

# Concept Videos

Prof. James A. Landay  
Computer Science Department  
Stanford University

Autumn 2024

October 7, 2024

Music: <https://soundcloud.com/dansuneroquette>

# Hall of Fame or Shame?



old

new



## Google app logos

# Hall of Shame!



## Google app logos

### Good

- colorful
- consistent

### Bad

- cannot tell what is what at a glance

# Pioneers in Design

## *Loretta Staples*

- One of the early important UI designers
- Although trained at top art & design schools, she didn't see where she fit in
- As digital design was rapidly changing in the late 80s, she was at the forefront

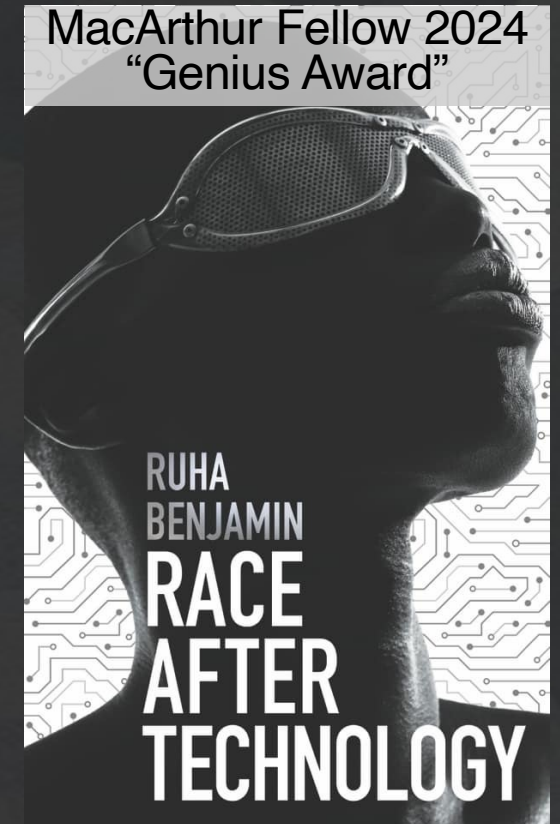
<https://www.nytimes.com/2021/03/18/style/loretta-staples-ui-design.html>



Sasha Rudensky for The New York Times

# Racial Justice through Design

- Only 30% of the tech workforce is non-white
  - products (voice assistants, facial recognition, anonymous posting sites) perpetuate bias
- Learn about Black history and design
  - The push to redefine “good design” amid the Black Lives Matter movement
  - Race After Technology by Ruha Benjamin
  - Designing and Organizing for Black Liberation, a 2021 conference by “Where are the Black Designers?”
  - Anti-Racist Reading List for Designers



<https://www.appspringtech.com/wp-content/uploads/2020/09/descarga.jpg>



"REMEMBER TO IMAGINE + CRAFT THE WORLDS  
YOU CANNOT LIVE WITHOUT, JUST AS YOU  
DISMANTLE THE ONES YOU CANNOT LIVE WITHIN"

- RUHA  
BENJAMIN



ASHLEY LUKASHEVSKY

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# Outline

- Tasks
- Video Prototypes
- Concept Videos
- Administrivia
- Team Break
- Making a Concept Video
- High-fidelity Video Examples



***Task.*** The structured **set of activities** or high-level **actions** required to **achieve** a high-level **user goal**.

***what*** a user wants to do

\* not how

# Task-based Design & Evaluation

- Real tasks customers have faced / will face
  - collect any necessary materials
- Do your tasks support the problem you are solving?
- Mixture of simple & complex tasks
  - simple task (common or introductory)
  - moderate task
  - complex task (infrequent or for power customers)

# What Should Tasks Look Like?

- Say what customer **wants to do**, but **not how**
  - allows comparing different design alternatives

Good (Task)

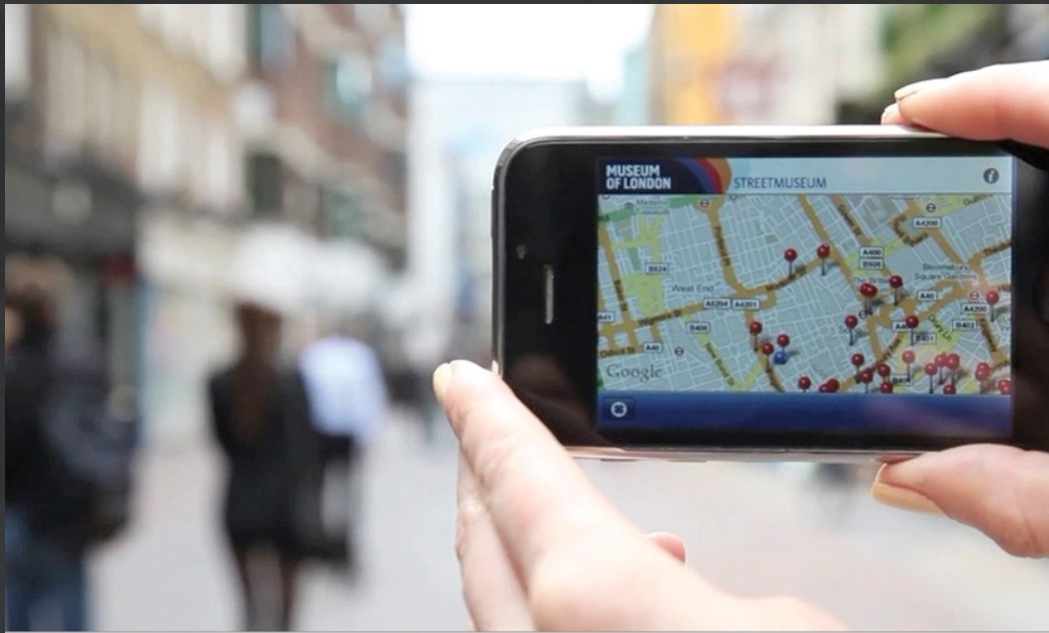


Tony is visiting London and wants to find the pub that his friend told him about. He is walking down the street using his phone to navigate to the place that he has previously looked up.

# What Should Tasks Look Like?

- Say what customer **wants to do**, but **not how**
  - allows comparing different design alternatives

Bad (this is a *Task flow*)



Tony clicks on the Charing Cross Pub icon and selects “directions to” as he walks down the street.

# What Should Tasks Look Like?

- Say what customer **wants to do**, but **not how**
  - allows comparing different design alternatives
- Be specific – stories **based on facts!**
  - say who customers are (use people in your POVs)
    - design can really differ depending on who
    - name names (allows getting more info later)
    - characteristics of customers (job, expertise, etc.)
  - forces us to fill out description w/ relevant details
- Tasks should usually describe a **complete goal**
  - forces us to consider how features work together
    - example: phone-in bank functions



# Using Tasks in Design

- Write up a description of tasks
  - formally or informally
  - run by customers and rest of the design team
  - get more information where needed

## **Let my friends know where I am**

Manny is in the city at a club that he wasn't planning to go to and would like to let his girlfriend, Sherry, know where he is and be notified when she is about to get to the club.

*task title*

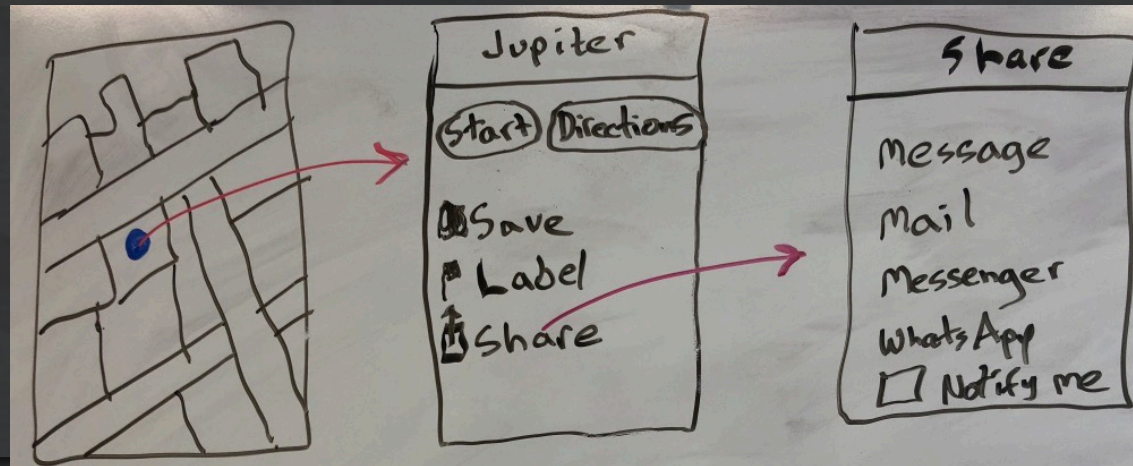
*task description*

## Using Tasks in Design (cont.)

- Rough out an interface design
  - discard features that don't support your tasks
  - major screens & functions (not too detailed)
  - hand sketched
- Produce *task flows* for each task
  - **how** customer completes task & what they would **see**
  - step-by-step performance of task
  - illustrate using storyboards (AKA **wireframes**)
    - sequences of sketches showing screens & transitions

# Task Flows Show How to Do the Task

- Task Flows are *design specific*, tasks aren't
- Task Flows force us to
  - show how various features will work together
  - settle design arguments by seeing examples
- Show users taskflows to get feedback



# Recap

How might we make the wait the most exciting part of the trip?

**Solution:** An app that leads kids on a scavenger hunt adventure around the airport.

# What are the tasks?

SIMPLE: hunt for treasure

MODERATE: set up a custom scavenger hunt for your kids

COMPLEX: create teams & compete against other kids/families



# DO IT NOW

Work in groups of 3-4 to generate a set of **simple**, **moderate**, and **complex** tasks for this HMW/solution pair:

*HMW make fellow passengers joyful around kids?*

*Solution: An interactive game wall with activities at varied heights that both kids and adults can play with.*

Post your **best tasks** in slack when done.

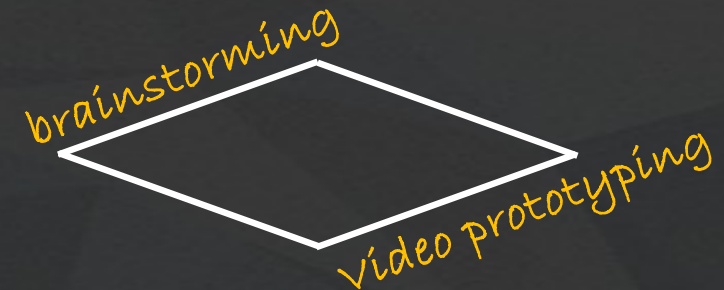
**What** ← → **How**

**Task** ← → **Task  
Flow**

**Concept  
Video** ← → **Video  
Prototype**

# Video Prototypes

- Illustrate **how users will interact** w/ system
- Unlike brainstorming, video prototyping contracts the design space
- Quick & inexpensive to build
- Forces designers to consider details of how users will *interact* with & *react* to the design
- May better illustrate *context* of use



# Video Prototype Characteristics



Paper Prototypes, Interactive Prototype, Existing Software or Projected Images as a background



Optional Narration, Conversation preferred  
narrator explains events & others move images/illustrate interaction while actors perform movements—viewer expected to **understand w/o voice-over**



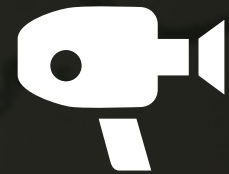
With **good storyboards**, a good short film can be shot in 2-3 hours

# Video Prototype Examples





## Carbon Shopper



# Concept (Vision) Videos

How to capture an early  
concept and tell a story



# It's About Stories





# It's About Details



# Key Pieces of Successful Concept Videos



People  
(roles)

Kid & parents



Context  
(scene)

Wants to use force, but failing  
Upper middle class – VW land



The Solution  
(props)

Dad's car let's you remotely  
turn it on. The force is alive!





Keep it Simple

Use what you **know** and what you **have** (or can easily **get**)

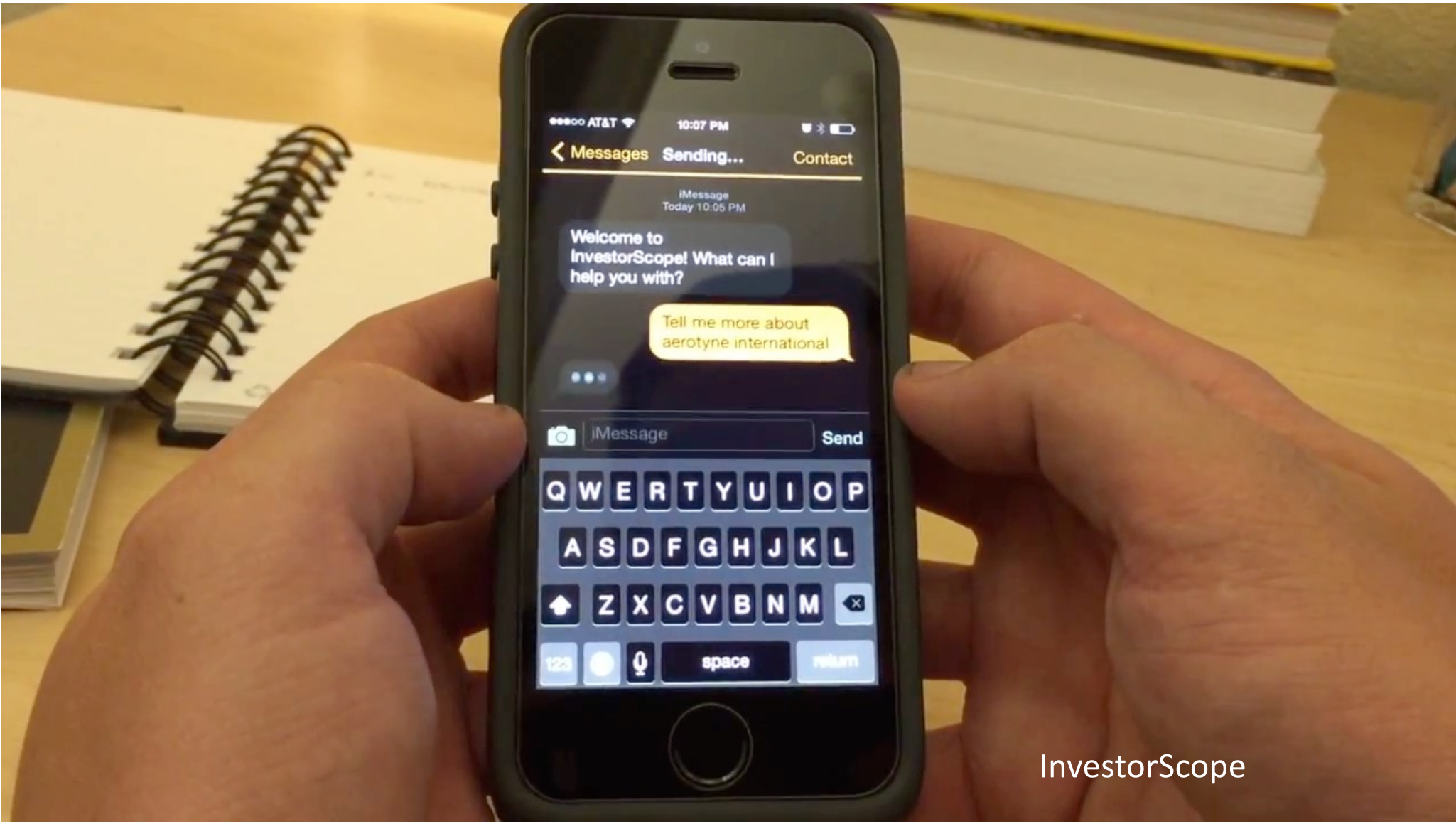
# Concept Video Examples



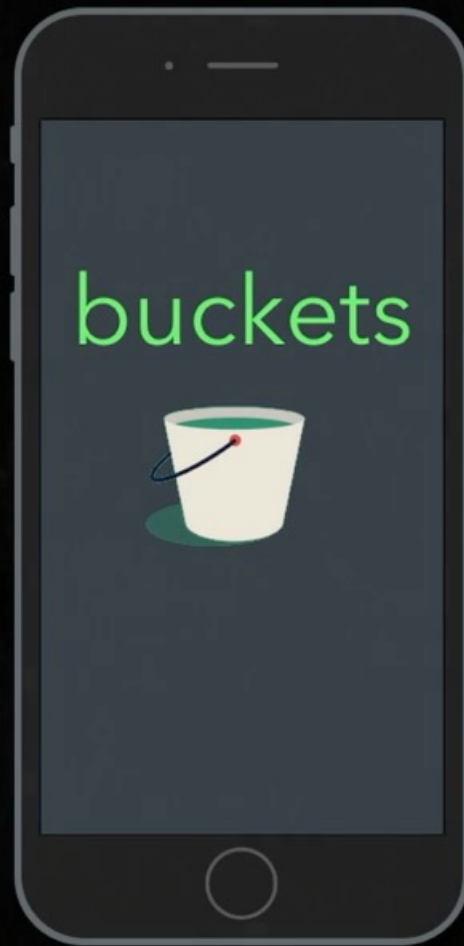
micro**health**

A little goes a long way

MicroHealth



InvestorScope



Buckets  
CS147 Film Festival winner 2015

# Administrivia

- Watch (if you haven't already)
  - *Experience Prototypes Tutorial*  
by 2022wi Head CA Kristina Inouye (23 min)  
<https://www.youtube.com/watch?v=QAWQIeGon0k>
- More workshops coming up led by our great CAs



# Administrivia: Assignment 1 Feedback

## We liked

- “didn’t just follow interview guidelines – dug deeper”
- “good job identifying needs”
- “good job with empathy maps & interview questions”
- “asked interviewee to walk through a task & narrate process out loud”

## We wished

- “more interpretation put into *insights*. Most just observations”
- “developed stronger insights – *surprising* inferences from observations”
- “deeper inferences” showing *leaps* about the user *tied to surprises*, contradictions, behaviors, & emotions
- Less time on *methodology*/scripts/demographics & *more time on insights*
- “done better *grounding* insights into *specific observations*”
- “emphasize user perspective / *emotions* while formulating insights”
- Key insights less broad about the problem but more *actionable learning about people*
- “wish *more images/audio/video* of their environment”
- “*more unpacking* of interview results in each empathy map (i.e., more reflection)”
- “less slide text” [put lots of details – e.g., interview questions – in notes or appendices at end]

# Assignment Grading Buckets



**Far exceeds expectations:** Reserved for ~ the top 1-3 submissions that can be used as examples in class. This is an A+, often a perfect or > 97% score.



**Fulfills the expectations** in the spec. Students engaged with the design process, though maybe **some small issues remain**. Presentation understandable. This is a B+/A- range grade (88 - 92%).



**Missing substantial assignment components and/or mostly poor quality**. Does not represent engagement with the design process. This is a C range grade or lower (< 78%).

# Results

"You can't just let your problems **swallow you up** - you can't just **sit with them**" - Ivy

"Coming here to **socialise** is certainly one of the reasons why the seniors stay so **mentally healthy**" - Lily

"My great-grandchild ren still finish all the food off their plates, because **that's what Uroma said to do**" - Ivy

"I live every day like it is **my last**" - Ivy

"If you **sit in a room all day** and waste away, that is how that [dementia] happens" - Ivy

"**Patterns and scheduling** are important for dementia prevention. We host dance classes, puzzle games, anything with **repetition and memorisation**" - Lily



# Results

"They weren't particularly well off...and in Filipino culture...you **don't** bring family members to institutionalized settings, even if it's a nursing home, because **it's seen as your duty to take care of your loved ones**" - Kevin

[opinions on technology]  
"Tech is a tool to connect people, especially over long distances, but it **shouldn't be a replacement** for people to connect... it should be as non-invasive as possible" - Kevin

"It was **well-meaning but misguided, not out of cruelty** but...when they slept they would tie a belt to [the grandfather] and the son would sleep next to him, so he couldn't wander off" - Kevin





# CHINESE PARENT

Hong Kong/China  
 Parent of grade 10 girl  
 Actively seeks out college consulting firms  
 Interview Format: Zoom

## Background

- CEO of engineering consulting firm in Shenzhen, China
- Younger daughter in Hong Kong international school (grade 10)
- Currently in the process of choosing a college consultant and facing difficulties

## Key Quotes

- "There are very few good things for the child out of this [college application] experience"
- "The services offered by consulting firms right now are all in a pipeline—there is no individualization"

## CHINESE PARENT

### SAY

### THINK

### DO

### FEEL

Parents choose to sign with a college consultant for different reasons

Some parents choose counselors to communicate better with their children

Some parents want the counselors to help students every step of the way

Students sign with counselors as early as Grade 9/10

The fear of missing out - if you don't sign with an agency, other people will

Students faced less stress before Covid

Overwhelmed by the number of agencies to choose from (who all promise to be the best)

counselors come in all different forms

"John Locke [competition] is dominated by Chinese students"

Since Covid, the industry has become more complicated and difficult to navigate

Baseline price is 43k USD and could go up to 170k USD

Hard for children to show/develop their true passions

Overwhelmed in the face of many consulting firms

Agressive marketing by counselors often hide the truth behind simple statistics

If you want the best for your child, you work with the CEO - doubling or tripling the fee

Signing with the agency is only the first step in a never-ending purchasing cycle

Since Covid, the industry has become more complicated and difficult to navigate

Baseline price is 43k USD and could go up to 170k USD

College admissions cannot distinguish self-motivated students from their "packaged" peers

Overwhelmed in the face of many consulting firms

Students faced less stress before Covid

Hard for children to show/develop their true passions

Seeking out counselors is almost a must these days for international students

Parents have to filter out noise to find truly helpful resources - but it's unclear whether they even exist

Many parents are very involved in the college application process

Many students follow the same pipeline, so they do the same activities

The college application process is filled with external factors

Frustrated at how "packaged" international students are

The college application process gives both students and parents a lot of stress

Many agencies are just "middleman" to overseas services

Parents feel pressured to help their children as much as possible

There are always more services you can purchase

Parents have to filter out noise to find truly helpful resources - but it's unclear whether they even exist

Students/parents have to compete for the best services at one agency - even more payments?

Because one family/person cannot change the system, you can only join in and "play the game"

The college application process is filled with external factors

A good counselor should grow and motivate the child, not or predetermine their paths

Because one family/person cannot change the system, you can only join in and "play the game"

Parents need to pay total deposit up front (no refunds)

Parents need to pay total deposit up front (no refunds)

The college admissions process can be just as stressful on the parents

A good counselor should grow and motivate the child, not or predetermine their paths

Standardized testing is being "gamed" in East Asia - which defeats their purpose

Very difficult to counselors to be genuine in the current environment

## WHY these participants?

### Age Range



Wide Range of Daily Responsibilities

Gender and Income Diversity

Willingness to Speak to Us

## We interviewed...



**Andrew**  
17 yrs old  
High School Senior  
Raleigh, NC

**JJ**  
22 yrs old  
College Student +  
Caregiver  
San Francisco, CA

**Ann**  
66 yrs old  
Retired Librarian  
Santa Clara, CA

**Madison**  
21 yrs old  
ROTC Nursing  
Student + Business  
Owner  
South Orange, NJ

**Alex**  
56 yrs old  
Mortgage Banker  
Richmond, VA

## Q Says

- Works long hours – shift from 6:30 pm to 4:30 am + 2 hours overtime
- 6 month rotation system: 6 months day shift, 6 months night shift
- Works 4
- Other of
- He has f
- “Working
- “The ent
- No one g
- Found hi
- “The hardest part about night shifts is the little things: explaining to your friend you can’t do 11 am brunch, for example.”

Shift from **6:30 pm to 4:30 am** + 2 hours of overtime every working night

Christina B

“The entire world runs on a daytime schedule.”

Christina B

## Q Thinks

- Discipline and consistency is most important to working these cycles
- Experience working night shifts is the b
- Fin
- Thi
- Bel
- The
- The
- It is
- Working night shifts is necessary for work reasons. The tradeoff is the convenience of living life during the day.
- There aren’t any long term effects of working night shifts on his health

There is **no one perfect solution** to transitioning to night shifts

Christina B

The **human body isn’t built to work overnight**, and the hardest part is the first two weeks of transition

Christina B

## Q Does

- Doesn’t drink caffeine / use any other sleep medications
- Has strict routine
- Str
- Use
- Do
- Tri
- Is
- Job
- Feel more alert in the beginning of the shift, and finds it hard to stay awake later on (4/5 am)
- Work a staggered schedule: other night shifters work different nights

**Doesn’t use any sleep or wake aids** (caffeine, melatonin, energy drinks)

Christina B

Maintains his overnight schedule even on his off days. Believes **consistency is the key** to adjustment.

Christina B

## Q Feels

- Frustrated going through 2 week transition period
- Optimistic about adjusting to help the
- “It is w
- Accep
- Values
- Feels h
- Scared
- rhyth
- Used t
- A sense of unavoidable disconnect with “day-shifters”: explaining special situations, etc
- A sense of duty to his job to the point where he is willing to sacrifice a regular life for 6 months of the year.

A sense of **unavoidable disconnect** with “day-shifters”: explaining special situations, etc

Christina B

Feels he can assess for himself his degree of wakefulness, but would **enjoy a tailored sleep tracker**

Christina B



# Administrivia

- Goal of project presentations this week is to select a project direction for the quarter using feedback from TA & peers
- Project Selection Criteria
  - novelty (e.g., with respect to market & past CS147 projects)
  - significant UI component
    - e.g., bad if all smart AI but no UI
  - impact (e.g., frequency, density & pain)
  - team is excited to work on it
  - could this be harmful to individuals & communities? (is it ethical?)
- Selection is not about
  - business feasibility
  - implementation feasibly in 1 quarter
    - need only a way to approximate (high-fi prototypes are functioning apps, but do not have everything in them – e.g., may be missing a backend, a real social network, or help)

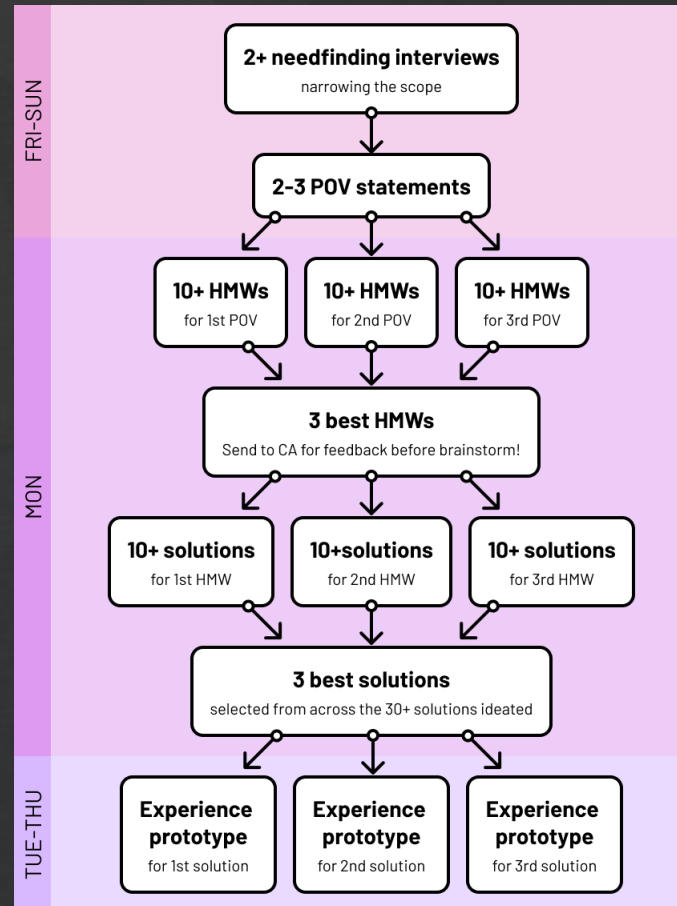
# Exit Tickets & Attendance

- Reminder that attendance is recorded at every lecture!
- There will be 1 exit ticket per week. You will have 24 hours from the end of lecture to turn it in.
  - exit tickets shouldn't take longer than 5-10 minutes to complete, and will be based on both lecture and readings/videos/podcasts.
  - exit tickets are graded on accuracy and will count as a part of your participation grade (participation worth 10% of your grade).
  - there is an optional (anonymous) feedback section at the end of every exit ticket; we encourage you to fill it out! We read all feedback!

# Class Feedback

- Keep giving feedback on readings (we make some optional/remove based on feedback)
  - also note readings will reduce as quarter progresses
- Trying to keep giving at least 20 min of team time

# Next Assignment (due this week's studio)



3-4 hours

# Team Break

- Team Contracts (finish over break)
- CAs will give live feedback on A1 (stay in the room)
- Generate POVs or HMWs for A2
  - share on your studio slack to get feedback
- Ask the Teaching Staff Questions!
  - make sure you've scheduled your 15-minute mid-week check-in



The Goal of any good  
conceptual film...



# Making a Concept Video



## Define

What is the **message** of the film?

What is the **value proposition** you offer?

Can you describe it in a few lines?



## Make a basic **plot**

Discuss plot ideas until you get a few that really make sense,  
decide characters



## Storyboard

Turn these into storyboards of scenes to plan how you will film it

\* note: **not** UI storyboards!

1 2  
3 4

# Storyboarding

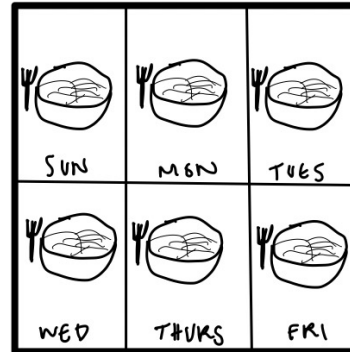
Use sticky notes so scenes can be moved

Include lines to be spoken if necessary

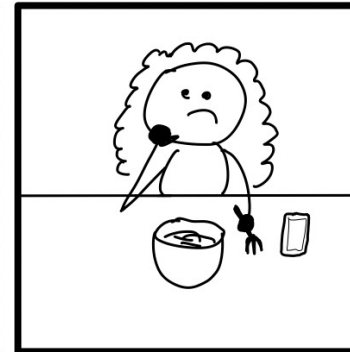
Use appropriate camera angles

1 2  
3 4

# Storyboarding



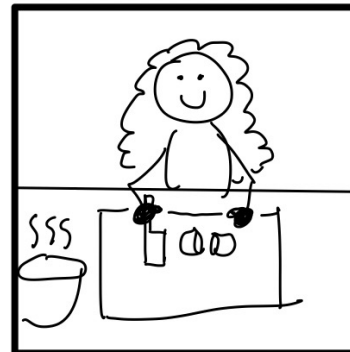
same boring food every day  
sounds: microwave, dish scraping, silverware clatter



\* emotion - look bored \*



\* buzz buzz \*  
animate typing?  
ding!



\* cooking sounds: chop, sizzle \*  
happy! excited!!



looks yum, tastes yum - emotion

Spice

- 1
- 2
- 3
- 4

# Storyboarding





1 2  
3 4

# Storyboarding

## SCENE 4

Words On Screen: Investigate

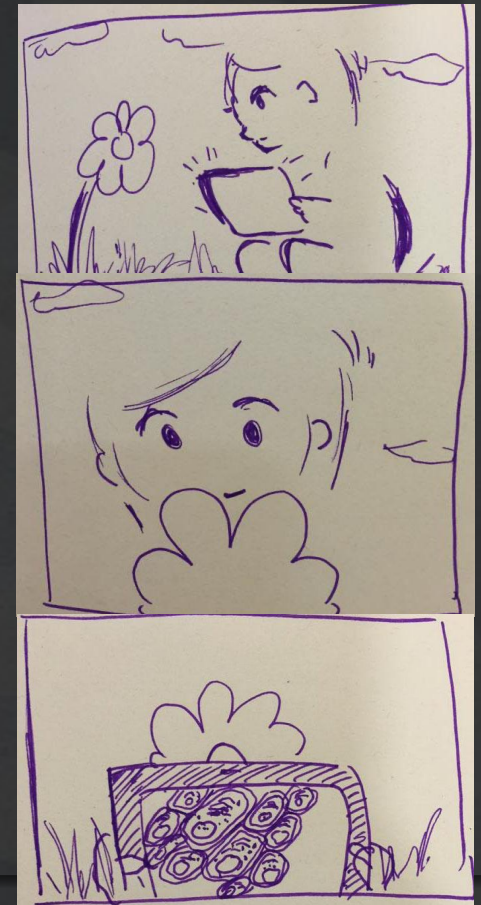
Voiceover: The mitochondria are the powerhouse of the cell

## SHOT 1

beautiful flower, child's eyes are wide looking at it head is cocked to the side, inquisitive

## SHOT 2

tablet pans into view, image on screen shows the cellular structure of the plant







## Shoot your Film

Get as many shots (angles, close ups, distance...) as you can! you never know what might be useful later.



## If you choose to use music

Now is a good time to pick some songs. Music can be very powerful if chosen well. (see Vimeo for music you can use free)



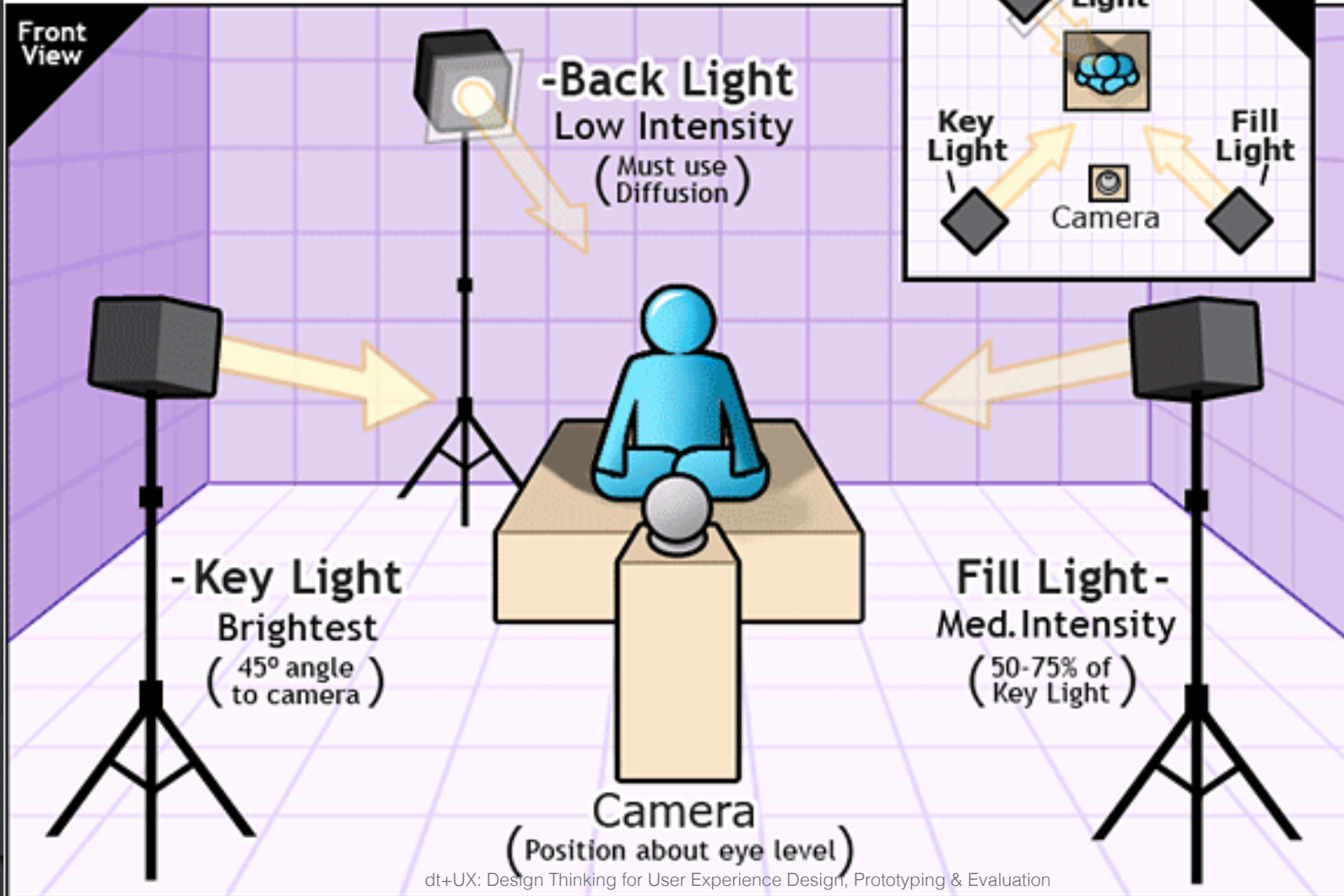
## Edit your Film

Use your storyboard! This part should be simple if you have storyboarded correctly.

# Lighting



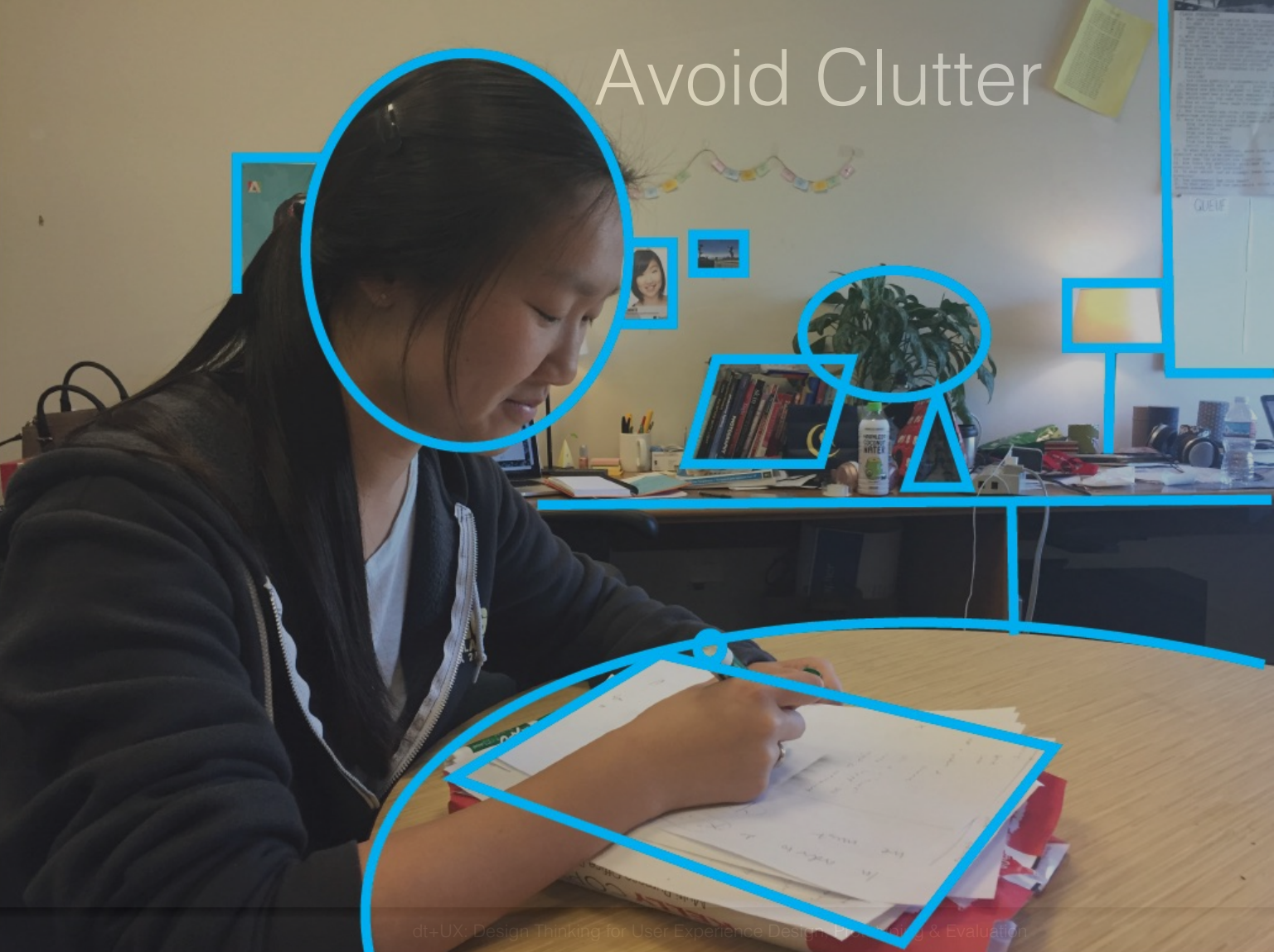
# Basic 3 Point Lighting Setup



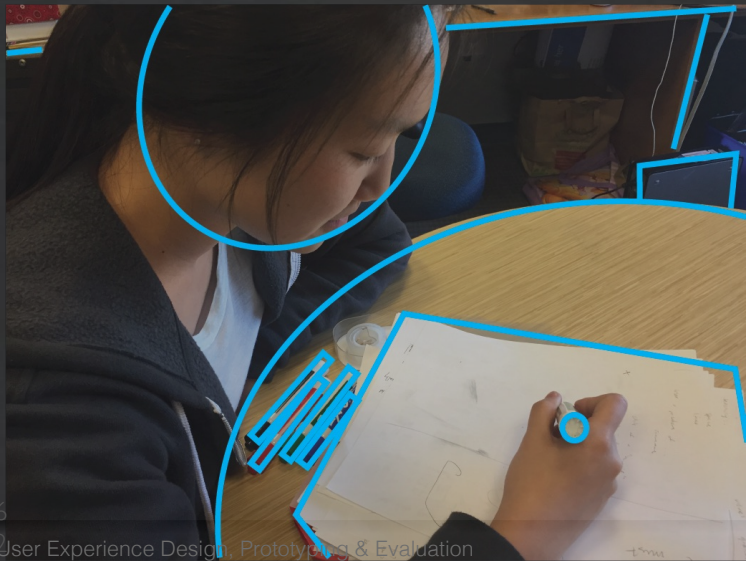
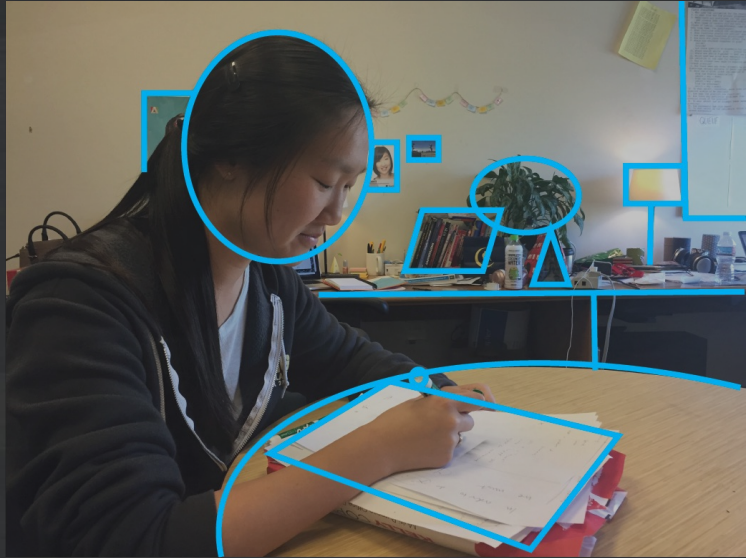




# Avoid Clutter









AWI  
Vink, Cauchard, & Landay



# People

Use Close-Up shots

Capture emotion

Avoid conversation  
(This is the hardest to get right  
and ends up distracting)

Use the right person  
for the role-ask friends





# Context

Plan your story –  
Storyboard it.

Is the story believable?

Film multiple angles

Film longer than the  
shot needs (you can  
always cut down)



# The Solution

## Wow Effect

Show your solution at it's best, save the best for last

## Subtlety

Show how the solution makes the user *feel* – subtly

## Don't 'Sell' it

Don't tell people to use your solution, *show* them why

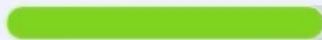


# ChoreoLab (2015 runner up)

Dan  
San Francisco



1 / 5





# Munch (2015 runner up)

# Cabana (2017 winner)



# Token (Concept Video)

TOKEN

DISCOVER, RELIVE, AND SHARE MEMORIES  
OVER TIME AND SPACE





Off (2019 runner up)





# ALTogether (2021 winner)



CoCo (2022wi winner)



# High Fidelity Concept Videos



BONES

Pedro Andrade, CIID

# High Fidelity Concept Videos



parqtheapp

## High Fidelity Concept Videos

# Smart Primer

active learning in the real world



Stanford HCI Group

Smart Primer



# High Fidelity Video Prototype Examples

# Token (hi-fi video prototype)



# High Fidelity Video Prototypes



# Summary

- Video prototypes allow us to quickly communicate **how** a user will **use** a design
- Concept videos tell the **story & context** of use
- Both techniques are useful
  - your projects are at the concept video stage

# Next Time

- Project & Studio (this week)
  - create/test experience prototypes for top 3 solutions
  - test each prototype with at least 1 target user (**new participants!**)
  - in presentation, get across what you **learned!** Were **assumptions valid?**
  - studio will be used to select the idea to move forward
- Project Assignment 4: Concept Video (due next Thur/Fri Oct 17/18)
  - define your tasks starting in studio this week
  - shoot & edit a Concept Video
- Lecture (Wed)
  - Design Exploration
  - Read
    - Pg. 135-151 from [Buxton's Sketching User Experience](#) (pw: hcid)
    - Tohidi, Buxton, Baecker, Sellen, "[Getting the Right Design and the Design Right: Testing Many Is Better Than One](#)", CHI 2006.
- Assignment 3: Project Web Site
  - online later this week
  - not graded until part way check-in & near end of quarter
  - all project assignments need to be linked off this site (**relative links**)



# Exit Ticket

<https://bit.ly/cs147-2024au-exit-ticket-3-583>

