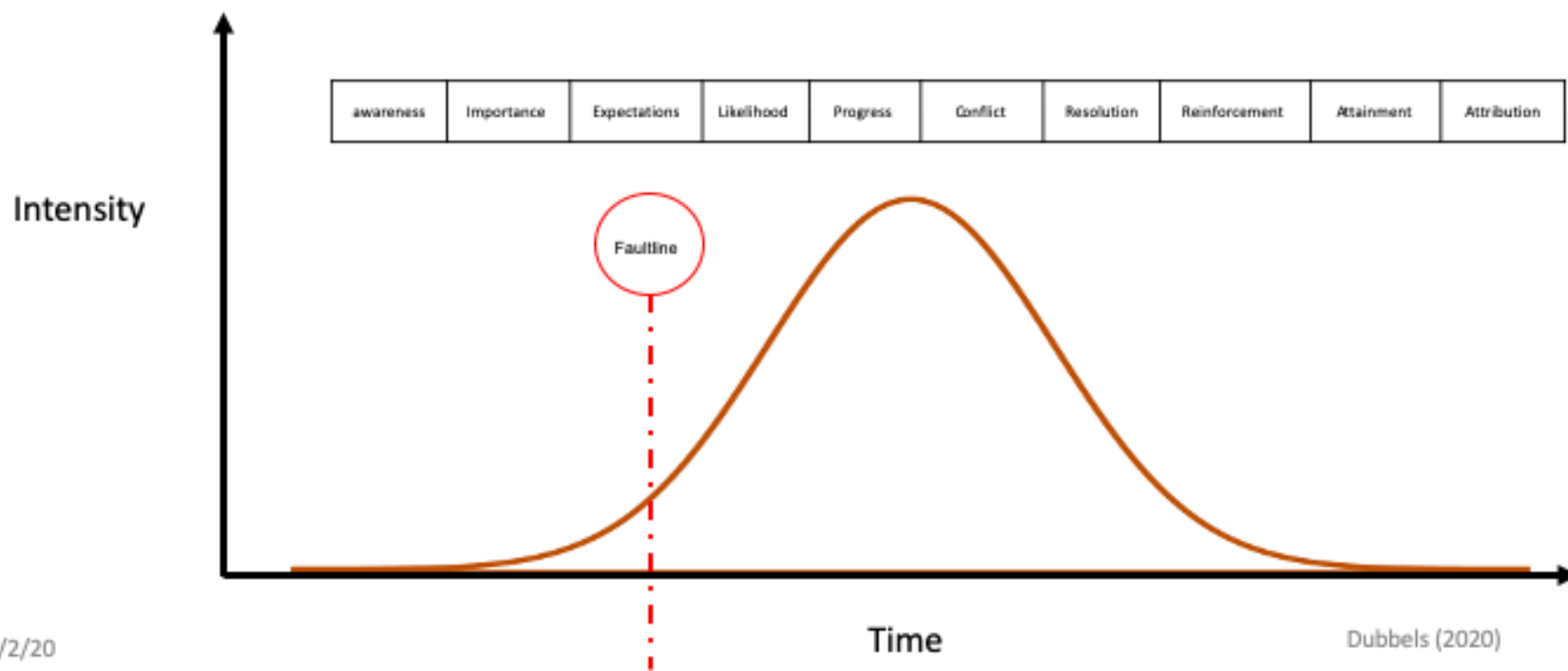2. Paired Agency
3. Group Agency

Tomasello, 2019

Sight | Smell | Taste | Hearing | Touch | Balance | Positioning

Frequency | Duration | Similarity | Perception

Physical Space

Story | Behavior

Digital Space

Utility | Desirability | Functionality | Accessibility | Safety

Mental Image

Memory

Causation Motivation Objects Entities Space Time

Emotions | Values | Culture | Aesthetic | Altruism | Attention | Change | Effort | Compatibility | Social

Preference

Gender | Age | SES | Culture | Domicile

Education | Profession | Friend Net

Individual characteristics

Marital Status | Ability Status | Family Net

Dubbels, 2020

Which life events are most relevant to you?

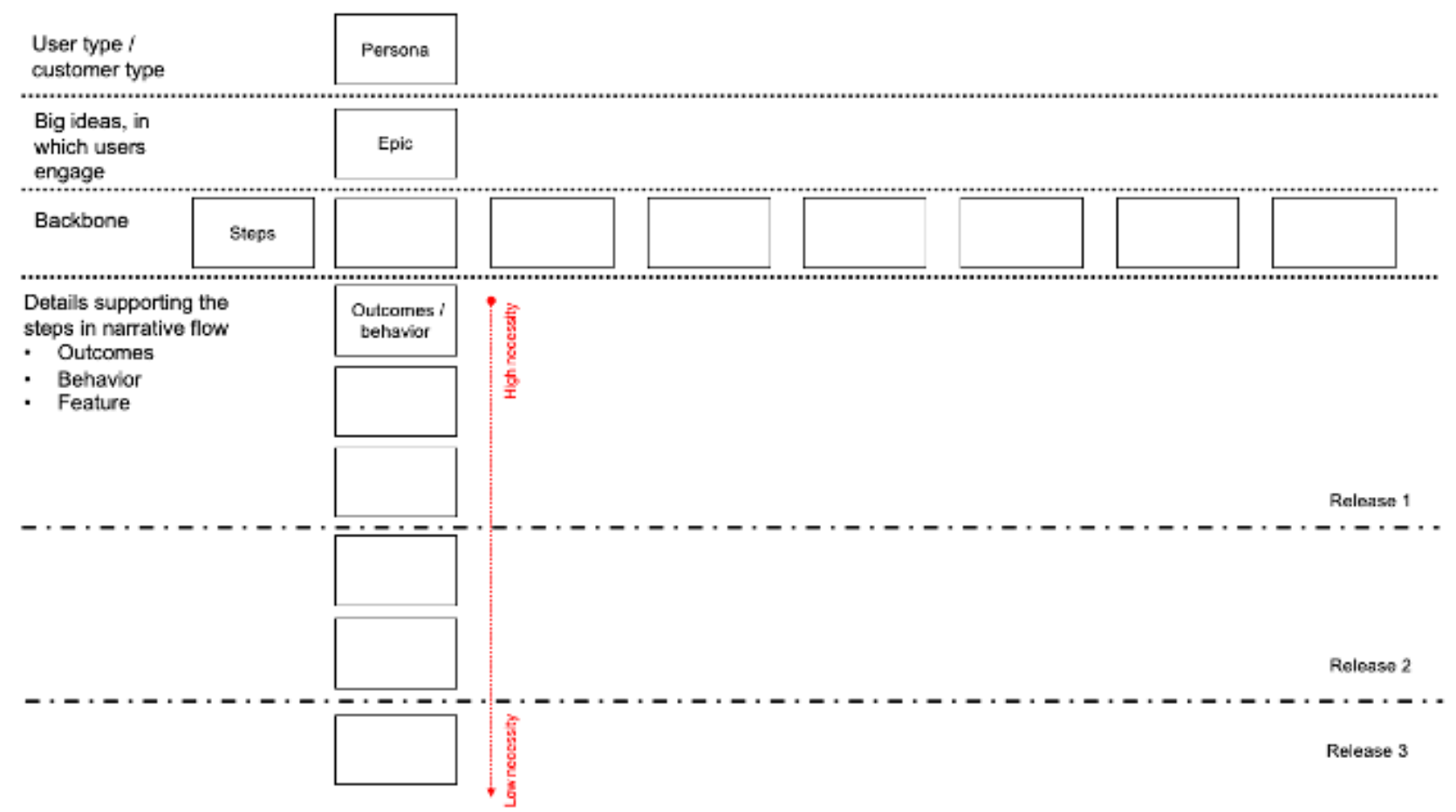| Finances	Family	Home	Work	Health	Giving	Leisure
Check all that apply, then click "OK".	Check all that apply, then click "OK".	Check all that apply, then click "OK".	Check all that apply, then click "OK".	Check all that apply, then click "OK".	Check all that apply, then click "OK".	Check all that apply, then click "OK".
☐ Saving for retirement	☐ Getting married/living together	☐ Buying a home	☐ First job	☐ Caring for a sick or elderly loved one	☐ Giving back for the greater good	☐ Planning a vacation
☐ Paying off student loans	☐ Having a baby	☐ Selling a home	☐ Changing jobs	☐ Managing a disability or chronic illness	☐ Making philanthropy count	☐ Sharing a family property
☐ Buying a car	☐ Investing for college	☐ Refinancing	☐ Losing a job		☐ Helping your heirs	☐ Volunteer getaways
☐ Saving for a large purchase	☐ Getting divorced	☐ Downsizing	☐ Starting a business			
☐ Receiving an inheritance or unexpected assets	☐ Kids or parents moving in		☐ Building a business			
☐ Passing on assets to heirs	☐ Losing a loved one		☐ Working in retirement			
	☐ Becoming a grandparent					
OK	OK	OK	OK	OK	OK	OK

Dubbels (2020)

Definition: Faultline method

Interview respondents are consistent in how they would change an experience to avoid an outcome

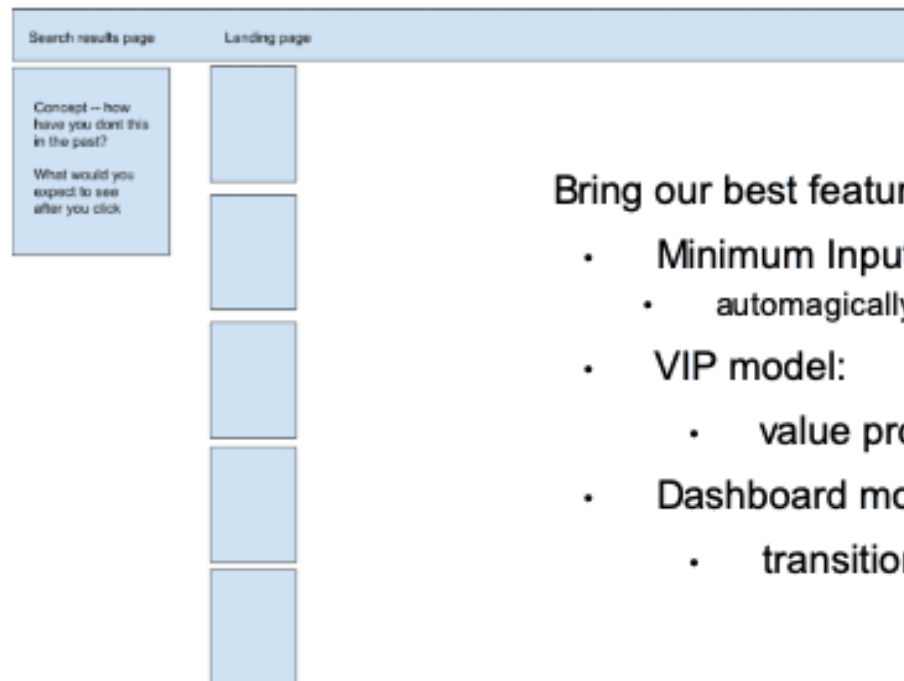| awareness	Importance	Expectations	Likelihood	Progress	Conflict	Resolution	Reinforcement	Attainment	Attribution

Intensity

Faultline

Time

3/2/20

Dubbels (2020)

Fault line interview methodology

- This method is about how people imagine alternatives to reality
  - Counterfactual thought can help people make discoveries and deal with novelty
    - (Sternberg and Gastel, 1989)
  - Creative work often depends upon evocation of counterfactual alternatives
  - When asked what they would change, respondents are consistent in behavior and circumstance to create alternatives to reality and imagine how events might have turned out "if only" something had been different.
  - Fault lines of reality, the aspects of reality that are more readily changed in imaginative thought.
 - Use cases

| User type / customer type | Persona | | | | | | | |

| Big ideas, in which users engage | Epic | | | | | | | |

| Backbone | Steps | | | | | | | | |

Details supporting the steps in narrative flow
- Outcomes
- Behavior
- Feature

Outcomes / behavior

High necessity

Low necessity

Release 1

Release 2

Release 3

Codesign through themes

Search results page	Landing page

Concept -- how have you dont this in the past?

What would you expect to see after you click

Bring our best features forward

- Minimum Input Model:
  - automagically reducing effort and increasing impact
- VIP model:
  - value propositions for subscription
- Dashboard model
  - transition from resume intent to jobs intent

U.S. Census Bureau's urban and rural areas, 2012

Urbanized areas
Urban clusters
Rural
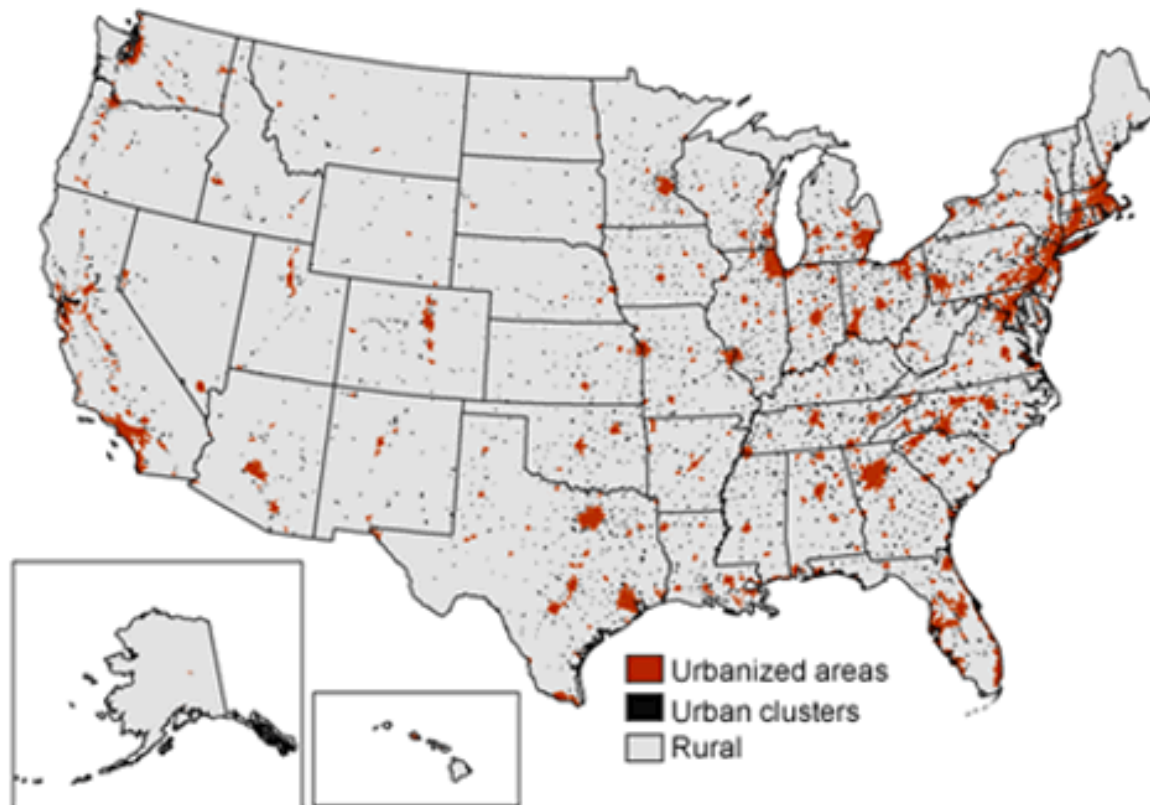
Source: USDA, Economic Research Service using data from the U.S. Census Bureau.

Where is the digital economy?>

18-24	**Now** $25, 000* Unskilled hourly No college. 3.1 to 4.9% wage growth Limited credit/financial opportunity Average 4.8-5.1 jobs/time.	**Builder** $35- 49,999* Skilled hourly Some college or 2 year degree or training. 6.2% wage growth Moderate credit /financial opportunity. Average 5.6 jobs/time.	**Careerist** $50 – 74,999* Skilled Professional Bachelor's degree and higher. 9.6% wage growth High credit /financial opportunity. Average 6.2 jobs/time.
25-34	**Challenger** $35 – 49,999* Unskilled hourly No college. 1.4 to 2.2% wage growth. Limited credit/financial opportunity. Average 4.4-4.5 jobs/time.	**Maintainer** $50 – 74,999* Skilled hourly / Supervisor Some college or 2 year degree or training. 3.4% wage growth Moderate credit /financial opportunity. Average 4.6 jobs/time.	**Explorer** $75 – 199,999* Skilled Professional / Management Bachelor's degree and higher. 5.2% wage growth High credit /financial opportunity. Average 4.4 jobs/time.
35-44 **45+**	**Dispossessed** $25-49,999 Unskilled hourly No college. 1.3 to -0.2% wage growth Limited credit/financial opportunity. Average jobs/time = 3.0 (35-44) to 1.3 (45+)	**Settler** $50 – 100,000 Skilled hourly / Supervisor Some college or 2 year degree or training. (35-44) 1.6 to (45+) -0.1% wage growth Moderate credit /financial opportunity. Average jobs/time = -0.1% (35-44) & 1.8 (45+)	Victor $150-200,000 Professional / Manager Bachelor's degree and higher. (35-44) 2.3 to (45+) 0.4% wage growth High credit /financial opportunity. Average jobs/time = 2.8 (35-44) to1.8 (45+).

*Income estimate is based upon combined household
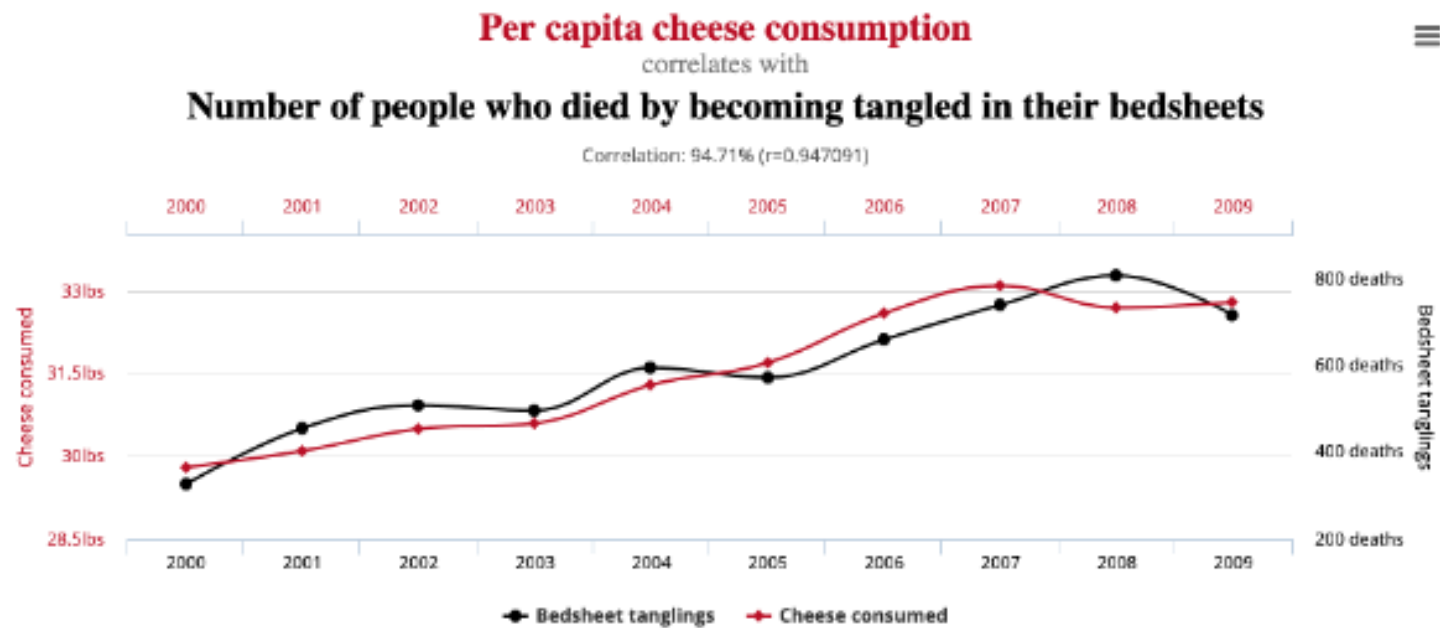
Counter-balance for control

User story: I am a ….. and I want to ……… because I …….

Sampling
User segment
Similar Non-User Segment

Feature(s)
A. Feature Now
B. Feature New

Counter
B. Feature New
A. Feature Now
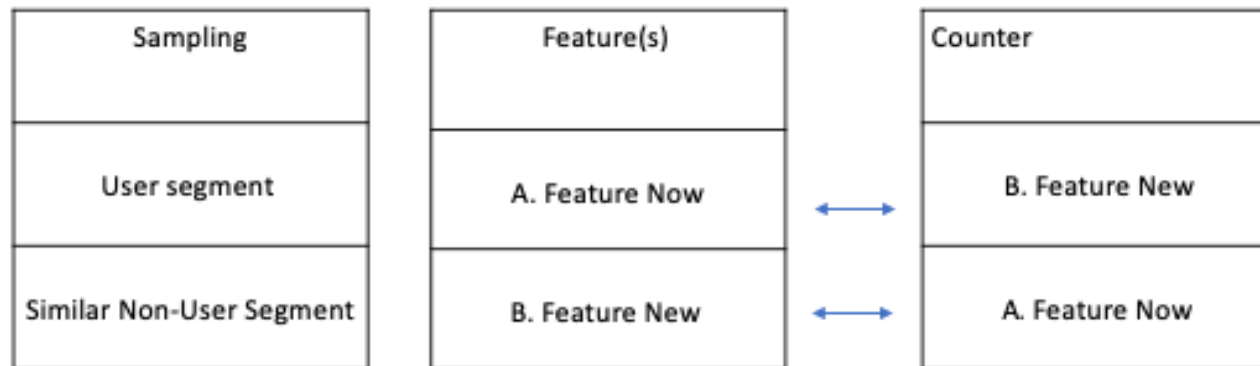
Double data points with fewer subjects

Dubbels, 2020

Design studies for causation

Per capita cheese consumption

correlates with

Number of people who died by becoming tangled in their bedsheets

Correlation: 94.71% (r=0.947091)

Data sources: U.S. Department of Agriculture and Centers for Disease Control & Prevention

3/2/20

Use case

Dubbels (2020)

It is 8 pm, and I just realized

_____

- I desperately need to wash my clothing for a job interview tomorrow
- I don't have any quarters and my roommates are gone
- The laundry room doesn't have a change machine
- The only store near me is closed
- Can you help me?

3/2/20

Dubbels (2020)

digital

physical

3/2/20

Dubbels (2020)

# What is the role of mobile in the physical marketplace?

Insight

Engagement vs Retention

Virtuous Cycle	Vicious Cycle
Trusted presence	Unfamiliar
Automated connected tools	Manual disconnected tools
Expert Guidance	Learn on the fly
Goals & Quotas	Haphazard
Visualized plan	Hit or Miss
Flows with routines	Disrupts routines
Optimize postings	Burn postings
Save time	Waste time
Feedback	Blackhole

Too much bounce and fall out

Mobile is your business
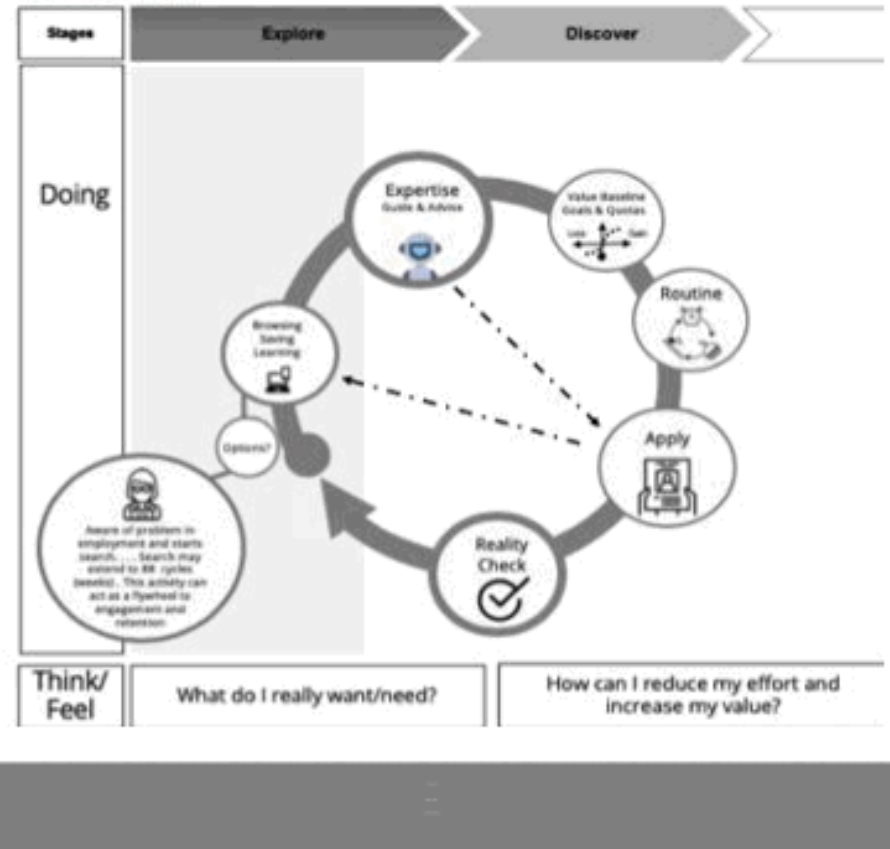
Dubbels (2020)

Insight

- Contextual computing and the role of place (space, time, intention)
- Learn the routines and mental models (goals & expectations)
- Design for customization and then design for automation
  - If you cannot solve the problem, how do you reduce complexity?
  - How would a human help facilitate that?

Dubbels (2020)
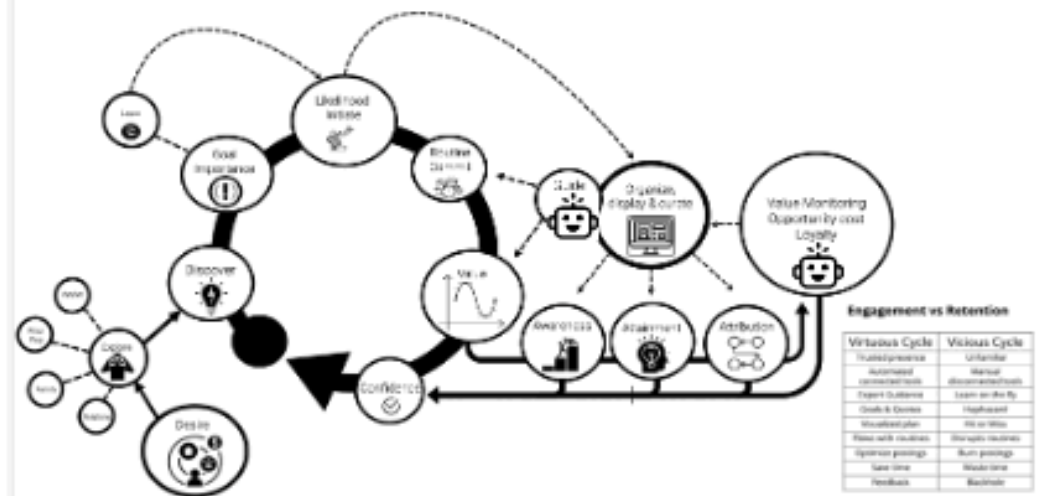
Team spaceship

Design process for snowmobile dashboard

* Team brainstormed essential controls and information to inform the dashboard
* Steering wheel came first
* Current states
* Dashboard instruments inform steering
* Process automated except for steering wheel
* Primary instruments provide steering feedback
* Secondary provide user feedback
* A hand-held dashboard did not provide a complete replication of the vehicle dashboard
* Only vehicle to have missiles :)

Team passenger jet

Design process for passenger jet dashboard

* Team used search to understand dashboard as a console with information about operating the ship and communication to others, which included current states:
  * Created list of requirements
  * Created form factor as a console
  * Created steering and controls
  * Directions and altitude
  * Surroundings / conditions
  * Alarms and alerts

Team cargo ship

Design process for cargo ship dashboard

* Team used search to understand dashboard as a console with information about operating the ship and communication to others, which included current and future states:
  * Directions and steerage
  * Surroundings / conditions
  * Alarms and alerts
  * Main touchscreen for search and non-immediate functions

Team snowmobile

Design process for snowmobile dashboard

* Modeled form factor
* Provides info on current and future states
* Steering controls
* Primary instruments inform steering
* Secondary provide user feedback
* A hand held dashboard did not provide a complete replication of the vehicle dashboard

3/2/20

Dubbels (2020)

Insight

- People want to reduce their effort and increase their impact. Provide expert interactions with privacy, not speed and bargain pricing as a value statement

- Augment with contextual computing so that users can experience the world, not a little hand-held screen.

Assistant
Guide & Advise

Augmented skills increase effectiveness:

Camelyon Grand Challenge
Identify cancer from biopsy

- Machine: 92.5%
- Human: 96.6%
- Combined: 99.5%
- Errors fell 85%

Dubbels (2020)

Insight

Reinforcement through feedback

I noticed you have been looking for a job for 14 weeks. I am really inspired by your effort and commitment. How do you stay motivated?

I often think back to the darkest days of my life about 15 years ago. My wife at the time took 3 out of 4 of sons and literally everything I owned and moved 4 hours away. I was trying to keep the restaurant open and get my sons back. I was destitute and had to take my one son to the YMCA every day to shower because we had no hot water. Long story short, I made it through all of that. So now I just think this is nothing compared to that.

Value Baseline Goals & Quotas

Low   High
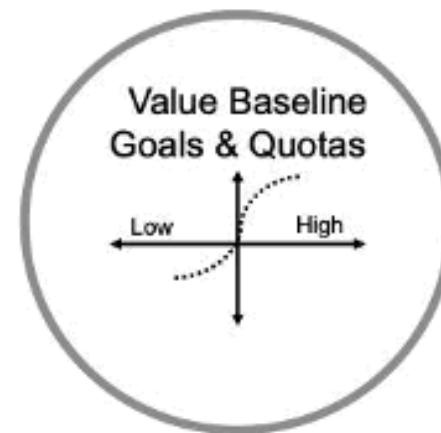
Reinforcement models and predictions provide value behavior and goal setting based upon
- Place
- Goals and past routine
- Desirable choices

Dubbels (2020)

Insight

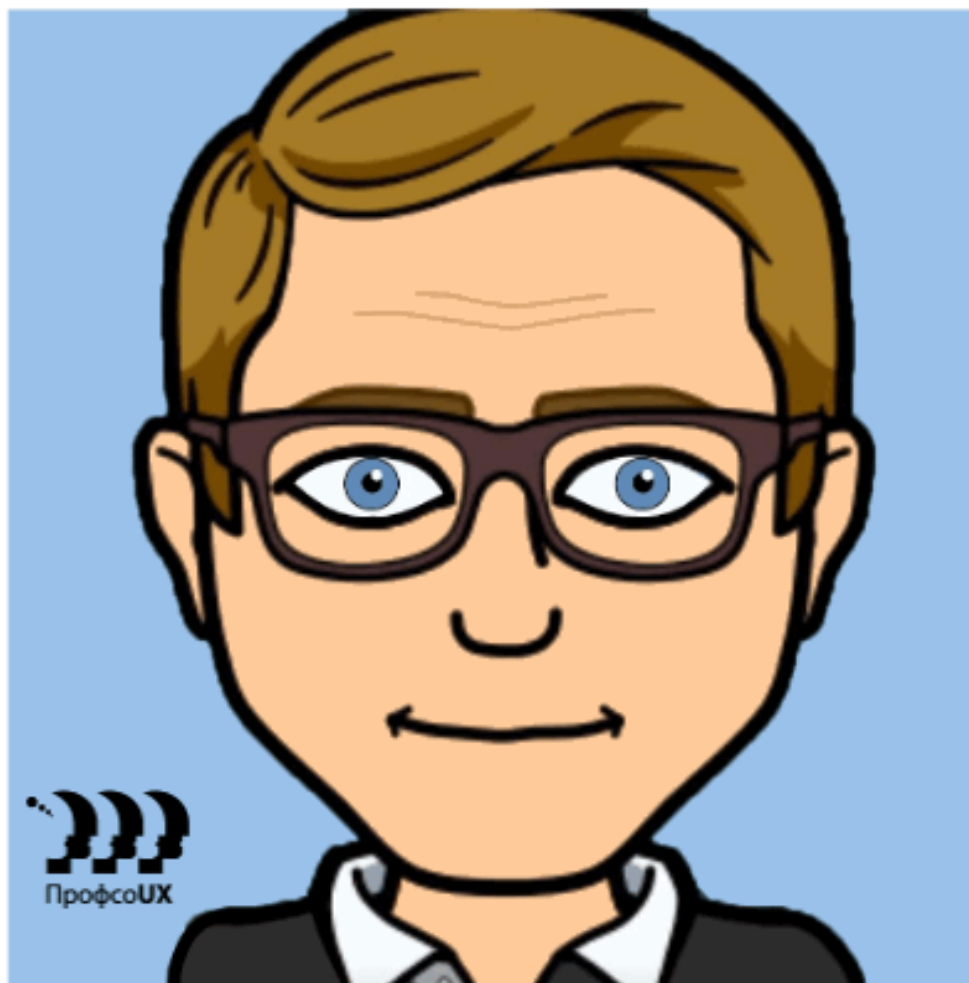What is the role of mobile in the physical marketplace?

Insight

What is the role of mobile in the physical marketplace?

To enhance life, not distract from it

Brock Dubbels Ph.D.

спасибо
большое

Let's connect!

Join me for

"the science of surveys"