PROTOTYPING
SKETCHING
STORYBOARDING

Slide credit: James Fogarty, Scott Klemmer
Users

- User groups
  - Typical/Extreme users
- Participants
- Personas

Recap

All humans

Your potential users
Task analysis questions

1. **Who** is going to use the system?
2. What are the **currently possible tasks**?
3. What are currently unavailable **desired tasks**?
4. How are tasks **learned**?
5. **Where** are the tasks performed?
6. What is the relationship b/w **user and data**? Types of data?
7. What **other tools** does the user have?
8. How do users **communicate** with each other?
9. **How often** are the tasks performed?
10. What are **time constraints** on the tasks?
11. What happens **when things go wrong**?
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Example

• Problem: Taking care of a plant

• Tasks:
  – Finding plant care needs: sunlight, watering frequency
  – Watering the plant
  – Fertilizing the plant
  – Saving the plant when it is ill
  – Noticing and remembering to care for a plant
Hierarchical task analysis (HTA)

- Steps of the task execution (detailed in a hierarchy)

**FINDING PARKING**

- determine destination
- drive to destination
- locate and secure parking spot
- park
- pay
- enter address in GPS
- follow directions
- arrive at destination

...
Assignment 2d
Today

• Prototyping
  – Sketching
  – Storyboarding
Prototyping in design

[Bayles and Orland, 2001]
Prototyping in design

Class-A: Graded on quantity

Class-B: Graded on quality

Which produces best quality?

[Bayles and Orland, 2001]
Prototype fidelity

Storyboarding

Time
Prototype fidelity

Fidelity

Time

Paper prototypes

Storyboarding
Prototype fidelity

Fidelity

Digital mockups

Paper prototypes

Storyboarding

Time
Prototype fidelity

Fidelity

Time

...  
Digital mockups
Paper prototypes
Storyboarding
Prototype fidelity

- Storyboarding
- Paper prototypes
- Digital mockups
- Static HTML

Time →

Fidelity ↑
Prototype fidelity

Fidelity

Time

Dynamic

Static html

... 

Digital mockups

Paper prototypes

Storyboarding
Prototype fidelity

Fidelity

- Storyboarding
- Paper prototypes
- Digital mockups
- Static html
- Dynamic
- Database

Time
Storyboarding
Storyboarding

good storyboards have the person
Storyboarding

It is not about pretty pictures, it is about communicating ideas
Storyboarding

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Sketching

When we abstract an image through cartooning, we’re not so much eliminating details as we are focusing on specific details. By stripping down an image to its essential “meaning,” an artist can amplify that meaning in a way that realistic art can’t.
Sketching people

Star people by Bill Verplank

Keith Haring

(c) 2009 SACHA CHUA
Storyboarding from Amal’s guide

http://blog.viktorkelemen.com/2012/06/amals-guide-to-storyboarding.html
Storyboarding

illustrate the goal

http://blog.viktorkelemen.com/2012/06/amals-guide-to-storyboarding.html
Storyboarding

show accomplishment of the goal

http://blog.viktorkelmen.com/2012/06/amals-guide-to-storyboarding.html
Storyboarding

• **Setting**
  – People involved?
  – Environment?
  – Task being accomplished?

• **Sequence**
  – What steps are involved?
  – What leads someone to use the app?
  – What task is being illustrated?

• **Satisfaction**
  – What's the motivation for the user?
  – What's the end result?
  – What need are you "satisfying"?
Benefits of Storyboarding

• Avoid commitment to a particular interface
• Get on the same page
Guidelines for Storyboarding

• Level of detail
• Inclusion of text
• Inclusion of people and emotions
• Number of frames
• Portrayal of time

How much detail?
Use of text?
Use of text?

1. At home, Mary checks her blood pressure.

2. After a few simple key presses, her blood pressure readings get sent to a clinic.

3. The information is made available to her doctor.
Use of text?

1. At home, Mary checks her blood pressure.
2. After a few simple key presses, her blood pressure readings get sent to a clinic.
3. The information is made available to her doctor.

often necessary but keep it short
Include people and emotions? totally!
Include people and emotions? **totally!**
How many frames?
How many frames?
Passage of time?

Museum of Modern Art

This painting was created in the early 1990's. Proceed to the Blue Room, it's the next stop on our tour.

You are now exiting the green room. The next stop on our tour is...

On this side of the room you'll find...
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http://dx.doi.org/10.1145/1142405.1142410
Tricks

• Action lines
• Trajectories
• Collisions/contacts
• Sweat
• Gaze lines
• Camera views
• ...
More examples, please critique

1. User asks Rosie for a book (by title, author, genre, etc.)
   Rosie will check her DB to or asks about a book.

2. If user asked for a book
   Rosie will check her DB to make sure she has it. If yes,
   then Rosie looks for the book. If asked about a book, Rosie will supply info, then wait.

3. Rosie grabs the book and takes it to the user.

4. User looks at the book, then gives it back to
   Rosie. Start the sequence over.
More examples, please critique
More examples, please critique
Exercise

Make a storyboard of a robot helping with an everyday task/problem

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- Inclusion of text
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- Setting
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