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# Finals Prep

## Research

### Problem Space Mapping Tools

- Spider Diagram
- Fishbone Diagram
- Tree Diagram
- Venn Diagram
- 2x2 Matrix
- The 5 Whys

### PESTLE

- Political - Politics
- Economic - Economic Environment
- Social - Societal norms and expectations
- Technology - Technological advancements and developments
- Legal - Copyright, Trademarks and Licensing
- Environment - Environmental Considerations, Global Warming

### SWOT

- Strengths
- Weaknesses
- Opportunities
- Threats

### Ethnographic Research Sampling Methods

- Stratify - Categorize Pops into subgroups and pick a specified amount
- Random - Arrange in a specified order and pick randomly
- Snowball - Ask initial participants to get other participants
- Systematic - Picking at a constant interval

### Research Methods

- Interviews
- Observational Shadowing
- Immersion

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- Keeping Diaries
  - Experiments

### **Innovation** Generations of Design

- Technology Push (1G) - Innovations are pushed to market at the pace of technological advancement and not affected by market demand
- Market/Demand Pull (2G) - Innovations are pushed, while taking into account market demand
- Coupling (3G) - Innovations are pushed taking into account the interactions between science, technology and the market
- Integrated (4G) - Innovations are pushed taking into account the functional overlaps between departments within a firm
- Network (5G) - The networking and continuous nature of change between firms is taken into account during innovation
- Open (6G) - Technological advancements are isolated and refined taking into account external and internal factors.

### **Logic** Deductive Logic

Deductive reasoning is a logical process in which a conclusion is based on the concordance of multiple premises.

### Inductive Logic

Inductive reasoning is a logical process in which multiple premises, all believed true or found true most of the time, are combined to obtain a specific conclusion.

**Abductive Logic** Going into context but keeping an open mind and an intentional focus on general insight from exceptions

## **Analyze**

### **POV** Insights

- Affinity Mapping - Insights/Quotes gained from the research stage are categorized to gain a better picture of the general needs of stakeholders
- Journey Map - To visualize a stakeholders thought/action process
- Persona - Identify common traits, demographics, business attributes and general lifestyle of a stakeholder.

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- Empathy Map - Unpacks the persona. Hear, Think & Feel, See, Say & Do, Gains and Pains

#### Constructing a POV

- Identify User
- Identify Needs
- Identify Insights

### **Ideate**

#### Techniques

- How Might We Questions.
- Brainstorming - Thinking really hard bruh
- Six Thinking Hats - Black - Risk, Red - Emotion, Yellow - Optimism, Blue - Control, Green- Creativity White - Facts
- Disney's Three Rooms - Dreamer, Realist, Critic
- Lateral Thinking - Outside the box thinking

### **Prototype**

#### Types

- High fidelity - Most of the features of the final solution
- Low fidelity - Some of the features of the final solution

#### VFB

- Persona Journey
- Functional Requirements
- Non Functional Requirements
- Front End Actions
- Back End Actions
- Support Actions

#### Dark Patterns

Manipulating the user into performing actions which may not be in the user's best interest or purposely obfuscating operations shown to the user.