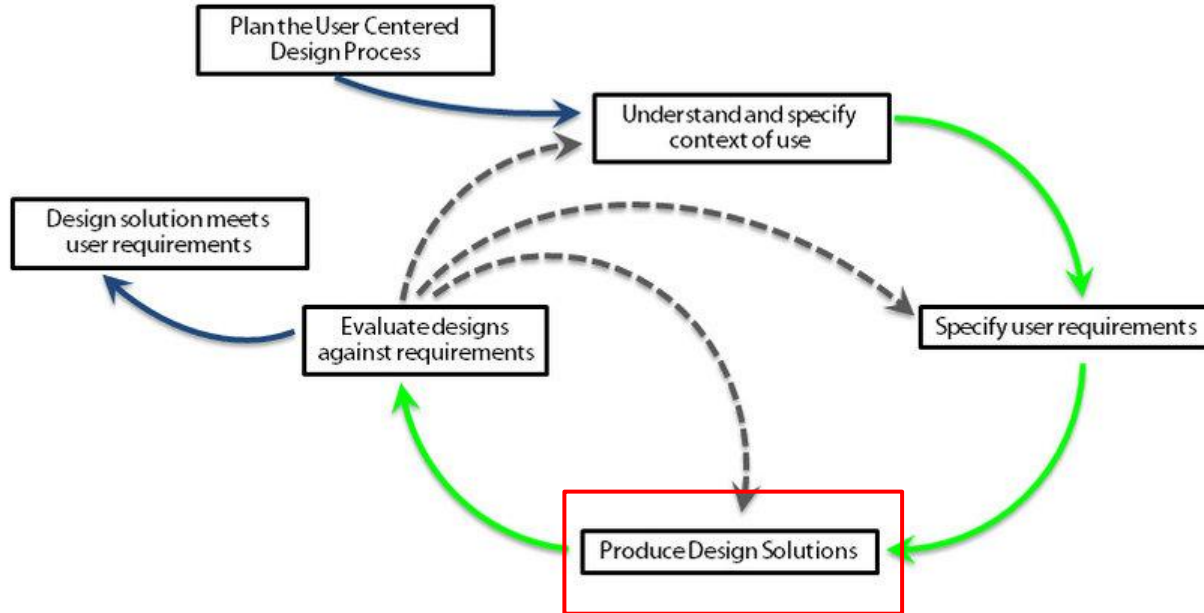# SENG 310
Lecture 8 - June 1st, 2023

RECAP

IDEATION

HUMAN-CENTERED DESIGN PROCESS

POINT OF VIEW STATEMENTS

Point Of View statements help you frame the design challenge and help you transition from research, analysis, and synthesis to prototyping.

Point of View Template – Example

User	Need	Insight
An adult person who lives in a city	To use a car for 10-60 minute trips 1-4 times per week	The user would not want to own his own car as it would be too expensive compared to his needs. He would like to share a car with others who have similar needs, however, there are no easy and affordable solutions for him. It's important for the user to think and live green and to not own more than he truly needs.

INTERACTION DESIGN FOUNDATION | INTERACTION-DESIGN.ORG

[User . . . (descriptive)] needs [Need . . . (verb)] because [Insight . . . (compelling)]

"HOW MIGHT WE?" QUESTIONS

- Help frame the research done so far and set context for brainstorming solutions

- Iteratively developed

Point of View Template – Example

User	Need	Insight
An adult person who lives in a city	To use a car for 10-60 minute trips 1-4 times per week	The user would not want to own his own car as it would be too expensive compared to his needs. He would like to share a car with others who have similar needs, however, there are no easy and affordable solutions for him. It's important for the user to think and live green and to not own more than he truly needs.

INTERACTION DESIGN FOUNDATION | INTERACTION-DESIGN.ORG

How might we design an interface that helps people to book a ride share so that they can travel within the city without needing to own a personal vehicle?

How might we design an interface that helps a group of car share riders to split the bill so that they can share the cost?

CHARACTERISTICS OF HMW QUESTIONS

Frame for opportunities – the question should be optimistic and highlight the opportunity that you have identified using preliminary primary research and secondary research.

HMW question should inspire several solutions – there is a delicate balance to maintain. It should not be so specific that there is only one solution. Yet it should not be so broad that you don't even know where to start. You want to draft a sentence where you have a starting point and can generate a variety of ideas related to a specific opportunity.

CHARACTERISTICS OF HMW QUESTIONS

Don't embed solutions – the question shouldn't already provide the solution. That would be counter to the fact that we are asking "How might we…?"

Make it human-centered – Typically the question should be framed from a person and/or community perspective, unless you are working on a post-anthropocentric project

Multiple HMWs – it is possible to have multiple HMWs. In which case, it is typically organized as a hierarchy i.e. overarching question/goal and sub-questions/goal within that

EXAMPLES

How might we implement a self-tracked roll-call system so the school can track attendance for students?

- A bit narrow

- Solution is explained and therefore not a lot of room for exploring alternatives

EXAMPLES

How might schools help undergraduate teaching faculty learn about pedagogies so as to help them improve their teaching strategies?

- Helpful framing

- We know the end users – teachers

- Purpose – help teachers improve their teaching strategies

- There is context - undergraduate faculty, pedagogies.

- There is room to brainstorm several solutions – community groups, seminars, web resources, mini workshop sessions etc.

IDEATION

Getting the right design (reflection and selection)
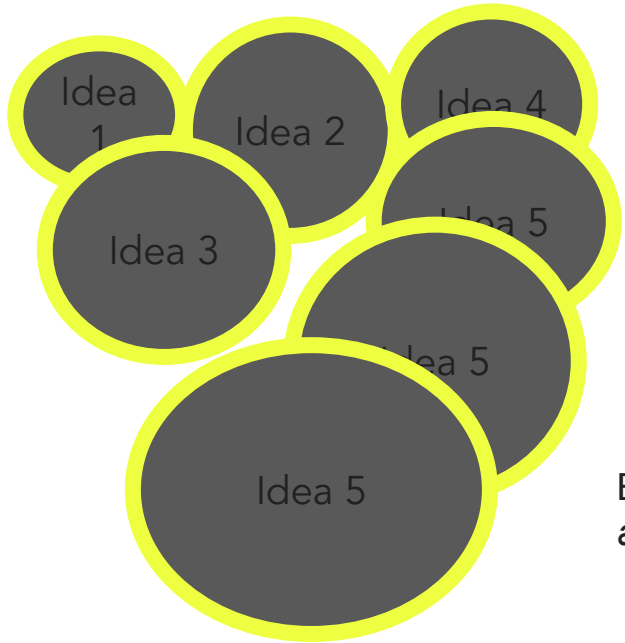
Getting the design right (iteration and development)
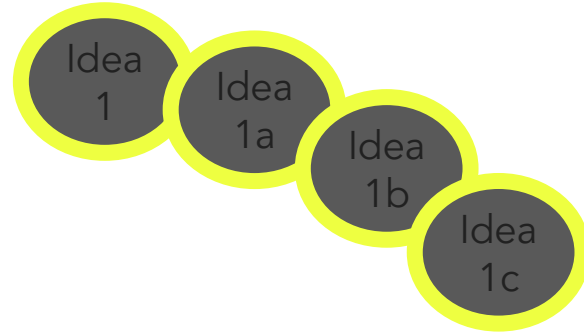
Buxton, Bill. *Sketching user experiences: getting the design right and the right design*. Morgan kaufmann, 2010.

# DESIGN IS ABOUT MAKING CHOICES AND COMPROMISES

There are three places where this is room for creativity in design:

- Determining the methods for investigating the problem and evaluating the solution
- Enumerating distinct options from which to choose
- Defining the criteria or heuristics according to which you make your choices
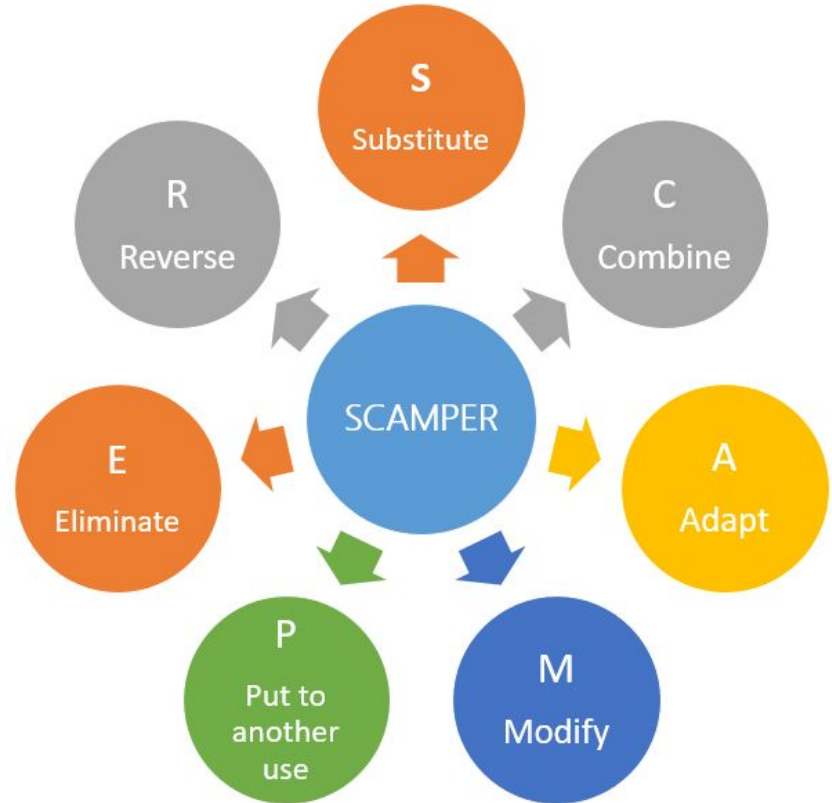
HOW DO WE GENERATE IDEAS?
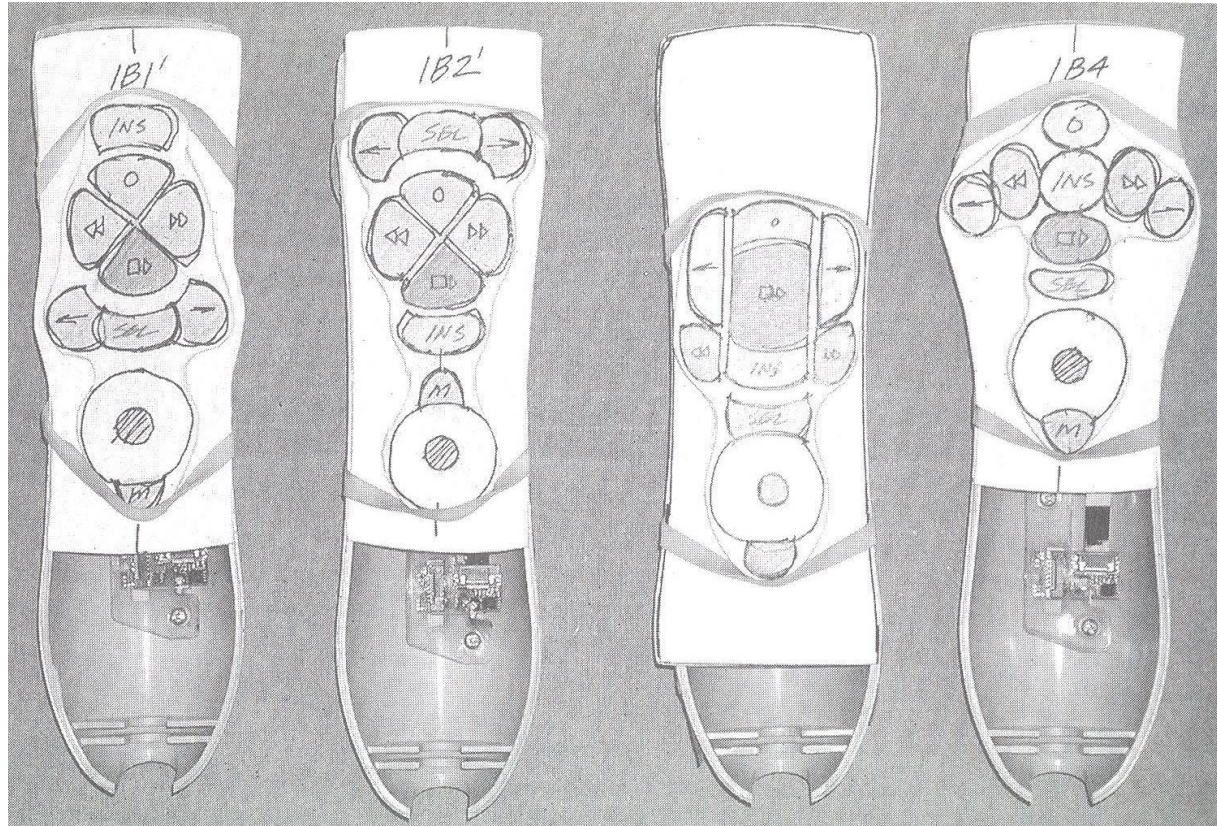
1. COLLECT EXISTING IDEAS
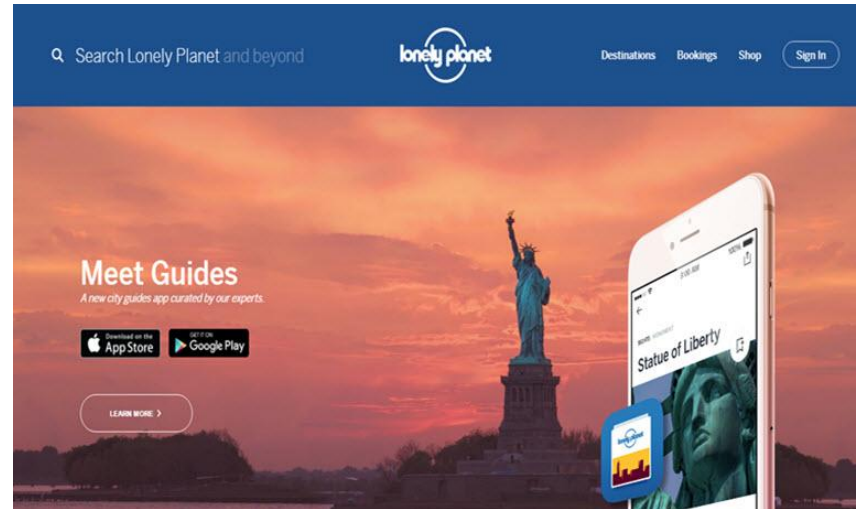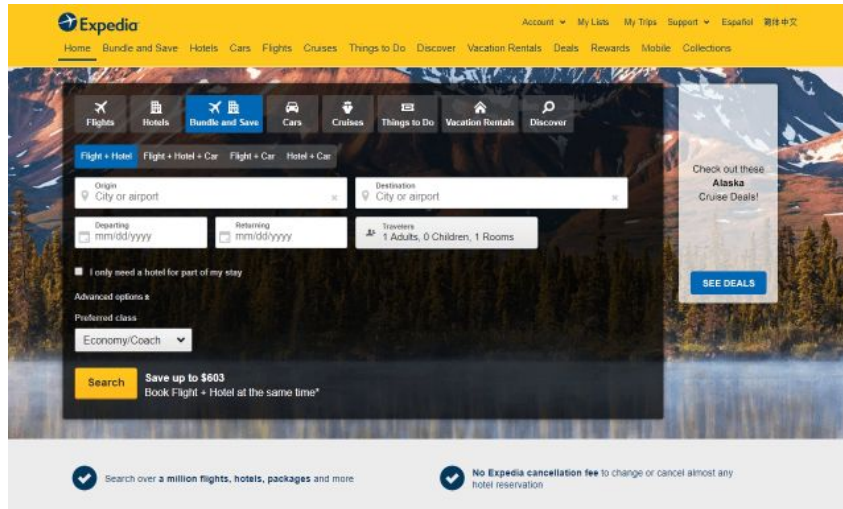
2. SCAMPER METHOD

SCAMPER method helps you generate ideas for new products and services by encouraging you to ask seven different types of questions

3. SKETCH CONSTANTLY

From Carloyn Snyder's Book:
Paper Prototyping (2003)
Morgan Kaufmann, p350

4. ASK PEOPLE
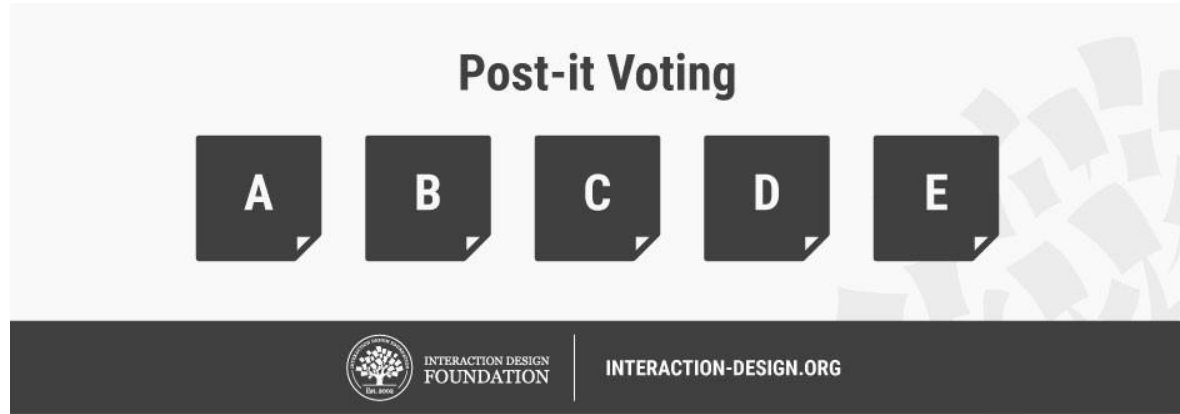
Example:

Design Charrette

HOW DO I GO FROM ELABORATION TO REDUCTION?

HOW TO CONVERGE?

Everyone gets an equal number of votes so everyone's voice is heard.

Each post-it is one individual idea

Post-it Voting

A B C D E

INTERACTION DESIGN FOUNDATION | INTERACTION-DESIGN.ORG

HOW TO CONVERGE?

Discuss every idea and place them on a spectrum of most rational/feasible/ understandable to something that is most likely not to get implemented for technology, social, or legal reasons

Four Categories Method

Most rational | Most delightful | Darling | Long shot

INTERACTION DESIGN FOUNDATION | INTERACTION-DESIGN.ORG

HOW TO CONVERGE?

Cluster the ideas and discuss the connections between them to uncover which idea might be worth pursuing.
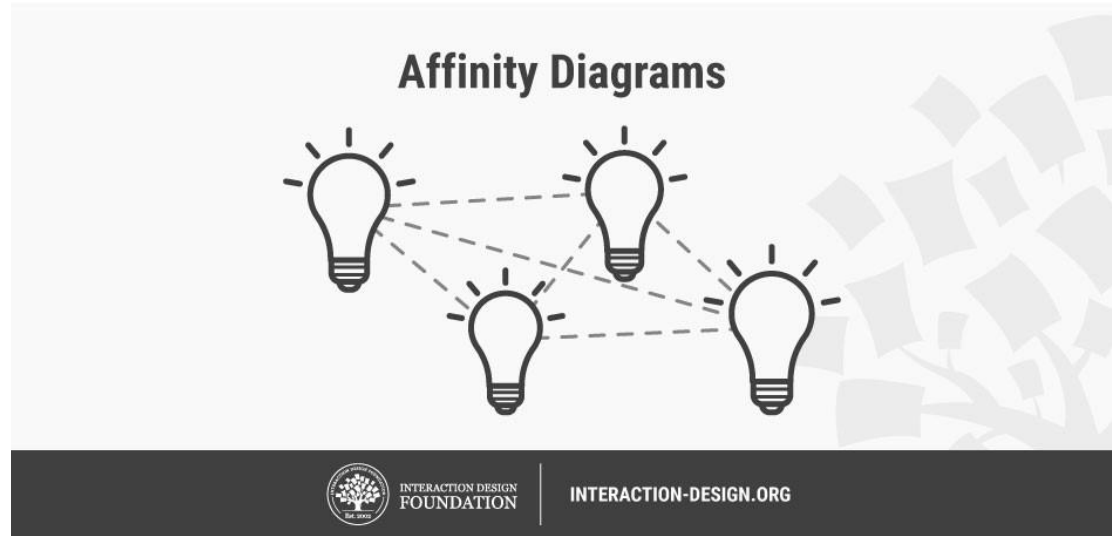
IDEATION TIPS

- Set a time
- Develop your POV statements and HMW questions
- Defer judgement and criticism. Encourage all kinds of ideas!
- **Aim for quantity**
- Build on each other's ideas
- **Visualize the solution – write or draw it out**
- One conversion at a time
- **Use your user research and requirements to guide your idea selection process**

CAPTURE TOP QUESTIONS AND IDEAS
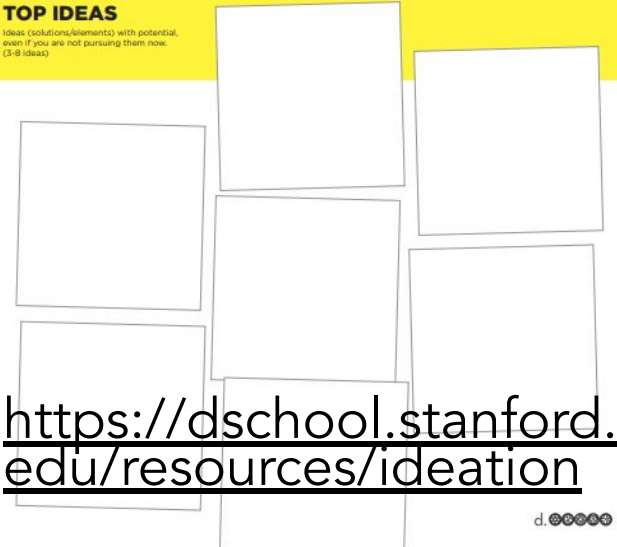SELECT IDEAS INTENTIONALLY AND RECORD THEM

OPPORTUNITIES EXPLORED
Opportunities/HMW questions you ideated from.
Select three that were generative and represent fruitful directions?
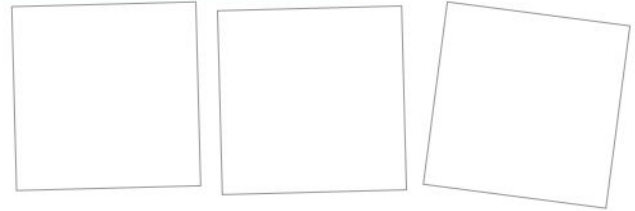
TOP IDEAS
Ideas (solutions/elements) with potential,
even if you are not pursuing them now.
(3-8 ideas)

https://dschool.stanford.edu/resources/ideation

d.

In-Class Ideation Activity: Re-Thinking the Design of Video-Conferencing