Contextual Research

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Why do it?

“The gorilla study illustrates two important facts about our minds: we can be blind to the obvious, and we are also blind to our blindness.”

- Thinking Fast & Slow

SYSTEM 1
(FAST THINKING)

Perceiving Distance
Hearing Sound
Understanding Sentences

SYSTEM 2
(SLOW THINKING)

Measuring Distances
Distinguishing Sounds
Learning New Language

The psychology of judgement and decision-making

- Two largely separate judgement and decisions-making systems*
  - System 1 is fast, instinctive, and emotional
  - System 2 is slow, deliberate, intentional, and logical
- People tend to default to System 1 when:
  - They have limited time to make a decision
  - The amount of information available is overwhelming
  - They are attending to a second higher priority task
  - They have made similar decisions before
- System 2 decisions tend to become System 1 decisions over time
  - Intentional behaviors become habits, and the decisions become automatic

*See Kahneman's Thinking, Fast and Slow

“It is a profoundly erroneous truism … that we should cultivate the habit of thinking of what we are doing. The precise opposite is the case. Civilization advances by extending the number of operations which we can perform without thinking about them.”

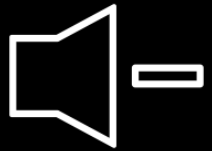
-Alfred Whitehead, 1911

attention span

ergonomics

lighting

distraction



sound

Case study - our driver app

“In-Car testing brought to the forefront considerations such as ergonomics, lighting, distraction, sound, and timing that may not have immediately come to mind when we were in front of our shiny big Mac monitors.”

- Evi K. Hui

System 1 vs.

System 2 decisions

System 1 approach
- Accept automatically

System 2 approach
- Read the text
- Consider its implications
- Then decide

Imagine if the decider
- Is driving
- Only has 15 seconds to decide
- Only makes money by accepting

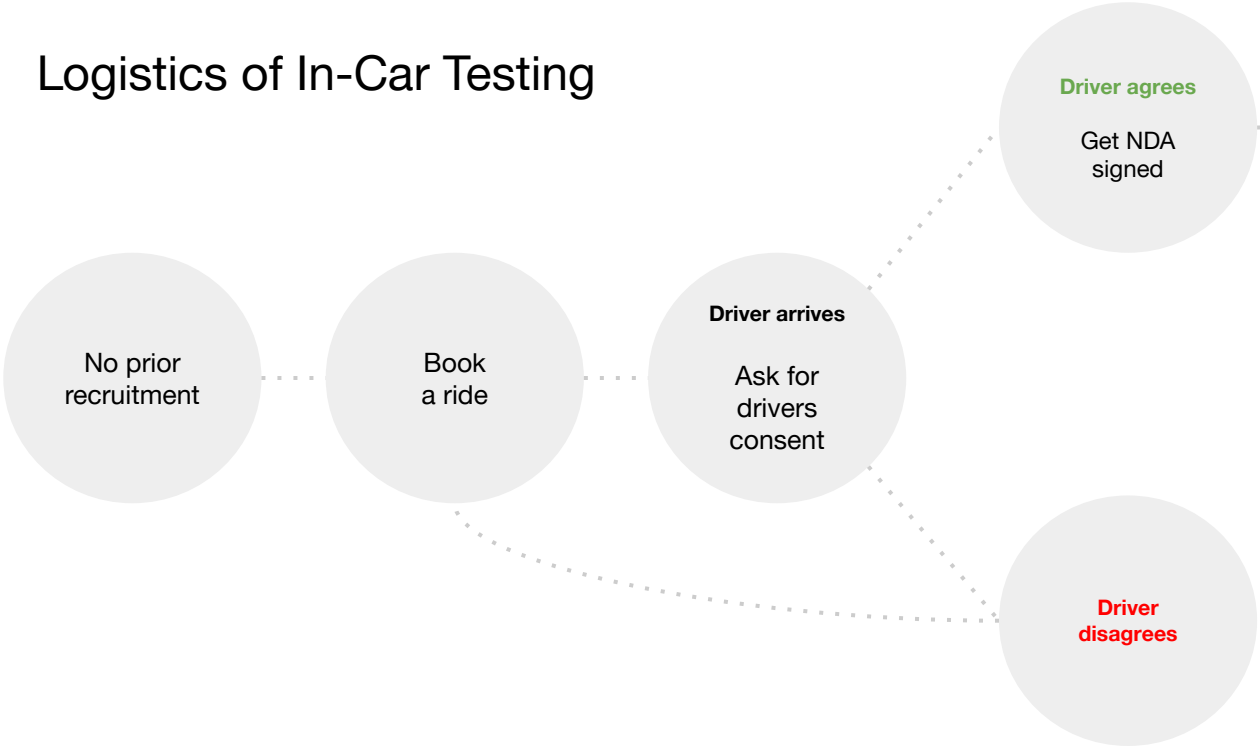
Read more here

Research setup

Research setup includes the following:

1. Devices on which your prototype is running
2. A handheld camera for recording the actions of drivers (to be held by observer)
3. A camera handy with the researcher for clicking quick moments.
4. A GoPro on the hood to record driver reactions (good to have)

Logistics of In-Car Testing



1. Before starting the ride

Introduction to the driver partner
This section is to get to know our driver partner better, get details about them like demographics, their Uber profile etc.

2. On ride study

Test prototype during the ride by asking the drivers to use it as they would use their app on the ride.

3. Post ride Q/As

Go through the problems you noticed during the on-ride test and ask specific questions before you conclude and ask them to share their thoughts.

Implications

“In-Car testing brought to the forefront considerations such as ergonomics, lighting, distraction, sound, and timing that may not have immediately come to mind when we were in front of our shiny big Mac monitors.”

- Evi K. Hui

Overall implications

- Our rational, well-thought out designs are unlikely to be used as we intend.
- Most information will be ignored most of the time.
- What drivers tell us they want in our designs (System 2) may not reflect how they actually use our designs (System 1).
- Traditional design reviews in which designs are projected onto screens and team members provide commentary may send teams in the wrong direction.

Implications for research

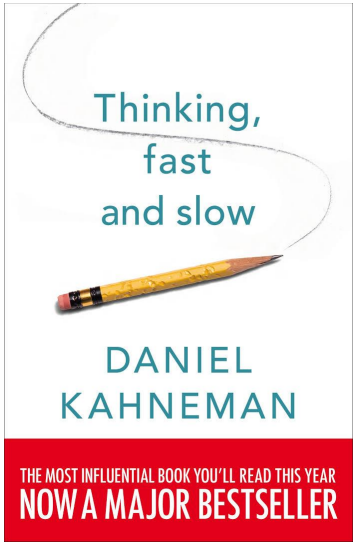
- Don’t use System 2 methods to research System 1 tasks
  - Interviews
  - Talk-aloud protocols
  - Surveys
  - Participatory design
- Use System 1 methods to research System 1 tasks
  - 5-second usability study
  - Time participants as they complete tasks
  - Use distractor tasks
  - Use occlusion goggles
  - [We need more options here]

Implications for research

How do you know which System is being used?

- Look at logs data
- Does your task have a time limit?
- Is your task performed frequently?
- Are two tasks are being performed simultaneously
  - Driving and accepting a trip
  - If there are and the task that you are study is less important, assume that it’s a System 1 task
- When in doubt, assume that it’s a System 1 task

Reading

1. Designing from the Car: Why Context Matters
2. Everything you need to know about contextual research
3. 

Q/As & Thanks

“Researching in context is useful no matter what product you’re creating or who you’re designing for.

Whether it’s a fitness app or a medical device, putting your prototypes through their places out in the world and stress testing use cases, is a great way to keep the end users’ needs in the foreground.”

- Naman