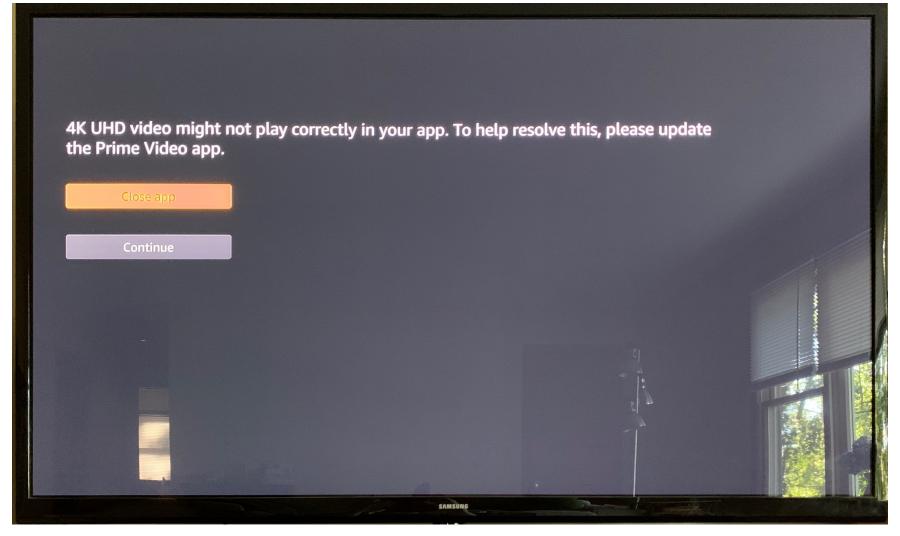
# The Psychopathology of Everyday Things

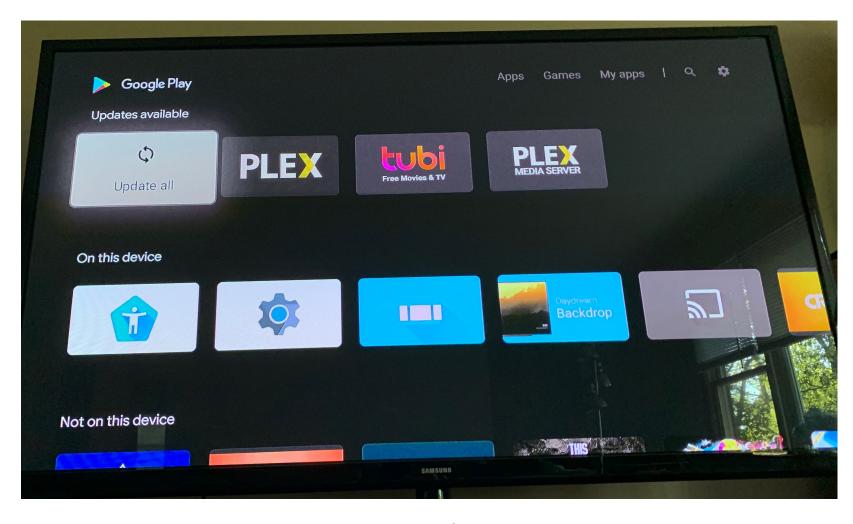
The Design of Everyday Things by Don Norman Chapter 1

Presenter: Drew Guarnera

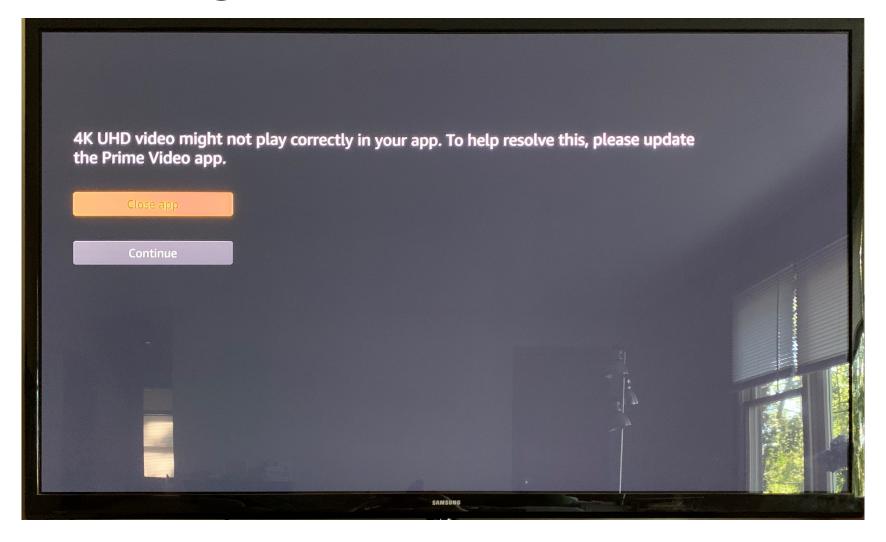
## Story Time!



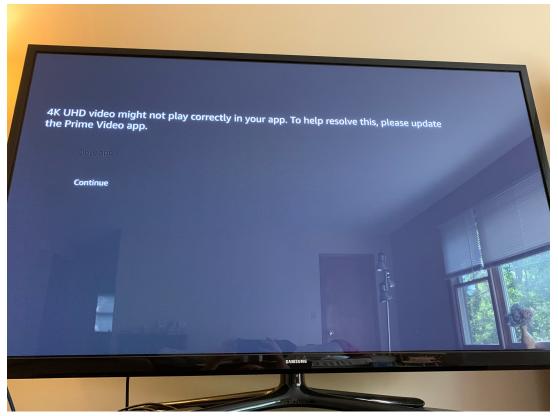
## Okay, I'll update...

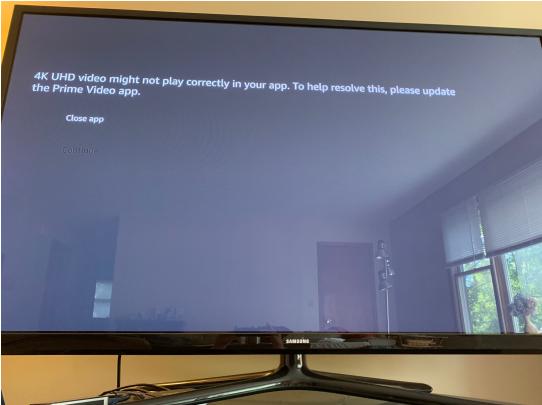


# What's Wrong?

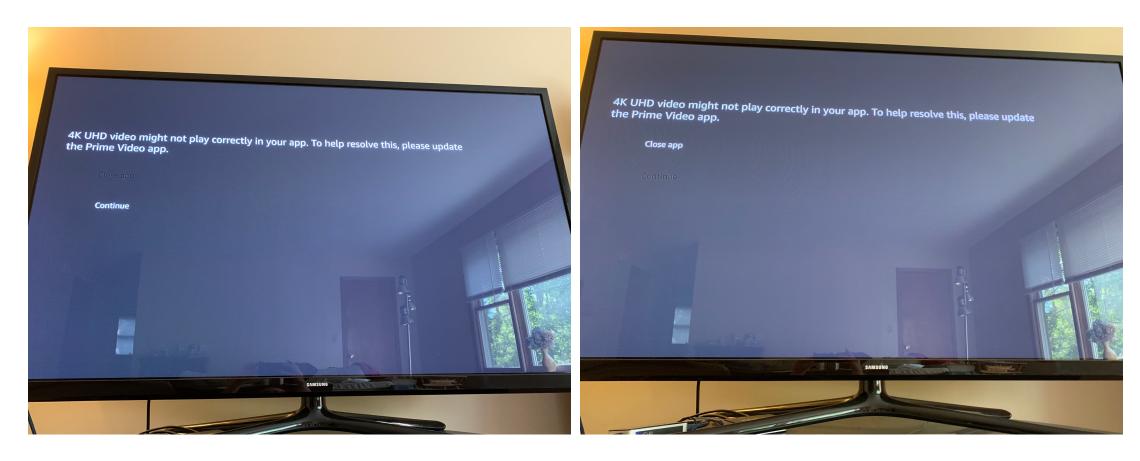


## Amazon's Revenge!





## Amazon's Revenge!



This is a company that has roughly \$74.43 billion dollars in revenue!

# Story Time Part 2



## But what happens when the signs move...



Design....

How hard can it be?













## Push?!



## Push?!





## Discoverability

• Can someone figure out what actions are possible and where/how to perform them?







## Understanding

- Comprehending the design/product
- How is the product used?
- What do all the parts/settings do?







## Design is concerned with...

How things work?

How things are controlled?

• The nature of the interaction?

## Areas of Design

- How things work?
  - Industrial Design

- How things are controlled?
  - Interaction Design
- The nature of the interaction?
  - Experience Design

## Design Issues

Technological limitations

Limitations to save time/money

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Technological limitations

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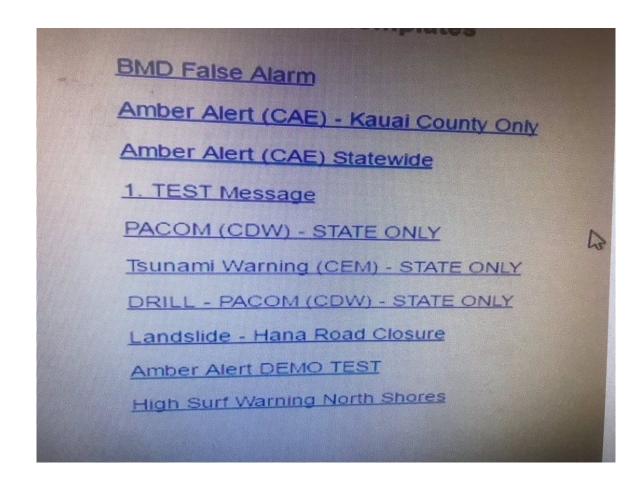
A problem of perspective

## Logic vs Empathy

- Lacking an understanding of human behavior
- Forgetting that the designers often aren't the target audience
- Getting "too close" to the product
- Limited built in "forgiveness" for errors
- "Read the Manual!"

## The Results?





## The Results?





## The Takeaway

Do not design for how you want people to be!

## Human-Centered Design

A design philosophy focused on understanding the needs, capabilities, and behaviors of human beings and adapting the design to accommodate.

#### Requires:

- Understanding psychology and technology
- Good communication
  - Particularly from machine to person
  - Critical for when things go wrong

## Fundamentals of Discoverability

- Affordances
- Signifiers
- Constraints
- Mappings
- Feedback
- Conceptual Models

### Affordances

- The relationship between an object and a person and what that person can do with the object
- What interactions with the object are possible?







## How We Identify Affordances

Derived from the world around us

- "Information Pickup" from the senses
  - Sight, sound, smell, touch, balance, etc.

- Affordances can exist even when they are not visible.
  - So how can we find them?

## Signifiers

- Signal to communicate where an action can take place
- Can be a mark, sound, or any other perceivable indicator that communicates the appropriate behavior
- Can be deliberate or incidental





## Perceived Affordances as Signifiers

Act like signifiers but can be ambiguous and misleading





## Signifiers vs. Affordances

#### Signifiers

- Always Perceptible
- Show what actions are possible
- Show how actions can be done
- Can be planned or incidental
- Tend to be more important than affordances

#### Affordances

- Visible or Imperceptible
- Indicate potential interactions
- Can be perceived as a signifier, but can be ambiguous

## Mapping

- Create a relationship between two sets of things
- Important for layout and mapping controls
- Groupings can also indicate relations







## Feedback

- Communication of the results of an action
- Must be immediate
- Be wary of feedback with little context
- Use light and sound sparingly and when appropriate





## Conceptual Models

- Also called "mental models"
- A simplified method of how something works
- Need not be complete or even accurate, but must be useful
- Can differ from person to person and on context
- Constructed from signifiers, affordances, constraints, mappings, and experience
- The aggregation of all accessible information along with the conceptual model is termed the "System Image"

## Design Challenges

- Balancing the advantages and disadvantages of technology.
- How to design for new interfaces?
- How to incorporate elements of discoverability?
- How bring together and address all the concerns of the various disciplines involved in development of a product?
- How to do all this while meeting people's needs....while still making a viable product?

#### WELCOME TO DESIGN ©

# Let's Play a Game!

## What is it?



## A Juicer





# Which do you prefer?

