Assessing Technical Feasibility

No screens

Prof. Lydia Chilton
COMS 4170
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How do we get from idea to execution?
The Waterfall Model

Intuitive and linear, but **risky**
**Not flexible** enough to adapt to unknowns

Idea
Requirements
Design
Implement
Fix bugs
**Finished Product!**
Iterative Design mitigates risk:

Every new **concept** is a risk. Every risk needs to be **prototyped**.

Idea -> Design -> Evaluate -> Prototype -> Design -> Evaluate -> Prototype -> Product
Flare and Focus
Prompt:
A website that uses multiple videos
To solve a specific problem in a domain

Idea:
Decompose baking videos into segments that novice bakers can easily follow while they bake.

Flare and focus:
Exploring many ideas before picking one
Idea: Teleportation
Sequential Flare and Focus

Brainstorm
- Paper Prototype,
  - User test

Explore technical options
- Run them locally
  - Fit to your problem

Multiple Medium-Fidelity Interface

User Testing

Ideas
Technical Elements
User Interface
What were the two biggest technical risks of DroneIO?
DroneIO: Can the drone lift the weights?
DroneIO: Can the depth sensor detect gestures?

Technical Elements
Columbia Paper Infinity: Autocomplete

Autocomplete
How good should a technical feasibility prototype be?

Should it be pretty? Should it be usable? Should it work in IE6?
Assessing Technical Feasibility for Your Site

Create segments in a Video that play on a loop

Google it

Find example code

RUN IT LOCALLY

We are assessing technical feasibility. If it doesn’t run locally on your machine it isn’t technically feasible.
Why do I need to run examples locally?
Why does Gordon Ramsey do this?
What other domains use a staging area?
Why is it important to have drones and projectors ready to use?
UI Design Philosophy Corner!

**ready-to-hand**

The technology disappears in one’s hand as the **user** focuses on the immediate performance of the tool. Heidegger terms this condition of the tool as ‘**ready-to-hand**’ (*Zuhandenheit*) because the tool, through the experience of the user, is fused with the body.
Not everything will work. Is that okay?
“I tried silk chiffon, but it didn’t work.”
“I tried jQuery Autocomplete, but it didn’t work.”
MAKE. IT. WORK.
Milestone #6: Lo-Fi Computer Prototype Technical Feasibility
(Due Monday 4/9 @ noon on Piazza)

• What is your idea?
• What 3 technical aspects were you testing?
• Show a screen shot of each one.
• Reflection: what technical issues did you run into and how did you solve them or pivot away from them?
What technical risks are you going to prototype for Milestone #6?
What technical risks are you going to prototype for Milestone #6?

• Buddy up! Do this as a team, as long as each of you gets the code to run on your own machine.
TA Office Hours

Tessa: Thursday 9:30 - 11 AM
Lucille: Friday 10:30 - 12 PM
Eleanor: Monday 1:30 - 3:30 PM