Personas & User Testing

No screens

Prof. Lydia Chilton
COMS 4170
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Say your name
Goal 2
When the needs and abilities of users are unclear, design systems by learning from iteration and experimentation.

Make a website that uses multiple videos to achieve a goal

Clear needs, abilities, goal

Unclear needs, abilities, goal
How do we get from idea to execution?
Iterative Design mitigates risk:

Every new concept is a risk. Every risk needs to be prototyped.
Flare and Focus:
Try many options before picking one

Specific Idea
- Types of defense
  - Pick-and-roll
    - Shooting techniques
  - Rebounding

Technical Elements
- Pick and roll
  - Curry / KD
    - Knicks
    - Celtics
  - Celtics
    - Which one
    - Best teaches
    - The pick-and-roll?

- Many ways to break it down
- Prototype
  - On paper / Word Doc

Which video?
- Curry / KD
- Knicks
- Celtics

Which segments?
- Can we show a segment?
- HTML5, JSON datastructure

Prototypes start low-fidelity and increase in fidelity at every iteration.
Prototypes move from low-fidelity to higher-fidelity at every iteration

Finding your friend!

Help people be healthy!
Specific Idea

Types of defense
- Pick-and-roll
- Shooting techniques

Technical Elements

Prototype
- On paper / Word Doc

Can we show a segment?
- HTML5, JSON data structure

Which video?

Pick and roll
- Curry / KD
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Celtics
- Which one
- Best teaches
- The pick-and-roll?

Which segments?

Many ways to break it down

Our iterative process so far...
Now we have a computer prototype

ONE ESSENTIAL FEATURE

Playing the 5 Segments

User feedback
What’s the biggest risk?

All the elements are sorta “there”
It’s starting to feel like a real system...

BUT

Can a user work their way through the system step-by-step? And accomplish their goal.
Personas
Persona: The step-by-step story of how one person uses your application to achieve a goal.

Domain: Tourism

Persona: Michael Scott. NYC Tourist.
Goal: Get from Times Square to Sbarro

Idea:
Generate walking directions to help tourists get from A to B.

Here it is. Heart of New York City.
Step-by-Step Intent/Action/Feedback “Story”

**Persona:** Michael Scott. NYC Tourist.

**Goal:** Get from Times Square to Sbarro

1. He knows he’s in Times Square and he sees a destination box on the interface.
   He starting types “Times Square” until he sees it in the autocomplete.
   He selects it from the autocomplete and the map recenters to Times Square.
   From the map, he can see that location looks right to him.
Step-by-Step Intent/Action/Feedback “Story”

**Persona:** Michael Scott. NYC Tourist.
**Goal:** Get from Times Square to Sbarro

1. He sees a map with a dotted line connecting Times Square and Sbarro with an image of a person walking, indicating that this is the suggest path to take while walking.
2. He sees it is a 3 min walk and an easy path, and decides to walk.
It is important for the user to get some feedback that makes them “feel done”

**Persona:** Michael Scott. NYC Tourist.  
**Goal:** Get from Times Square to Sbarro
Why make up a step-by-step story for one person?

**Domain:**
Tourism

**Persona:**
Michael Scott. NYC Tourist.

**Goal:**
Get from Times Square to Sbarro

**Idea:**
Generate walking directions to help tourists get from A to B.
You can’t solve all the problems unless you solve one problem first.
But a persona is *just a story*. We need to test it on people to validate it.

**Persona:** Michael Scott. NYC Tourist.

**Goal:** Get from Times Sq to Sbarro

Can people actually follow that story?
User Testing

Base it on the persona. Tell them their concrete goal

Give them the interface. Try to let them work through it.

Be quiet and look for critical incidents.

**Persona:** Michael Scott. NYC Tourist.

**Goal:** Get from Times Sq to Sbarro

Any time you have to help them, that’s a “critical incident”

If they can’t get all the way to the goal, that’s a “critical incident”

If they reach the goal but are exhausted, confused, crying, or pissed at you, that’s a ”critical incident”

Then listen to their critique. They may not be very nice. Just write it down.
This is often the hardest part.

You have invested time and energy in this design

You can see how it could/would/should/might look in your mind’s eye.

You may discover big problems.
* Drifting drones
* Users can’t accomplish the task.

This is normal.
The good news is that You have a chance to pivot.
Classic Pivot Story #473
Upload and Share Photos
Example:
Pick-and-Roll
Idea: Break down basketball strategy so casual NBA watchers can recognize them.

Specific Idea
Types of defense
Pick-and-roll
Shooting techniques
Rebounding

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Is basic,
Good for video

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Which one
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Many ways to break it down

Prototype
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Which video?
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Which segments?

Technical Elements
Computer Prototype and User Feedback

ONE ESSENTIAL FEATURE
Feedback on one essential feature

**Feedback #1**
Users didn’t know where to focus their attention during each segment.

**Feedback #2**
Scrolling between items was a pain and ruined the “flow” between the steps.

**Feedback #3**
Takes time to find and click the play button. This also breaks the “flow.”

**Feedback #4**
I don’t know who “Larry” and “McHale” are.
Pick-and-Roll Iteration 2

Feedback #1
Users didn’t know where to focus during each segment

Solution
I added boxes around the areas of the video the user should focus
Pick-and-Roll Iteration 2

Feedback #2
Scrolling between items was a pain.

Solution:
I layered the videos on top of each other
And then added a menu to help track progress
Pick-and-Roll Iteration 2

Feedback #3
Transitioning between segments was still hard.

Solution:
I added keyboard shortcuts.
Pick-and-Roll Iteration 2

Feedback #4
I don’t know who “McHale” is and who I’m supposed to watch.

Solution:
I added a better title.
Watch Bird and McHale (in green) perform the pick-and-roll in 5 stages

1. McHale sets the screen
2. Bird fakes and moves
3. McHale peels out in front of his defender
4. McHale gets a pass from Bird
5. McHale shoots a layup
User feedback

“Yeah... it’s okay.

(long pause)

I just don’t quite get it.”
“Yeah... it’s okay.

(long pause)

I just don’t quite get it.”

There’s no clear problem, but users aren’t responding well. If you picked a hard/risky enough project, this will happen.
What do you do?
#1 Ignore it.

“If you ignore it, you have to have a good reason why.
“It’s a ballad - something you appreciate more the second time because it’s sensitive and introspective.”

1% of the time the users are wrong.

“It’s a ballad - something you appreciate more the second time because it’s sensitive and introspective.”

“Boring.”
“Slow.”
“Too complicated.”
#2 Punt it

You know it’s not perfect, but you’re out of time or money and you hope some users are just kind enough (or committed enough) to put up with it.
#3 Figure out why they feel that way then fix it.
People have no idea why they feel something.

WHY ARE YOU CRYING?

Hungry
Tired
Hurt
Sick
Diaper change
Bored

But sometimes you can figure it out for them.
Why does this feel bad?

Watch Bird and McHale (in green) perform the pick-and-roll in 5 stages

1. McHale sets the screen
2. Bird fakes and moves
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Pretend you are a user.
Do a step-by-step walk through the application in painful detail.
Try to experience their bad feeling.
You have to let go of your *positive opinion* and want to see their point of view.
Try to understand the problem.

The steps do feel disjointed. The “narrative” is not linear. Two people doing two things at the same time. What if we made the narrative linear. Sequence of events we could follow more easily. Like a timeline.
Think back to what the real goal is. Make sure you didn’t get lost in the details.

Watch Bird and McHale (in green) perform the pick-and-roll in 5 stages:

1. McHale sets the screen
2. Bird fakes and moves
3. McHale peels out in front of his defender
4. McHale gets a pass from Bird
5. McHale shoots a layup

What was the overall goal? What was the real reason I wanted this? To identify the pick-and-roll in NBA games. Did I actually accomplish that? NO. How would I?
I tried it myself.

I found Youtube clips of real NBA games with pick and rolls.
Why is this hard? What was I doing to identify the pick and rolls?

I focus too much on the person with the ball.
To find detect the pick-and-roll you have to watch out for the “helper” – McHale.
Pivot: **Follow McHale’s Actions in the Pick and Roll**

Learn how NBA stars get around the defense:
The Pick and Roll play

Play this video to see how Bird and McHale use the pick-and-roll to get around their two defenders to score a basket.

Here is a breakdown of the 3 stages of the pick-and-roll.
Bird starts with the ball, but follow what McHale does to score.

1. **The Pick**
   McHale stands next to Birds defender so Bird can get around him

2. **The Roll**
   McHale rolls out in front of his defender to receive a pass from Larry

3. **The Score**
   McHale shoots a layup

**Quiz:** See if you can spot the pick and roll in these real NBA clips

Can you figure out which player is doing McHale's role?
Pause the video when you think the pick is set and press 'check' to see our answer.
Introduce the step up.
Let users feel how complicated it is.

Learn how NBA stars get around the defense:
The Pick and Roll play

Play this video to see how Bird and McHale use the pick-and-roll to get around their two defenders to score a basket.
Tell them to follow McHale.
Now the 3 steps proceed linearly.

Here is a breakdown of the 3 stages of the pick-and-roll.
Bird starts with the ball, but follow what McHale does to score.

1. The Pick
McHale stands next to Birds defender so Bird can get around him

2. The Roll
McHale rolls out in front of his defender to receive a pass from Larry

3. The Score
McHale shoots a layup
Design an interaction where users can feel that they have accomplished the goal.

Quiz: See if you can spot the pick and roll in these real NBA clips

Can you figure out which player is doing McHale's role?
Pause the video when you think the pick is set and press 'check' to see our answer.
Is design really this hard?

Or are we just stupid?
Design requires synthesizing many elements that are completely dependent on each other.
Design requires synthesizing many elements that are completely dependent on each other.

Idea:
Help NBA fans Recognize the strategy during games
Can we “know” the whether a solution is computable without having to compute it?

No. We have to run the algorithm.
Graphic Design is the final step. Why?
Domain: Toys

Toys don’t want to be forgotten so they find a way to move with their owner.

High level Idea

Low-level Mechanics

Technical Aspects

Graphic Design

Script
Casting
Storyboard

Rendering 2 hours of digital movie

Cinematography

Does this character look like a nice guy?

Does he sound like a nice guy?

Does this character look like an asshole?
High level Idea

Domain: Mapping directions

Give a user directions of how to walk from A to B.

Low-level Mechanics

User wants to get walking directions from Met to The Empire State Building

Start typing “Metropolitan Opera house”

A drop down appears. Select “Metropolitan Opera house” from autocomplete

The map recenters on that destination. The user sees it is correct.

The type “Empire state building”

... They see a map with a visible path laid out and walking

Technical Aspects

Having a database of map information
Querying them fast enough to use.
Rendering the route.
Writing turn by turn directions

Can I see where to input the information?
Can I see the feedback?

Information Hierarchy
Gestalt (grouping)
Layout (grid?)
Position (top, bottom, etc.)
Size,
Whitespace,
Contrast,
Color,
Images/icons/media,
Domain: NBA

Break down the pick-and-roll
So casual NBA fans can recognize this strategy during play.

Low-level Mechanics

Can play the clips of the video

Technical Aspects

Does it look like I can proceed to the next step?

Does it look like I can accomplish this goal simply?

Graphic Design
Final Project Requirements

Due 11:59pm on Monday April 30, 2018
1. Working system

Create a website where a single user can interact with multiple videos (or one video in multiple ways) to achieve a specific goal within a domain.

IMPORTANT: the user must be able to accomplish a specific goal and get feedback of that goal as a “reward” to signal their success.
2. Write Up: The Idea

What is the domain?
What who is the specific person it serves?
What videos (or multiple parts of one video) does it use?
How does that person interact with the system?
What specific goal does it meet?
Why is that goal hard?
How does the user know when they have achieved that goal?
3. Write Up: 3 Key Implementation Decisions

Name three implementation decisions you made.
What user need drove these.

Example:
To teach the pick-and-roll in step-by-step segments, I used HTML5 video player in order to “clip” segments from the video.
4. Write up: Persona and Low level user intent/actions/feedback to complete the goal

Include a write up of how a particular user persona would complete multiple low-level actions and receive feedback of them while trying to achieve their goal.

Like assignment #3, but with the changes seen in these slides
5. Write up: 3 Key Design Decisions from user feedback

Include a write up of 3 important design decisions you made to suit the needs and abilities of users. These design decisions must have come from feedback given during critique or user testing (either done in class or outside of class).

For each of the three design decision
1. What was the user need?
2. What was your original design?
3. What feedback did you receive and how did you solicit it?
4. How did you iterate on your design to accommodate this feedback?

If you can’t think of 3 design decisions you made based on user feedback then you probably to pick a more specific or demanding user goal.
6. Write up: Graphic Design Intent and implementation

Write up: Graphic Design
Include a write up of 3 ways you used each of the conceptual tools in your website to convey your design intent. For each conceptual tool, say what your design intent was, how you achieved it with that tool, and show a screen shot. (Like assignment #2)

Intent:
I want to user to know where to focus in each of the videos

Color:
I consistently use green blocks to indicate areas where the user should look. Green means “go” and the green is picked it eye catching. I want the user’s eyes to go there.
Milestone #9

Due Monday 4/23 in class
Milestone #9: Conduct user tests based on your persona

You must tell users who they are:
And what their goal is:

They must realistically do the task from beginning to end. Like watching a movie. You can’t fast forward thru the boring stuff. You can re-do the interface so that there is no boring stuff. They must do it all during the 10 minute user study.

No 40 minute videos!
No placeholder videos.
Real tasks, real videos, real need.
So you can test if you are really meeting the user need.
TRY IT YOURSELF BEFORE YOU TORTURE SOMEBODY ELSE WITH IT.
Schedule

4/23 Monday: Milestone #9 User Testing on each other
4/25 Wednesday: Milestone #10 Graphic design.
   No lecture. More individual meetings during class time
4/30 Monday:
   • Projects due at midnight
   • No Presentations. Instead. Final Exam Review.
Summary
Prototypes start in low-fidelity and move to higher fidelity in every iteration.

Specific Idea

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Technical Elements
At this point, you have a computer prototype

Playing the 5 Segments

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Technical features
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**Persona:** Michael Scott. NYC Tourist.
**Goal:** Get from Times Square to Sbarro

![Map showing directions from Times Square to Sbarro](image)

Here it is, Heart of New York City.
User Testing: Worst case scenario

“Yeah... it’s okay.

(long pause)

I just don’t quite get it.”

There’s no clear problem, but users aren’t responding well. If you picked a hard/risky enough project, this will happen.
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