Homework 8
Building a search application
You came up with very diverse domains

- **NBA All-Stars**
- **Affordable** make-up
- **Academy Award Winning** Films
- **Book** I want to read
- **Independent** Coffee Shops in NYC
- **Fauvist** Paintings
A college student is graduating and wants to road trip from NYC to Florida. Along the way, they want to find top-rated family-owned ice cream parlors so they can write about it for their travel blog.
More specific use cases

Yoga poses

A person who has soreness or is looking to make a part of their body more flexible.

Top players for the 2019 baseball season

Someone who wants to prepare for his or her fantasy baseball draft.

US Elections in 2018

1. Any civically minded citizen or citizen who wants to be more well-read about our politics.

2. A political candidate who wants to see how safe the incumbent in their district based on the results in the 2018 election.

More specific about the benefit – the reason to use it.
Final Project

No screens

Prof. Lydia Chilton
COMS 4170
25 March 2019
Goal 1
Build websites that suit the needs and abilities of users

1. Display information
2. Design interactions

...that allow users to accomplish a goal
Goal 2
When the needs and abilities of users are unclear, design systems by **learning from iteration** and experimentation.

Clear needs, abilities, goal

Unclear needs, abilities, goal
Final Project

• Build a **web** application
• That allows a user to **interact** with media
• Within a **domain**
• To achieve a **specific user goal**
• Where the output of the goal must be **visible** within the app.

• The goal and interaction must be more complex than simply searching the data.
Project Logistics

• **Weekly homeworks** will build up to the final project (5% of grade)
• Final submission is worth **15% of your grade**.
• This project is to be completed **individually**.
  • Although you will have a “group” to get feedback from.

• This task is purposely **ill-defined**.
  • It is up to you to define what problem you are going to solve.
  • When need a clarification, please attempt an answer first, so that we can steer you in the right direction.
Good Example: Learning Bird Calls

**Domain:** Bird watching

**Specific need:** Help bird watchers learn the calls of the 50 official state birds

**Media:** Bird images, Bird calls (audio), US state map

**Interaction:** Interactive map for users to click on states and see/hear

**Visual of Solution:** Users take a quiz on states/birds and see which ones they got right and wrong.
<table>
<thead>
<tr>
<th><strong>Bad Example: Watching Music Videos</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain:</strong></td>
</tr>
<tr>
<td><strong>Specific need:</strong></td>
</tr>
<tr>
<td><strong>Media:</strong></td>
</tr>
<tr>
<td><strong>Interaction:</strong></td>
</tr>
<tr>
<td><strong>Visual of Solution:</strong></td>
</tr>
</tbody>
</table>
**Good Example: Making a work out mix**

<table>
<thead>
<tr>
<th>Domain:</th>
<th>Workout mixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific need:</td>
<td>Workout instructors need to plan a 40-minute workout to up-beat songs</td>
</tr>
<tr>
<td>Media:</td>
<td>YouTube videos</td>
</tr>
<tr>
<td>Interaction:</td>
<td>Search for various songs, trim out the boring bits at the beginning, drag them into a playlist</td>
</tr>
<tr>
<td>Visual of Solution:</td>
<td>Users can see how many minutes the playlist has. If it’s 40 minutes, it’s done!</td>
</tr>
</tbody>
</table>
Final Project

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• That allows a user to **interact** with media
• Within a **domain**
• To achieve a **specific user goal**
• Where the output of the goal must be **visible** within the app.

• The goal and interaction must be **more complex than simply searching the data.**
• Full specifications will be released later.
Why can’t I just make a search app? Aren’t they useful?

Search applications are very useful. But you already built one.

We want you to focus on meeting user goals, and interaction, not just displaying data.

If it were 2005, search and browsing would be an unexplored area about how to meet user needs. It’s 2019… Search can be a part of a larger user goal.
Final Project

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• That allows a user to **interact** with media
• Within a **domain**
• To achieve a **specific user goal**
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Why can’t I help people achieve in tangible goals like knowledge, happiness or inner peace?

**Bad example**  
**Good example**

**Specific need:**  
- Listen to cool music  
- Plan a 40-minute workout mix

**Goal:**  
- Feel happy  
- A playlist with total time.

It’s too hard to design for these internal goals;  
We want to pick goals that we can see achieved within the app to help direct our designs.
Specific vs. General Needs
What are the kinds of things Politicians, Beauty Queens, and Silicon Valley say they will solve?
What are the kinds of things Politicians, Beauty Queens, and Silicon Valley say they will solve?
What’s appealing about general goals?
What’s the problem with general goals?

They aren’t actionable.
General Vs. Specific Goals

Goal 1:  
“Clean the house.”

Goal 2:  
“Fold that basket of laundry.”

General goals sound appealing, but specific goals are actionable: What **person** is going to execute what **action** on what **object** and get what **value**?
General goals are actually **Domains**

**Domain:**
“Clean the house”

**Specific goal:**
“Fold that basket of laundry.”
What’s the risk with a specific goal?

“Fold that basket of laundry.”
Specific goals can be trivial.

But, if you start specific, you can usually generalize
<table>
<thead>
<tr>
<th>Domain</th>
<th>Specific Need</th>
<th>Generalized to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping</td>
<td>Uncommon books</td>
<td>Clothes, Food, Amazon Fresh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other sellers</td>
</tr>
<tr>
<td>Social Networking</td>
<td>Harvard students looking up major, dorm, relationship status</td>
<td>Ivy League US Colleges Everybody</td>
</tr>
<tr>
<td>Read/send Email</td>
<td>Web-based No page reload Never Delete</td>
<td>Chat GDrive</td>
</tr>
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<td>---------------------------------------------------</td>
<td>-------------------------------------</td>
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<tr>
<td>Amazon</td>
<td>Online shopping</td>
<td>Clothes, Food, Amazon Fresh, Other sellers</td>
</tr>
<tr>
<td>Social Network</td>
<td>Uncommon books</td>
<td>Ivy League, US Colleges, Everybody</td>
</tr>
<tr>
<td></td>
<td>Harvard students to look each other up</td>
<td></td>
</tr>
</tbody>
</table>

If you start specific, you can usually generalize.
Why did Sabre (a printer company) buy Dunder Mifflin (a failing paper company)?
Supply Chain Distribution:
Generalize from Paper Sales to Printer Sales
If you start general, you may never start.

If you start specific, you can usually generalize later.
Brainstorming

No screens

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COMS 4170
25 March 2019
Homework 9

• Brainstorm **domains**
• Brainstom **media** used in those domains
• Brainstorm **specific needs**
The best way to have a good idea is to have lots of ideas.

- Linus Pauling
Goal: Make the best piece of pottery.

**Group 1** was told to make as many as they could

**Group 2** was told to only make one

Bayles and Orland, 2001
Coming up with the perfect idea can be intimidating.

The best way to have a good idea is to have lots of ideas.

- Linus Pauling
Only rule of brainstorming: No criticism
If you HATE someone’s idea, what should you do?

Have another idea.
Brainstorm 10 Domains you care or know about.

- NBA
- Make-up
- Films
- Books
- Coffee Shops in NYC
- Paintings
Brainstorm types of media

- images
- videos
- gifs
- pdfs
- charts
- maps
- audio
Brainstorm More Specific Goals

Domain: World peace

Domain: Save the planet

Domain: Improve Education
Brainstorm Specific goals for education

What person
Uses what media
And has what interaction with it
To achieve what goal?
What’s one thing somebody else said that you didn’t think of?
Khan Academy

Started as:

Videos to teach his niece fractions
Summary
Goal 1
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Clear needs, abilities, goal
Unclear needs, abilities, goal
Final Project (50% of your grade)

• Build a web application
• That allows a user to interact with media
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• Where the output of the goal must be visible within the app.

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General vs. Specific Goals

General Goal:
“Clean the house.”

Specific Goal:
“Fold that basket of laundry.”

General goals sound appealing, but specific goals are actionable: What **person** is going to execute what **action** on what **object** and get what **benefit**?
If you start general, you may never start.

Harvard students looking each other’s dorm, major and relationship status

If you start specific, you can usually generalize later.
Brainstorm many ideas before picking one.

The best way to have a good idea is to have lots of ideas.
- Linus Pauling

Save criticism for later. It impedes the process of having more ideas.
Homework 9 due Friday

Brainstorming:

- Domains
- Media usage in those domains
- Specific applications

Feel free to ask friends, staff, work together

Don’t forget the participation form!