

# CSE440: Introduction to HCI

Methods for Design, Prototyping and Evaluating User Interaction

Lecture 09:  
Scenarios & Storyboarding

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Angel Vuong  
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# This is a busy week!!!

Apr 29

2d - Design Research Review

Apr 30

Scenarios & Storyboarding

10:00 - 11:20 | OUG 136

May 1

2e - Task Review

Nigini's office hours

10:00 - 12:00

Allen Center 338

May 2

Paper Prototyping

10:00 - 11:20 | OUG 136

May 3

Section

10:30 - 11:20 | MGH 058

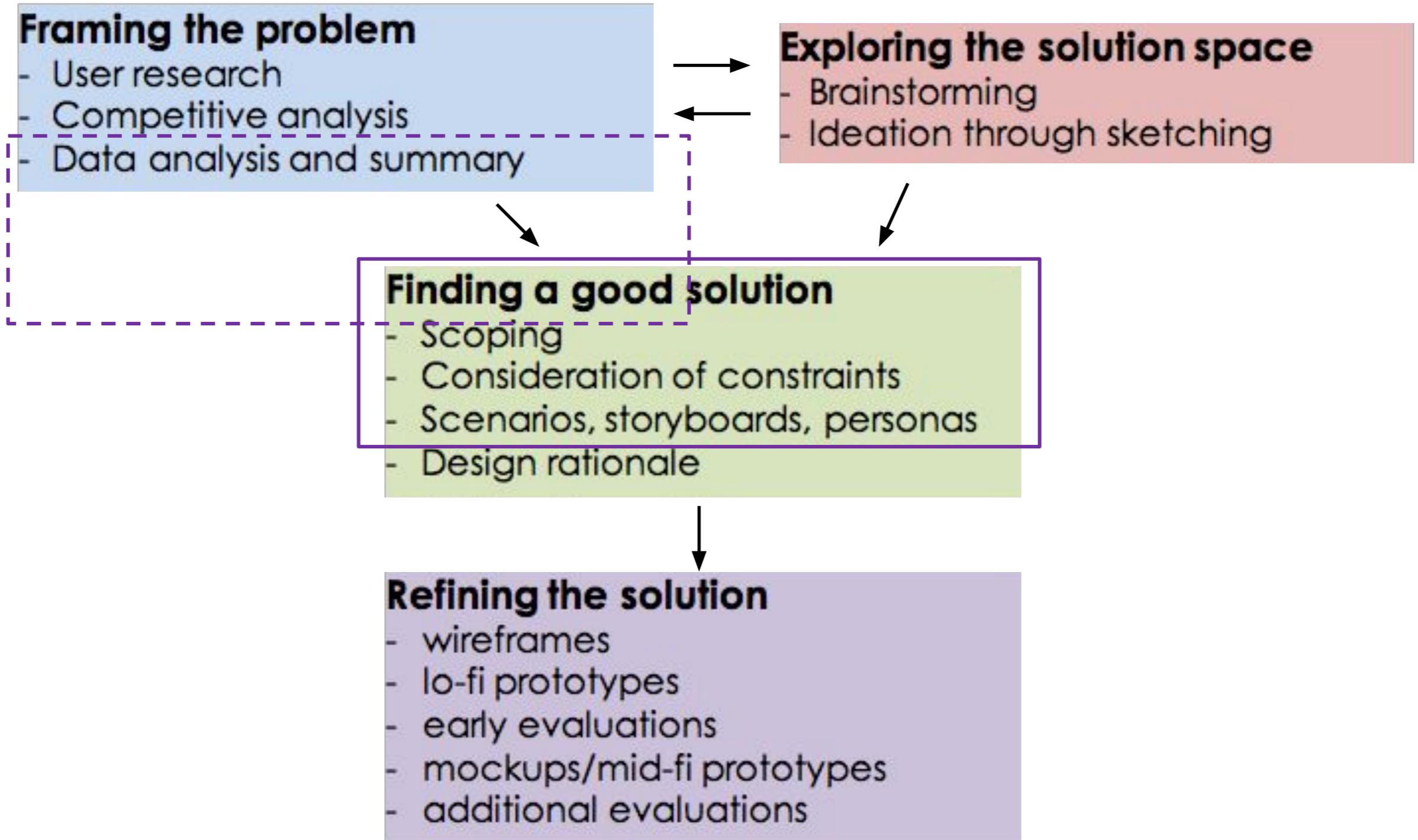
11:30 - 12:20 | MGH 058

1:30 - 2:20 | MGH 058

2:30 - 3:20 | MGH 058

2f - Design Check-In

# Project Status



# Revisit: Personas & Task Analysis

# Task Analysis Questions

Who is going to use the system?

What tasks do they now perform?

What tasks are desired?

How are the tasks learned?

Where are the tasks performed?

What is the relationship between people & data?

What other tools do people have?

How do people communicate with each other?

How often are the tasks performed?

What are the time constraints on the tasks?

What happens when things go wrong?

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**What are the time constraints on the tasks?**

**What happens when things go wrong?**

# Storytelling

“Sometime reality is too complex. Stories give it form.”

— Jean Luc Godard

# Why do we need stories in design?

Communicate with your audience

Other designers, clients, stakeholders, managers, funding agencies, potential end-users...

Explore people's purpose

Gather and **share information** about people, tasks, goals

Put a **human face** on user data

Spark new **design concepts** and encourage innovation

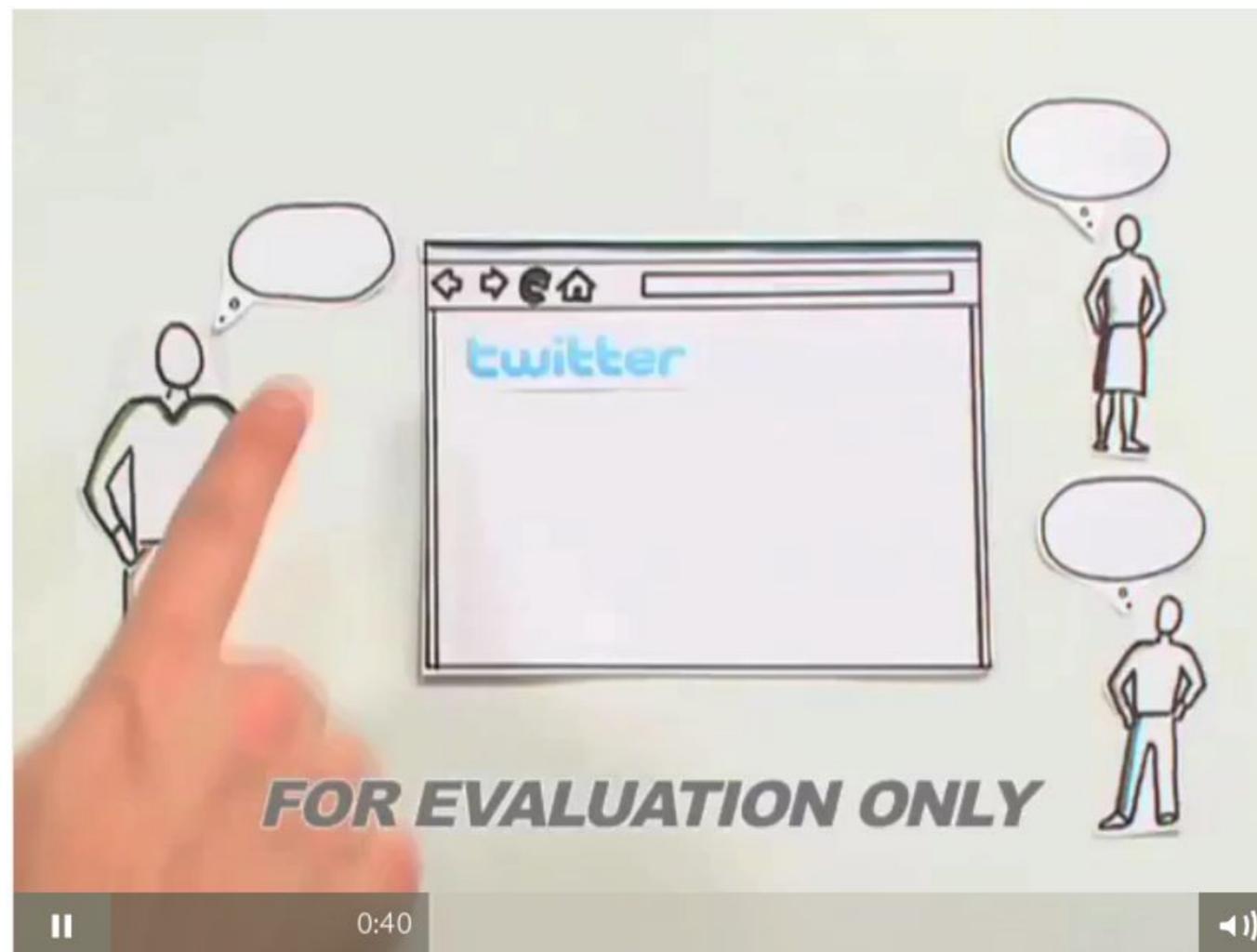
Share ideas and create a sense of **history and purpose**

Giving insight into people who are not like us (**empathy**)

"Maybe stories are data with a soul!" - Brene Brown

# Why do we need stories in design?

How would you explain your favorite social media tool to someone living in 1995? E.g., yelp, twitter, snapchat,...



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

# Storytelling

## Good stories

- Understand audience
- Provide context of use
- Are well-motivated
- Memorable
- Evokes a reaction
- Evokes empathy
- Illustrate experience
- Convey emotions
- Short and to-the-point

## Bad stories

- Do not account for audience
- Boring or un-engaging
- Fantastical or unrealistic
- Wrong story for purpose
- Too long to hold attention

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# Three Ways of Telling Stories

## 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 sketches 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

# Scenario

# Scenario

Persona + Task + Action = ...

Scenarios are stories created to **communicate and explore the context** on WHO does WHAT, WHEN, WHERE and WHY.

# Scenario Example (Persona)

Peter Jones is a 23 years-old design professional.

He is a hard-worker, and things big career-wise. He is kind of an introvert, now single, and most of his social life happens on the weekends with roommates and a couple of good friends.



He likes to recharge by reading at home and sometimes playing video-games or watching movies.

User-story:

- Wants to make his weekend hours last as much as possible because those are the only leisure time he gets.

# Scenario Example (Task Analysis)

Have a brunch with roomies

- Organize
  - Choose place
  - Poll for date
  - Share calendar invite
- Get everybody to place
  - Wake-up everybody
  - Drive to place
    - Get direction
    - Drive
    - Park**
- Have a fun eating time
  - Order food
  - Take photos
  - Eat

# Scenario Example: Parking

Peter is going to brunch on a Sunday with his roommates. He is trying a new place he found on Yelp. He has the address for the place and he is using a smartphone GPS for directions. He leaves the apartment with his roommates at around 8:30am and he wants to beat the crowd so they won't have to wait in line. He is driving a Toyota Corolla that he has owned for five years. It is a rainy day and he doesn't have an umbrella.

# Scenario Example: Parking

unknown neighborhood/restaurant

Peter is going to brunch on a Sunday with his roommates. He is trying a **new place he found on Yelp**. He has the address for the place and he is using a smartphone GPS for directions. He leaves the apartment with his roommates at around 8:30am and he wants to beat the crowd so they won't have to wait in line. He is driving a Toyota Corolla that he has owned for five years. It is a rainy day and he doesn't have an umbrella.

# Scenario Example: Parking

needs to find a parking spot close by?

Peter is going to brunch on a Sunday with his roommates. He is trying a new place he found on Yelp. He has the address for the place and he is using a smartphone GPS for directions. He leaves the apartment with his roommates at around 8:30am and he wants to beat the crowd so they won't have to wait in line. He is driving a Toyota Corolla that he has owned for five years.  
**It is a rainy day and he doesn't have an umbrella.**

# Team activity

Using your project as a basis:

Create one SCENARIO that presents

- one of your **personas**,
- and one of the **tasks** you plan to support.
- IMPORTANT: I still don't want details on the **solution**.

# Team activity

Using your project as a basis:

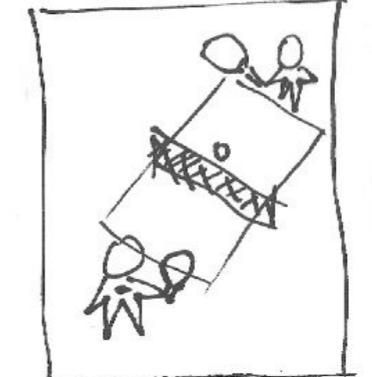
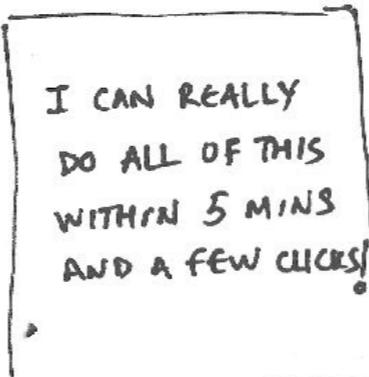
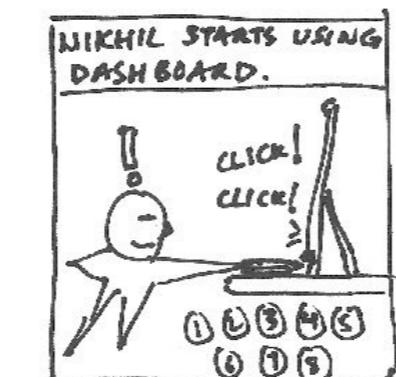
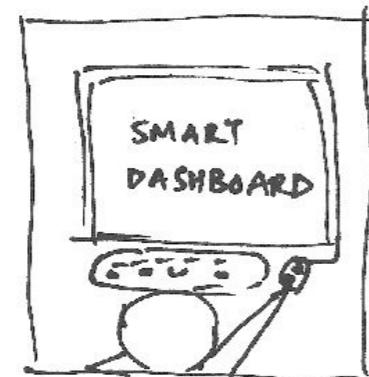
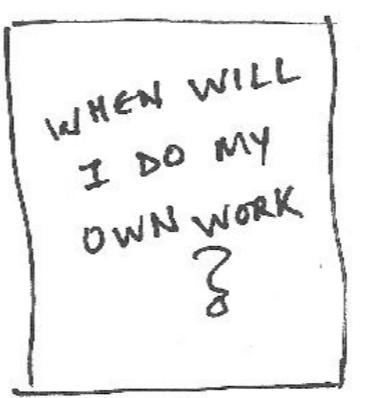
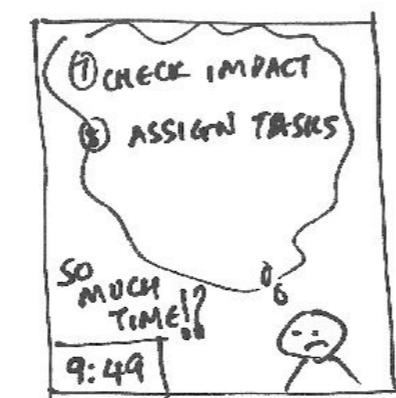
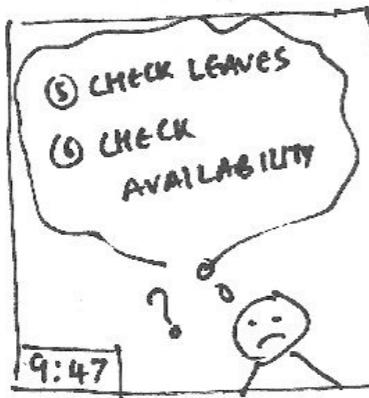
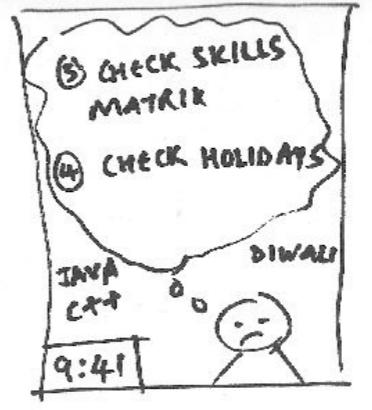
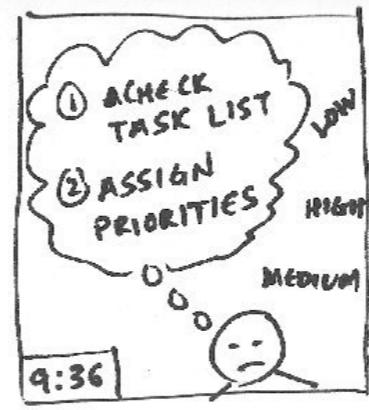
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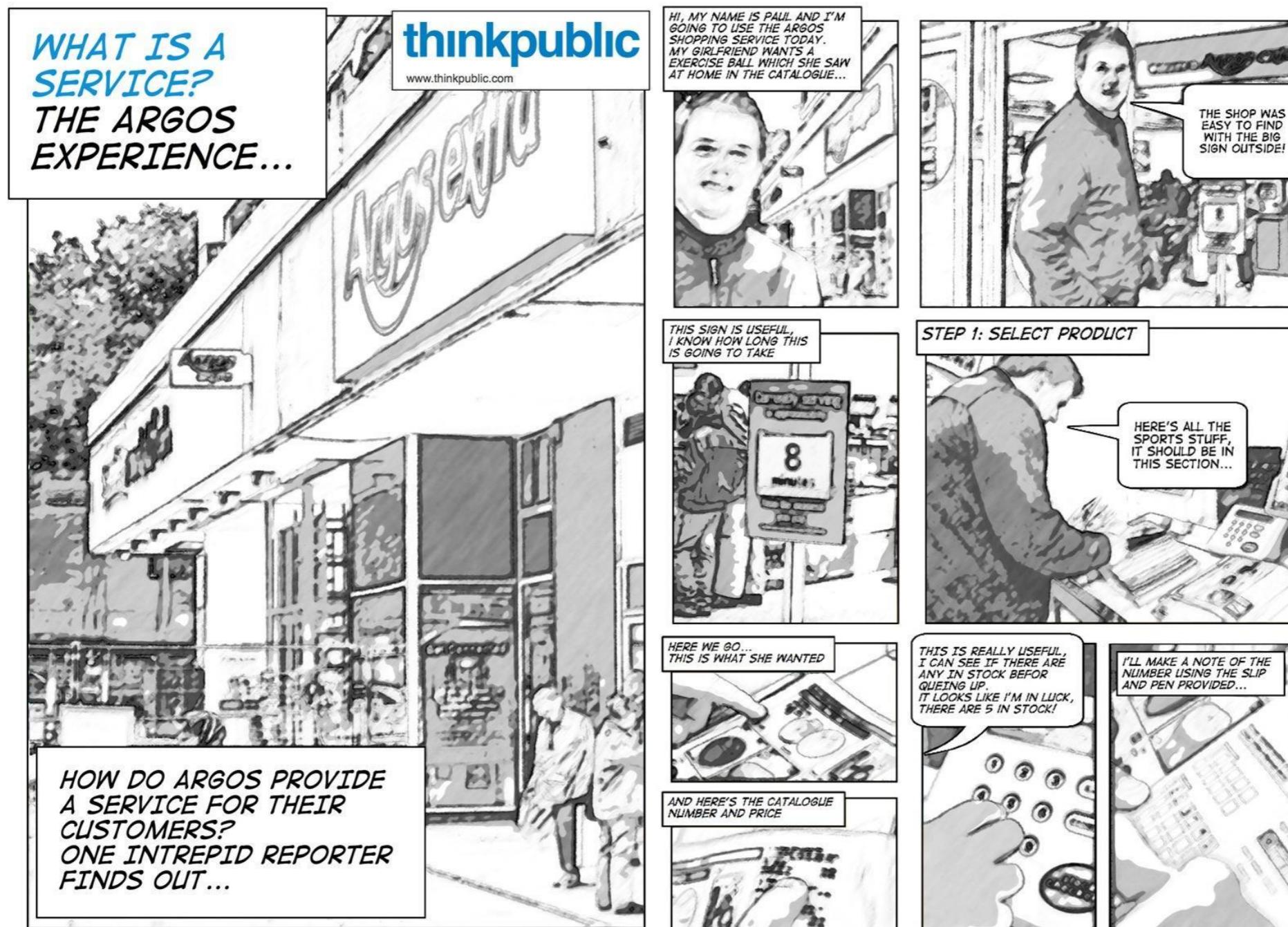
Does anyone feel like sharing your scenario?

# Storyboarding

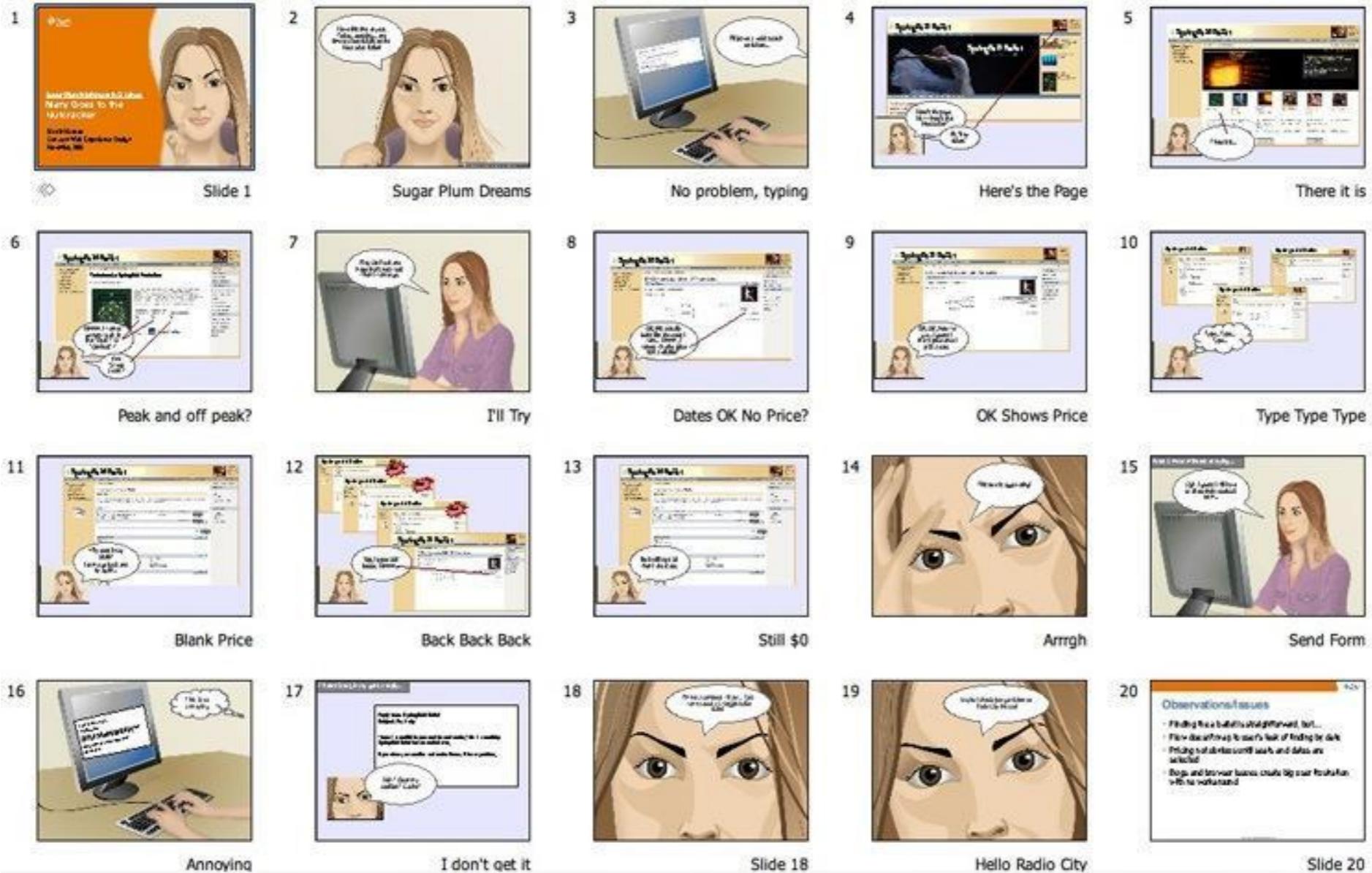
# Storyboard



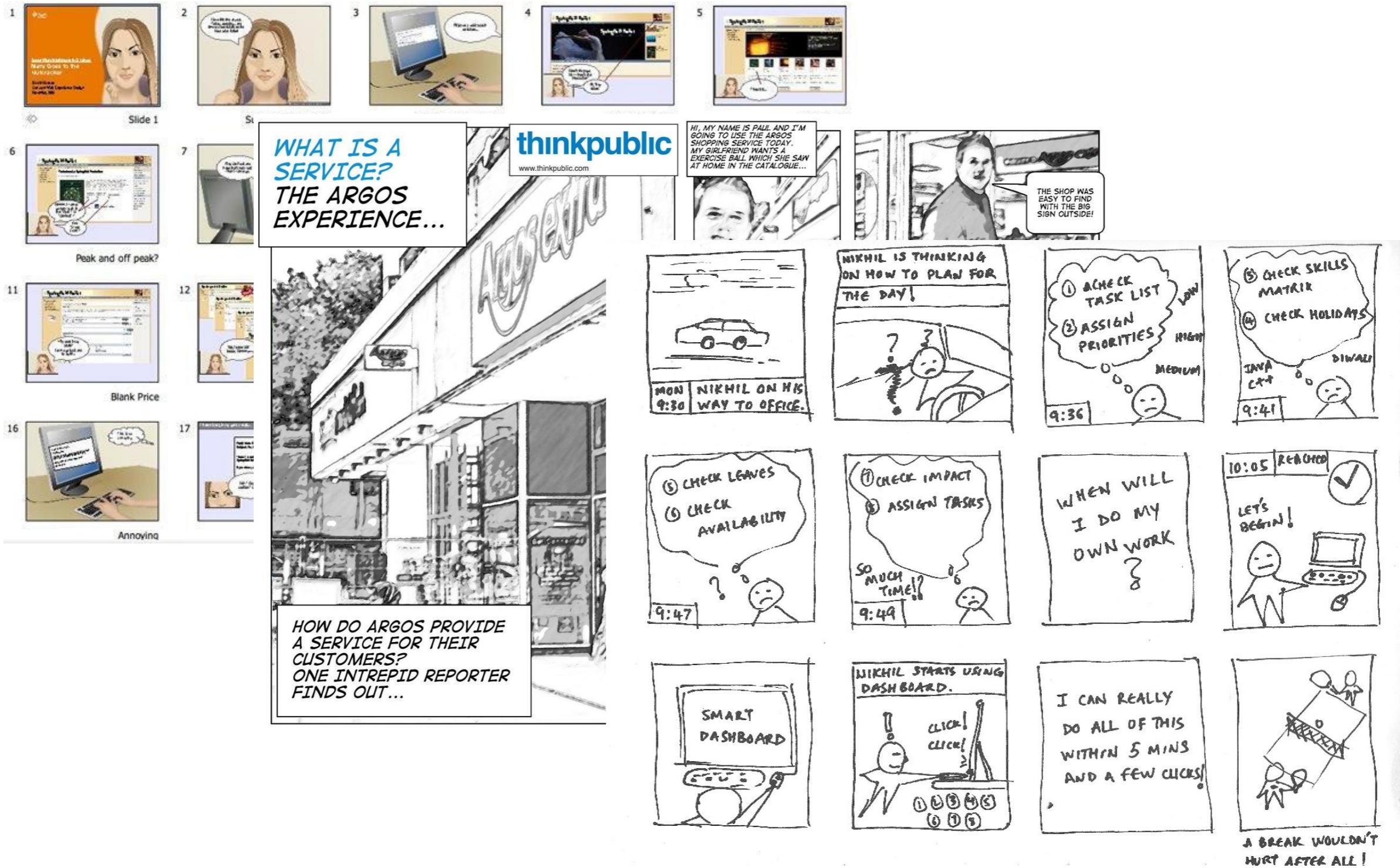
# Another one



# Another one



# Storyboarding



# Why Storyboards? (If you have Scenarios)

As a visual representation, storyboards help thinking deeply about...

Specific environments where the system is used

Physical constraints (size of system, space where it's used...)

Relationships among multiple people

# Provide Context

## Characters

Who is involved

## Setting

Environment

## Sequence

What task is illustrated

What leads a person to use a design

What steps are involved

## Satisfaction

What is the motivation

What is the end result

What need is satisfied

# Images in action

Storyboards come from film and animation

the script tells in details what is said

the storyboard focus on context and interactions

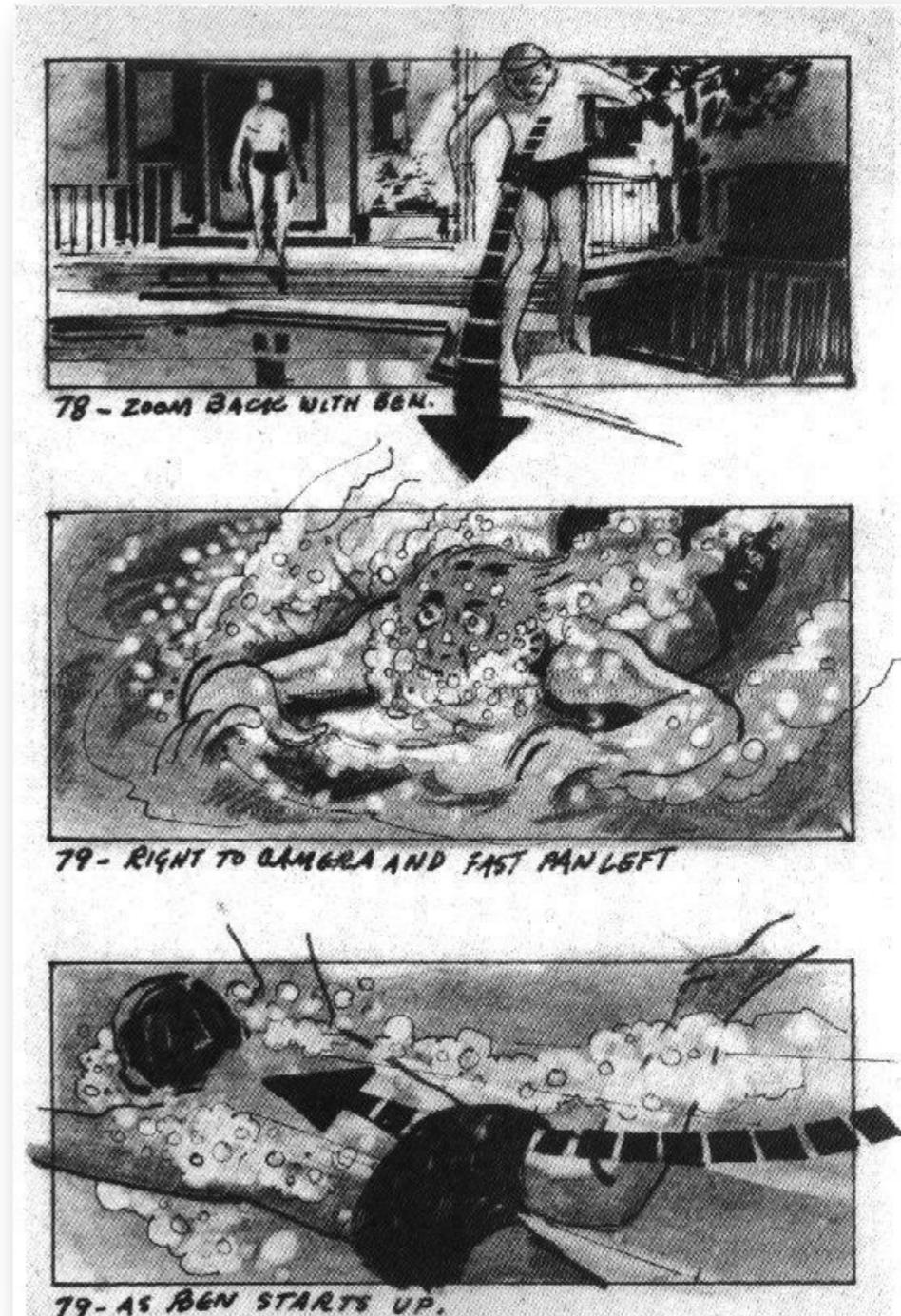


# Allows Exploration

Much faster and less expensive to produce

Can therefore explore more potential approaches

(Use notes to help fill in missing pieces of the proposal)



# Effective to communicate

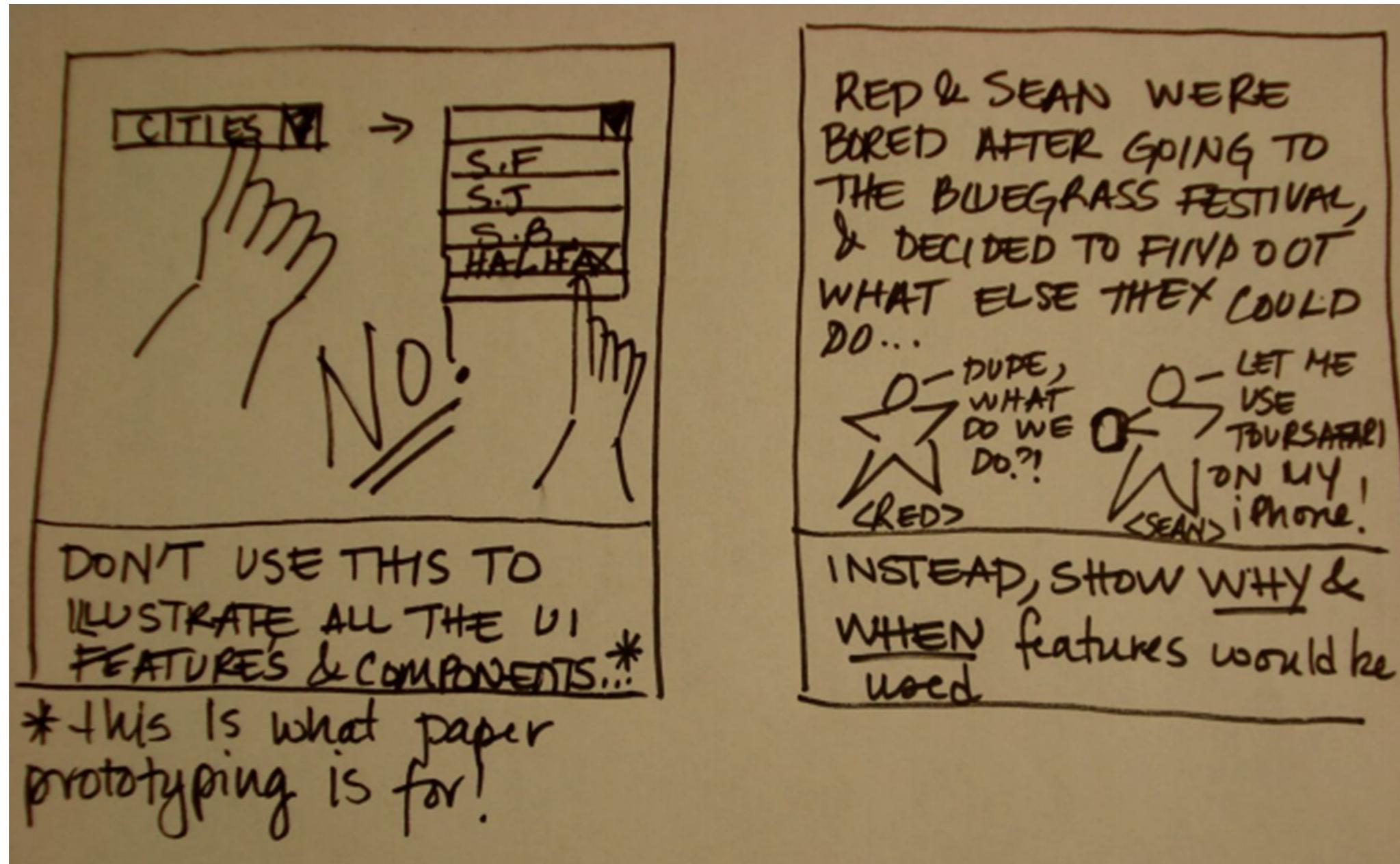
Effective storyboards can quickly **convey information** that would be difficult to understand in text

(Imagine explaining the storyboard on the right in text, for various audiences)

Can illustrate key requirements and leave open less important details of design



# Amal's Guide to Storyboarding



Amal Dar Aziz

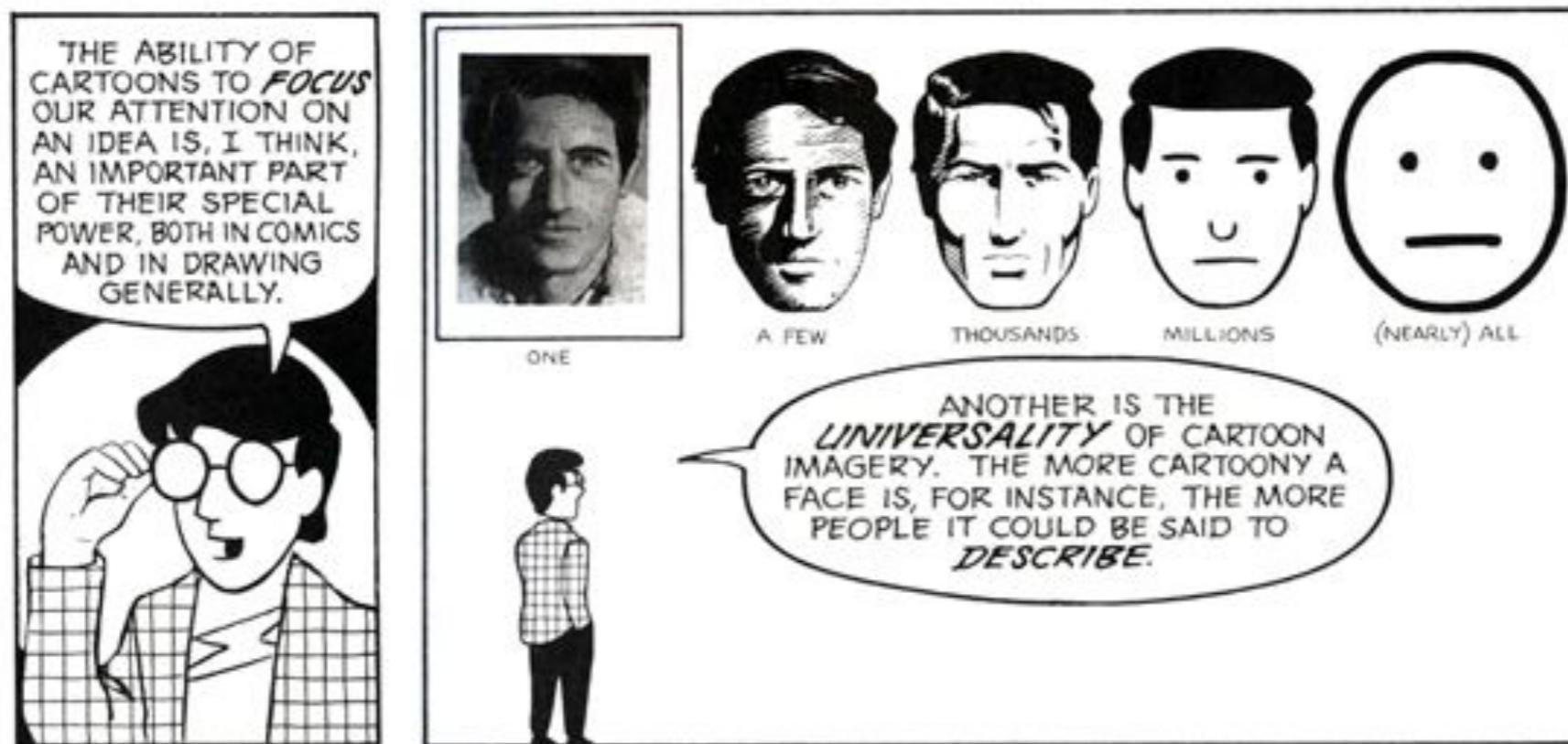
# Elements of a Storyboard

## 5 visual elements

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

# 1. How Much Detail?

Too much detail can lose universality

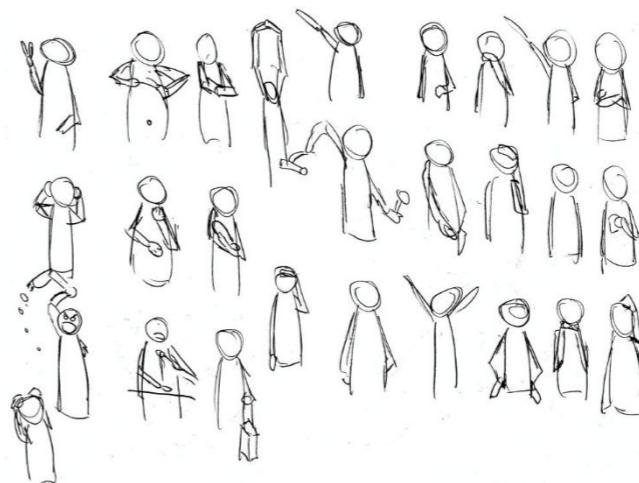


# 1. How Much Detail?

How to sketch people?



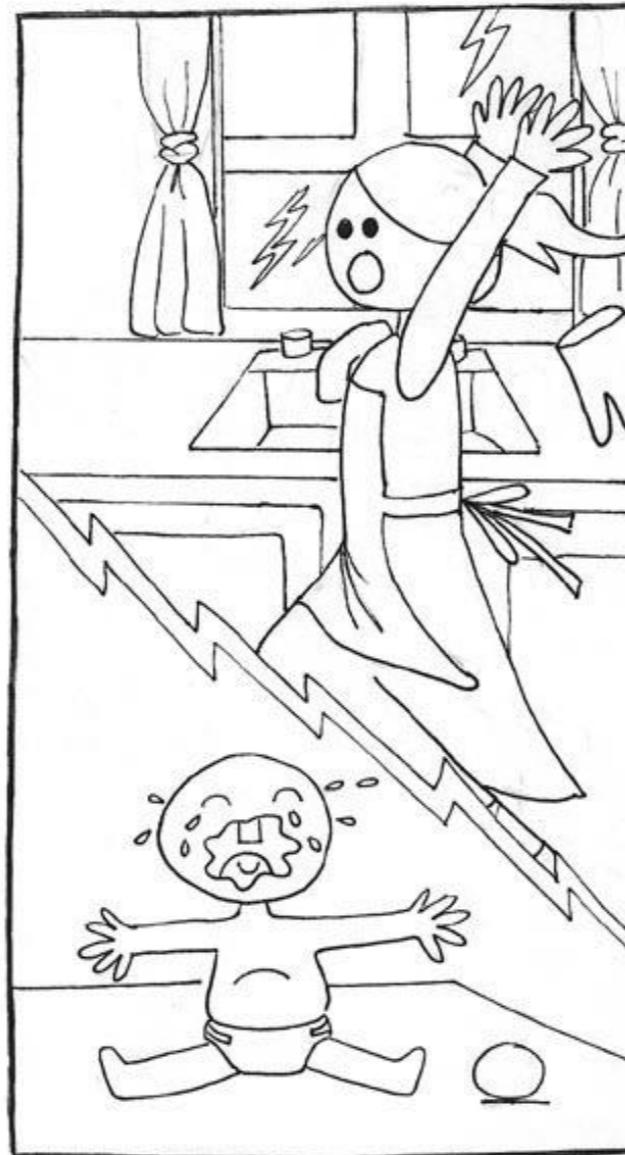
Star people  
by Bill Verplank



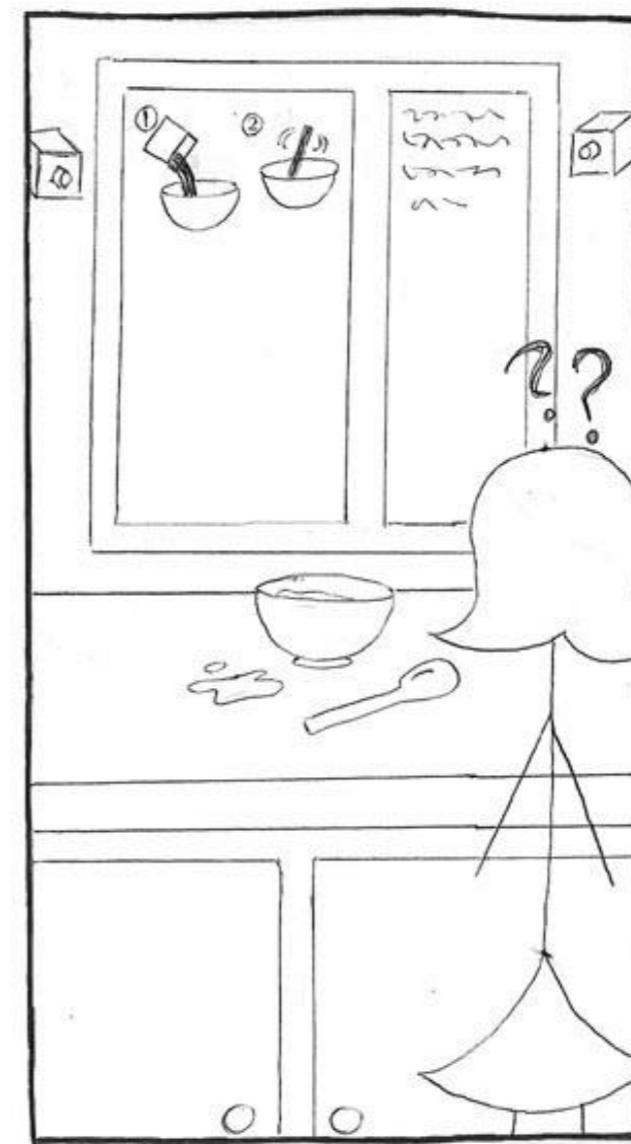
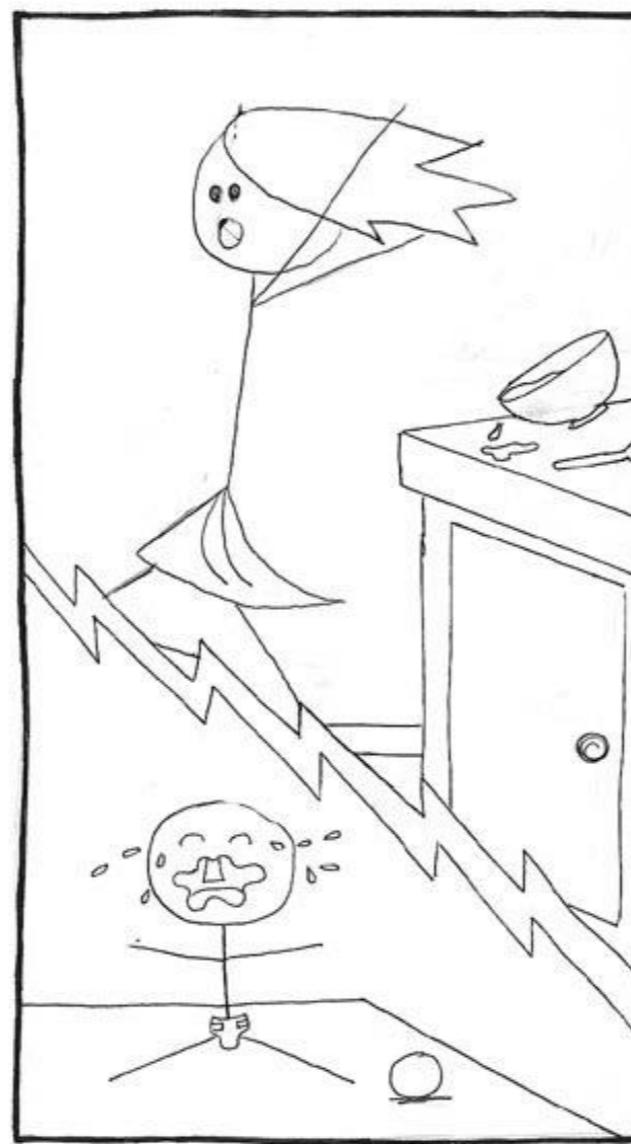
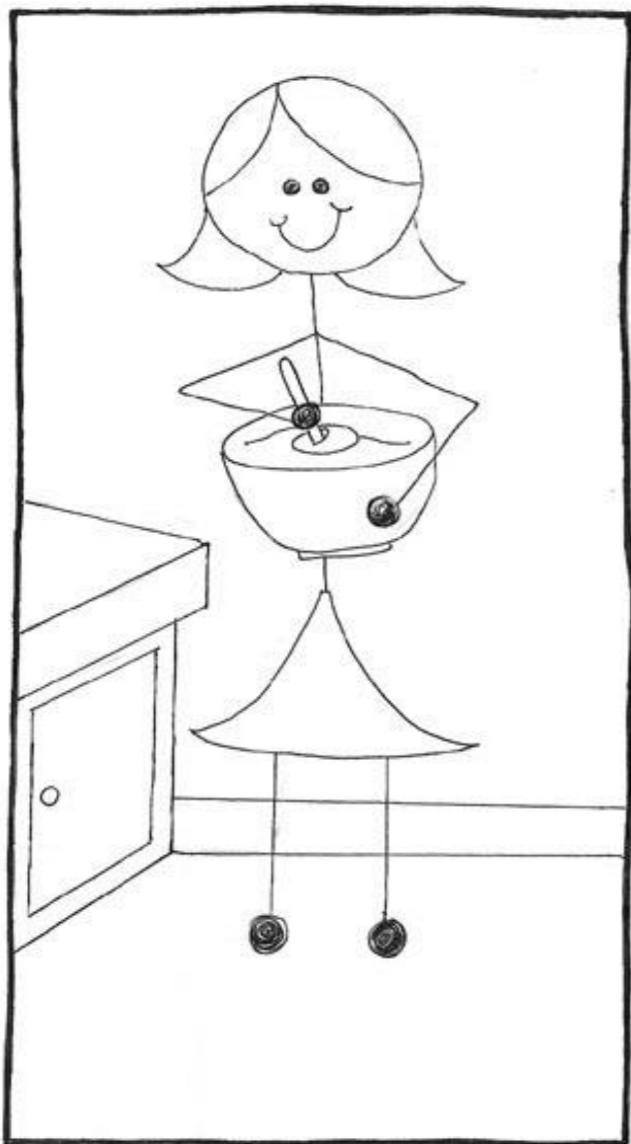
(c) 2009 SACHA CHUA



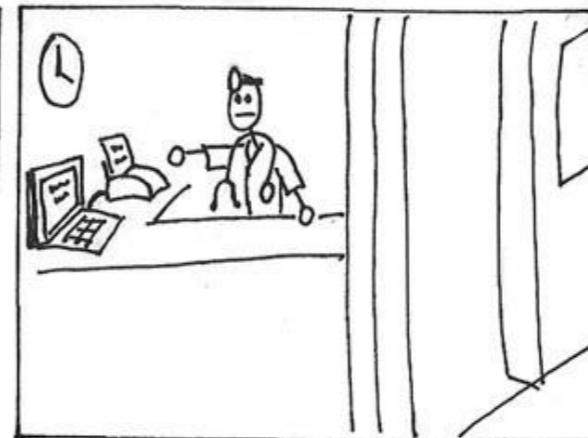
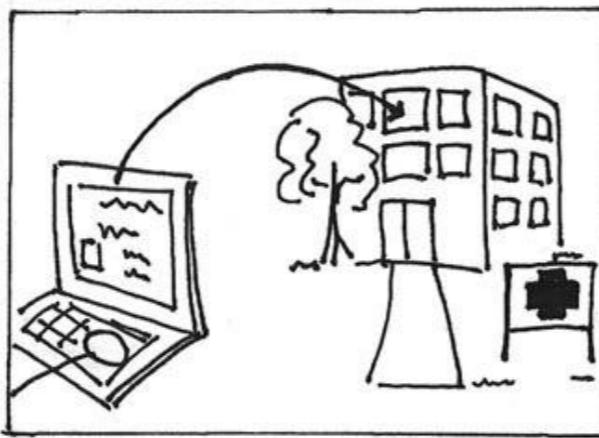
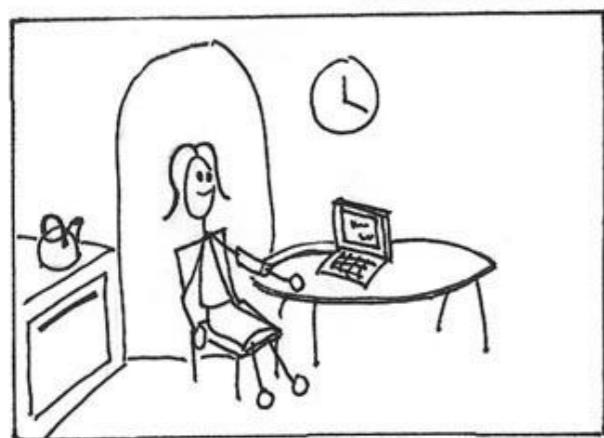
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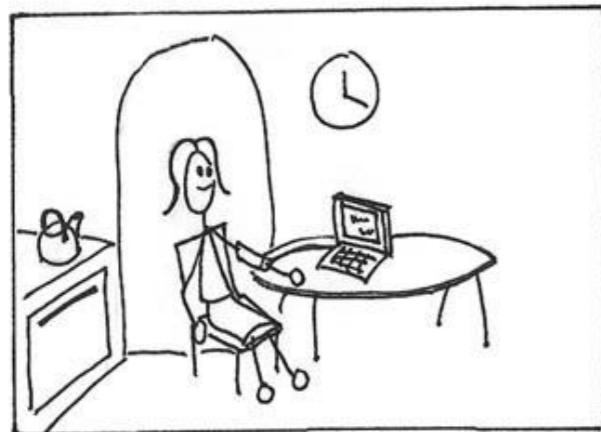


## 2. Use of Text

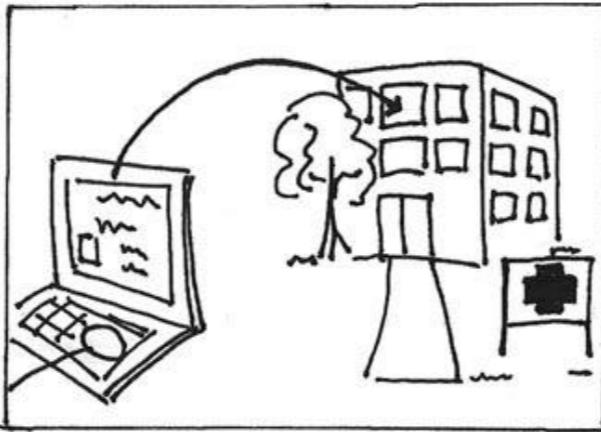


## 2. Use of Text

It is often necessary, but keep it short



1. At home, Mary checks her blood pressure.



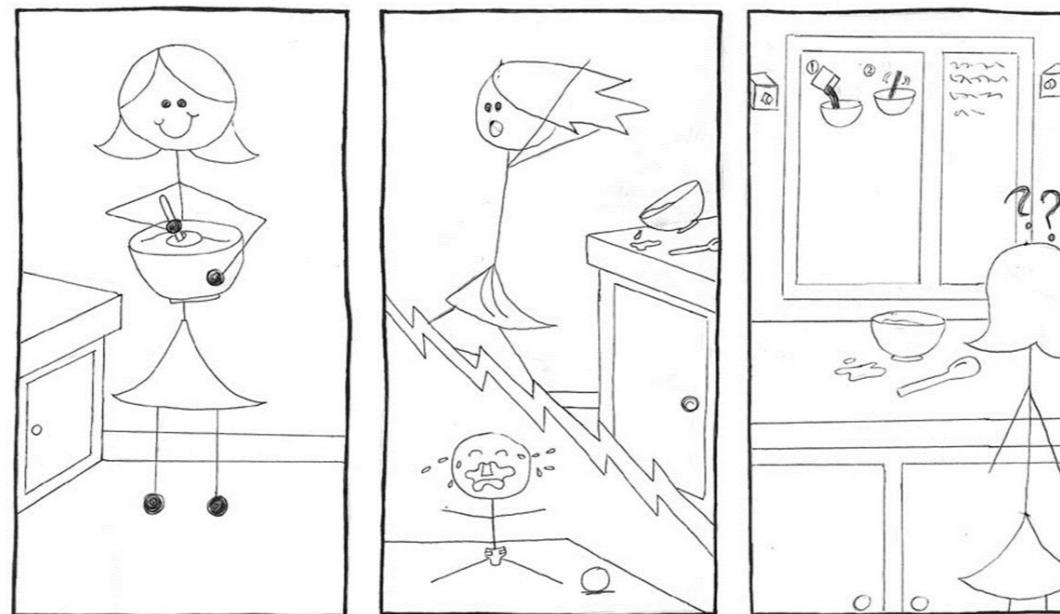
2. After a few simple key presses, her blood pressure readings get sent to a clinic.



3. The information is made available to her doctor.

### 3. Include People and Emotions

Include people experiencing the design and their reactions to it (good or bad)



The point of a storyboard is to convey the experience of using the system

# 4. How Many Frames?

4-6 frames is ideal for end-users

- Less work to illustrate

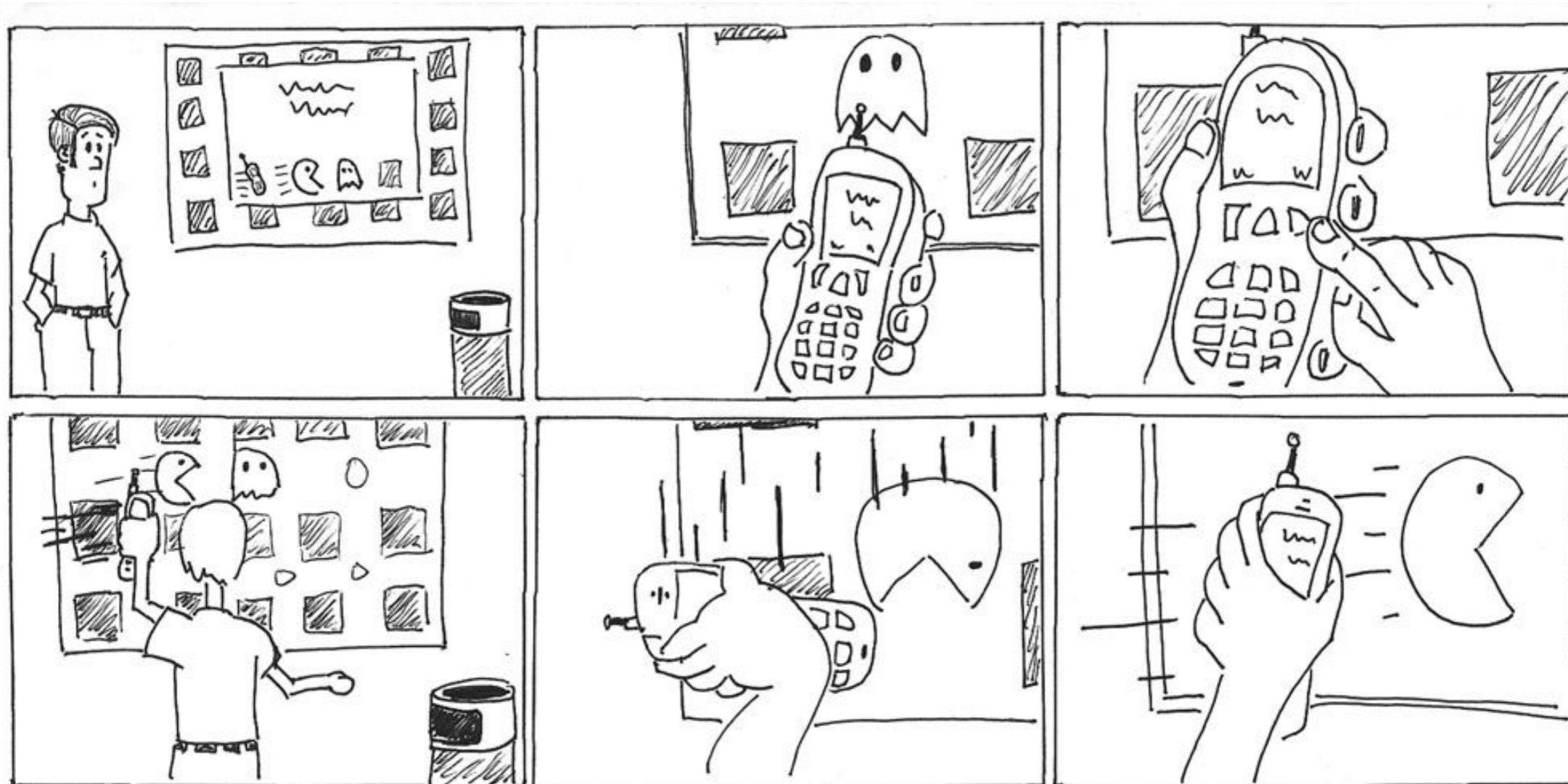
- Must be able to succinctly tell story

More is not always better

- May lose focus of story

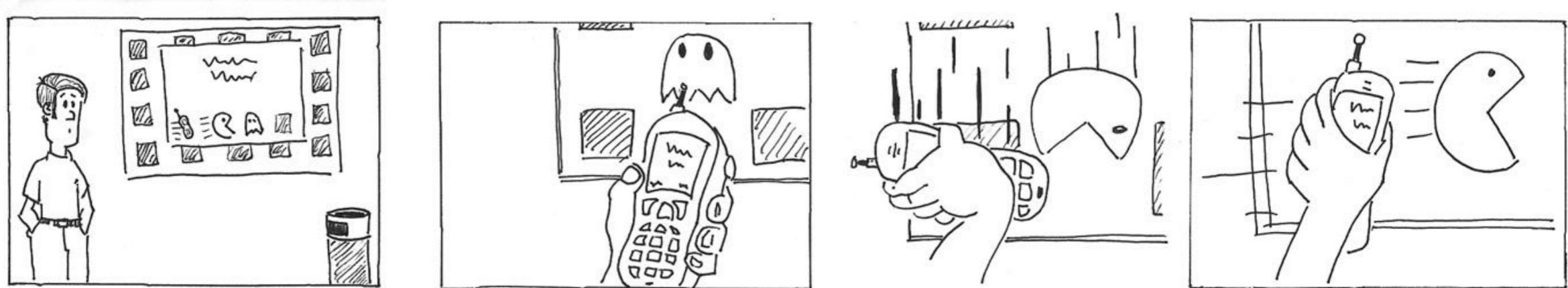
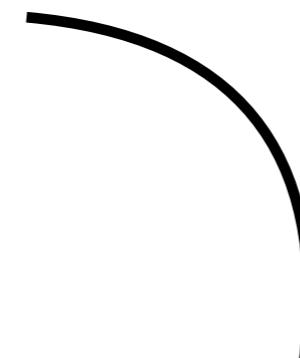
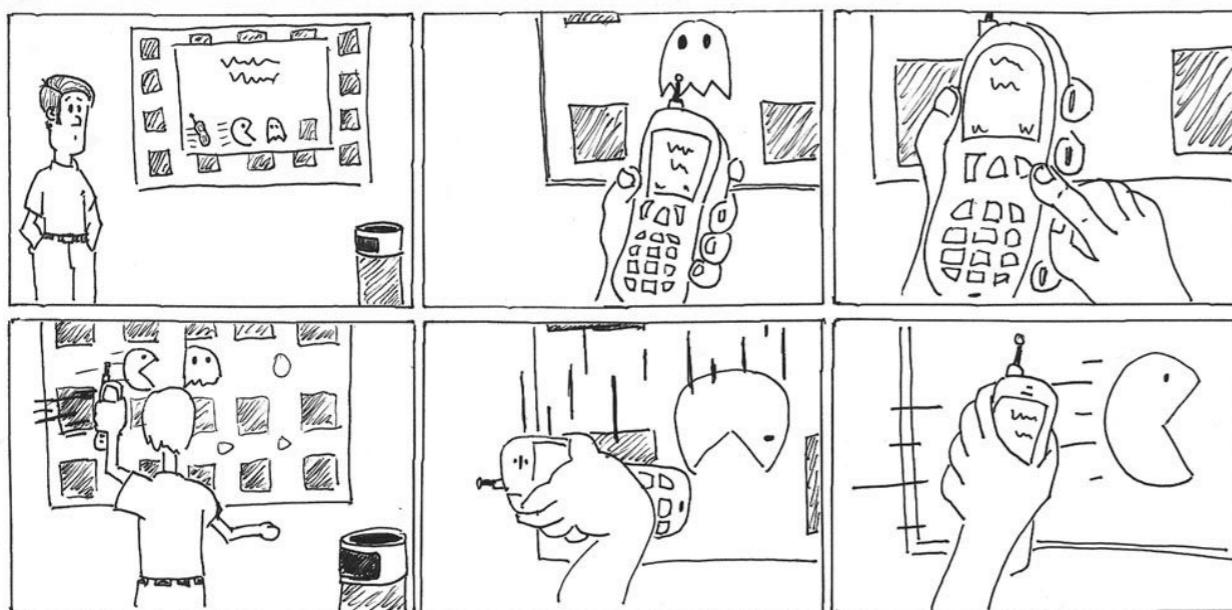
- May lose attention

# 4. How Many Frames?



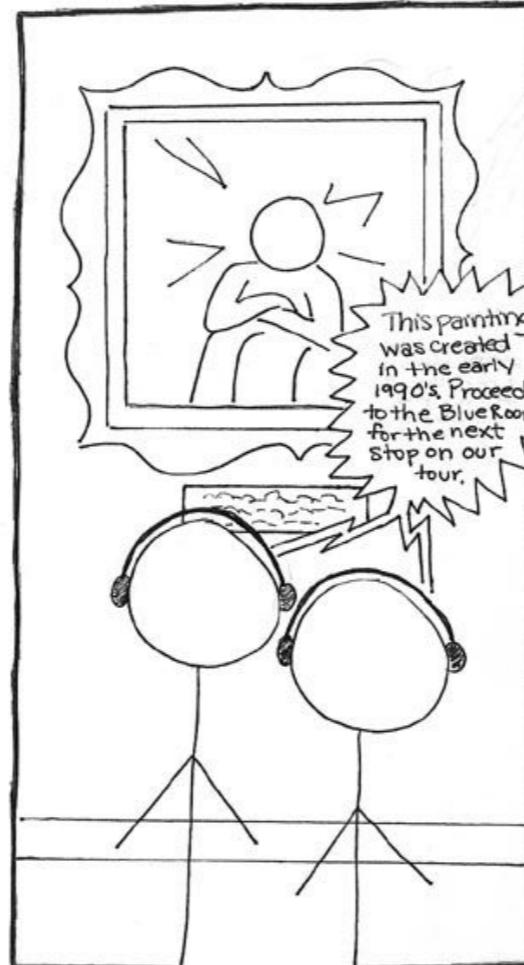
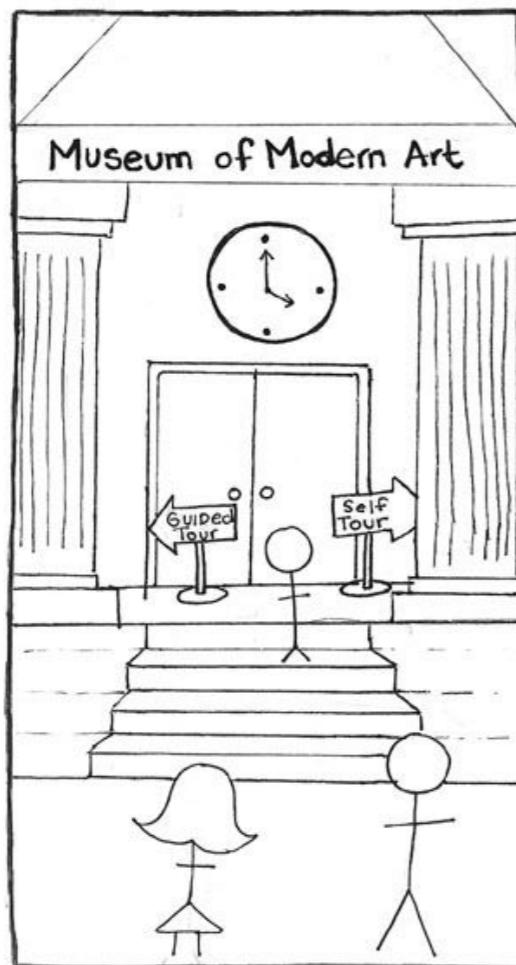
# 4. How Many Frames?

Remove unnecessary frames



# 5. Passage of Time

Only use of necessary to understand



# Team activity

Again, using your project as a basis:

Create one storyboard that presents

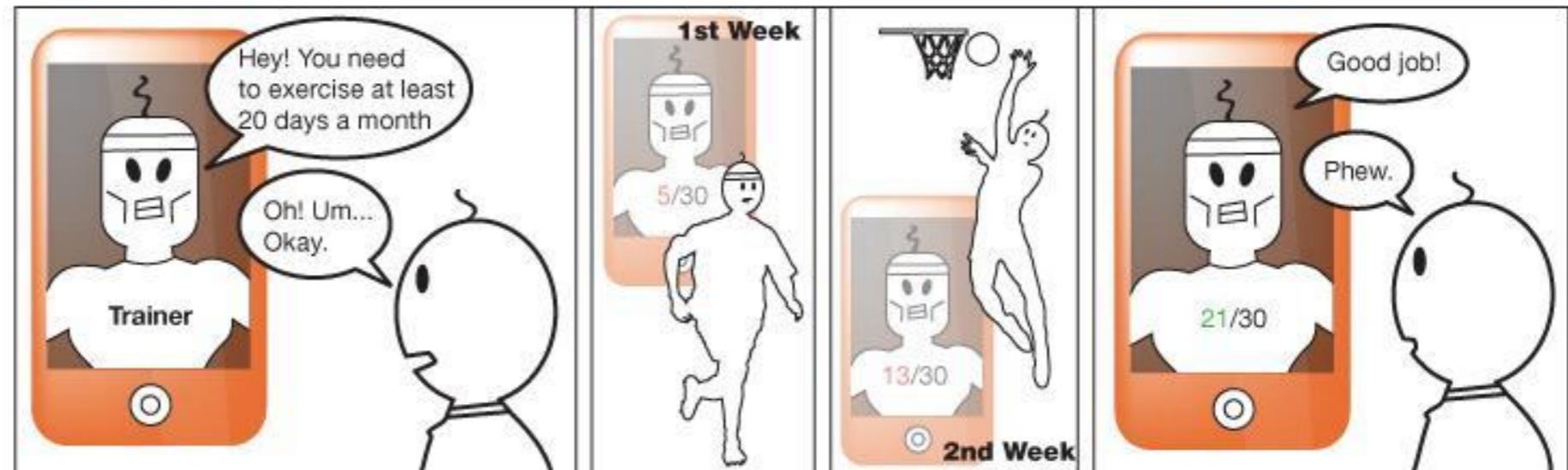
- one of your **personas**,
- and one of the **tasks** you plan to support,
- **IMPORTANT:** I still don't want details on the **solution**.

When you finish, get feedback from another team.

# More Examples and Tricks in Storyboarding

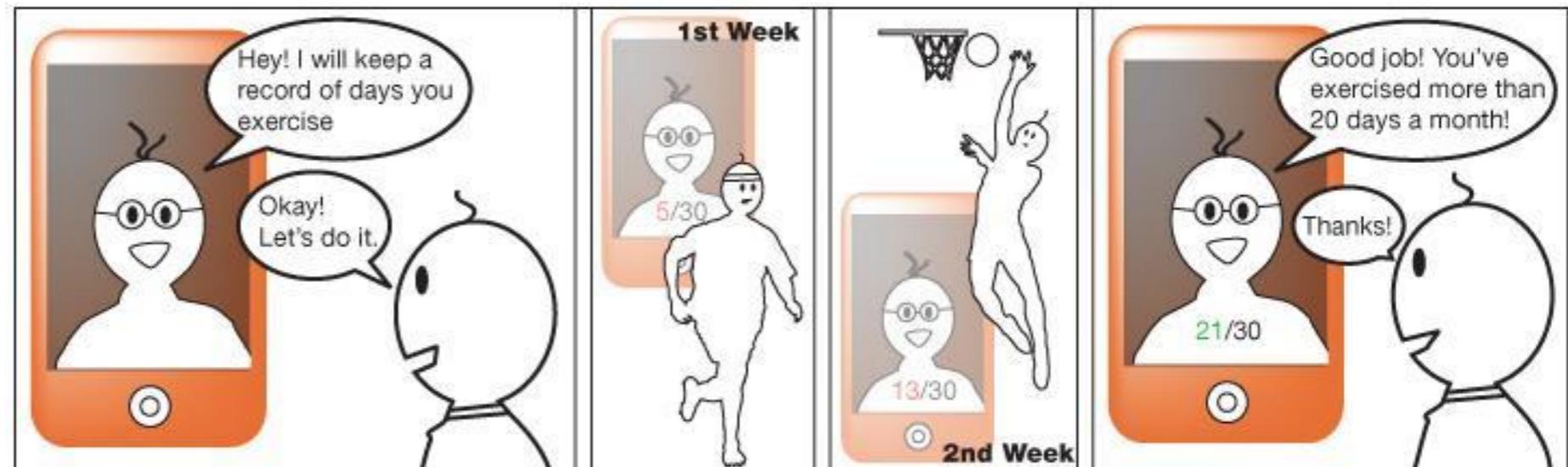
# Storyboards for Comparing Ideas

Authoritative



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

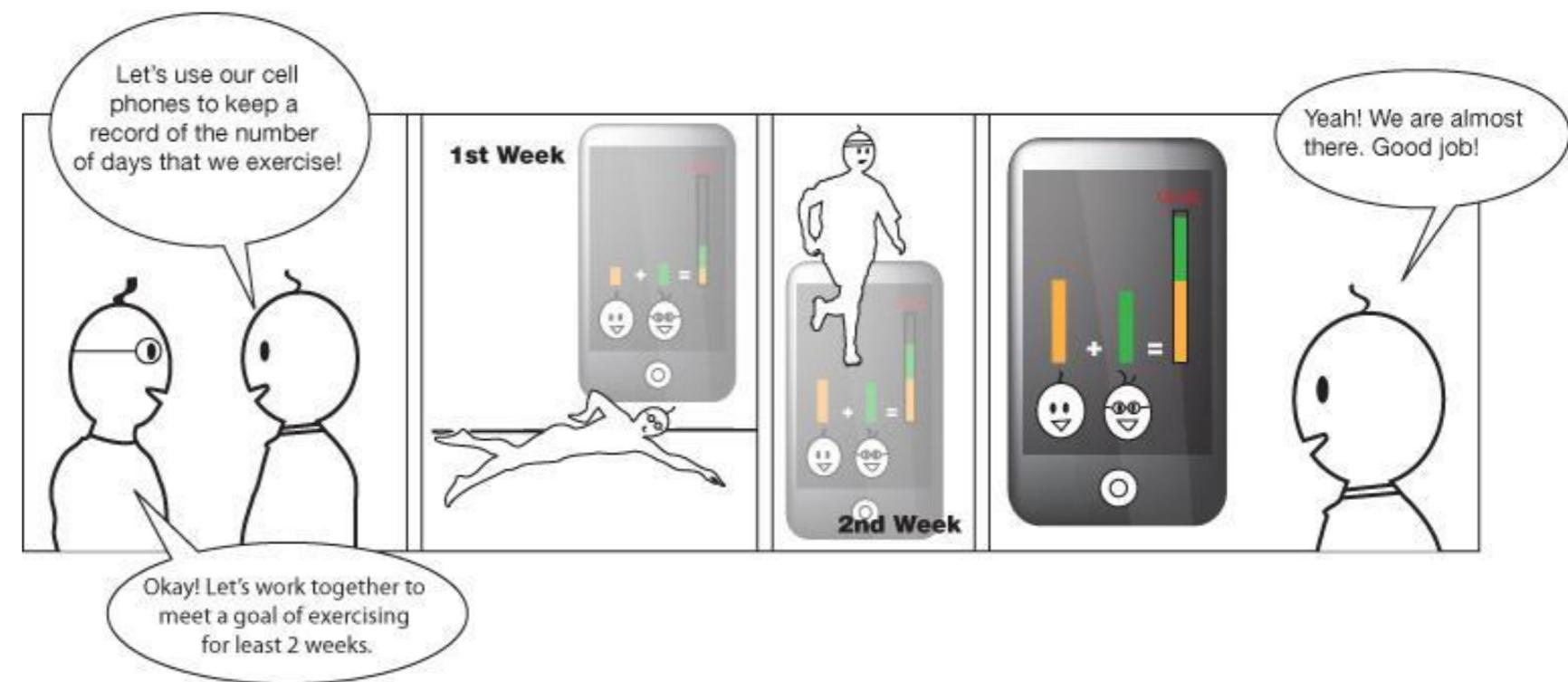
Supportive



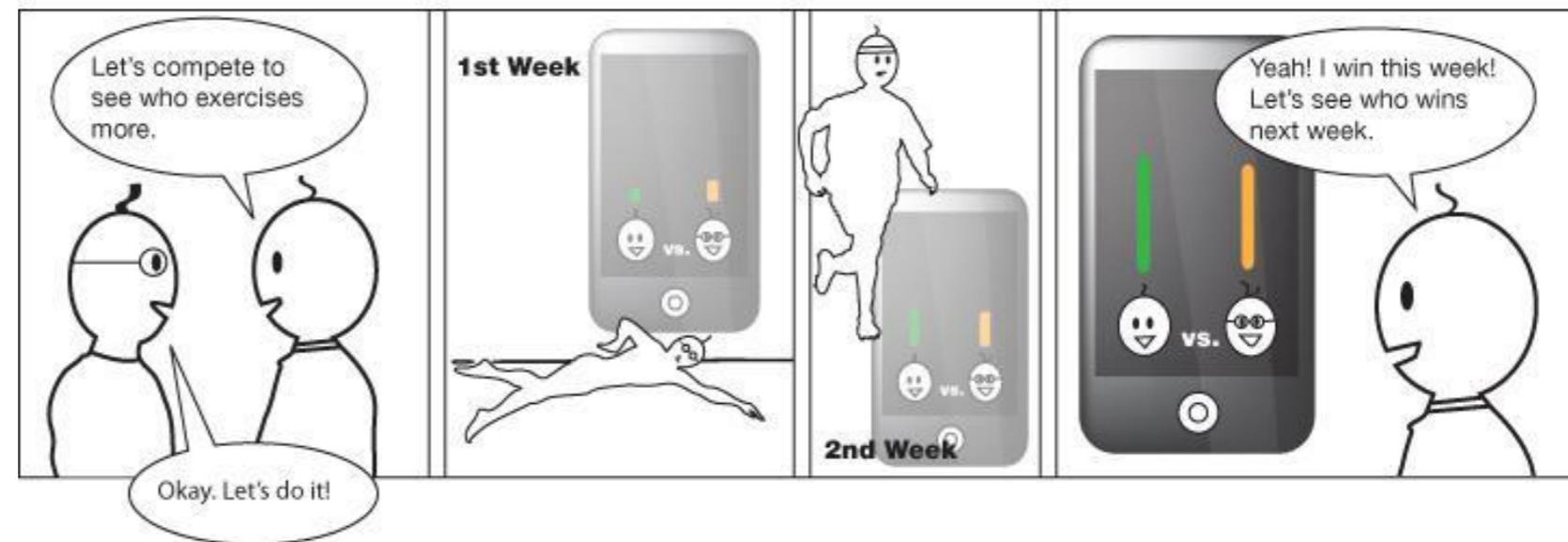
Cell phone is used to keep track of one's fitness goal.

# Storyboards for Comparing Ideas

Cooperative

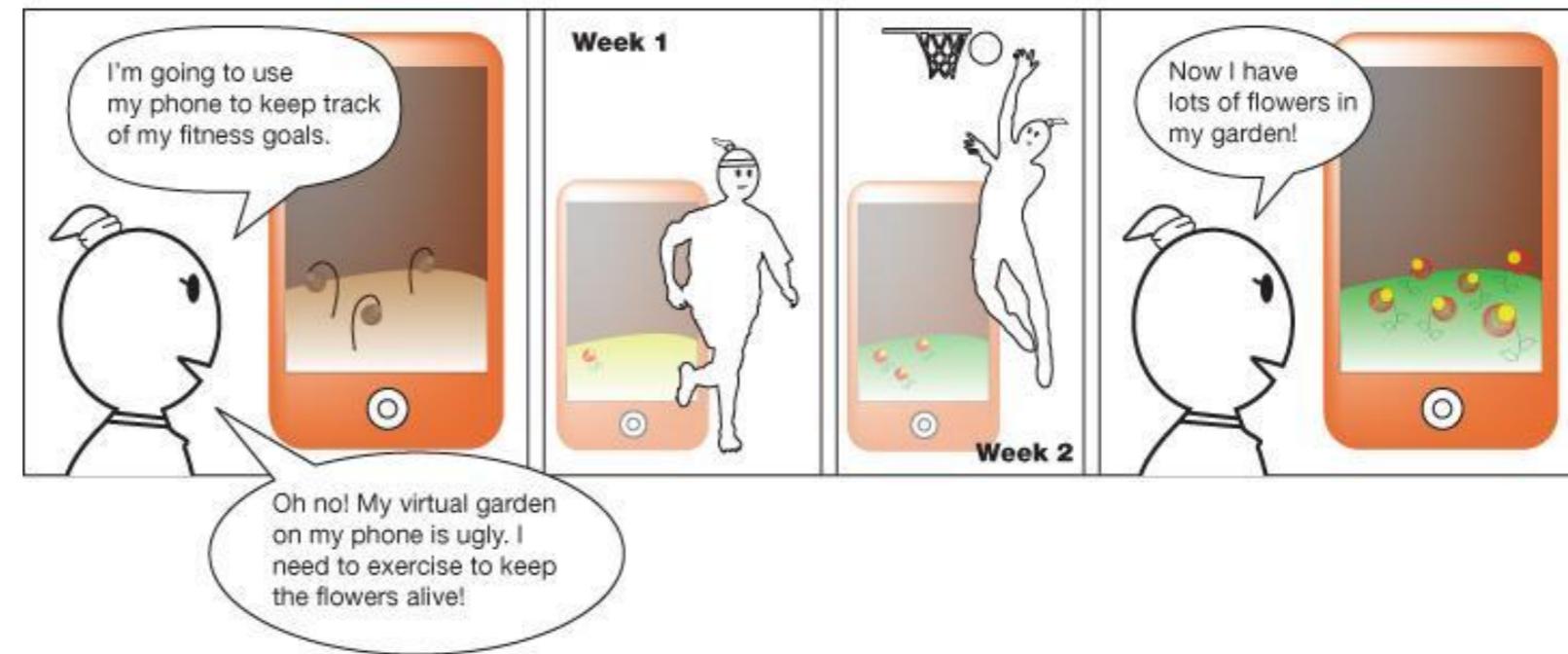


Competitive

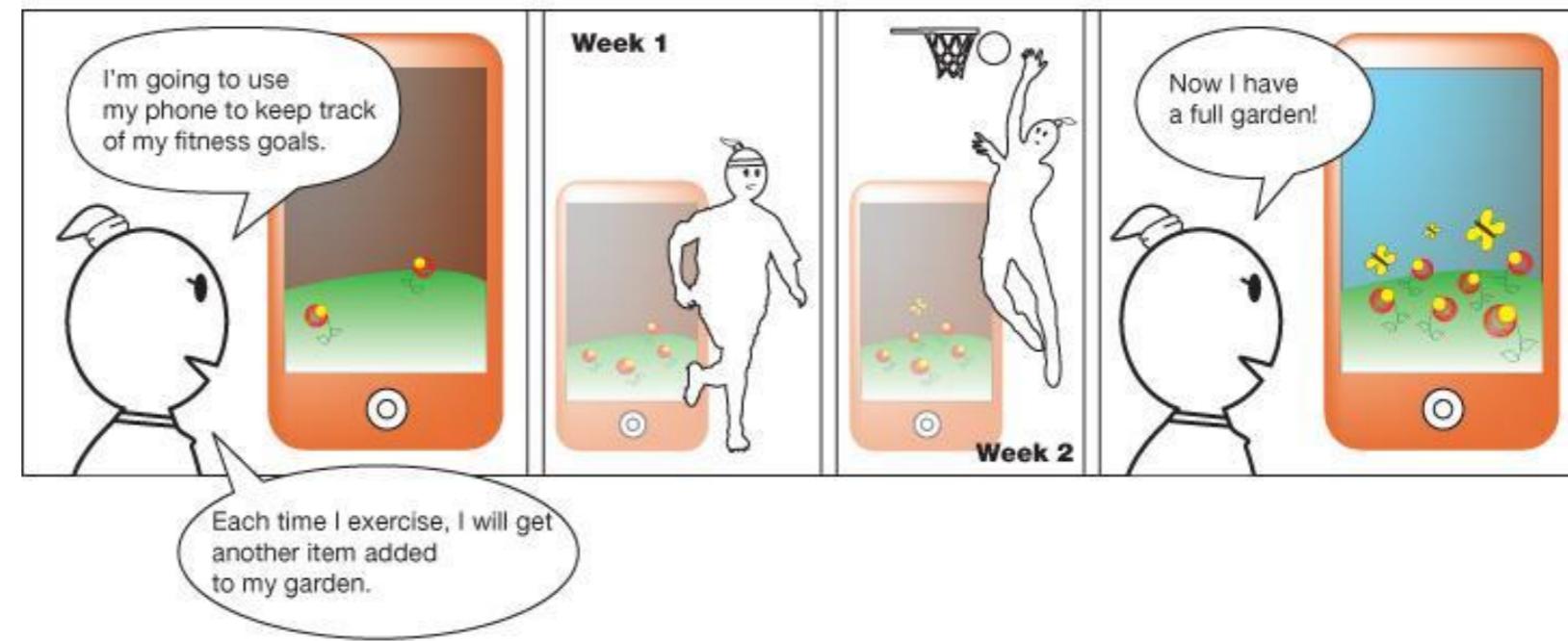


# Storyboards for Comparing Ideas

## Negative Reinforcement



## Positive Reinforcement



# Use Pictures (only if really necessary)



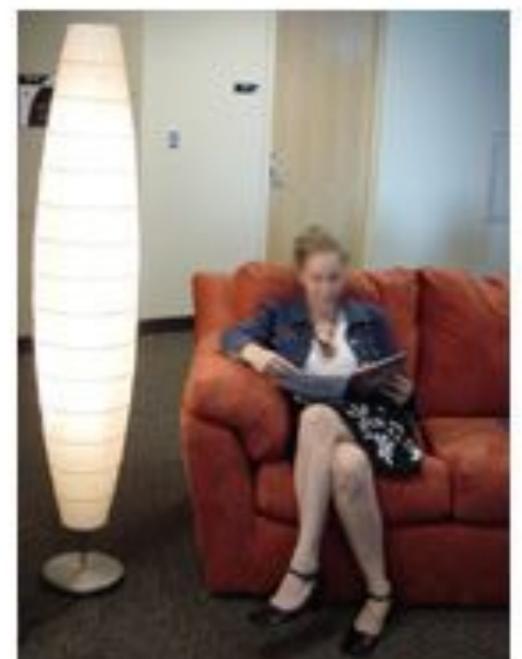
IT IS SO DARK JANE CAN  
HARDLY READ HER BOOK



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

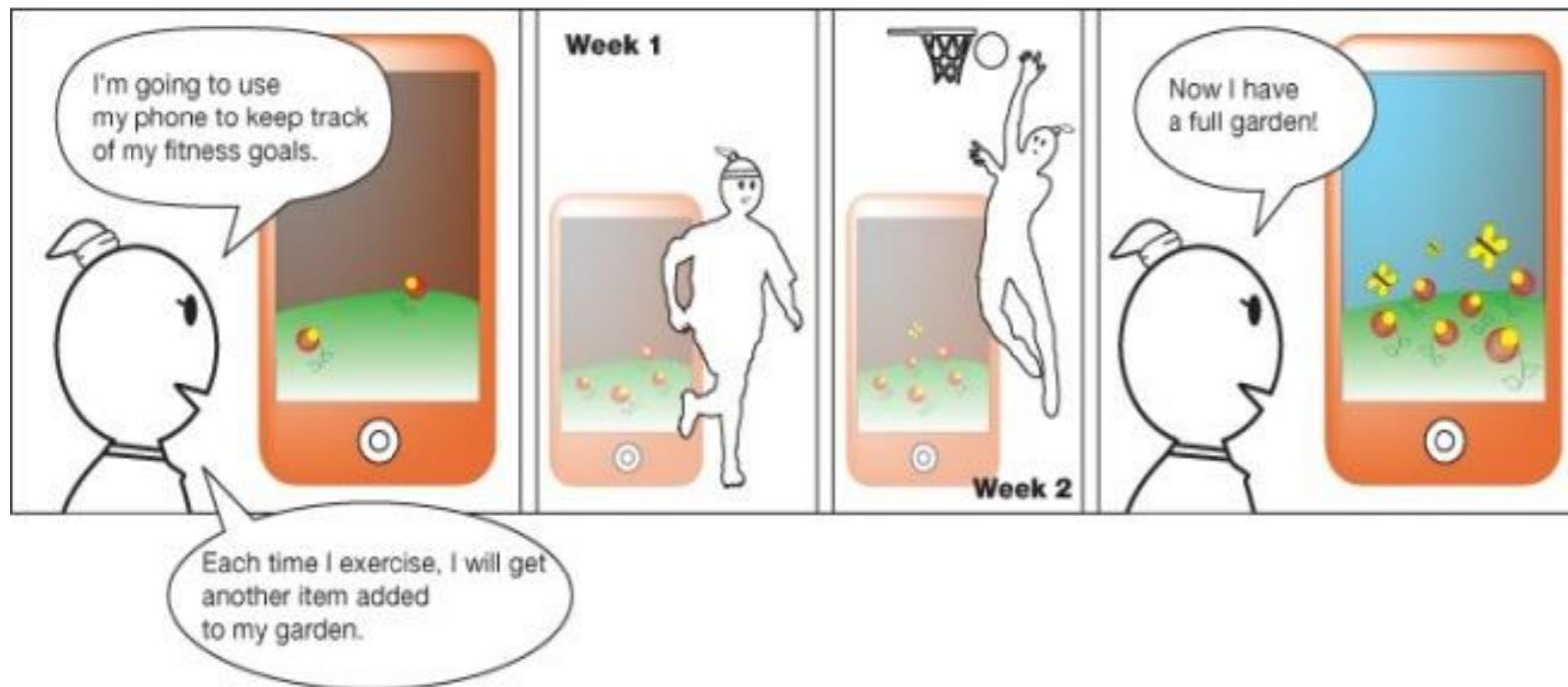


THE LIGHTS TURN ON!



FINALLY, SHE CAN  
READ HAPPILY.

# Existing Images from Other Sources

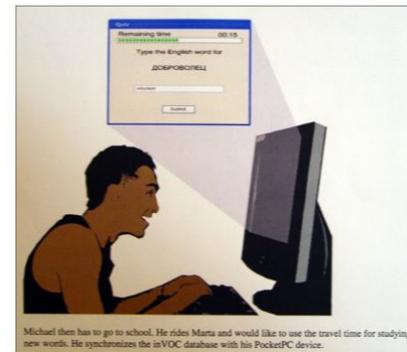
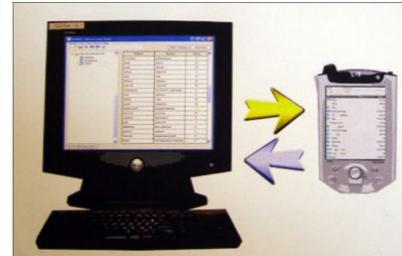
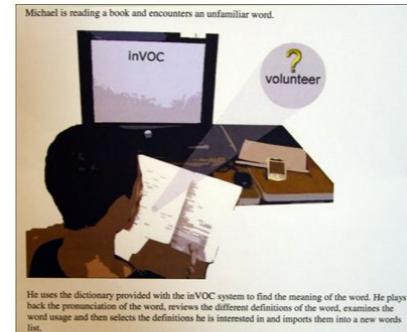


<http://designcomics.org/>

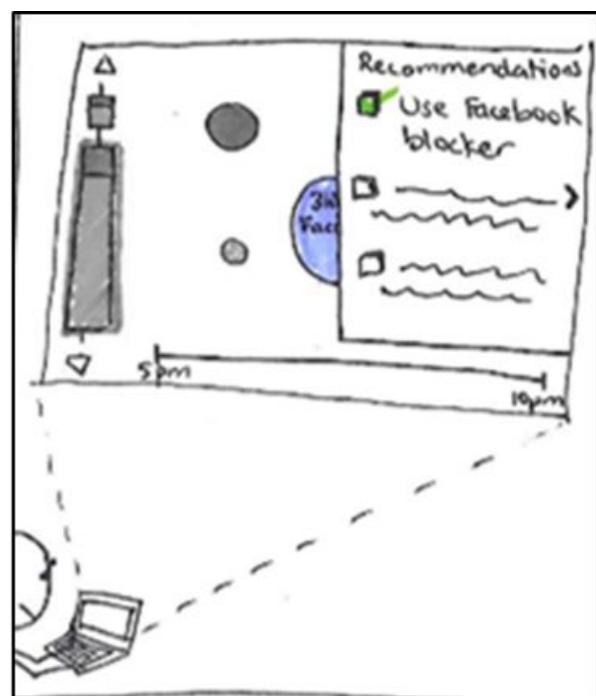
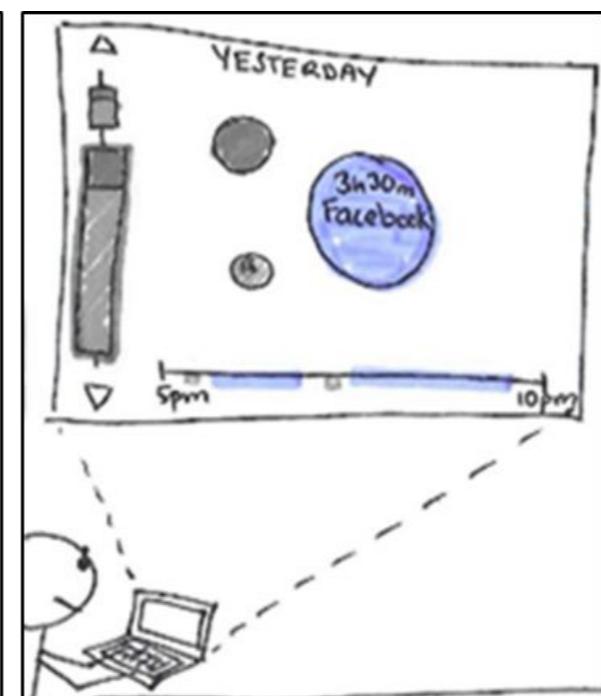
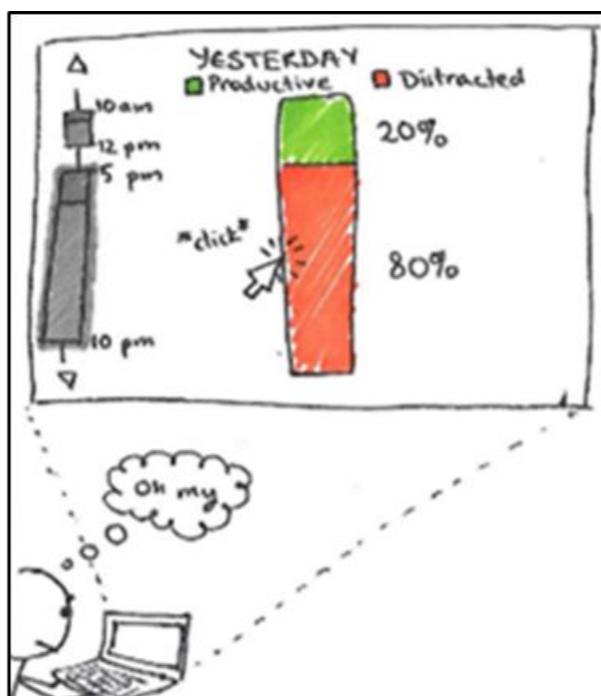
<http://www.pdclipart.org/>

# Blur Out Unnecessary Detail

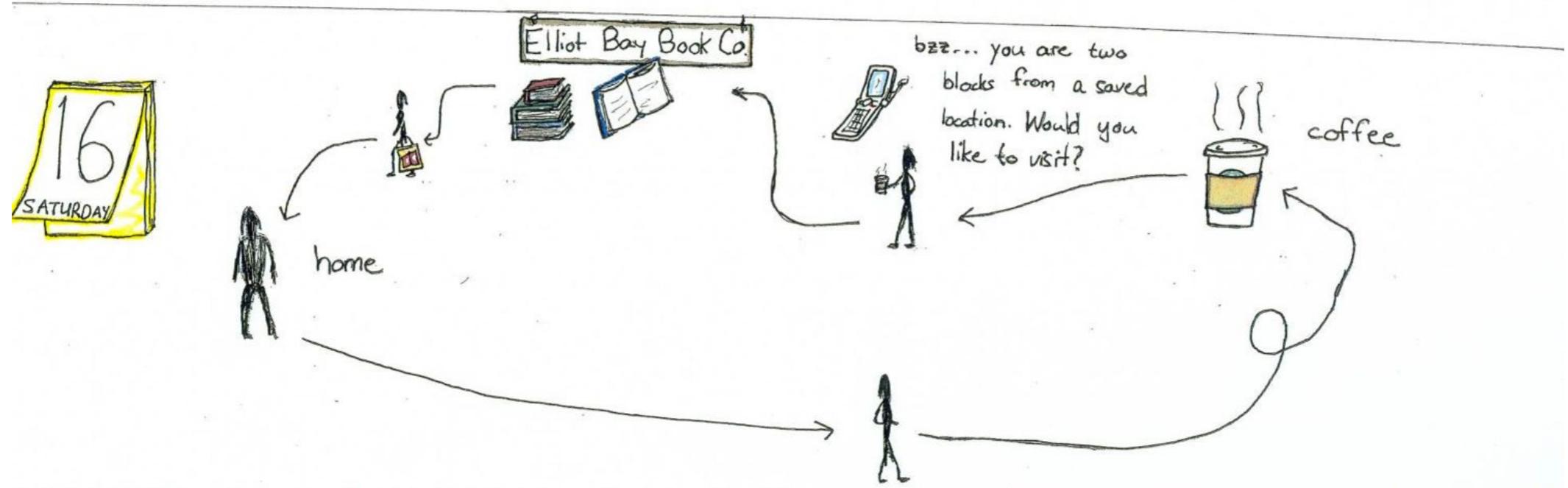
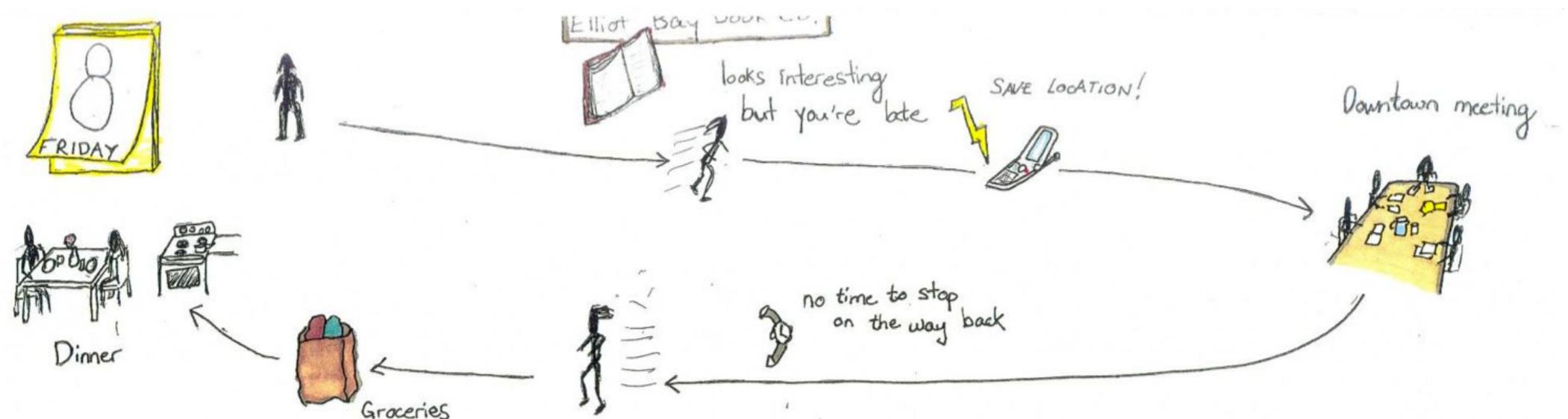
Using image editing software to simplify photos into sketches



# Selective Use of Color



# Selective Use of Color



# Summary

Think about your audience

Think about your time constraints

Think about how much you want to tell

Think about options for presenting your story

And most importantly: Think about your users

**Ask me something!**