Formal Usability Testing

when do you use it?

Let's do a usability test

what were the differences?

- HAVE A **PLAN** FOR WHAT YOU ARE TESTING
- PLAN **REALISTIC** TASKS FOR **REALISTIC** SCENARIOS
- INTRODUCE WHAT YOU **EXPECT** THE USER TO DO
- **DO NOT** INTRODUCE YOURSELF AS **THE DESIGNER**
- ALWAYS BLAME THE PROTOTYPE, NEVER THE USER

- OBSERVE QUIETLY
- ASK OPEN QUESTIONS AND LOTS of WHY
- DON'T LEAD THE USER OR ASK LEADING QUESTIONS
- ASK ABOUT THIS PROTOTYPE NOT SOME OTHER HYPOTHETICAL SITUATION
- ASK THE USER TO THINK FOR THEIR SITUATION, NOT OTHERS

let's make a
test plan

Example prototype
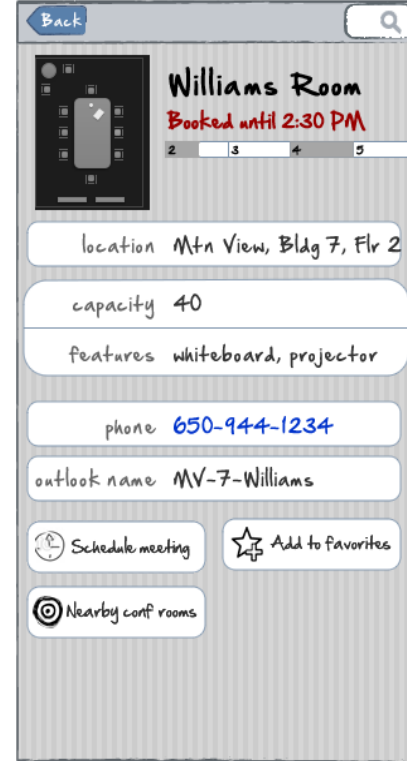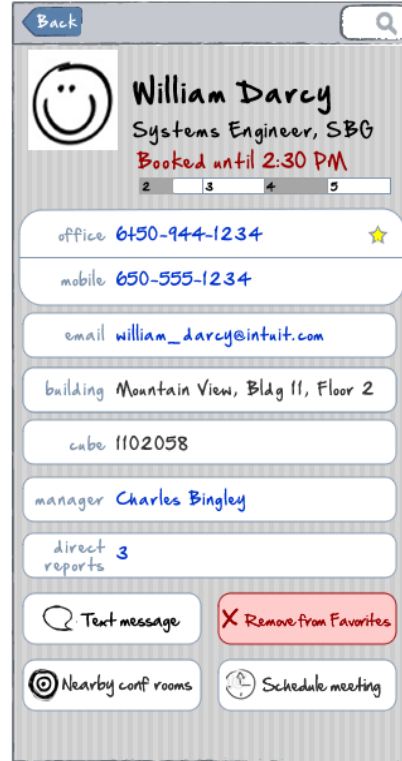
Step 1: Goal setting

- What is your prototype focused on?

- What do you want to learn?

- Features? Target audience? Usability? Compare two or more ideas?

Example: Goals

- Understand if this is useful at a high level and when people might use it

- Understand if the right specific features are available for accessing directory info

- Check if we have the right content on the person profile page

- Test the usability of basic tasks

Now you do it

- Discuss your possible goals for testing
- Select 1-2 goals and write them down

Step 2: Target user

- Who do you want to test with?
- Where will you find them?
- How many? 3-6
  - 3 is absolutely bare minimum but not great
- Consider compensation

Example: Target user

- People who have impromptu meetings
- People who work in a large company with a directory & many conference rooms
- Mix of start-up and large companies
- Recruiting options: Stop by lunch room and intercept, Craigslist recruit, snowball recruit
- Compensate: $10 Amazon gift certificate

Ethical Considerations

Usability tests can be distressing users have left in tears

Testing/fieldwork can be coercive if there is a power imbalance (e.g., in under resourced communities)

http://centread.ucsc.edu/CenTREAD%20photos/BrianDowd2.JPG

People may feel no option but to speak to you or give you their time even though they may not get anything of value in return.

Ethical Considerations

You have a responsibility to alleviate these issues

make voluntary with informed consent (form)

avoid pressure to participate

let them know they can stop at any time

stress that you are testing the system, not them

make collected data as anonymous as possible

Sometimes must get human subjects approval (IRB)

Now you do it

- Decide on a your target audience

- Write down a description and criteria

- Discuss how you'll find them and any ethical considerations

Step 3: Tasks and Prompts

- Are you trying to understand general use OR interaction with specific areas?

- Plan free observation AND specific tasks

- Tasks from from your original tasak plan can be used

- Try not to train unless that will happen in real deployment

- Avoid bending tasks in direction of what your design best supports

- Don't choose tasks that are too fragmented ?
  – fragmented = do not represent a complete goal someone would try to accomplish with your application

Step 3: Tasks and Prompts

- Start open ended: **What is this?** OR **What do you think is going on here?**

- Is it easy for people to be in the scenario or will you have to create an environment?

- Keep the test short: 3-4 tasks max

Example: Open prompt

Task 1: Explore application

Imagine that you just installed an iPhone app provided by your company that you were told is some kind of online directory. Youve finished installing it, opened it up, and this is what comes up on your screen. I want you to take a look and let me know what you think. And remember to think out loud.

What are your first impressions?

Example: Specific task

Task 2: Add a favorite

Imagine that you do a lot of work with John Smith and you'd like him to access him all the time in you Favorites. Show me how you might do that.

Experience prototype grey area

engineered experience

Now you do it

- Make a list of areas you want to test
- What prompt can you give the user to test those areas?
- Will any scenario need to be created to support those tasks?
- Is the scenario easy to imagine or will it need to be engineered?

Refine: Tasks/Scenarios

- Consider a natural order for the tasks

- At a minimum go from general to specific

- If you are doing comparisons, let people discuss one option, then the second, then compare the two

- For each task, come up with the questions you might want to ask to really understand the user's behavior *BUT REMEMBER – AVOID LEADING*

Example: Refinement/Order

Task 1: Explore application

Imagine that you just installed an iPhone app provided by your company that you were told is some kind of online directory. You've finished installing it, opened it up, and this is what comes up on your screen. I want you to take a look and let me know what you think. And remember to think out loud.

- – What's you're first impression?
- – What do you think is going on here?
- – What sorts of things do you think you can do in this app?
- – How might you use it?
- – What would you do next?

Task 2: Add a favorite

Now imagine that you do a lot of work with John Smith and you'd like him to appear in this first page that we looked at that has the Favorites label at the top. Show

me how you might do that.

- – *How did that go?*
- – *Anything confusing or frustrating about that?*
- – *Is that something that you ever do on your current phone? Why (not)? How does it compare?*

Now you do it

- Start with some open ended questions
- Order the tasks from general to specific
- For each task, write down some follow-up questions

Step 4: Fill in the details

- Create an intro
- Ask some background questions
- Add in your tasks/scenarios
- Add wrap-up questions at the end

Example: Introduction

- We're here to get your feedback on some new ideas for a phone directory application

- We have a prototype of one of the ideas to show you in its early stages to get your initial impressions and we will give you some tasks to try out.

- As we go through the task, I want to encourage you to **think out loud**, and if anything is confusing or you don't like it, don't hesitate to let me know.

- I didn't design this product, so you won't hurt my feelings. My only goal today is to get your feedback on what does and doesn't work for you.

Example: Background Q's

Let's start with some background questions

- How many meeting per week do you have?

- Are you generally setting up the meetings or are you a participant?

- Do you ever have to set up meetings or contact people about meeting while you are away from your desk?

- How does that work for you right now?

- If you have contact someone else at your company while you are away from your desk and you don't have their number, what do you do right now?

Example: Wrap-up questions

- How'd that go?

- What do you think about this app?

- Anything especially confusing or that you didn't like?

- Anything that you liked?

- How do you think it compared to what you do currently?

- Thanks for your time!

Now you do it

- What do you need to introduce?
- List the background questions you might want to ask your participants
- What else needs to be done to get ready?

Final Tips

- Put all of these plans together in one document called a Discussion Guide

- Be prepared to alter scenarios on the fly in response to what happens

- Leave time to update your prototype to accommodate the tasks you're testing

- Ask a lot of why and encourage thinking aloud

- Run a pilot on a teammate or friend

Using the Test Results

- Summarize the data
  - make a list of all observations
    - positive & negative
  - include references back to original data
  - try to judge why each difficulty occurred

- What does data tell you?

- Discuss solutions

http://www.hhs.gov/ocr/privacy/hipaa/enforcement/data/index.html

What's up next

- Update your design per the heuristic evaluation
- Run a study to further your design on a medium-fi prototype on 3-6 people in your target audience
- Formal usability test OR experience prototype: your choice
- Results due Monday, 5/16: detailed version and high level summary to present
- Divide & conquer to build your final high-fi prototype