

# CSE440: Introduction to HCI

Methods for Design, Prototyping and Evaluating User Interaction

Lecture 16:  
Recap and Exam Q&A

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# What we will do today

Communicating your designs

Exam Recap

Q&A

# Communicating your design

# Presentations in this class

<b>May 27</b> 3e - Digital Mockup	<b>May 28</b> 3f - Workshop 10:00 - 11:20   OUG 136	<b>May 29</b> Nigini's office hours 10:00 - 12:00 Allen Center 338	<b>May 30</b> Exam 10:00 - 11:20   OUG 136	<b>May 31</b> Section 10:30 - 11:20   MGH 058 11:30 - 12:20   MGH 058 1:30 - 2:20   MGH 058 2:30 - 3:20   MGH 058 3f - Getting the Design Right
<b>Jun 3</b> 3g - Presentation 4a - Initial Website	<b>Jun 4</b> Presentations 10:30-11:50   OUG 136	<b>Jun 5</b> 4b - Initial Poster and Pitch	<b>Jun 6</b> Presentations 10:30-11:50   OUG 136	<b>Jun 7</b> Section 10:30 - 11:20   MGH 058 11:30 - 12:20   MGH 058 1:30 - 2:20   MGH 058 2:30 - 3:20   MGH 058 4c - Communication Critique [done in section] 4d - Final Poster & Website
<b>Jun 10</b> Poster Session 10:30 - 12:30   CSE Atrium	<b>Jun 11</b>	<b>Jun 12</b>	<b>Jun 13</b>	<b>Jun 14</b>

# Our expectations

**Well-rehearsed** presentation with appropriate preparation

Provide **visual aids** that help the audience to follow your story

Slides should be **legible** to people further away from the screens

Stick to the **time limit** (7-8 minutes) + 2 minutes for questions

# Our expectations

The presentation should include:

- A compelling problem

- Low-fidelity Prototypes

- What you did to test it...

  - ... what you found

  - ... how it affected your design

- Broader lessons learned that might be helpful for others

- Final prototype and how it resulted from your test findings

- Digital mockup and how it relates to the final paper prototype

# Some examples

# Introduce Yourself

## **DisTrack** *Refocus yourself*

Graeme Britz	-	Project Manager
<b>Max Suffel</b>	-	<b>Writer/User Researcher</b>
Angela Suhardi	-	Writer/Designer
Jackie Chui	-	Writer/Designer
Bryan Djunaedi	-	Writer/Designer



# Title, Image, Value Proposition



The recurring subscription management tool that let's you finally take control of your recurring services and payments.

Jen Kang • Vivian Yu • Si Liu • Brendan Lee

# Watch the Selling

We can help

# Typography, Consistency

## Finding

- **Reimbursement is a burden...**
  - More people, more difficult
- **Compiling shopping list**
  - mental note, notepad, or phone
- **Brand and price conscious**

## Task

- 1. Making list & budgeting**
- 2. Choosing a store & transportation**
- 3. Shopping**
- 4. Purchasing**
- 5. Storing groceries**
- 6. Managing \$\$\$ & requesting reimbursement**

# Too Much Information

## Contextual Inquiry - Insights

**Johnson** (20, undergraduate, CSE 006 Lab)

- Perception ≠ Observation
- Distracted by people talking and noise
- More focused at CSE Labs than at home

**Steve** (25, graduate, Mercer Court)

- Motivated by seeing people working
- Distracted by people and social media
- Takes breaks often

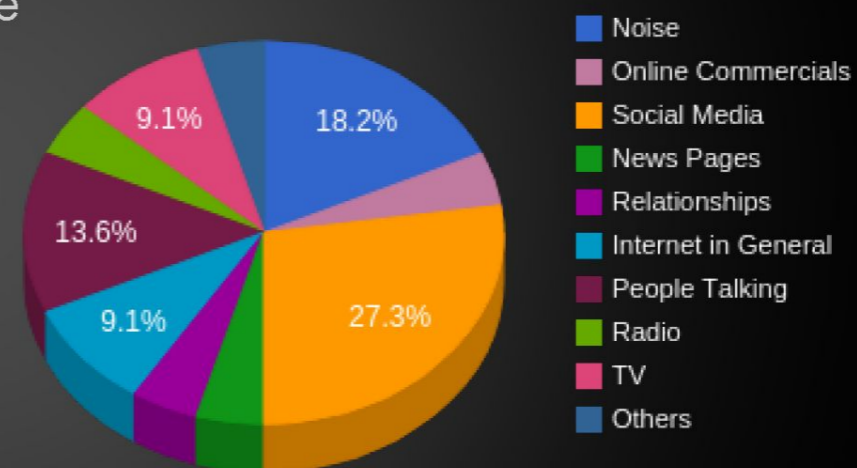
**George** (25, graduate, Odegaard Library)

- Turns notifications off while studying

**Group** (4 undergraduates, Yunnie Bubble Tea)

- Distracted by each other and apps
- Use headphones (music) to focus

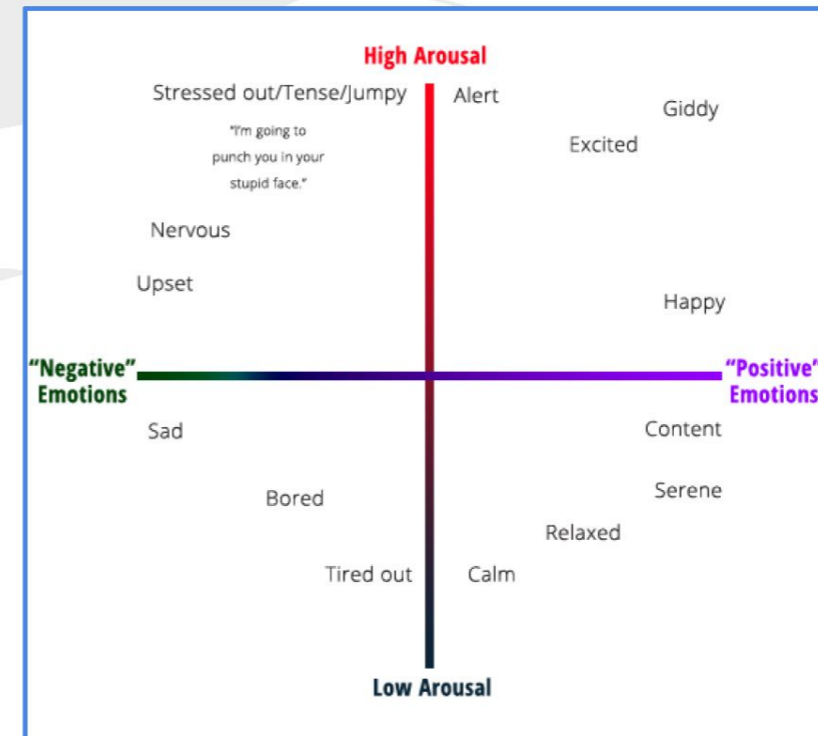
Distraction Sources



# Too Much Text, Too Much “People”

Our three inquiries showed us:

1. People valued the insights acquired from a mood journal.
2. People thought journaling was a hassle.
3. People were interested in what triggers their mood
4. People want to share information with a mental health professional



# Too Much Text, Sentences too long

Design 1: Running separately

May add some motivation but does not provide the full experience of running with a companion

Design 2: Coordinating running events in advance

Tasks can be accomplished using Facebook events or other similar tools

**Design 3: Spontaneous Running**

**Tasks are unique and they also address the concerns raised in our contextual inquiries. Our chosen design also provides us with an interesting opportunity to explore personal informatics**

# Pictures are great

## Contextual Inquiry

- Dancers
  - Use of entire body
  - Diverse Injuries
- Observation
  - Warmup
  - Preventative Habits



# Pictures are great

## Contextual Inquiry

- People do not want to be interrupted or distracted
- Most people do not have a liquid intake plan
- People often reach for soda, coffee, or other beverages when they feel thirsty





# Pictures are great



## Contextual Inquiry

Professional  
(20-40s)



Family



Undergrad  
Student



# In-Line References vs. Bibliography Slide

**15%** of Americans between the ages of 20 and 69 experience hearing loss that may have been caused by **noise at work or during leisure activities.**

(<http://www.nidcd.nih.gov/health/hearing/pages/noise.aspx>)

# Motivation of Participants



**Very noisy** work environment

**Some control** over exposure levels



**Moderately noisy** work environment

**Lacks control** of his noise exposure



Dartmouth student who is exposed to **noisy social environments** multiple days per week

**Has control** over exposure levels

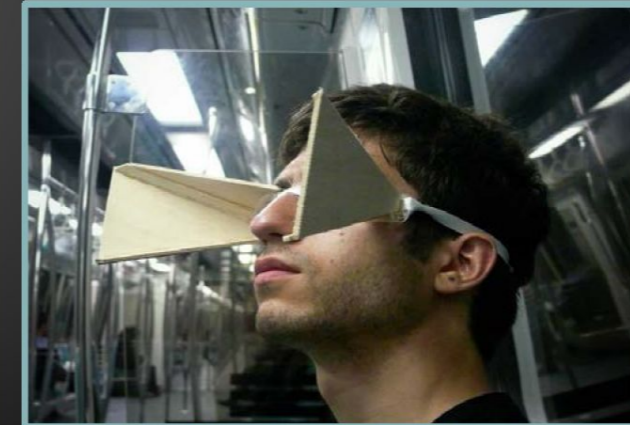
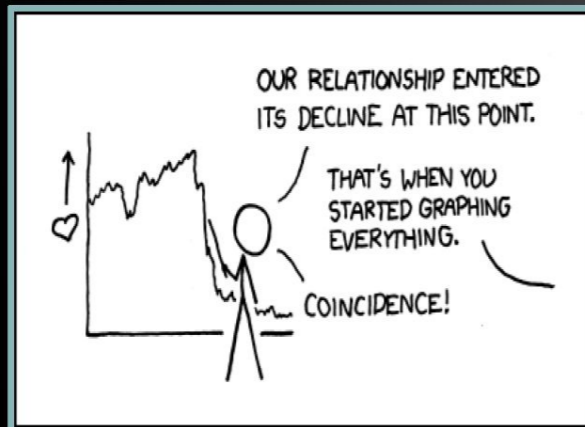
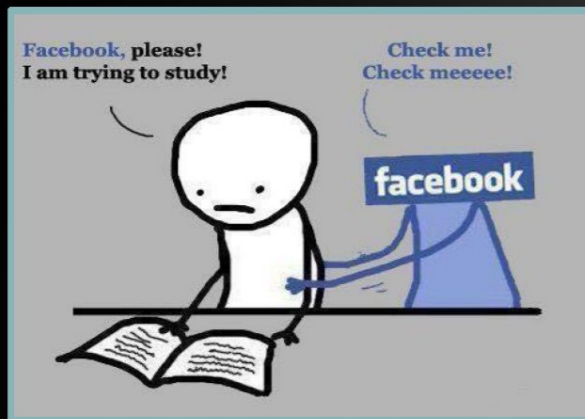
# Short Tasks

## Tasks

- Record mood reflections
- Discover triggers and warning signs
- Discover wellness strategies
- Planning for health
- Quick mood check-ins
- Aid your health professional

# Too Distracting

## Tasks



# Speaking of Distractions

Whether correct or not, many things distract

Plural possessive

*a posteriori*

sensitive content

Write easy and simple!

# Verb as Task



**Adjust** budget between different categories.

# Consistency of Emphasis

Many people make **general** budgeting goals.

**Large** items are monitored.

Small items cumulative impact **not considered**.

**Challenging** setting up budgets.

Complicated input leads to **less use**.



# Naming Designs

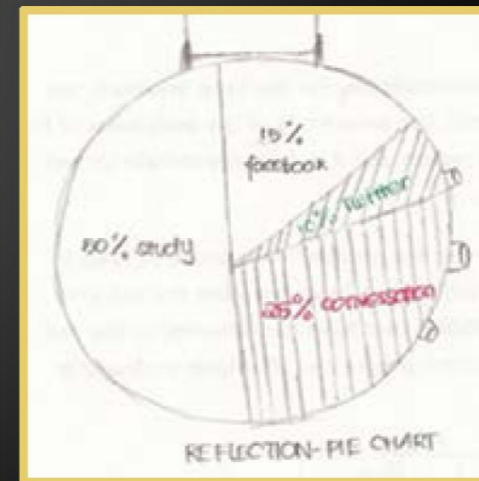
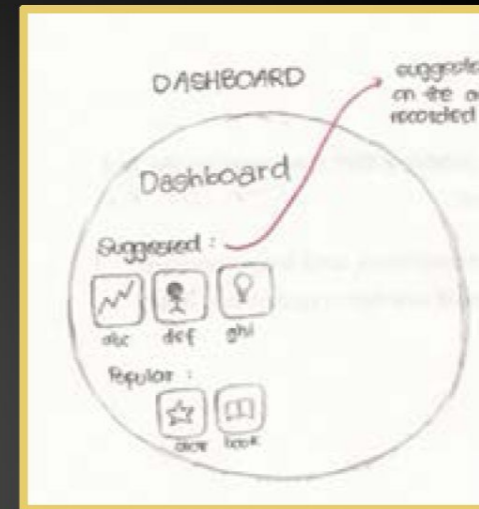
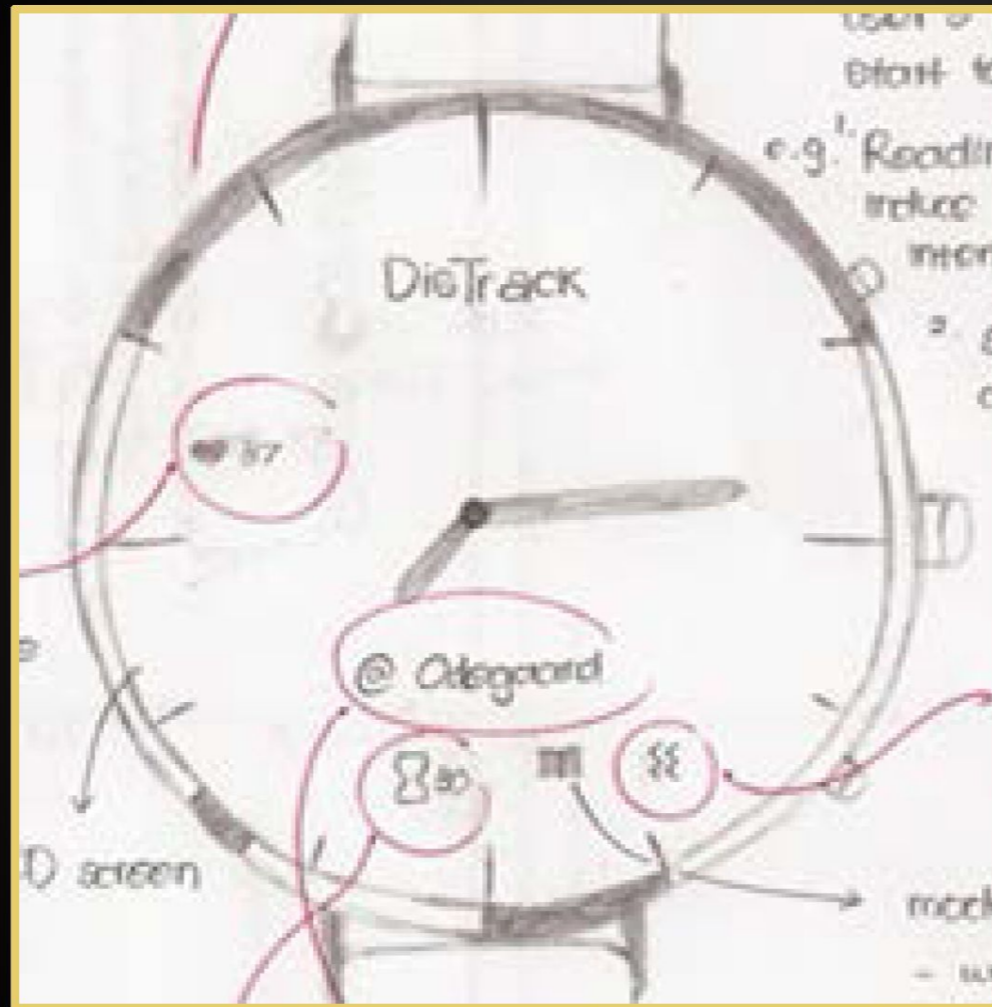
## Design 1

Pre-shopping



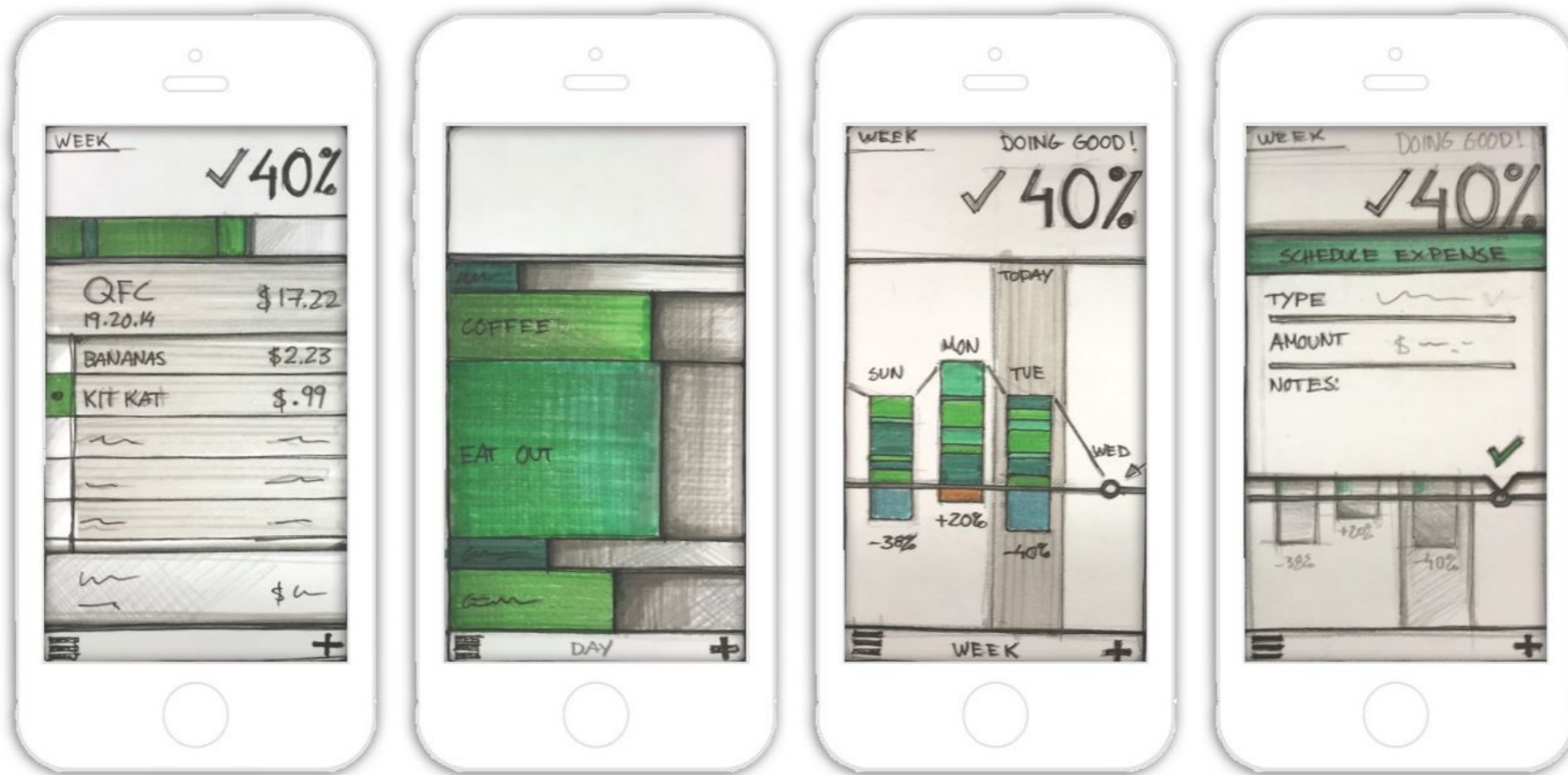
# Legibility of Sketches

## Design 3



# Legibility of Sketches

## Design 1

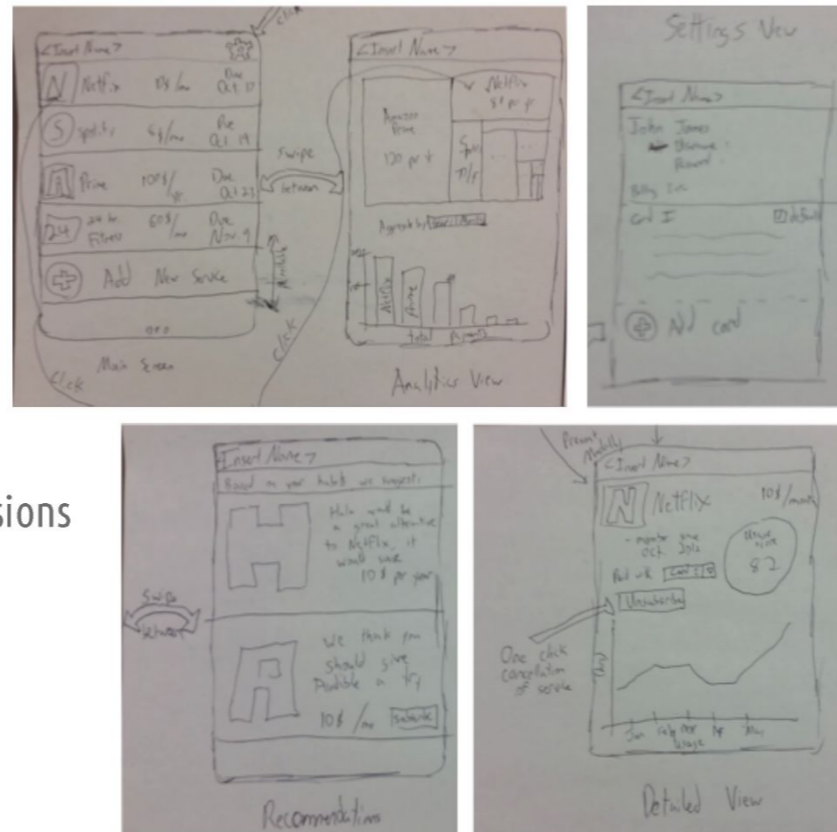


# Low Contrast Images and Text

## Updated Sketch

### Two Tasks

- Recurring subscription management
- Insight and informed decisions



# Finishing Slide



What makes a good poster?



# POLISCOPE

THE NEWS YOU WANT, IN ONE PLACE

JANET GAO  
KIM LE  
KIYANA SALKELD  
IAN TURNER

## OVERVIEW

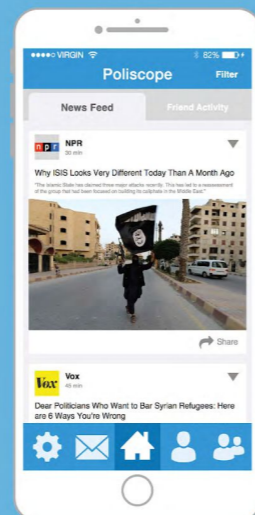
Gaining a well rounded perspective on a news story or political issue often necessitates sifting through multiple news outlets, which is a laborious and tedious process.

## TARGET AUDIENCE

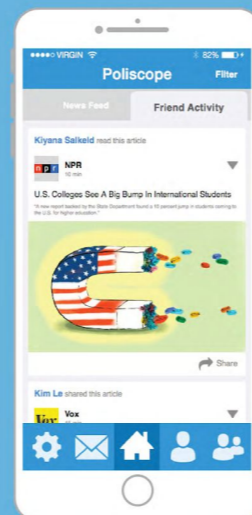
Our intended target audience is comprised of college students who are interested in reading the news, but view this activity as being extremely time intensive. These individuals want to stay abreast of the news in the most efficient manner possible.

## SOLUTION

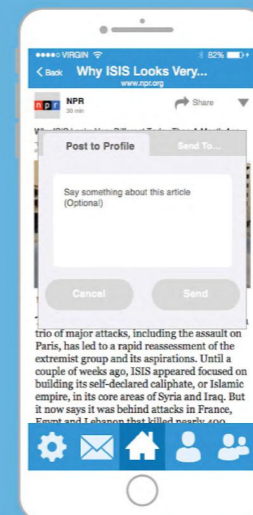
Our proposed solution is a smartphone application that will aggregate personally relevant news stories from multiple outlets into a single location. Additionally, users will be able to keep track of the news their friends are interested in.



View news stories aggregated based on topics and news outlets you follow



See the news stories that your friends are reading and sharing

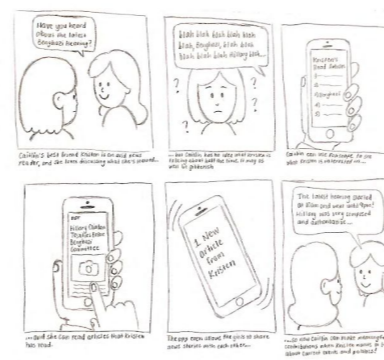


Read articles, and share them with your friends as well

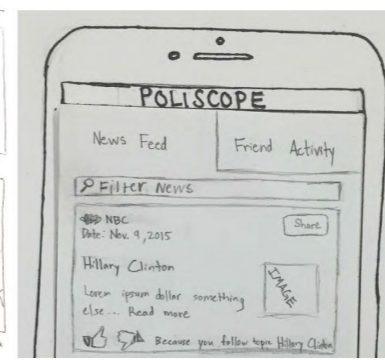
## PROCESS



Sketches quickly communicate ideas



Storyboards provide context



Paper prototypes allow design to change in response to usability testing

# KACHING

CONTROL WHERE YOUR MONEY GOES

ACACIO DOMAR  
WANLIN LI  
ANDREA MARTIN  
ELISE NEROUTSOS

## PROBLEM

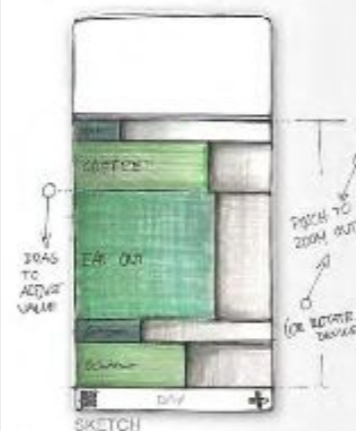
Spending on small discretionary items adds up resulting in people not being able to spend on larger items that they actually want.

## SOLUTION

A mobile application that solely tracks discretionary spending, highlights a concrete goal to save towards, and helps visualize the impact of smaller purchases.



## PROCESS





# What to expect at the poster session

Set up your poster by 10:45am.

Three judges will give out three prizes.

Convince them that your design is solid and tackles a real issue!  
Have a 1-minute pitch prepared.

Do you need to be there?

Yes. All of your group members should be there.

You can switch off “guarding” your poster and answering questions so that you can also look at other posters.

**Invite friends!!!**

# Exam Recap

# Have you done all that??? :O

## Framing the problem

- User research
- Competitive analysis
- Data analysis and summary



## Exploring the solution space

- Brainstorming
- Ideation through sketching



## Finding a good solution

- Scoping
- Consideration of constraints
- Scenarios, storyboards, personas
- Design rationale



## Refining the solution

- wireframes
- lo-fi prototypes
- early evaluations
- mockups/mid-fi prototypes
- additional evaluations

# Iteration: Step 1

## Framing the problem

- User research
- Competitive analysis
- Data analysis and summary

## Exploring the solution space

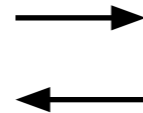
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# Iteration: Step 2

## Framing the problem

- User research
- Competitive analysis
- Data analysis and summary

## Exploring the solution space

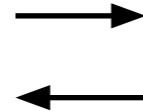
- Brainstorming
- Ideation through sketching

## Finding a good solution

- Scoping
- Consideration of constraints
- Scenarios, storyboards, personas
- Design rationale

## Refining the solution

- wireframes
- lo-fi prototypes
- early evaluations
- mockups/mid-fi prototypes
- additional evaluations



# Iteration: Step 3

## Framing the problem

- User research
- Competitive analysis
- Data analysis and summary

## Exploring the solution space

- Brainstorming
- Ideation through sketching

## Finding a good solution

- Scoping
- Consideration of constraints
- Scenarios, storyboards, personas
- Design rationale

## Refining the solution

- wireframes
- lo-fi prototypes
- early evaluations
- mockups/mid-fi prototypes
- additional evaluations

# Iteration: Step 4

## Framing the problem

- User research
- Competitive analysis
- Data analysis and summary

## Exploring the solution space

- Brainstorming
- Ideation through sketching

## Finding a good solution

- Scoping
- Consideration of constraints
- Scenarios, storyboards, personas
- Design rationale

## Refining the solution

- wireframes
- lo-fi prototypes
- early evaluations
- mockups/mid-fi prototypes
- additional evaluations

# You have also learned a lot of theory!

History of HCI

Design for diversity

Methods for user research, creativity, and design

Models on Interaction and Human Perception

Design patterns and principles



# You have also learned a lot of theory!

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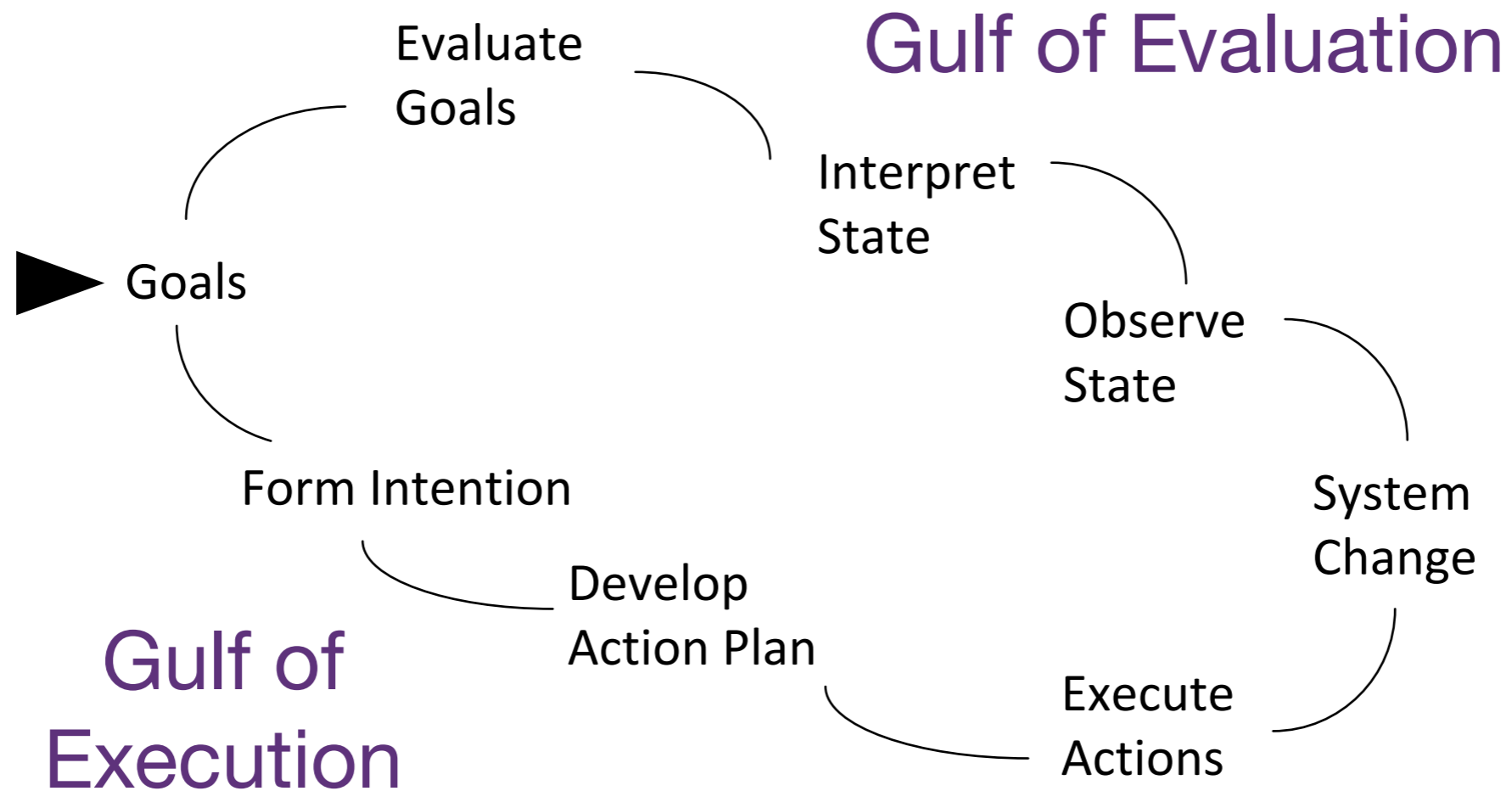
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Methods for user research, creativity, and design

**Models on Interaction and Human Perception**

Design patterns and principles

# Norman's Execution-Evaluation Cycle



# You have also learned a lot of theory!

History of HCI

Design for diversity

Methods for user research, creativity, and design

Models on Interaction and Human Perception

**Design patterns and principles**

# Addendum: Interface Implementation

Why do we use tools?

# Addendum: Interface Implementation

Why do we use tools?

What is the Model-View-Controller?



# Addendum: Interface Implementation

Why do we use tools?

What is the Model-View-Controller?

What has UI design learned from animation?

# Remember Both Sides of this Course

This course emphasized both

Getting the Right Design

Getting the Design Right

Many people fall into a trap of the latter

Not everybody was even trained in the former

Be mindful of your methods

Understand your actual goal

Ask me something!