

CSE 440: Introduction to HCI

User Interface Design, Prototyping, and Evaluation!

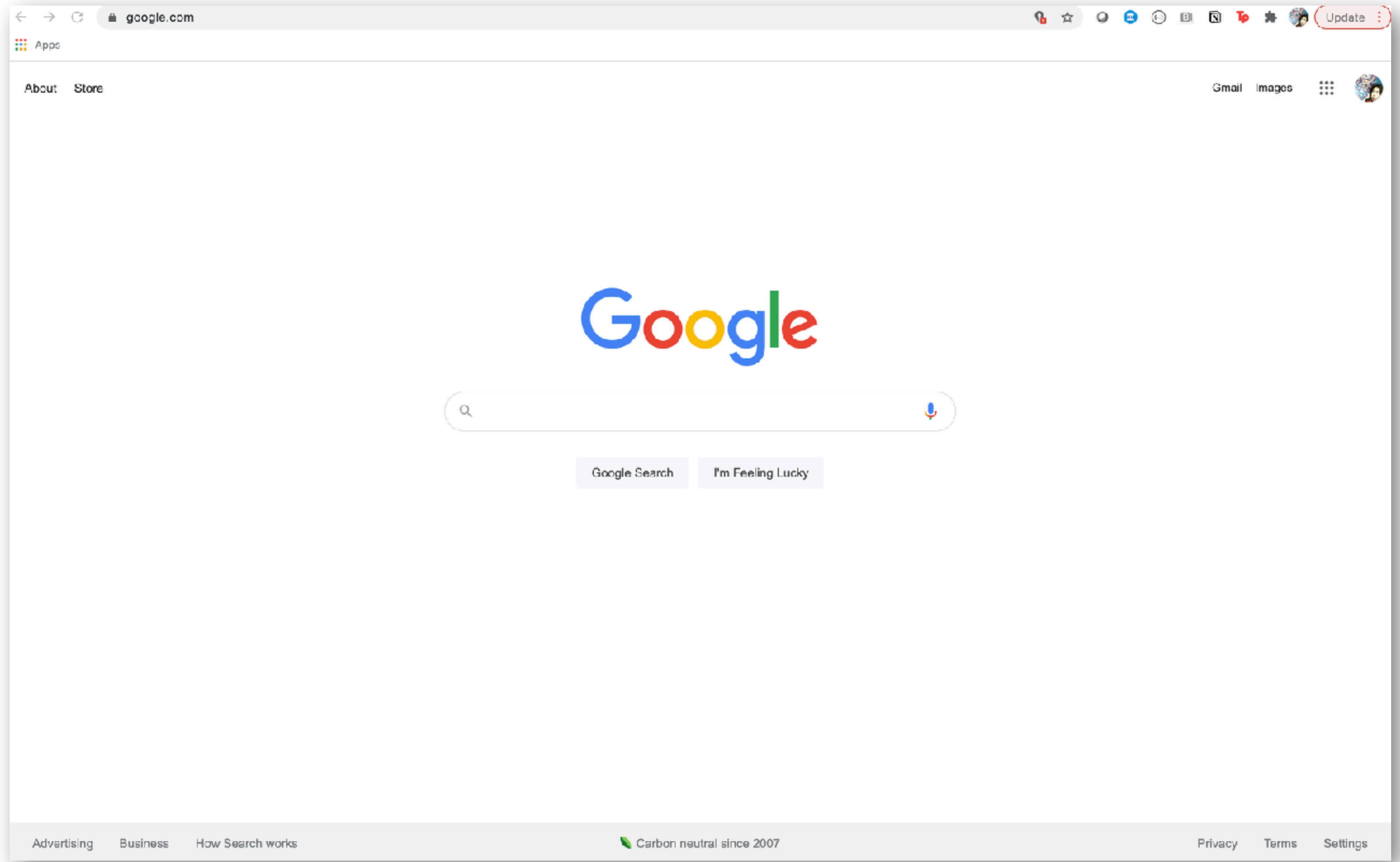
Lecture 10: Storyboarding

Instructor: Amy Zhang, 2/4/2021

Today's Topics

- UI Hall of Fame and Shame
- Storyboarding
 - 5 Considerations in a Storyboard
 - Tips and Tricks
- Class updates
- Team work time on 2e

UI Hall of Fame and Shame



Fame or Shame?

Learnability for
novice users?

1999





1997–1998



1998–1999



1999–1999



1999–2010



2010–2013



2013–2015



2015+

Storyboarding

Why do we need stories in design?

Stories help explain the experience of something to someone who hasn't experienced it before.

Three ways of telling stories in design:

- **Scenarios**
 - A short story about a specific user with a specific goal
 - Written accounts and narratives of the experience
 - Analogy: Books
- **Storyboards**
 - A series of drawn panels showing how a user might progress through a task in a system
 - Visual storytelling with rough sketches/cartoons
 - Analogy: Comics, Picture books
- **Video Storyboards**
 - Richer visual storytelling
 - Analogy: Movies/TV



<https://www.commoncraft.com/video/twitter>

Storytelling

- Stories have an **audience**
 - Other designers, clients, stakeholders, managers, funding agencies, potential end-users
- Stories have a **purpose**
 - Gather and share information about people, tasks, goals
 - Put a human face on analytic data
 - Spark new design concepts and encourage innovation
 - Share ideas and create a sense of history and purpose
 - Giving insight into people who are not like us
 - Persuade others of the value of contribution

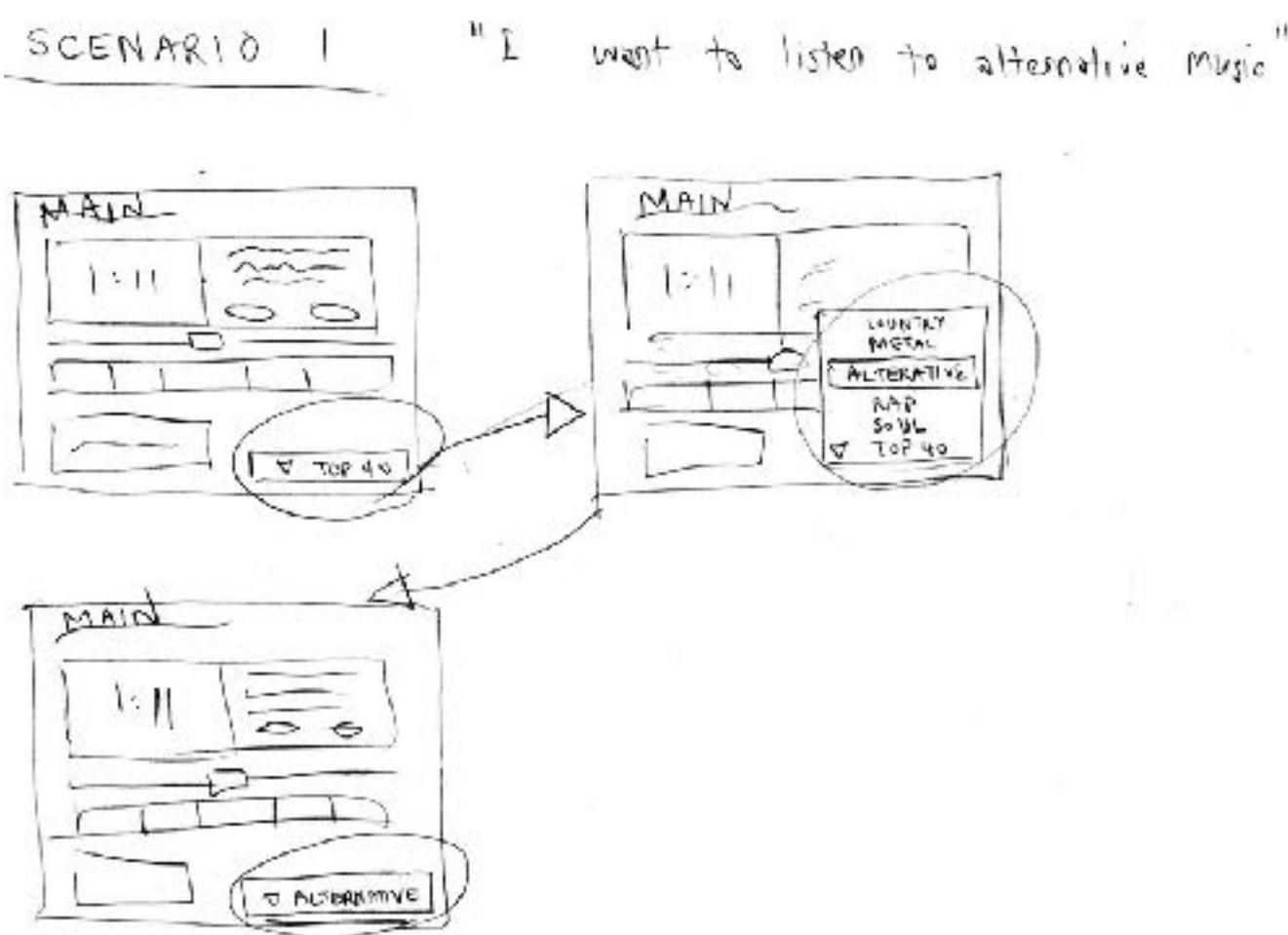
Stories Provide Context

- Characters
 - Who is involved
- Setting
 - Environment
- Sequence
 - What task is being accomplished
 - What leads a person to use your technology
 - What steps are involved
- Satisfaction
 - What is the motivation for the user?
 - What is the end result?
 - What need are you satisfying?

2a



2e



2f

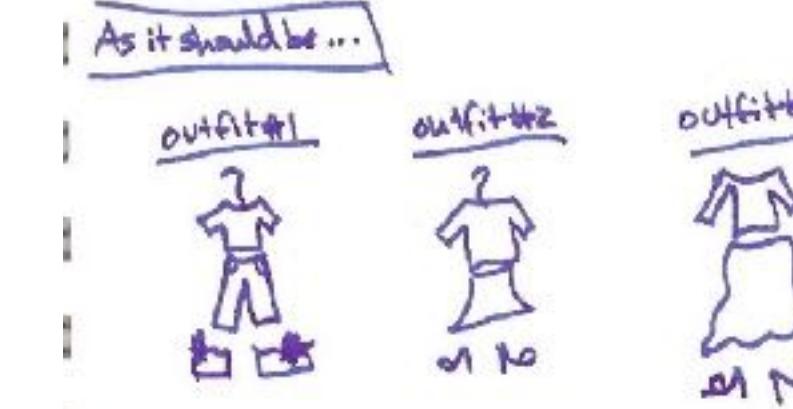


Sketch -----> Storyboard

Sketches (2a)



STORE FOR THE STYLE-CHALLENGED

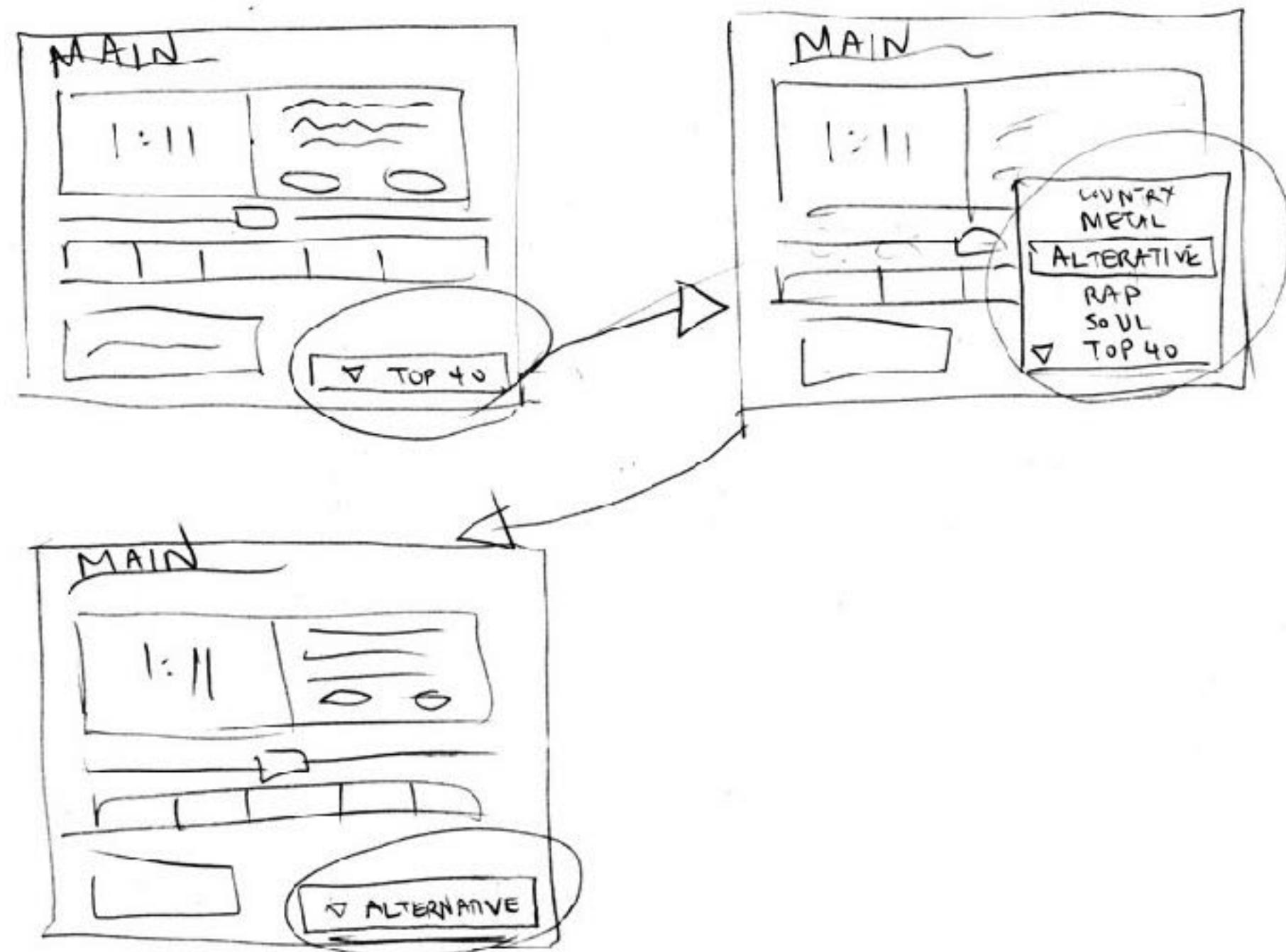


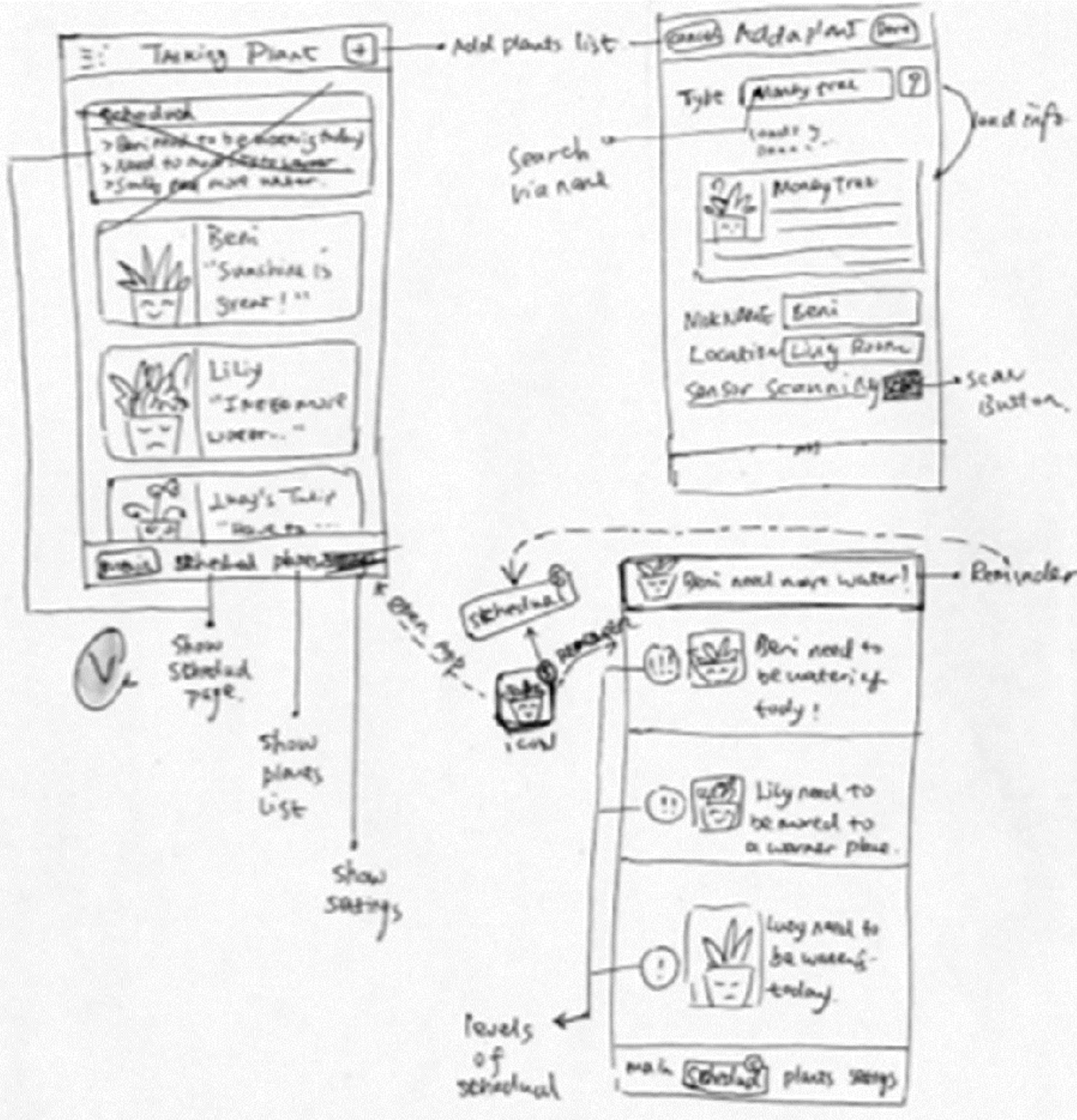
(pre-selected to match so you don't
have to choose.)

Sketches (2e)

SCENARIO 1

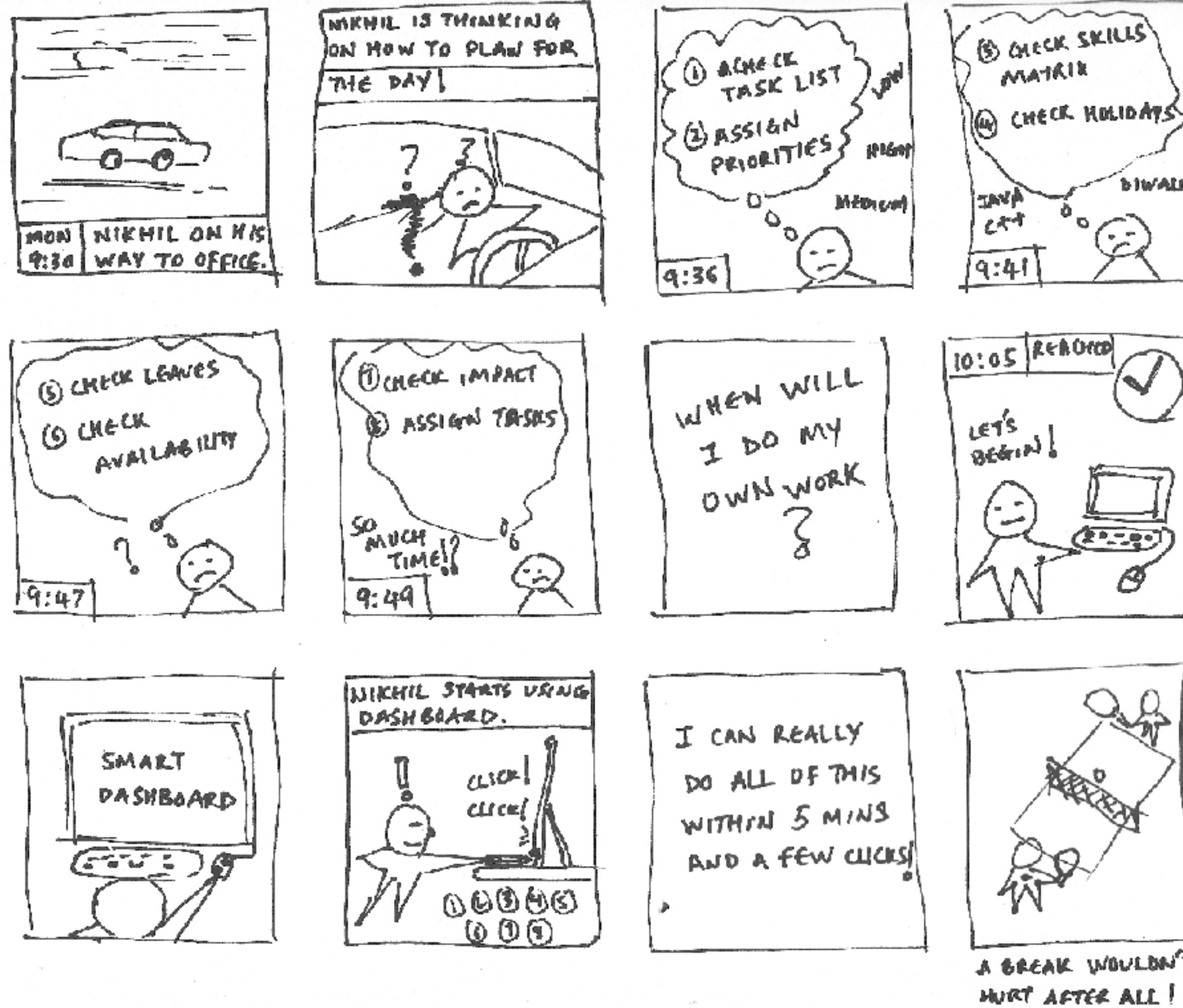
"I want to listen to alternative music"



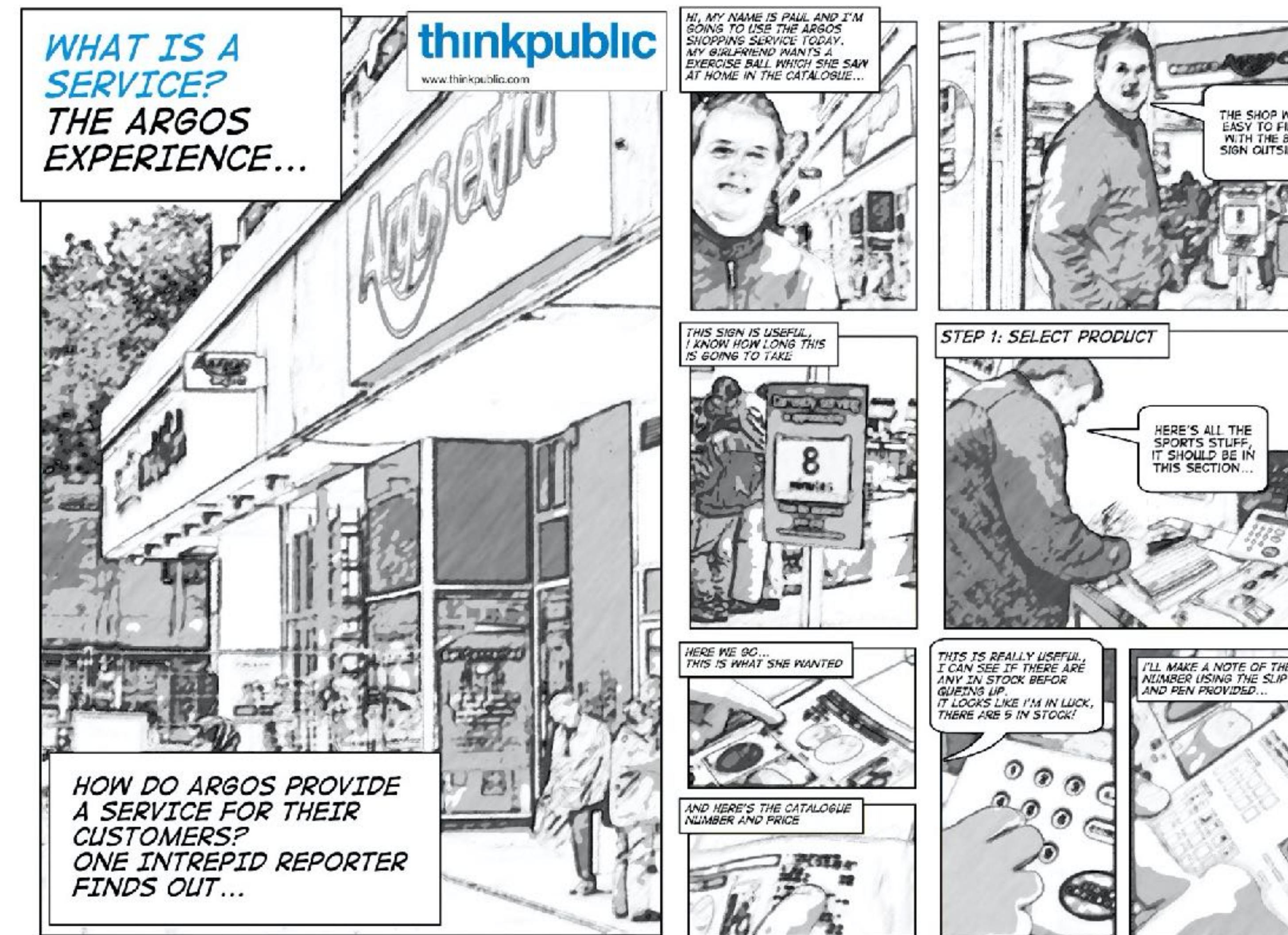


Sketches (2e)

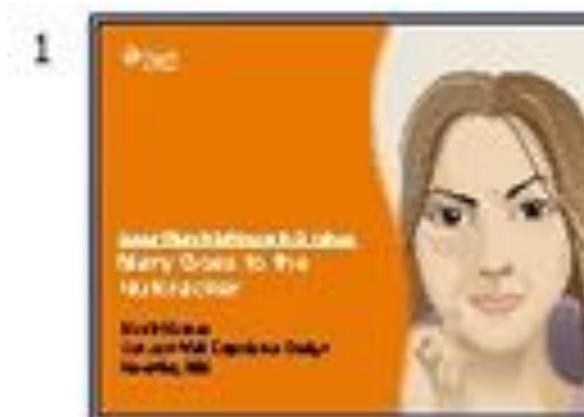
And finally... a storyboard! (2f)



Storyboards (2f)



Storyboards (2f)



Slide 1



Sugar Plum Dreams



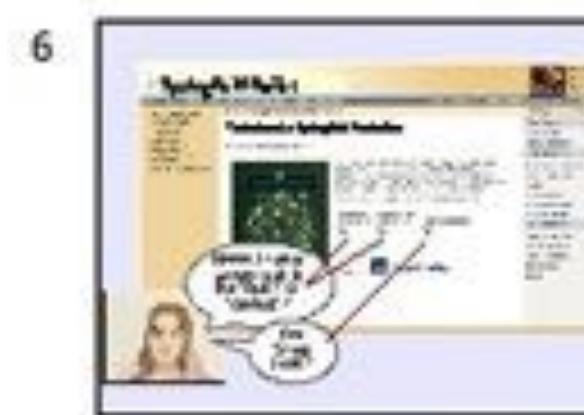
No problem, typing



Here's the Page



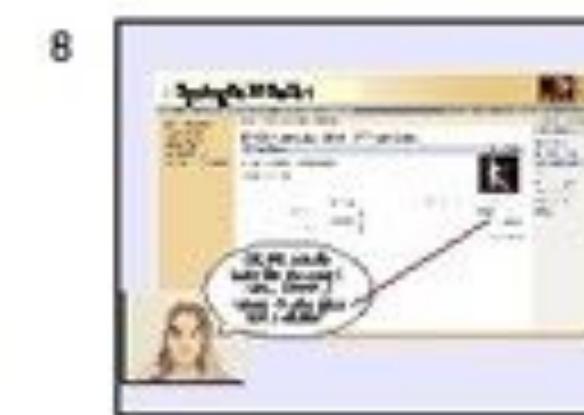
There it is



Peak and off peak?



I'll Try



Dates OK No Price?



OK Shows Price



Type Type Type



Blank Price



Back Back Back



Still \$0



Arrgh



Send Form



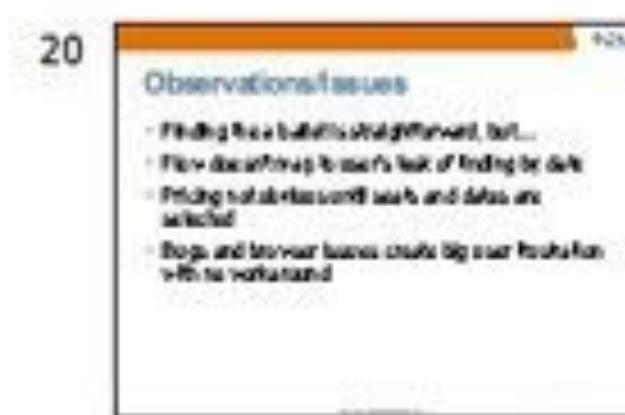
Annoying



I don't get it

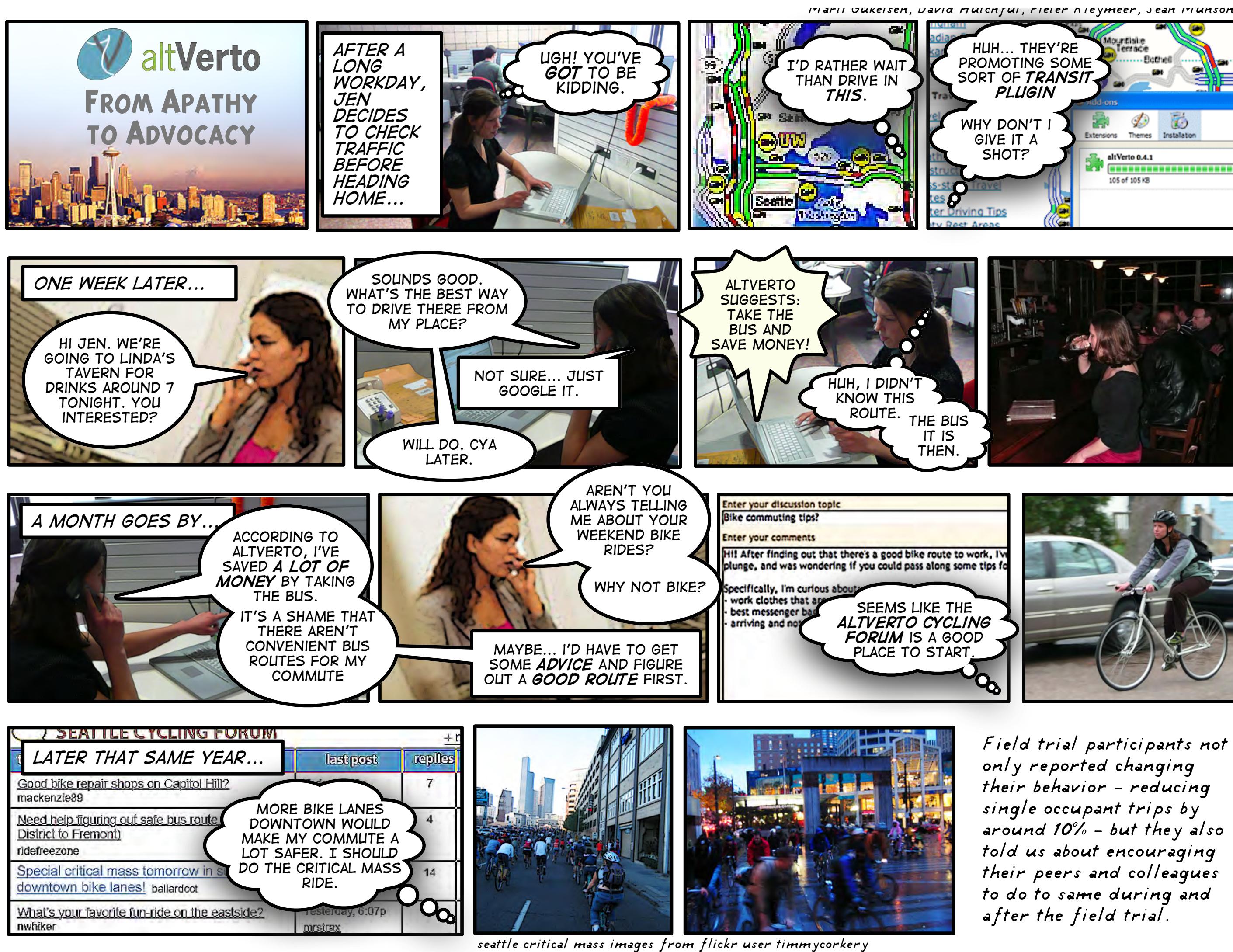


Hello Radio City



Slide 20

Storyboards (2f)

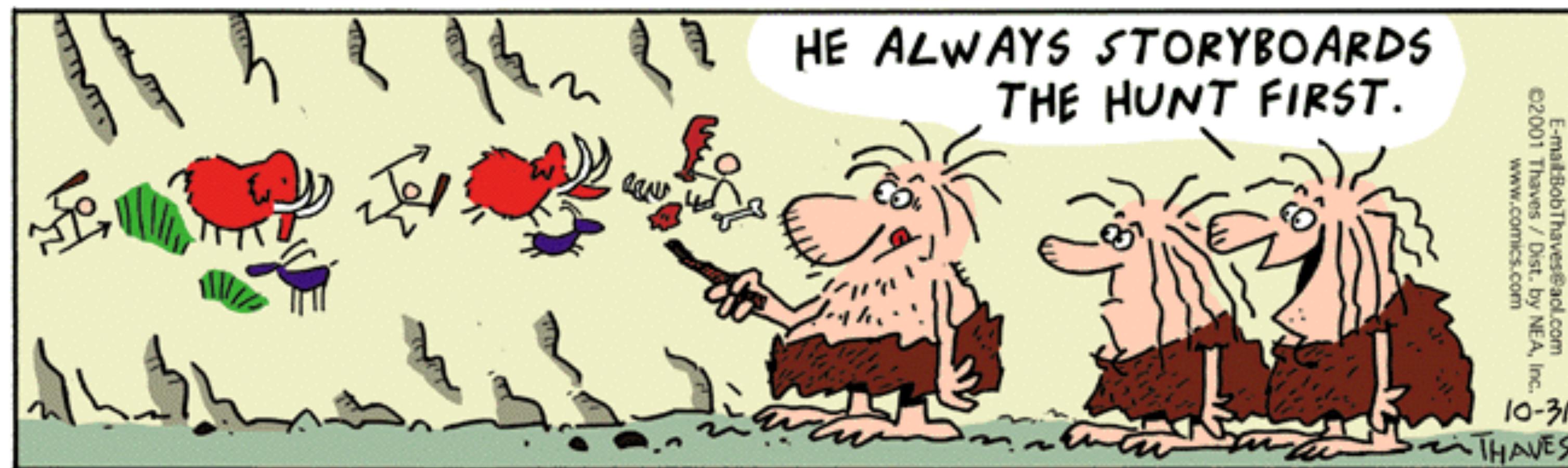


Why Storyboards if you have Scenarios?

- They help you think more deeply about...
 - Specific details about the environments where the system is used
 - Physical constraints (size of system, space where it's used)
 - Relationship among multiple people
 - Feelings and concerns of people

Illustrating Time

- Storyboards come from film and animation
- Give a “script” of important events
 - leave out the details
 - concentrate on the important interactions



Allowing Exploration

- Still relatively fast and inexpensive to produce
 - Can explore more potential approaches
 - Notes help fill in missing pieces of the proposal



Effective to communicate

- Effective storyboards can quickly convey information that would be difficult to understand in text
- Imagine explaining the storyboard on the right in text, for various audiences



5 considerations in a storyboard

5 Considerations in a Storyboard

1. Level of detail
2. Inclusion of text
3. Inclusion of people and emotions
4. Number of frames
5. Portrayal of time

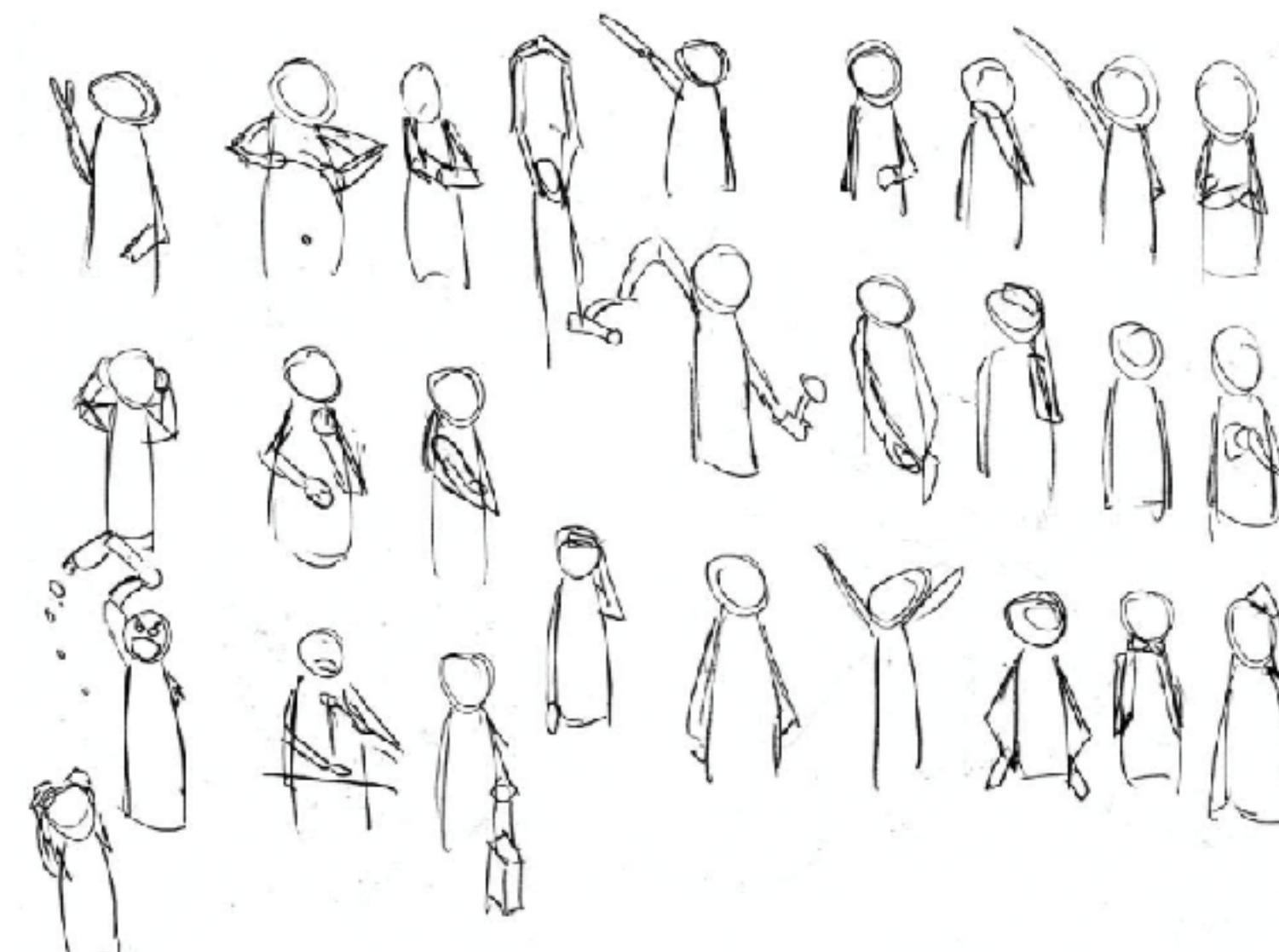
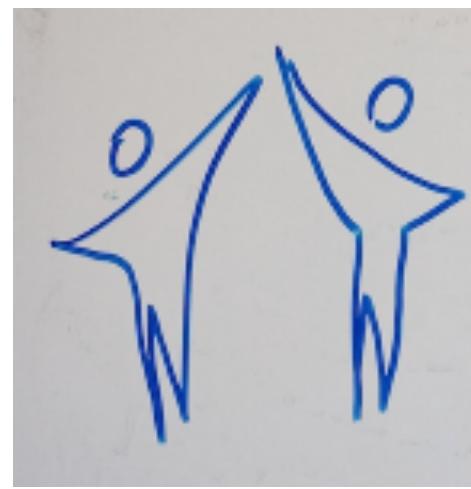
Truong, Khai N., Gillian R. Hayes, and Gregory D. Abowd. "Storyboarding: an empirical determination of best practices and effective guidelines." *Proceedings of the 6th conference on Designing Interactive systems*. 2006.

1. Level of detail

- Guideline: too much detail can lose universality
- How to draw people?



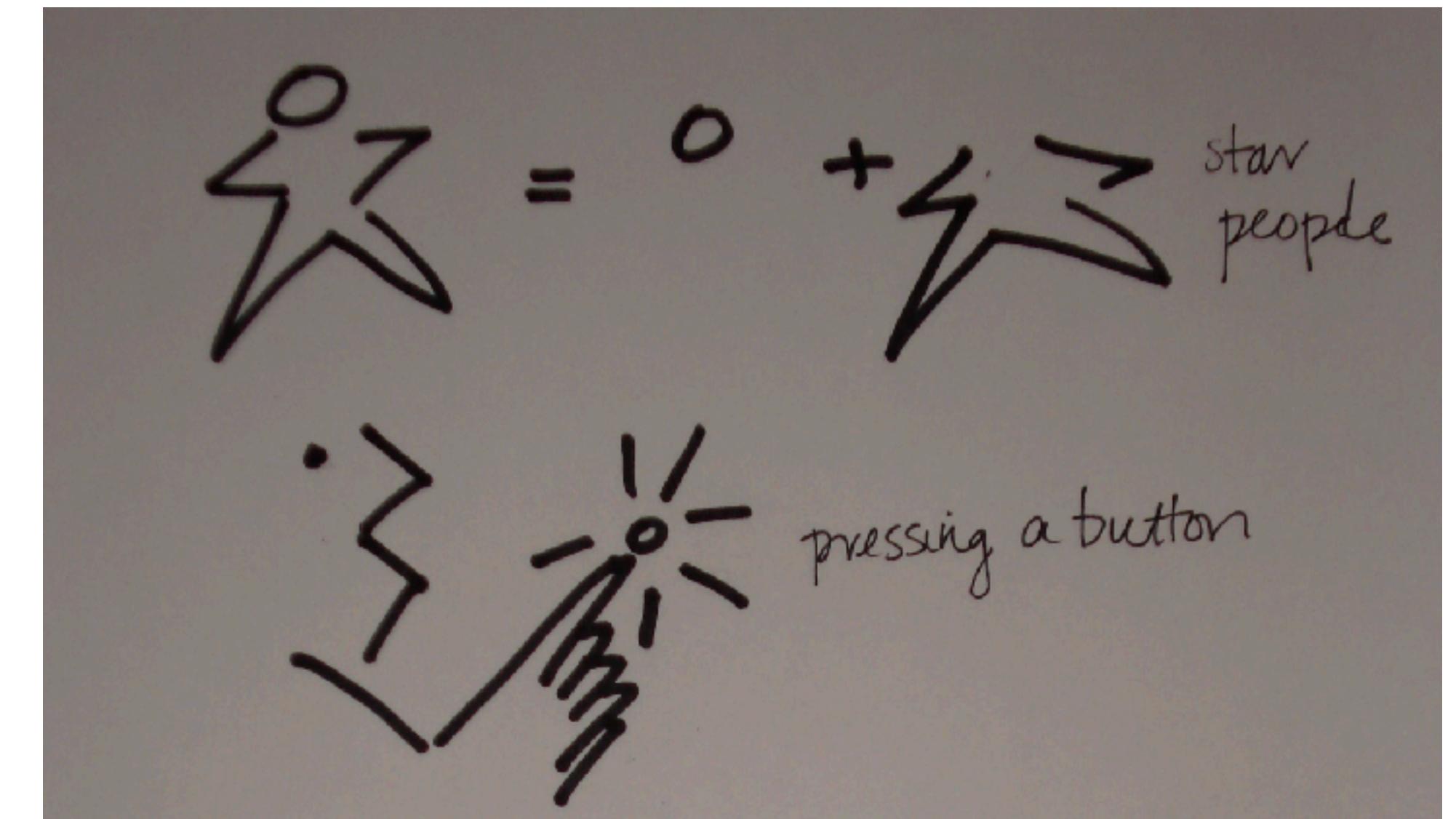
PERSON



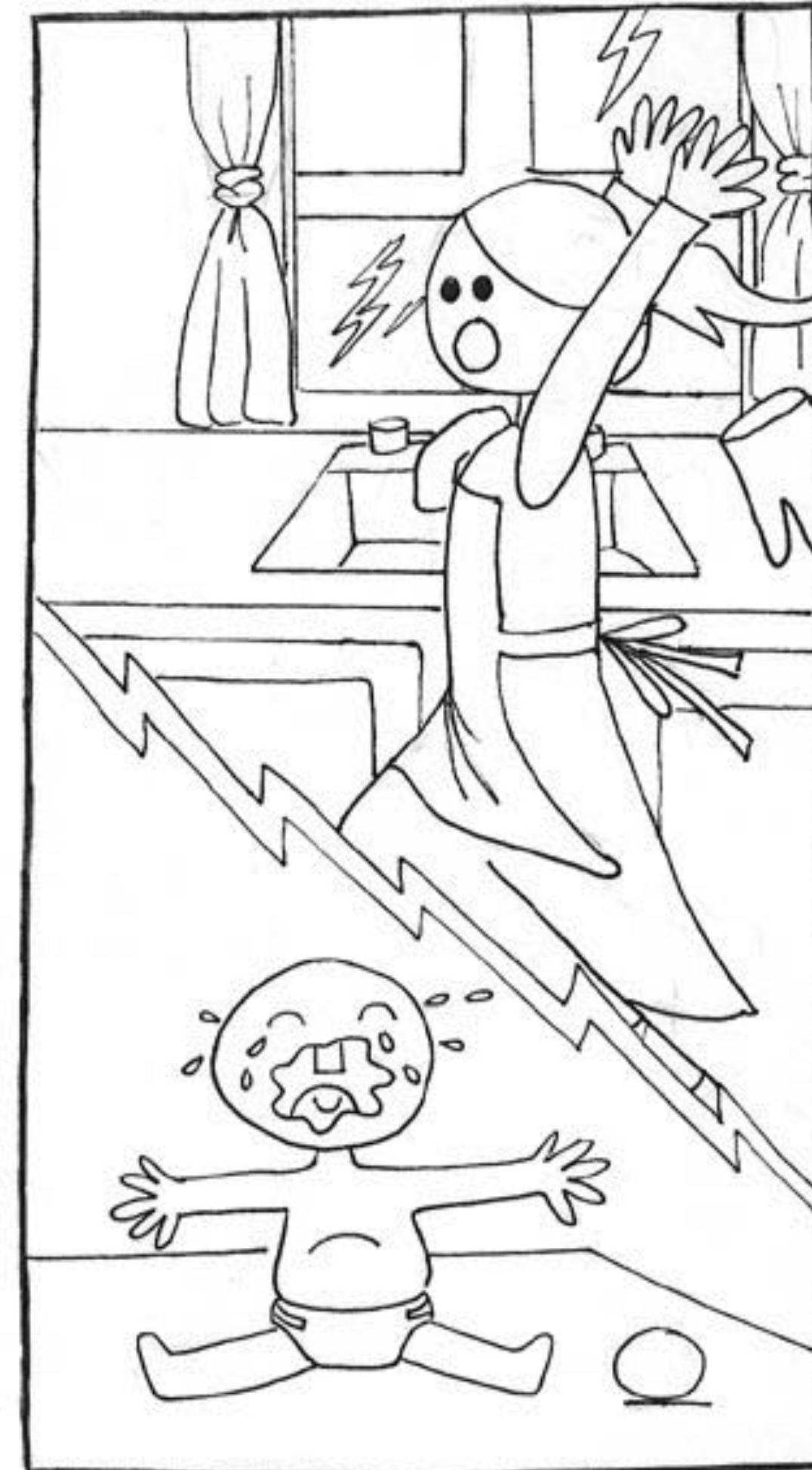
(c) 2009 SACHA CHUA

1. Level of detail

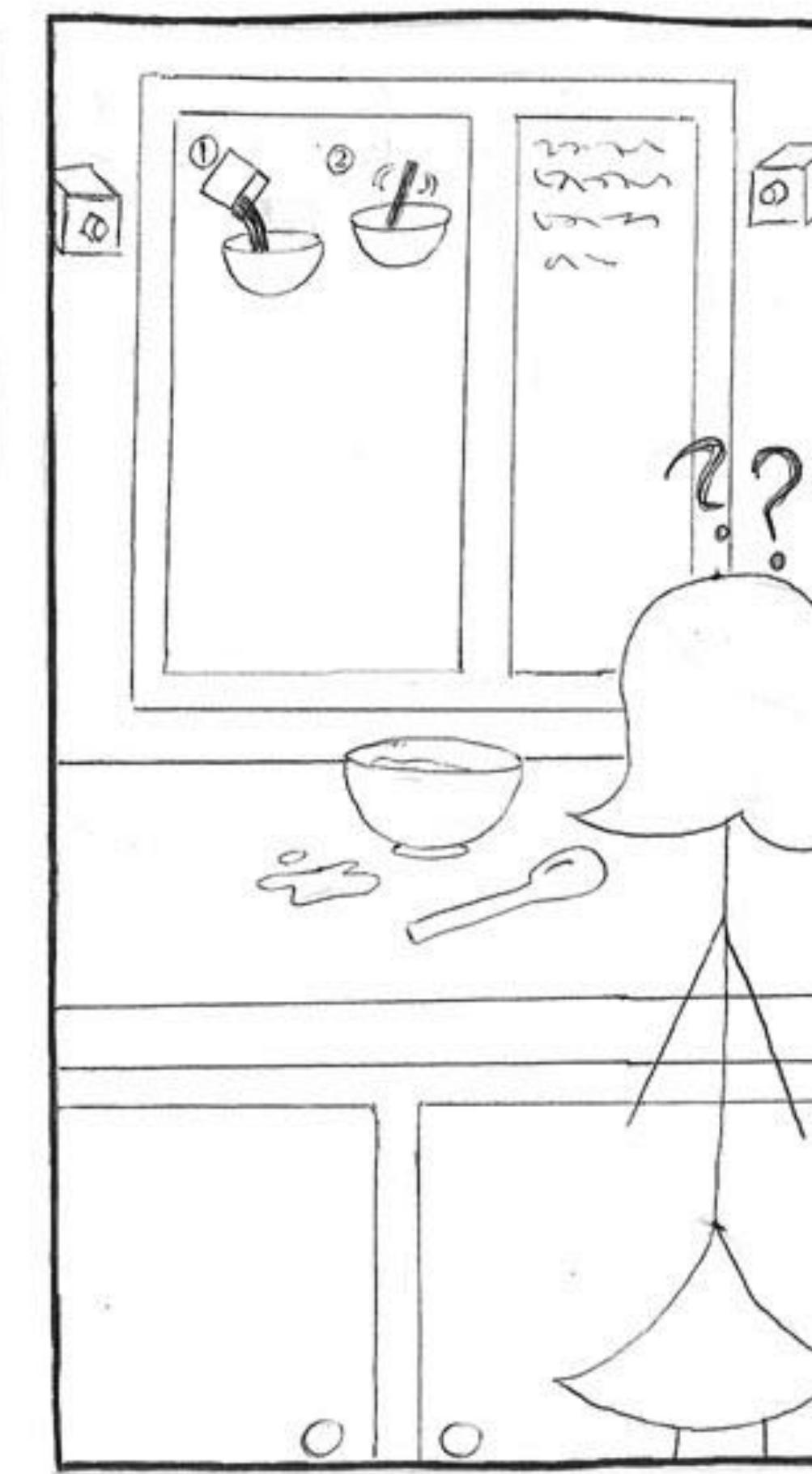
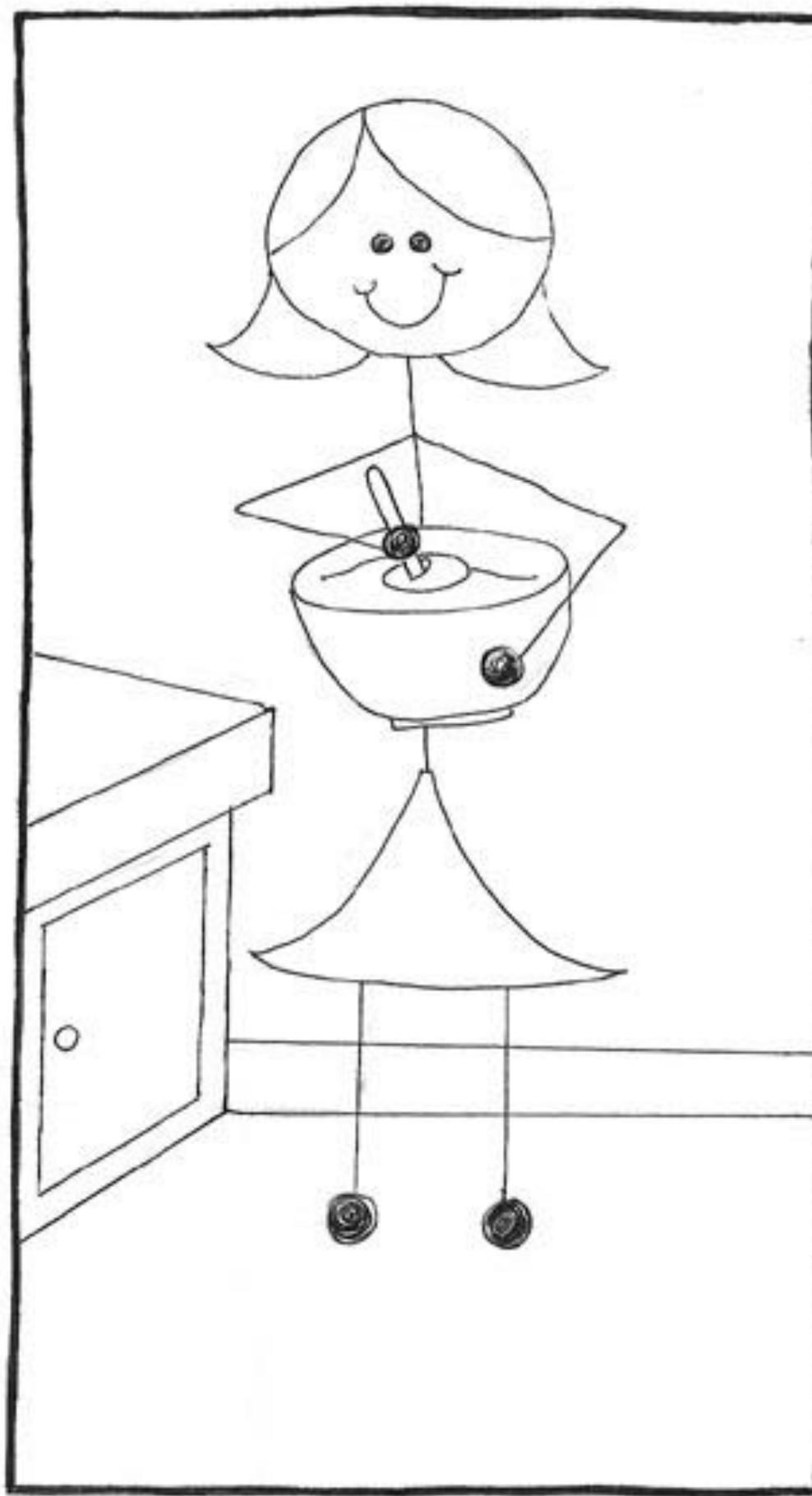
- How to easily indicate pointing or pressing



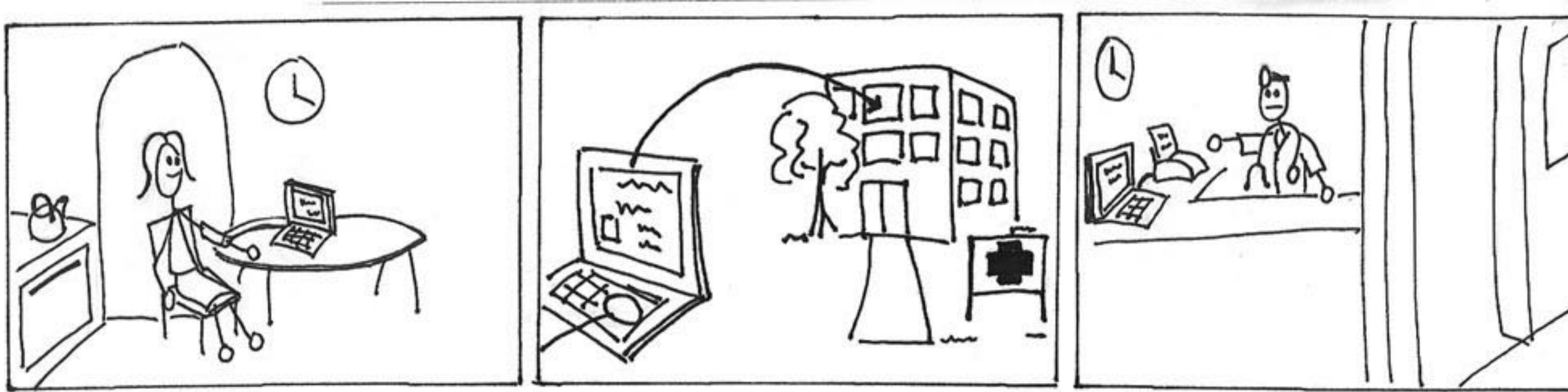
1. Level of detail



1. Level of detail

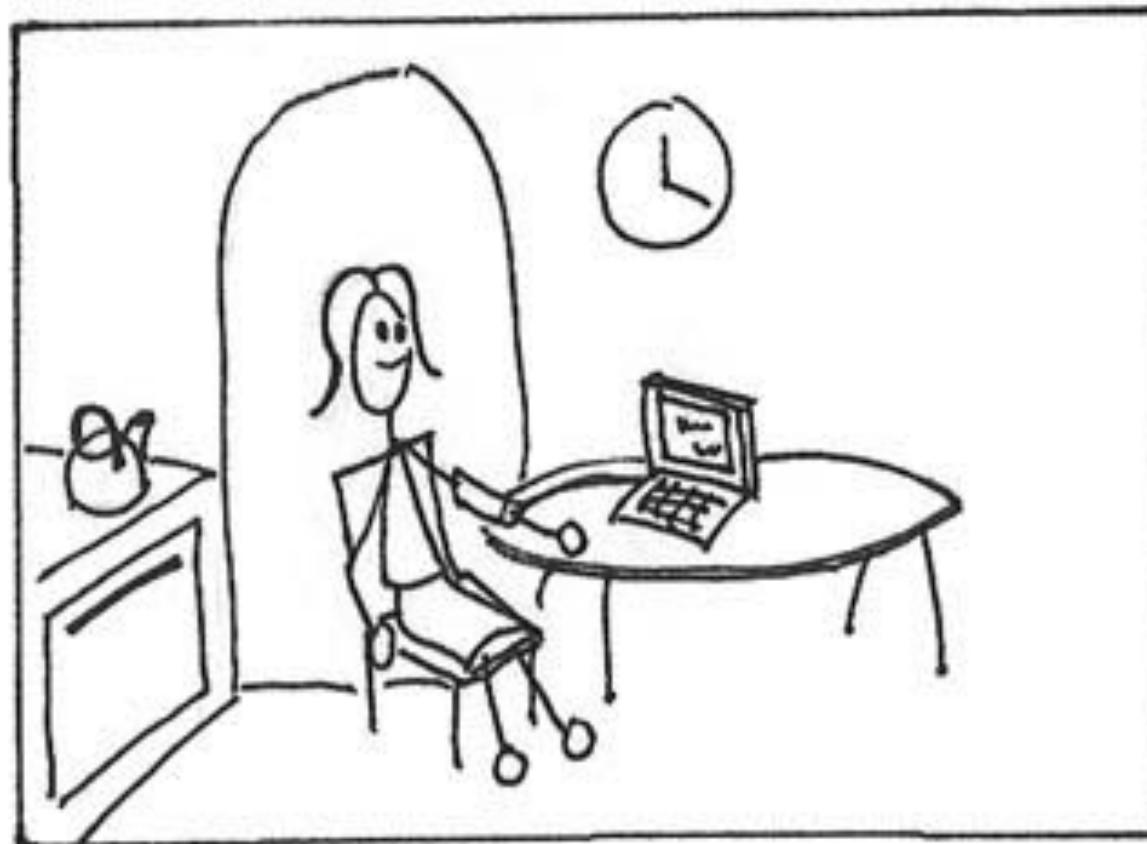


2. Inclusion of Text

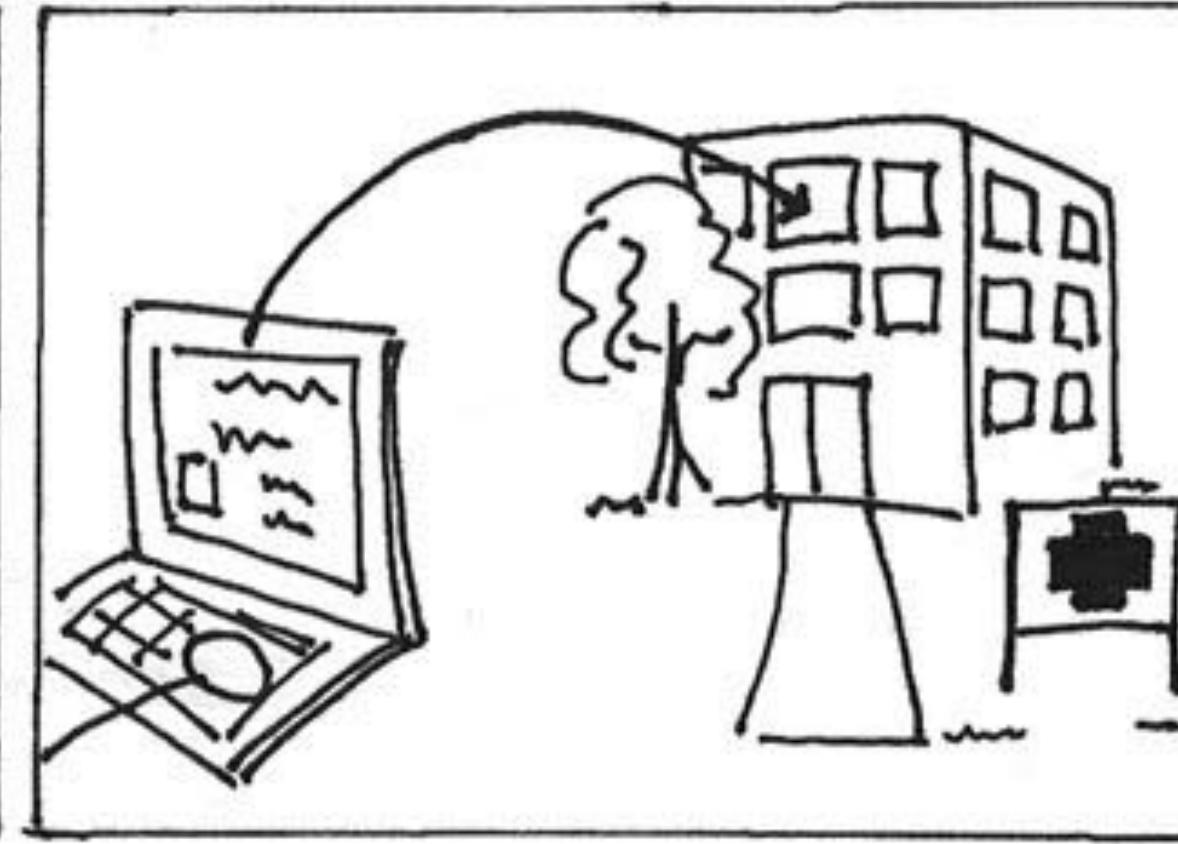


2. Inclusion of Text

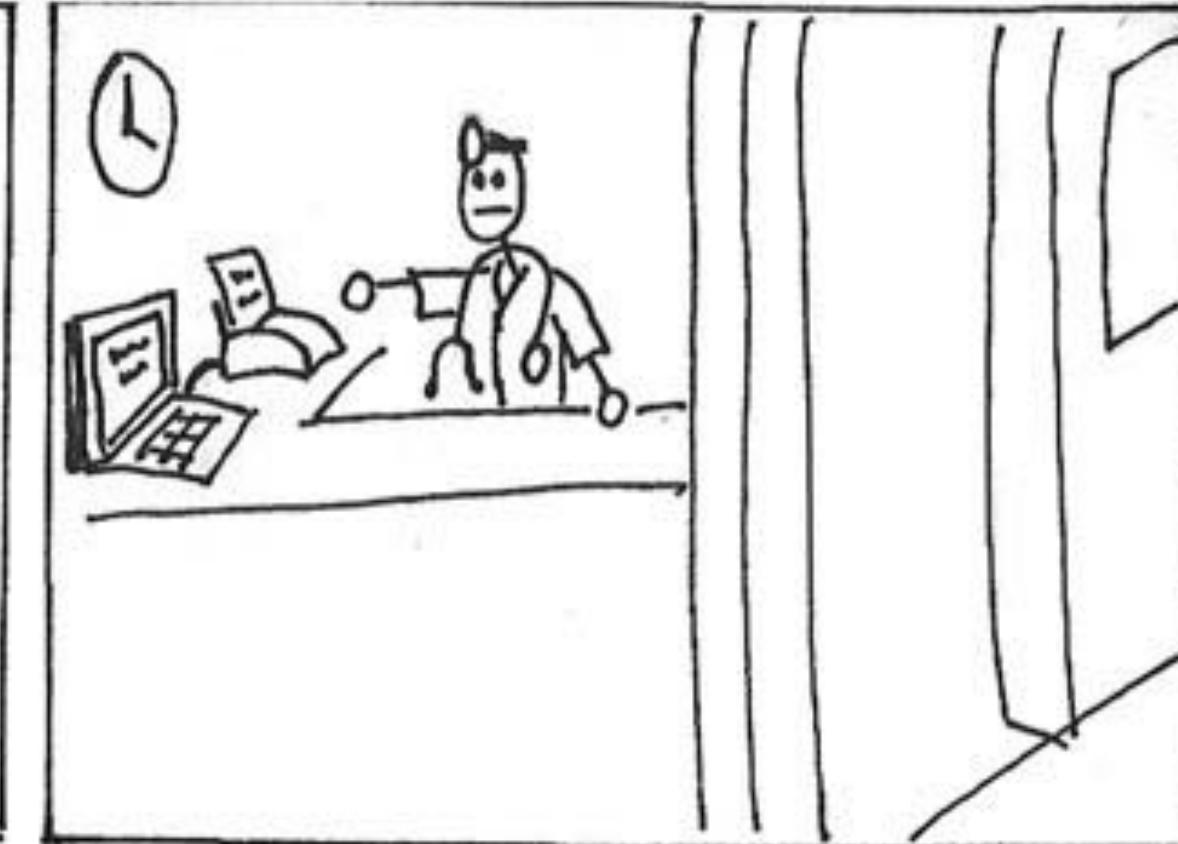
- Guideline: text is often necessary—but keep it short!



1. At home, Mary checks her blood pressure.



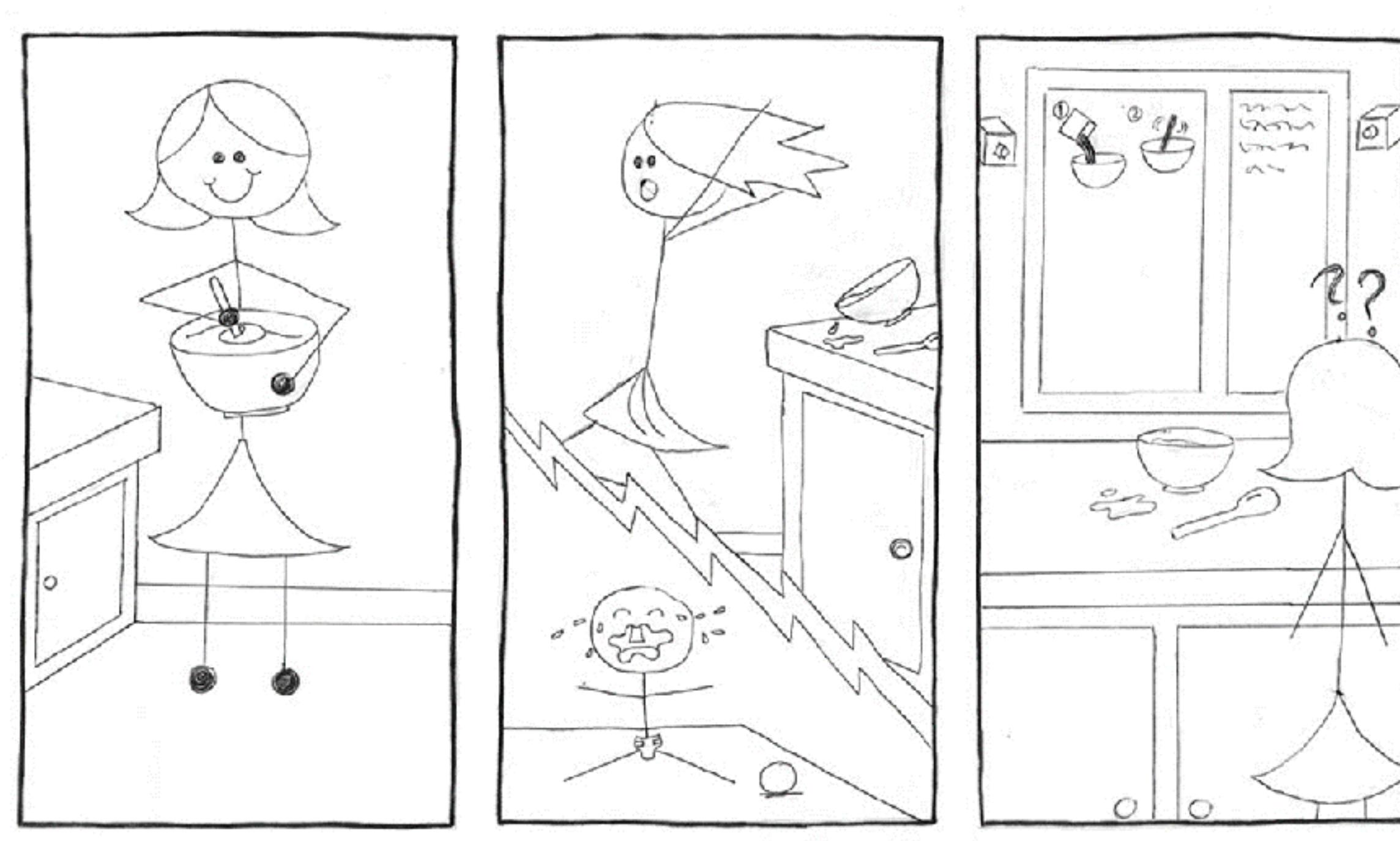
2. After a few simple key presses, her blood pressure readings get sent to a clinic.



3. The information is made available to her doctor.

3. Inclusion of People and Emotions

- Guideline: Include people experiencing the design and their reactions to it (good or bad)
- Remember, the point of storyboards is to convey the experience of using the system.

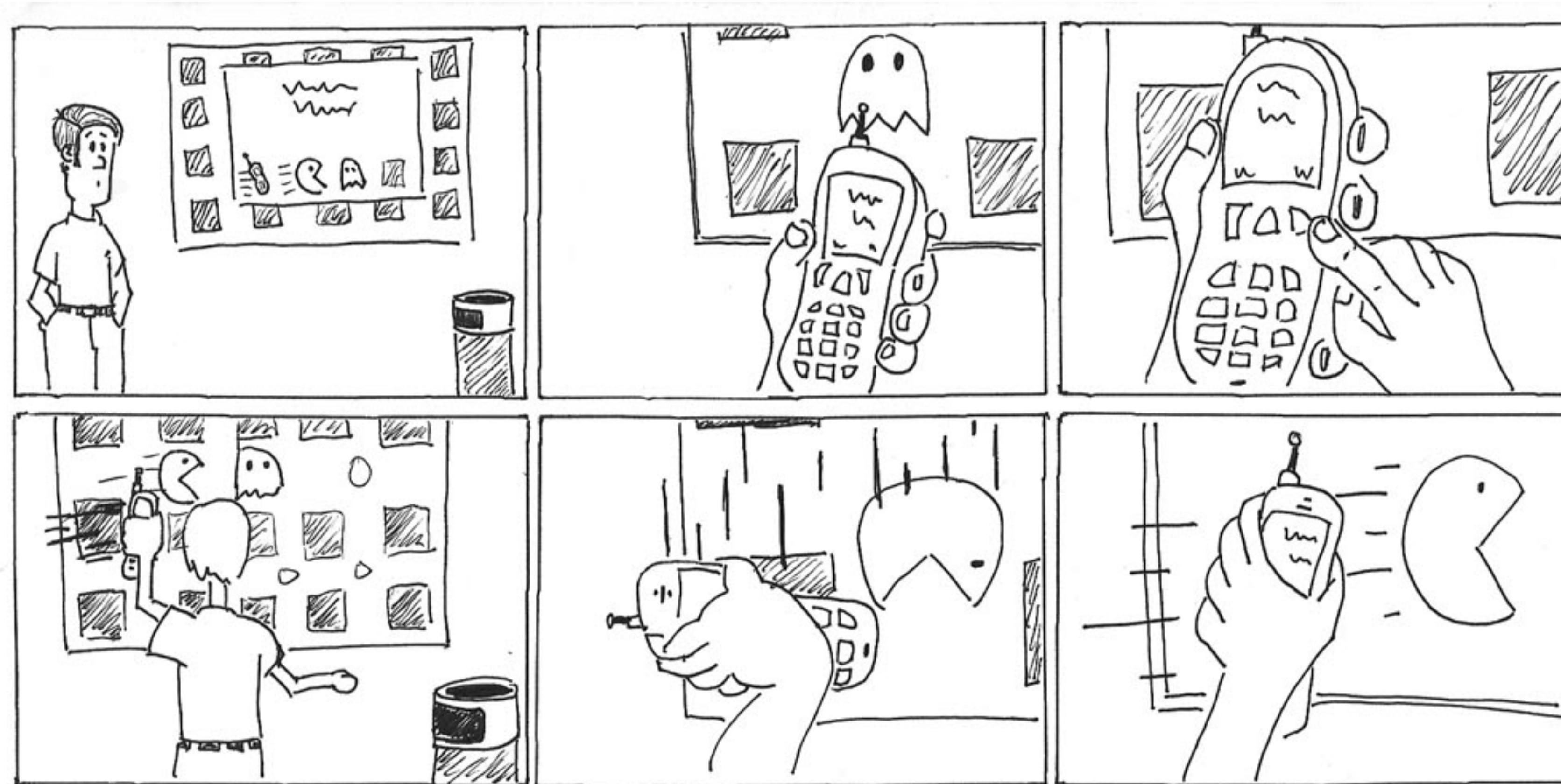


4. How Many Frames?

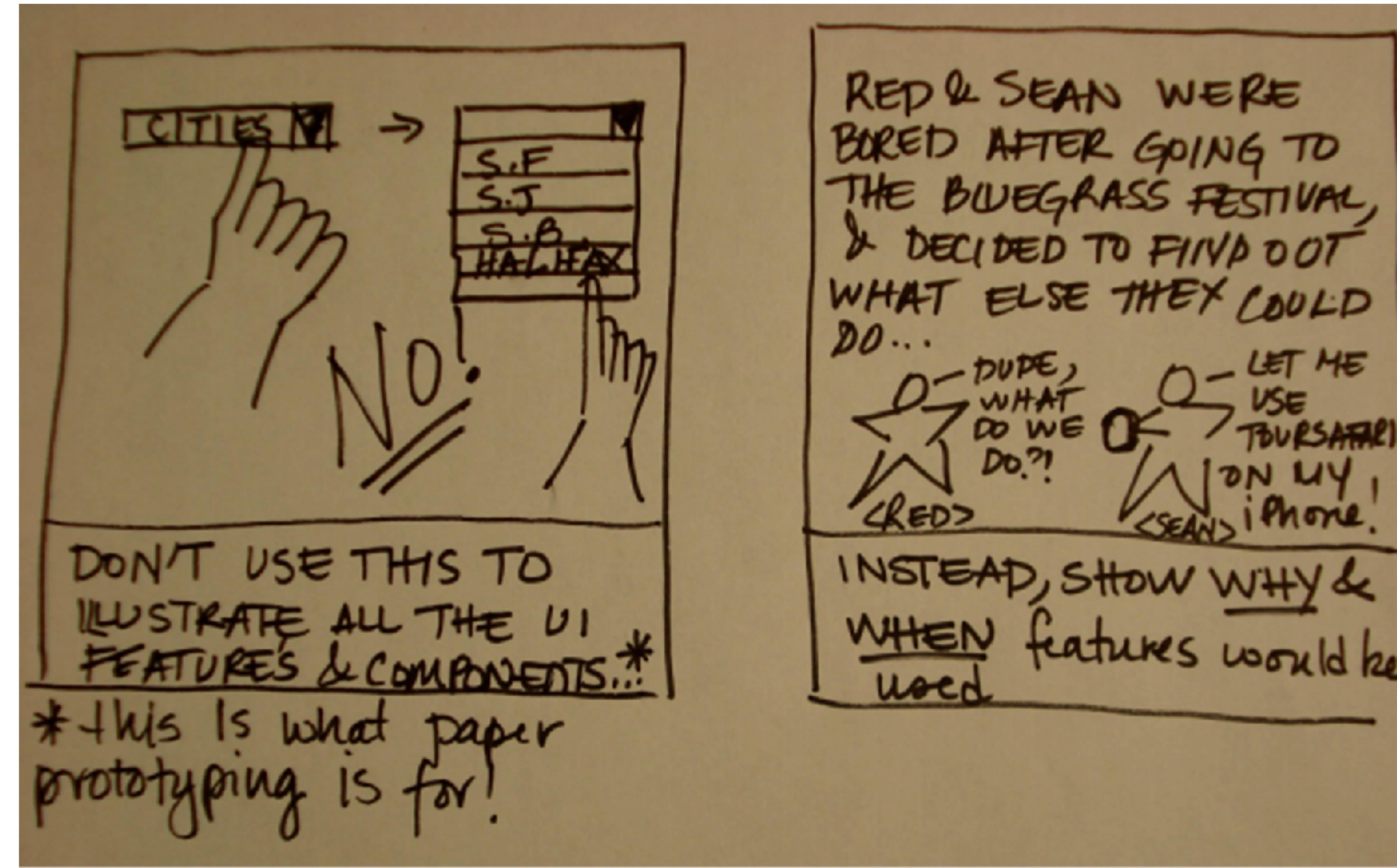
- Guideline: 4-6 frames per scenario is ideal for end-users
 - Less work to illustrate
 - Must be able to succinctly tell story
 - Potentially longer for design clients
- More is not always better
 - May lose focus of story
 - May lose attention

4. How Many Frames?

- Guideline: Remove unnecessary frames

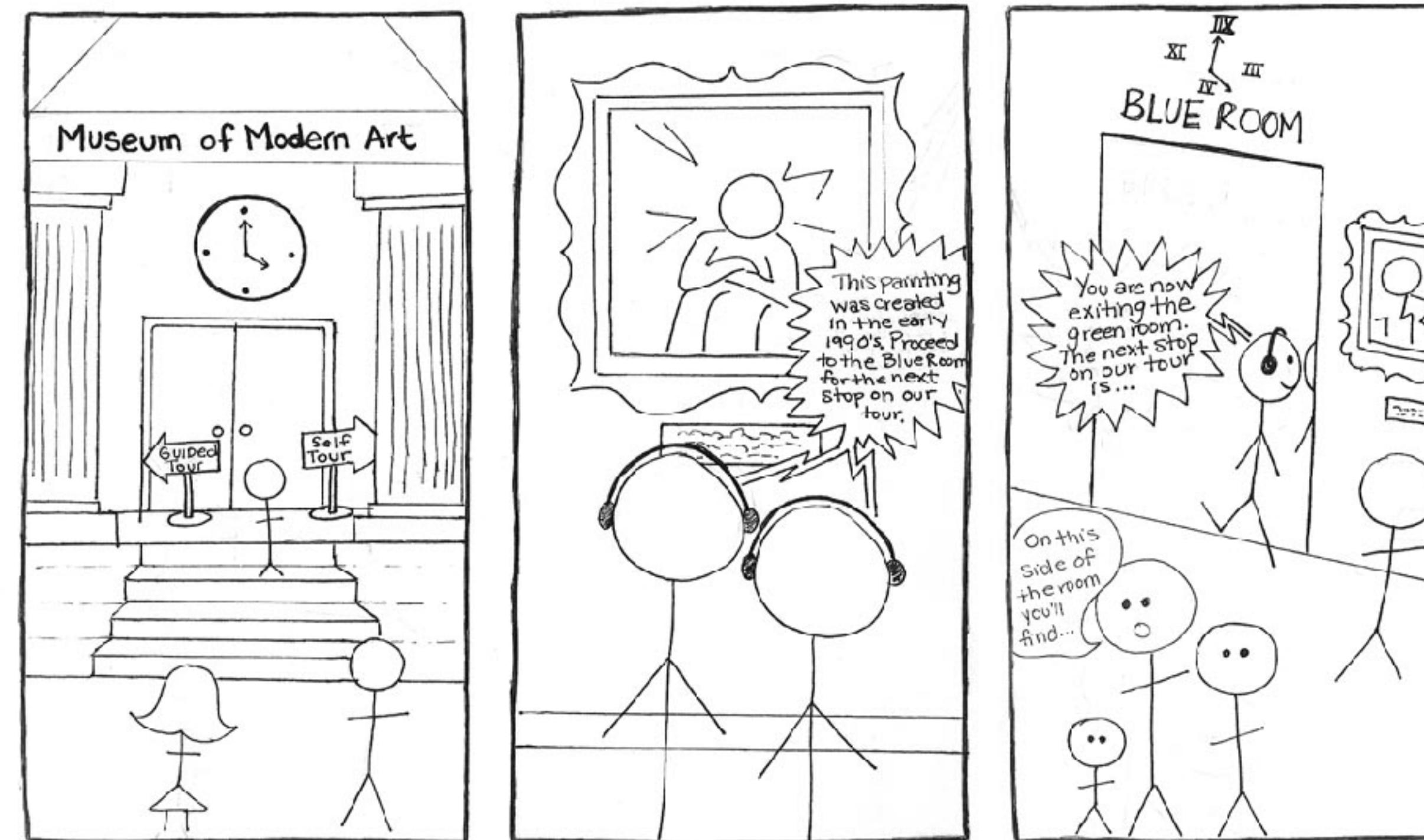


4. How Many Frames?



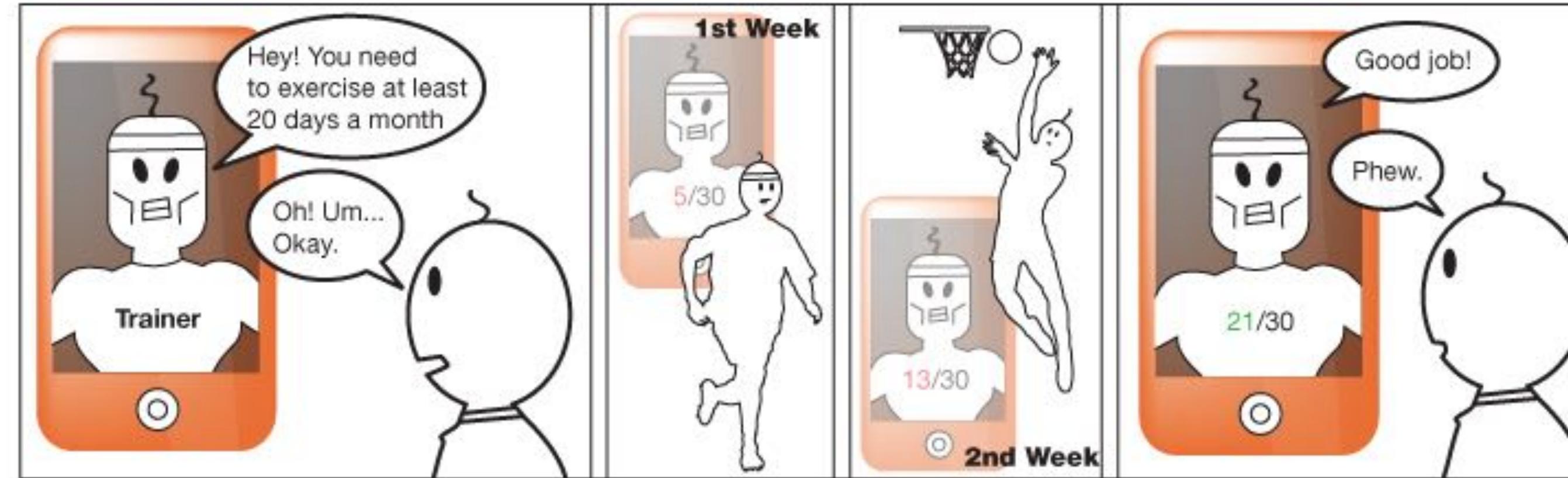
5. Passage of Time

- Guideline: Don't need explicit indicators since assumption is that time is going by, unless you need to show how much time has gone by.



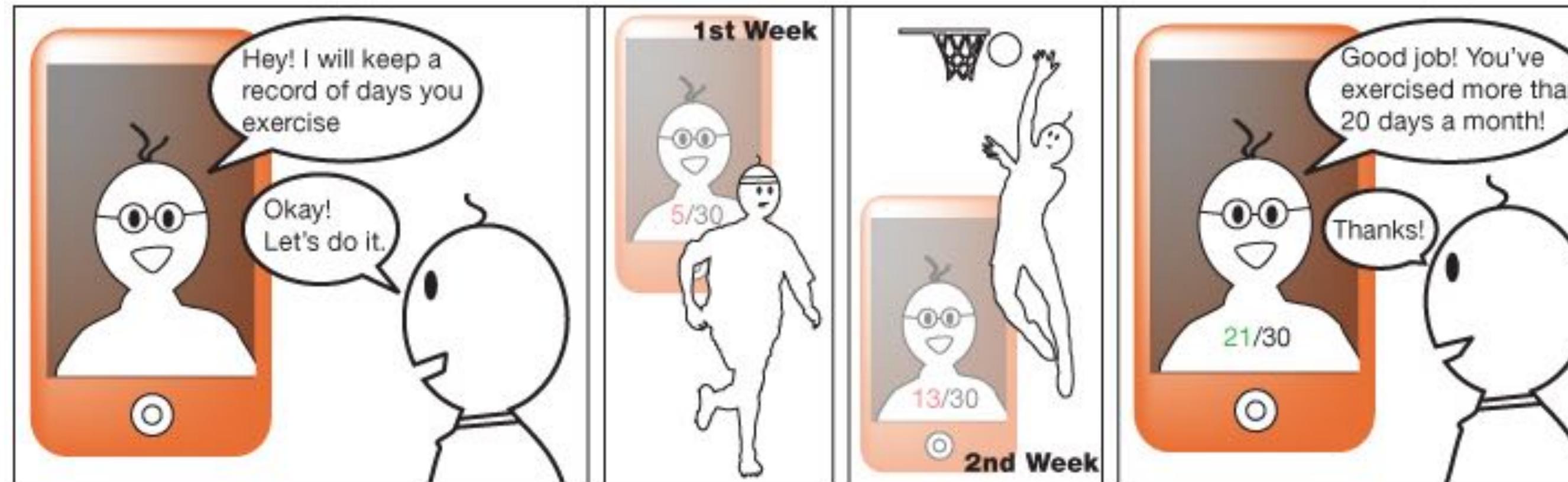
Storyboards for Comparing Ideas

Authoritative



Cell phone is used to keep track of one's fitness goal.

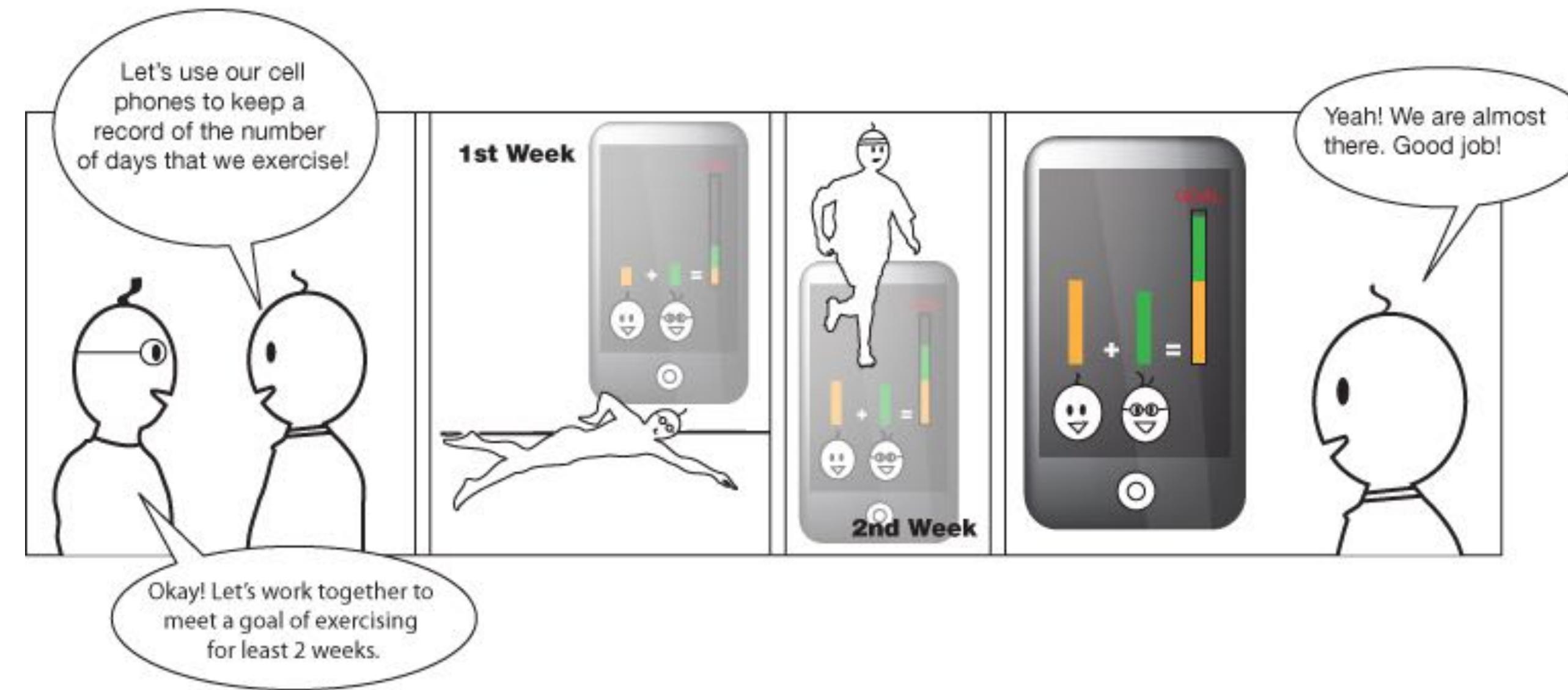
Supportive



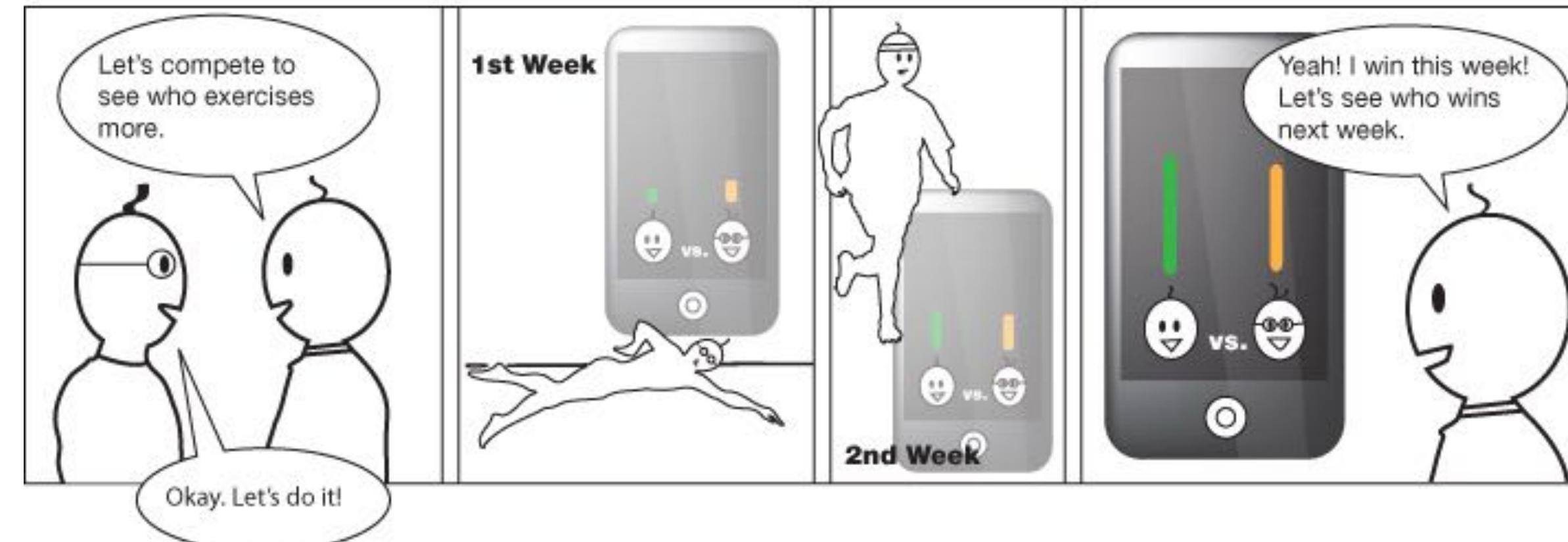
Cell phone is used to keep track of one's fitness goal.

Storyboards for Comparing Ideas

Cooperative

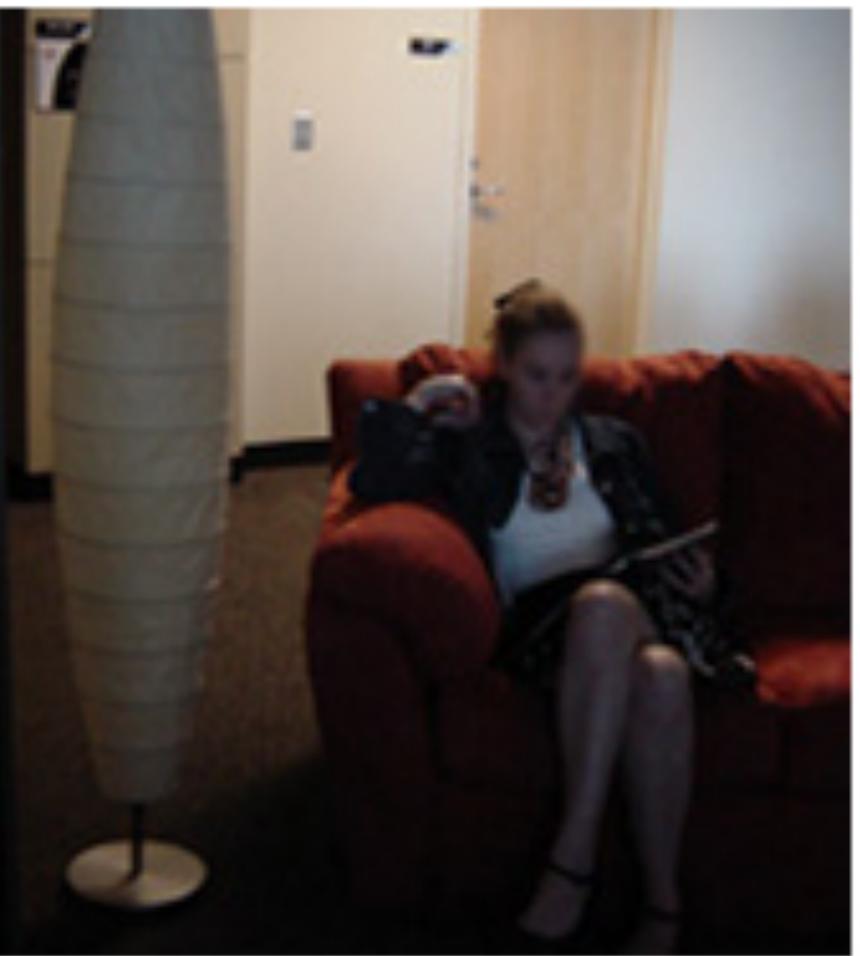


Competitive



Tips and Tricks for Storyboarding

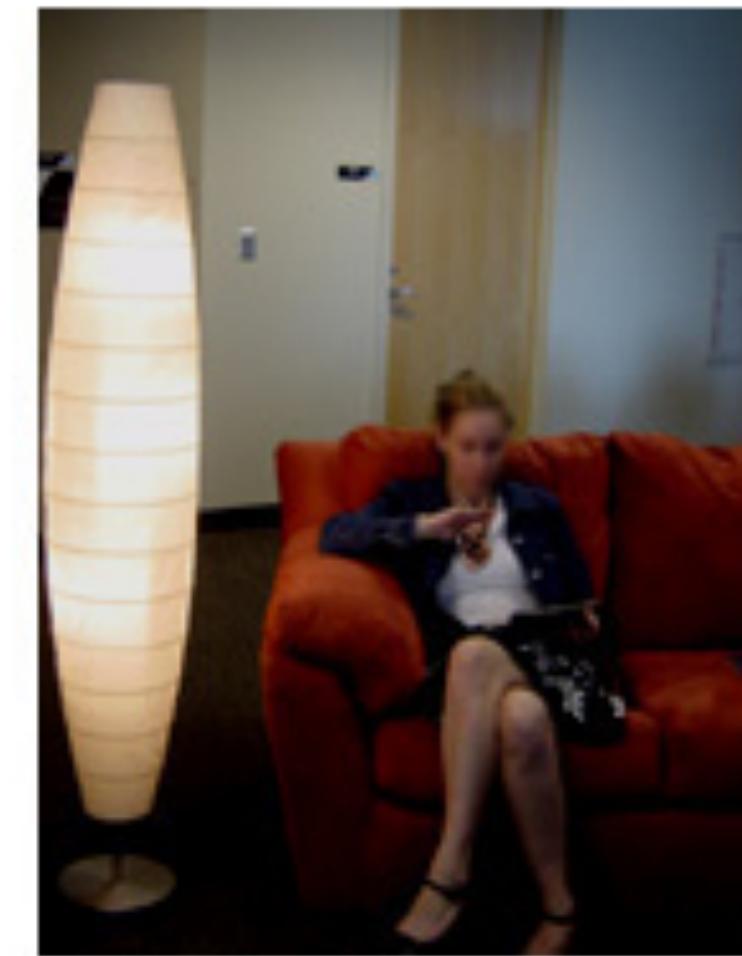
You can use photos (only if really necessary)



IT IS SO DARK JANE CAN
HARDLY READ HER BOOK



SHE GESTURES IN FRONT OF HER
SPECIAL PENDANT TO TURN ON
THE LIGHTS



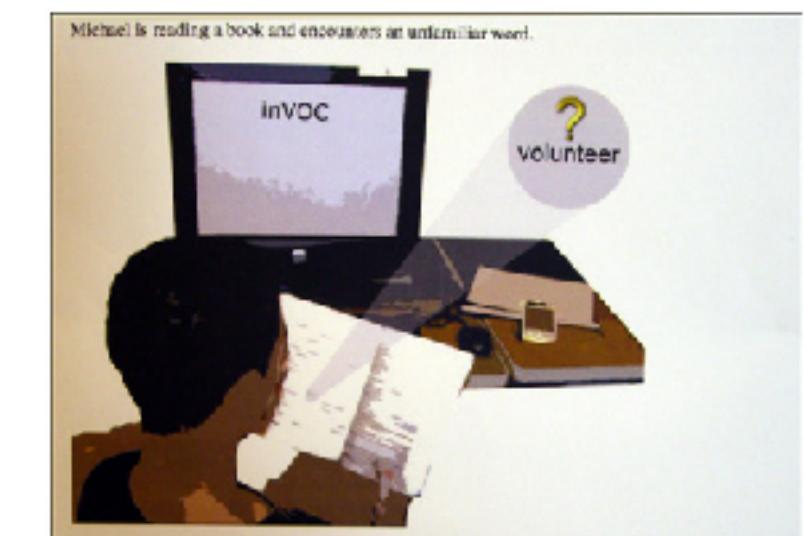
THE LIGHTS TURN ON!



FINALLY, SHE CAN
READ HAPPILY.

Blur Out Unnecessary Detail

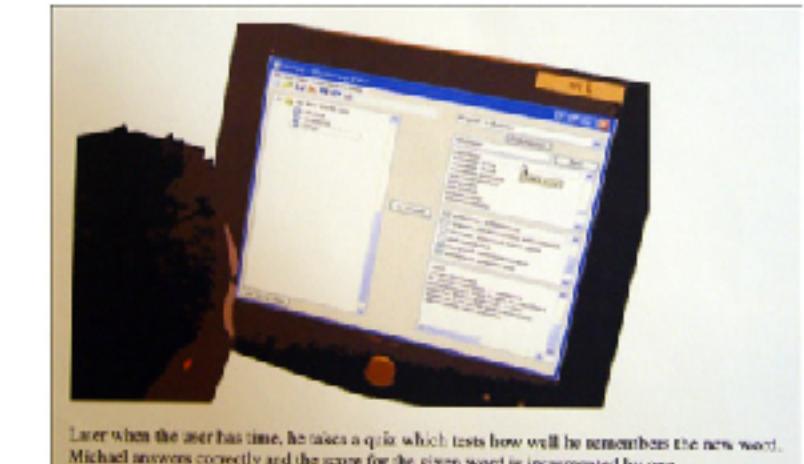
Using image editing software to simplify photos into sketches



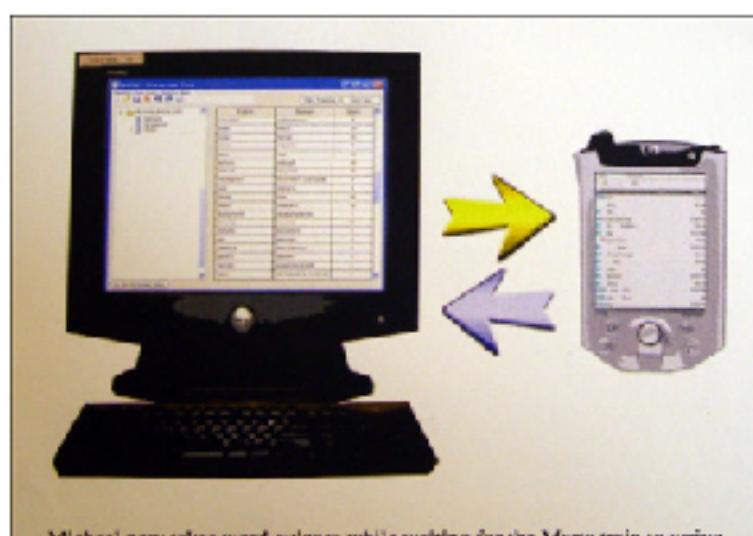
Michael is reading a book and encounters an unfamiliar word.
He uses the dictionary provided with the inVOC system to find the meaning of the word. He plays back the pronunciation of the word, reviews the different definitions of the word, examines the word usage and then selects the definition he is interested in and imports it into a new word list.



Michael then has to go to school. He rides Marta and would like to use the travel time for studying new words. He synchronizes the inVOC database with his PocketPC device.



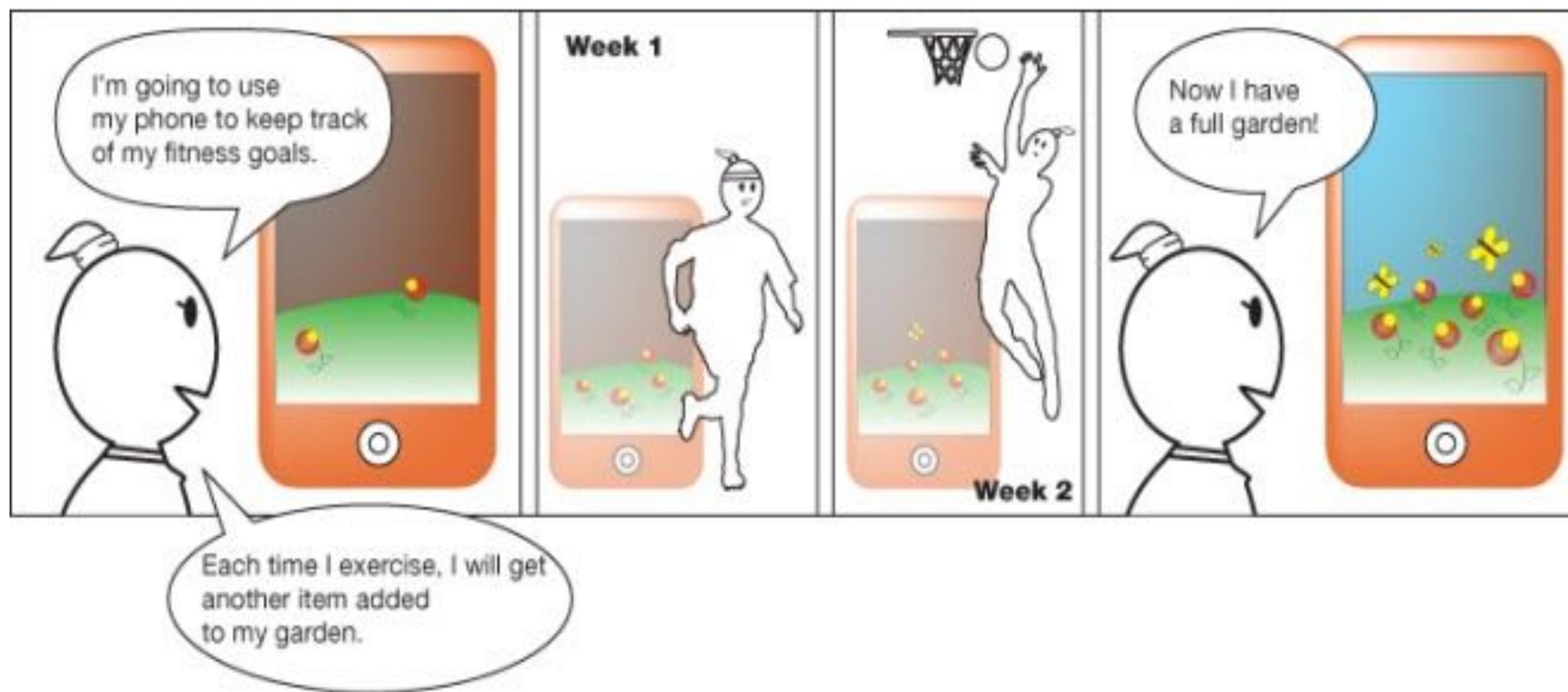
Later when the user has time, he takes a quiz which tests how well he remembers the new word. Michael answers correctly and the score for the given word is incremented by one.



Michael now takes word quizzes while waiting for the Marta train to arrive.

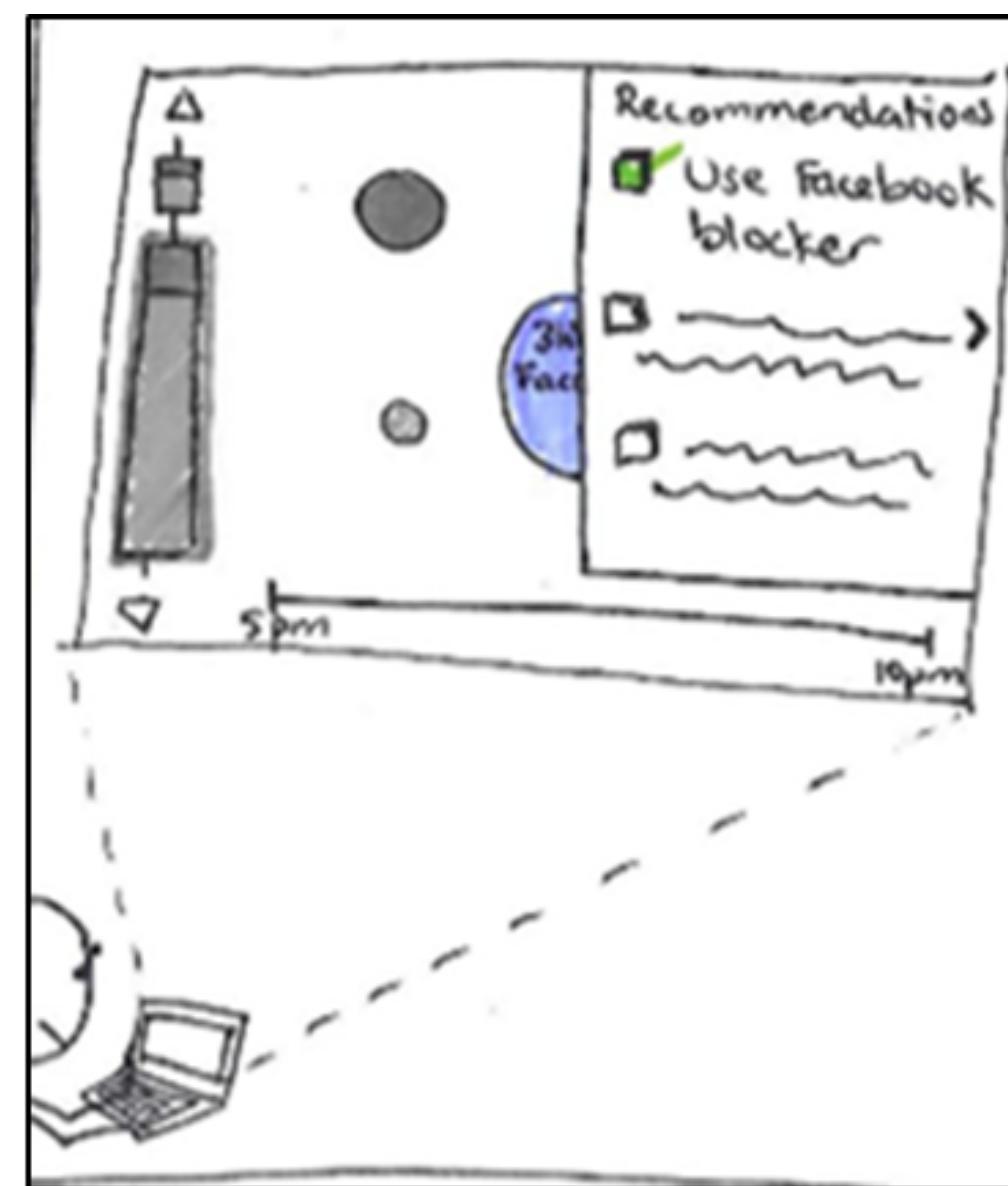
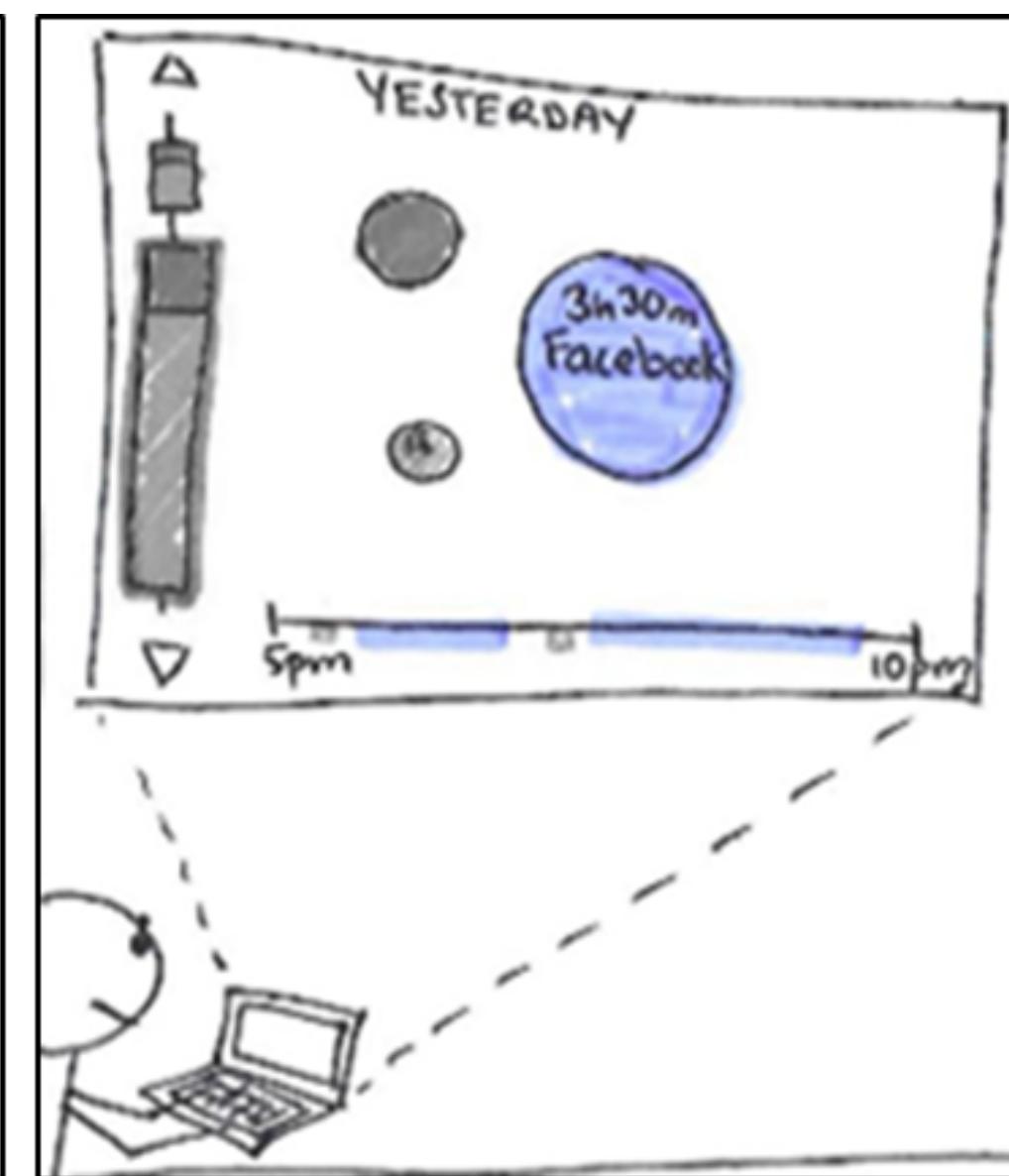
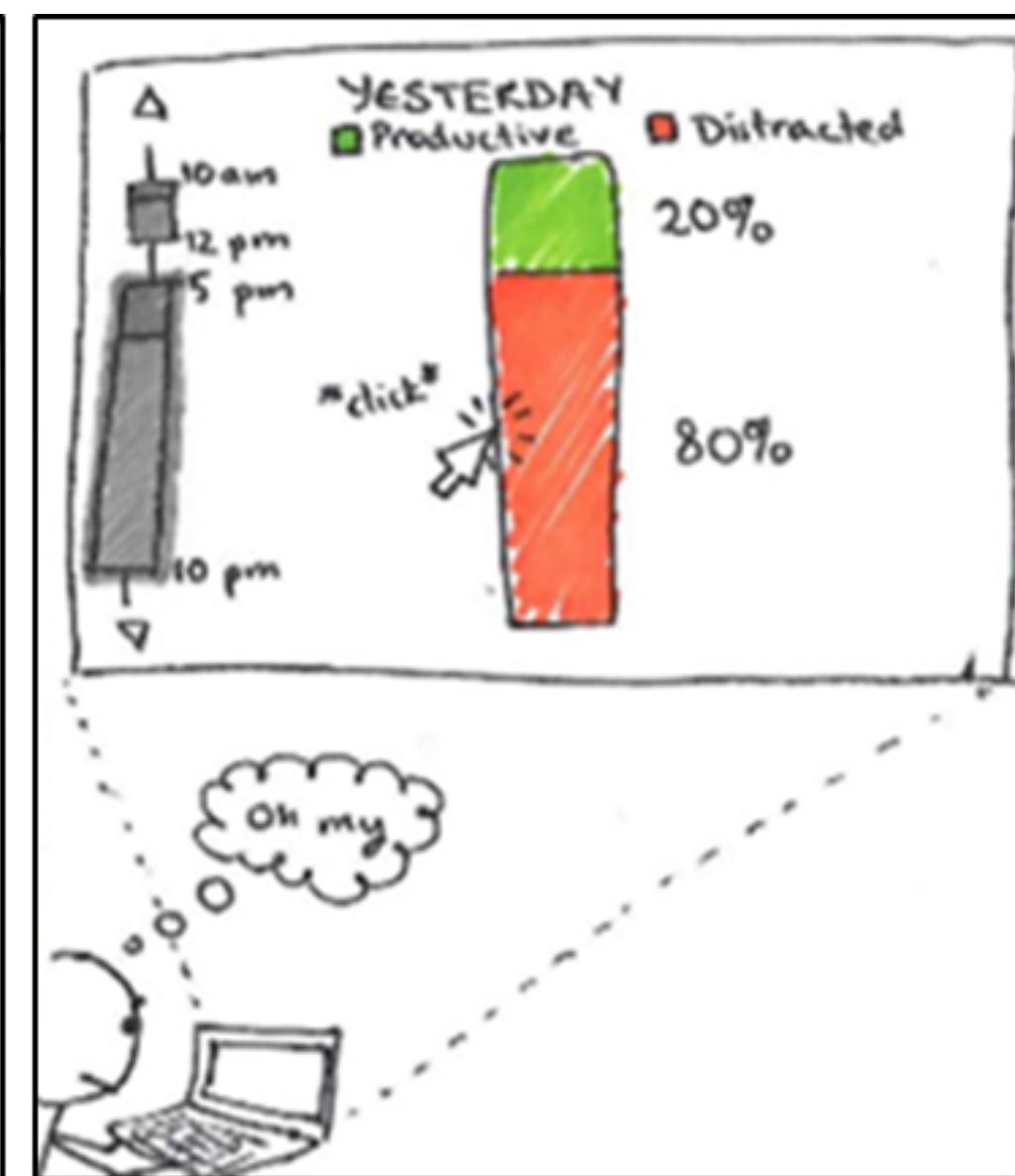


Use existing images from other sources



<http://designcomics.org>
<http://www.pdclipart.org>
<https://thenounproject.com>

Selective use of color



Class updates

Updates to the rest of class

- We'll email each Monday giving an overview of the week:
 - lecture topic, assignment deadlines, work time/presentation time in lecture and Fri section
- We'll give examples from previous class assignments linked for each assignment spec to get a sense of expectations (overall length, length of different sections, and layout).
 - Remember these are NOT intended to be ideal but to show a range of possibilities.
- Reminder:
 - We are quick to respond on Ed and the staff email if you want quick/last-minute answers about the assignment before the deadline, or want to get more explanations about a grade
 - Let us know if we can help with any group-related issues!

Looking ahead...

- 2d: Task Analysis - you should have received staff feedback by now!
- 2e: Design Check-In (3x4)
 - **Work time in class today**
 - Preliminary presentation and feedback in section tomorrow
 - Final due tomorrow 8PM PT
- I will release **2f: Design Review (1x2)** tomorrow
 - Work time on 2f next Tuesday, preliminary presentations next Thursday
 - Final due next Thursday 8PM