- 115-130: Discussion of last week
- 130-230: Personas & Prototyping
- 230-245: Break
- 245-330: Group consulting
- 330-345: Group introductions
- 345-4: Wrap-up, Questions and Feedback

Personas and Prototyping

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Who is the "User"?

"User" is an abstract concept that could be used to support any design idea

The user would like a timer to see how much time is left in class

Having the ability to observe the notes that other students are taking would help users' understanding

The user wants a function that allows her to vaporize another student in the class

Are these all the same "user"?

Personas

Personas are “hypothetical archetypes” of real users

Clevis McCloud, crotchety septuagenarian

Marie Dubois, Bi-lingual business traveler

Chuck Burgermeister, Business Traveler

Ethan Scott, 9-year old boy

Source: Alan Cooper, The Inmates are Running the Asylum, Chapter 9

Personas

Personas ground design conversations

Clevis McCloud, crotchety septuagenarian

Marie Dubois, Bi-lingual business traveler

Chuck Burgermeister, Business Traveler

Ethan Scott, 9-year old boy

Source: Alan Cooper, The Inmates are Running the Asylum, Chapter 9

Cooper's Advice

Precision matters more than accuracy

Personas smoothen out individual quirks

Aim for the center

Stereotypes are OK!

It's a user persona, not a buyer persona

Personas are the single most powerful design tool that we use

Source: Alan Cooper, The Inmates are Running the Asylum, Chapter 9

Pruitt and Grudin's Advice

Personas can be based on market research, contextual inquiry and design ethnography

Personas "act" in scenarios, and scenarios contain personas

Try not to re-use the same personas excessively

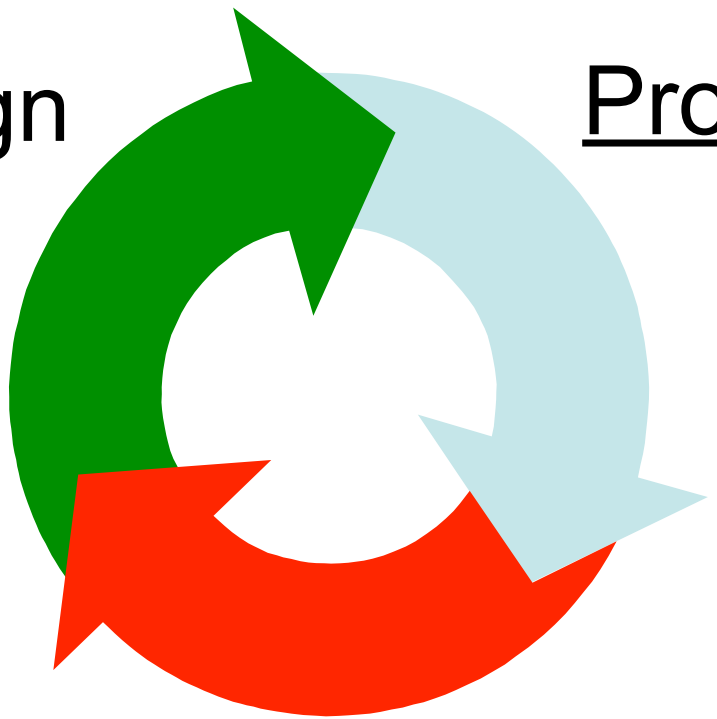
Personas are not a panacea

Source: Pruitt and Grudin, "Personas: Practice and theory", Communications of the ACM

Personas Activity

Design

Prototype



Evaluate

Design Iteration

The goal is to test as many ideas as possible

Formative as opposed to summative evaluation - especially with early stage prototypes

Two Key Questions

What do I want to Learn?

What do I want to Communicate?

Adapted from Scott Klemmer

Low-Fidelity Prototypes

Provide an early, concrete representation of a design idea

Provide hands-on experience for all stakeholders (design teams, users, customers, etc.)

Everyone understands their limitations

Can be made cheaply, and can be fun to make and use

Lo-Fi Techniques

Scenarios

Storyboards

Design Sketch

Paper Flipbook

Cardboard / Foam Mock-up

Scenarios

"Scenarios are stories about people and their activities"

Focuses developers on the most important user activities that should be supported

Does not focus on implementation

Can either describe current practice, or a future hypothetical scenario

Ways to Present a Scenario

Text paragraph

Storyboard (Comic book)

Video

Example Scenario

John wants to take notes while in class. Even though the slides will be posted online later, he wants to make sure he captures the most important points. Before the professor starts the lecture, he starts the note-taking application on his phone. The application automatically notes the current date, time and class. During the class he can press one of two buttons - to start recording audio or to take a picture. After recording, the application allows him to tag the recording with keywords. Later, when he is home, he can review his notes, synchronized with the powerpoint slides downloaded from the course web site. He can search by keyword, follow the lecture linearly, or sped up in time.

Elements of a Scenario

Agents / Actors

Setting

Goals / Objectives

Actions / Events

Example Scenario

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Example Scenario

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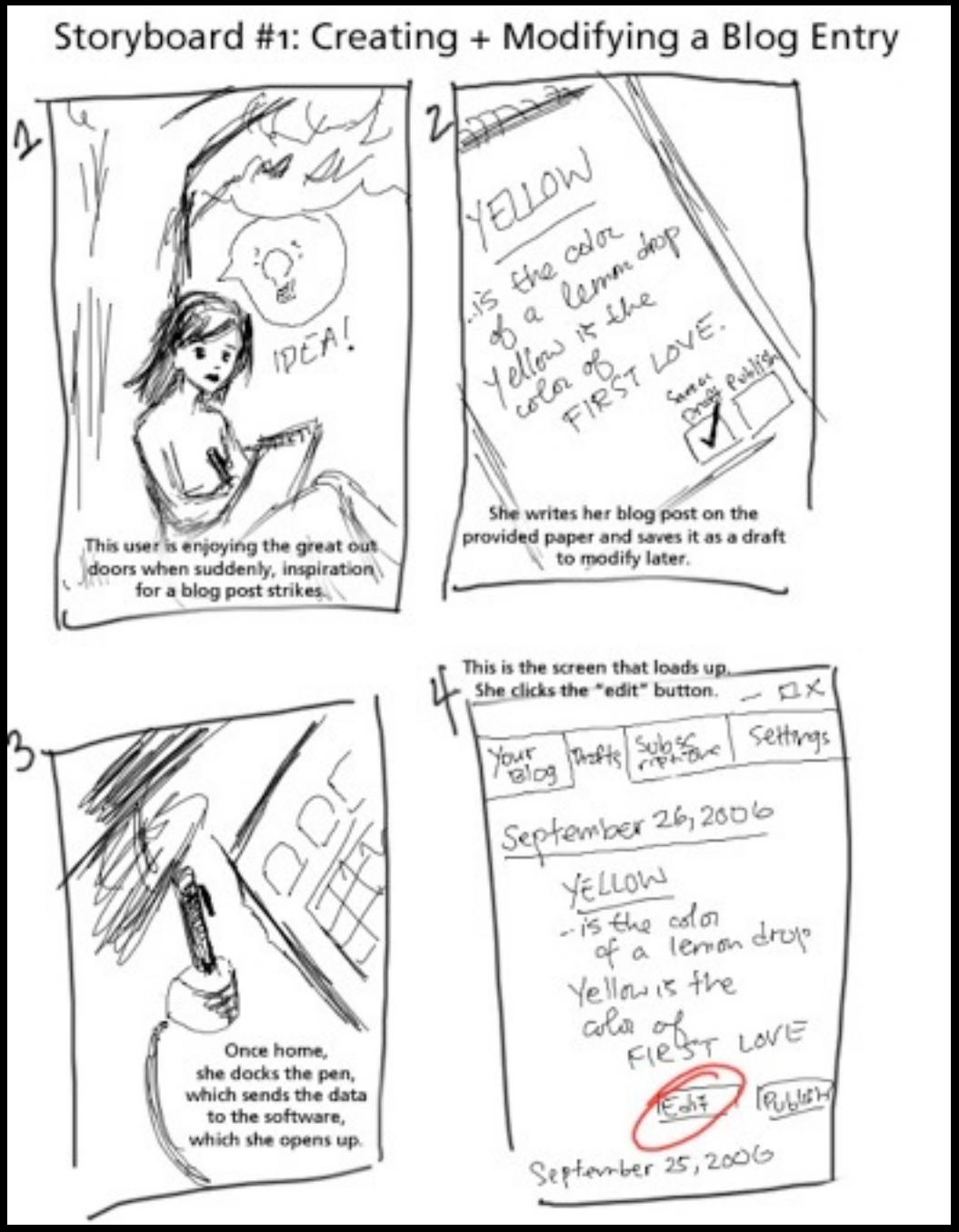
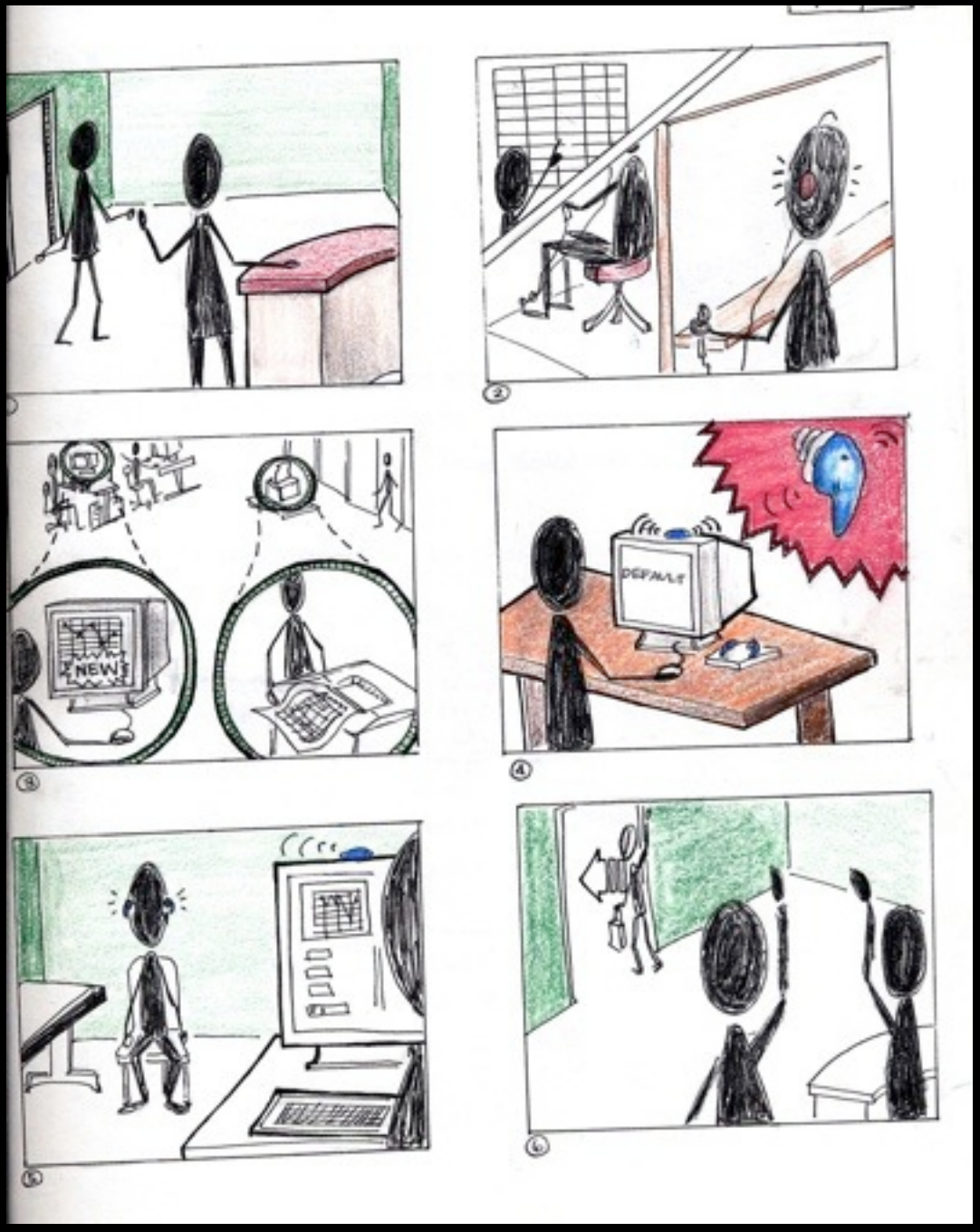
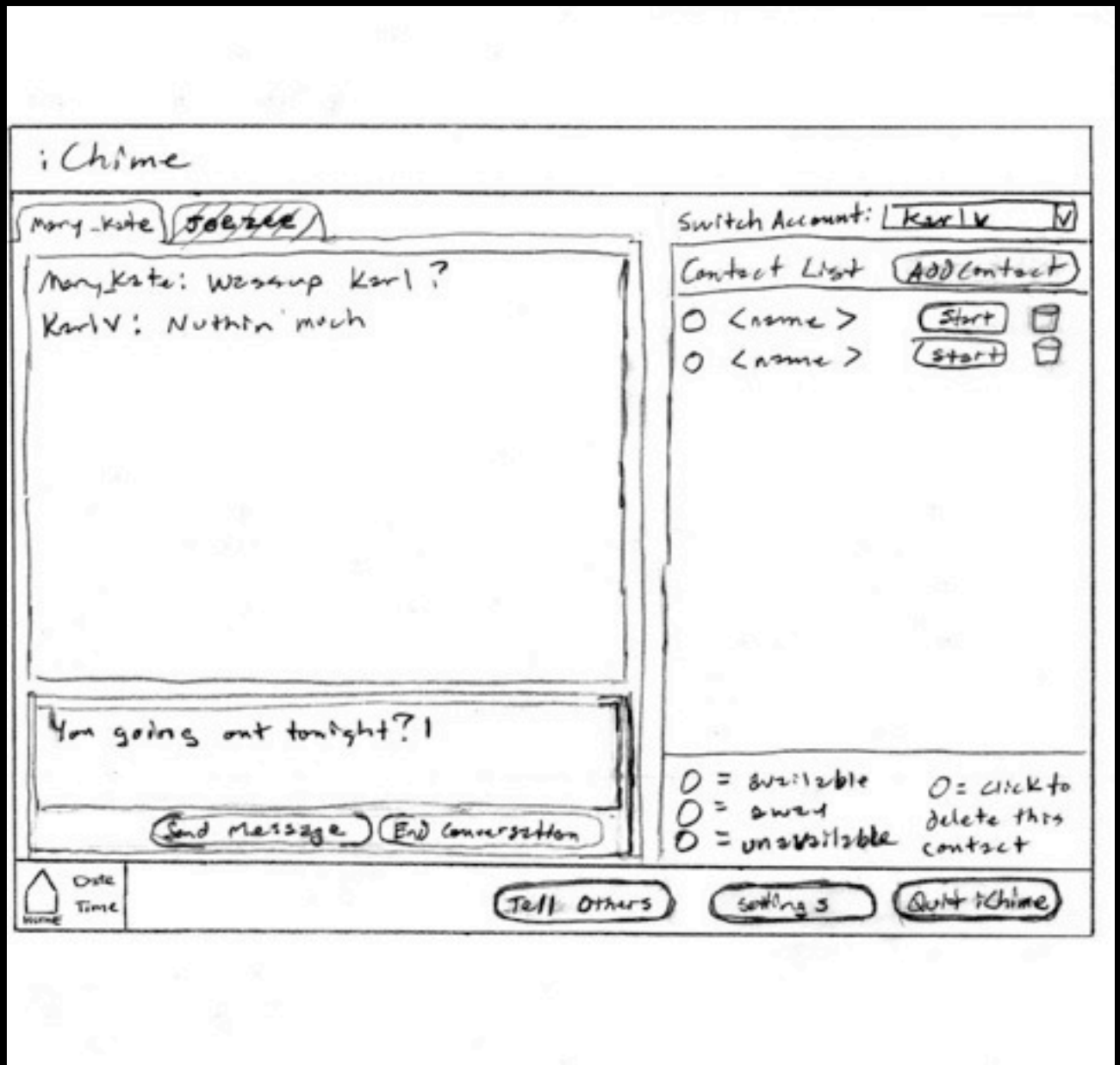


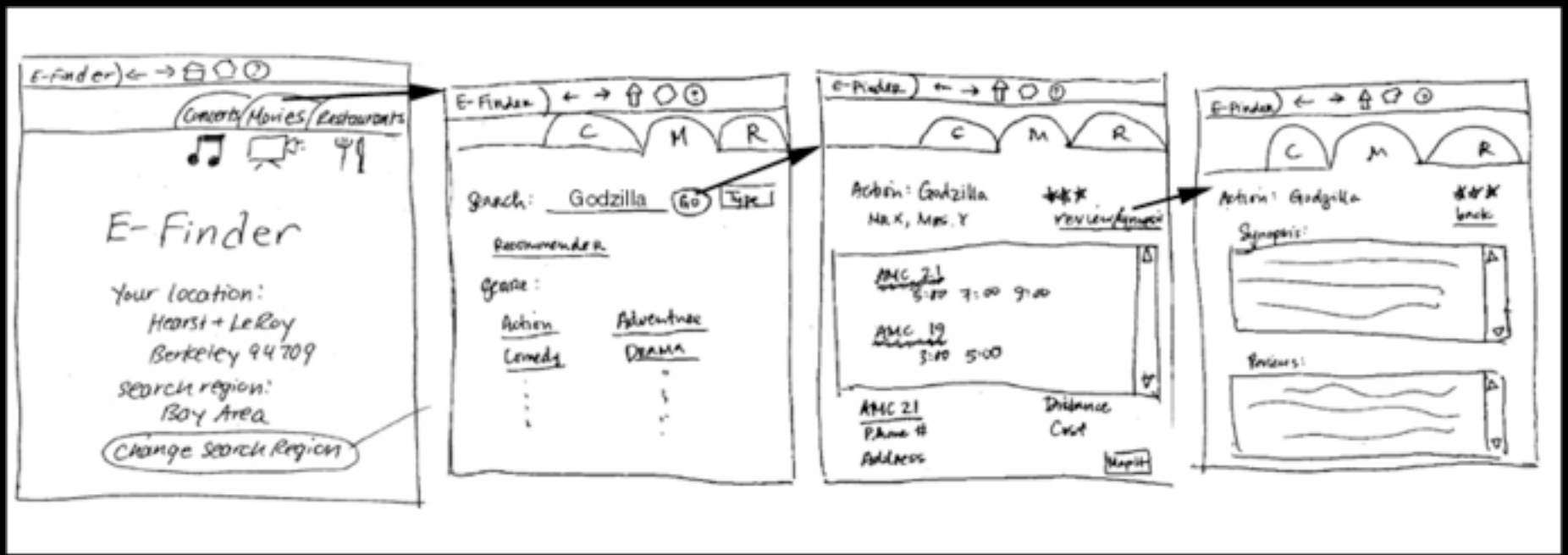
Source: http://vis.berkeley.edu/courses/cs160-fa06/wiki/index.php/InteractivePrototype-Group:4Cornersa



Source: http://best.me.berkeley.edu/~lora/images/process_photos/ses_storyboard.jpg



Slide from Jake Wobbrock



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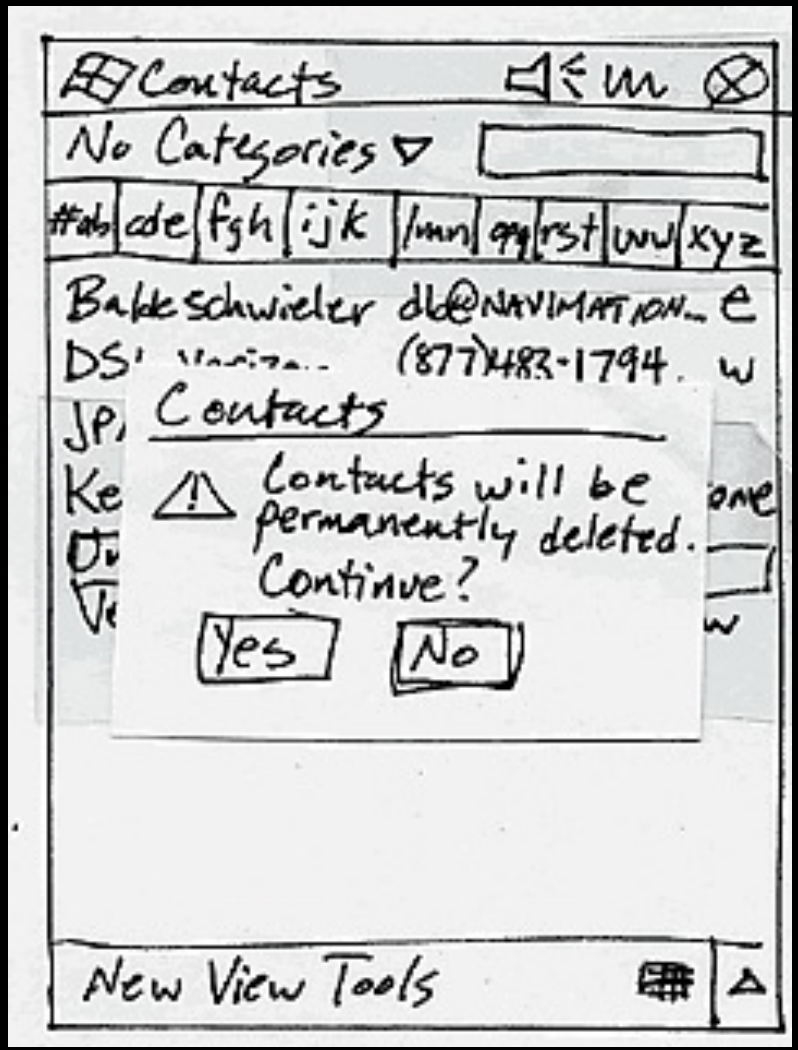

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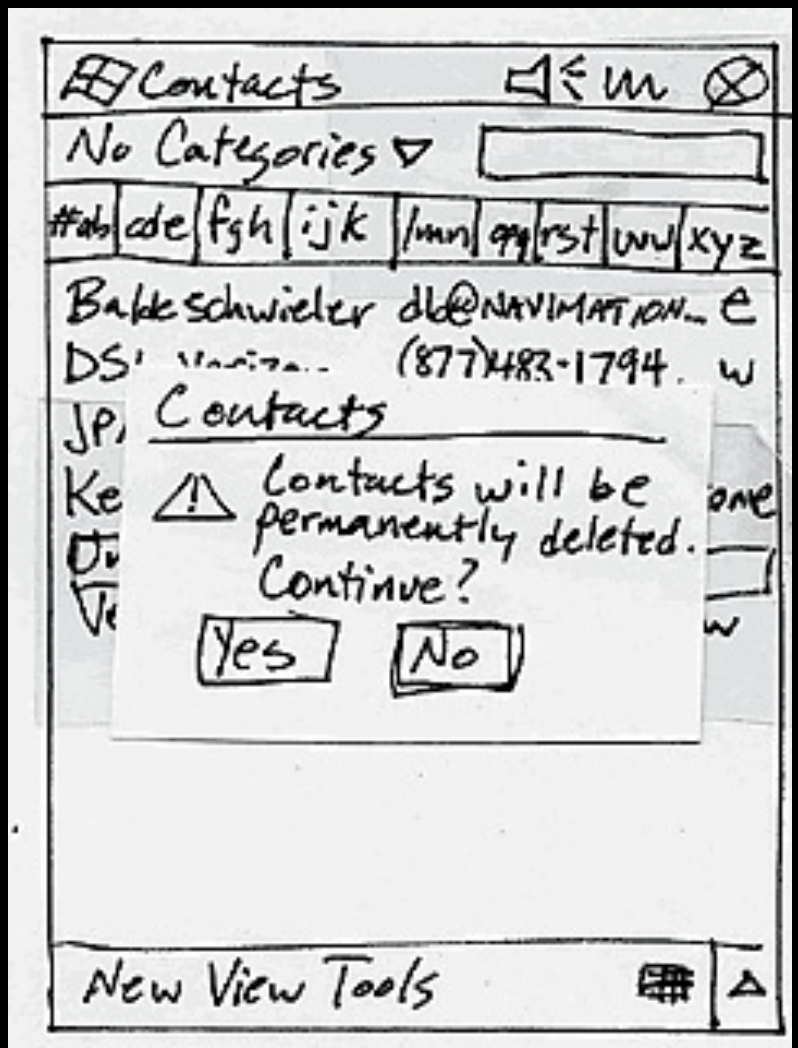
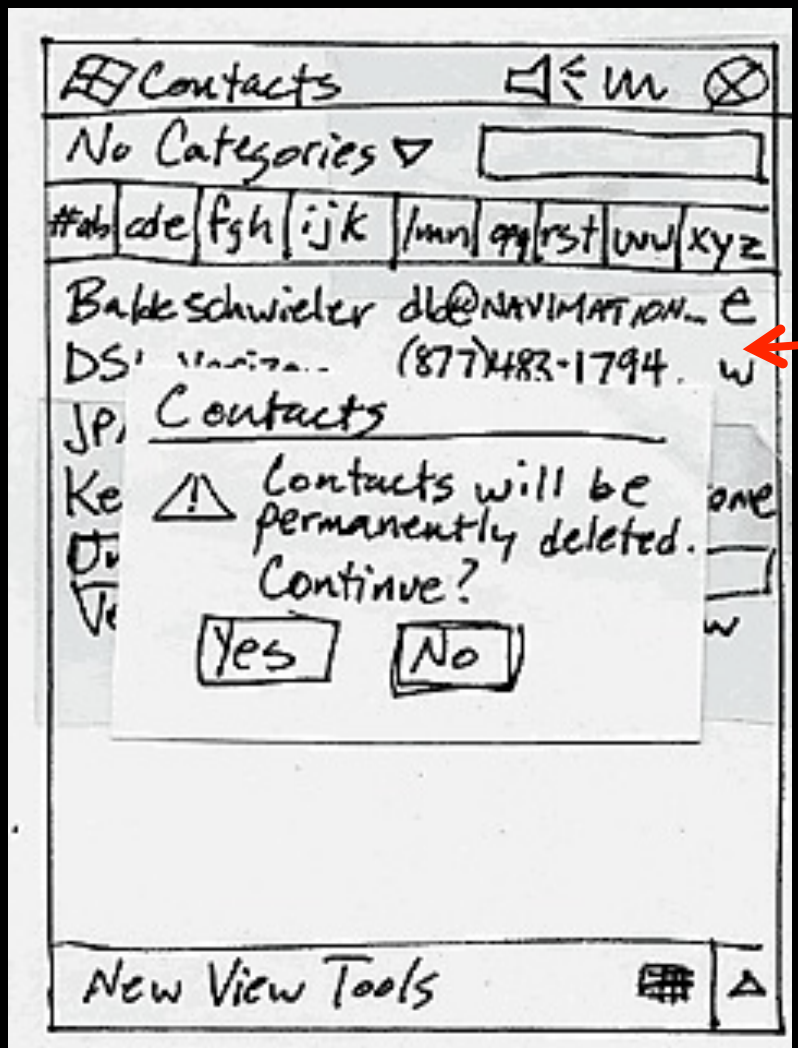


Two strips of paper

Slide from Jake Wobbrock



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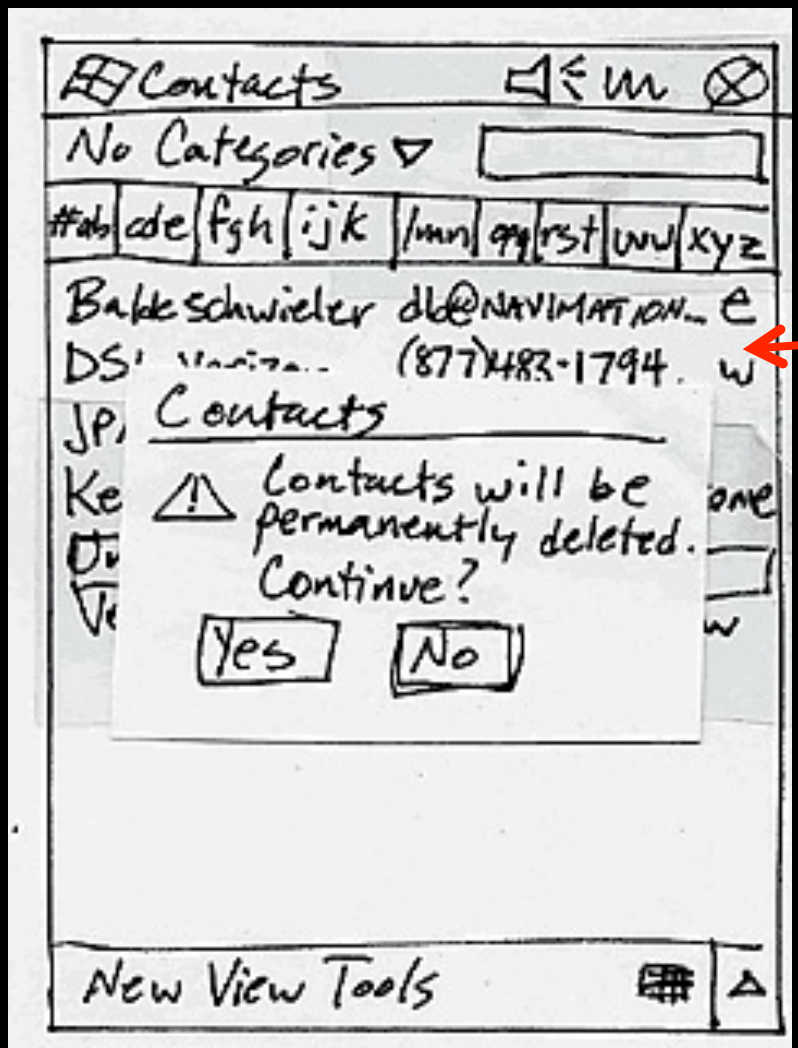
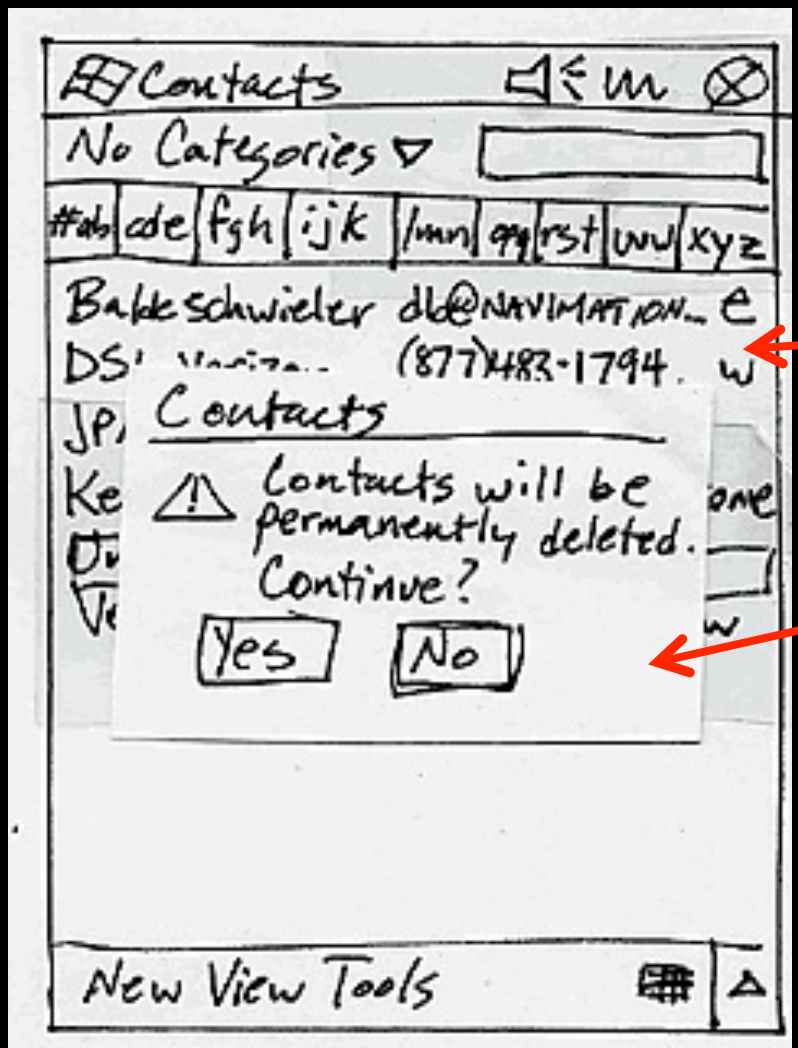
Slide from Jake Wobbrock



Two strips of paper

Post-It® notes too

Slide from Jake Wobbrock



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Post-It® notes too

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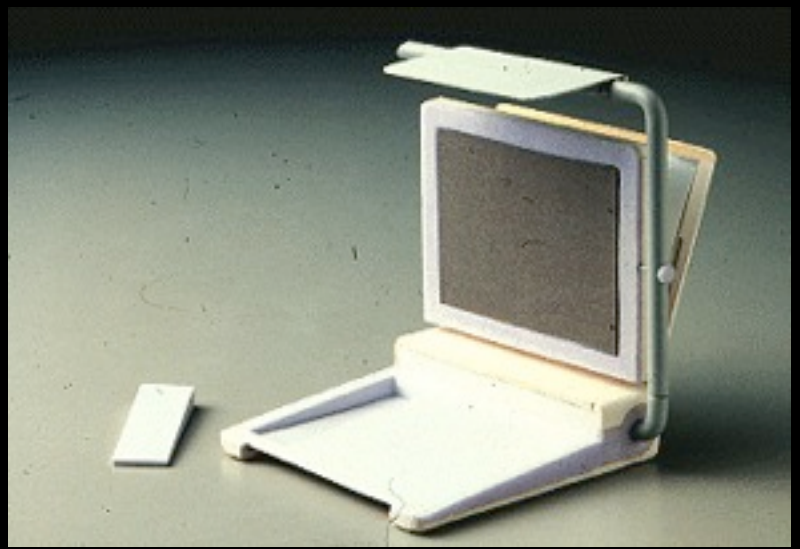


Slide from Jake Wobbrock

Materials for Lo-Fi Prototyping

Large, heavy white paper

Colored paper

Thumbtacks

Cardboard or foam core

Index cards

Tape or glue

Pencils, pens, markers

Overhead transparencies

Scissors

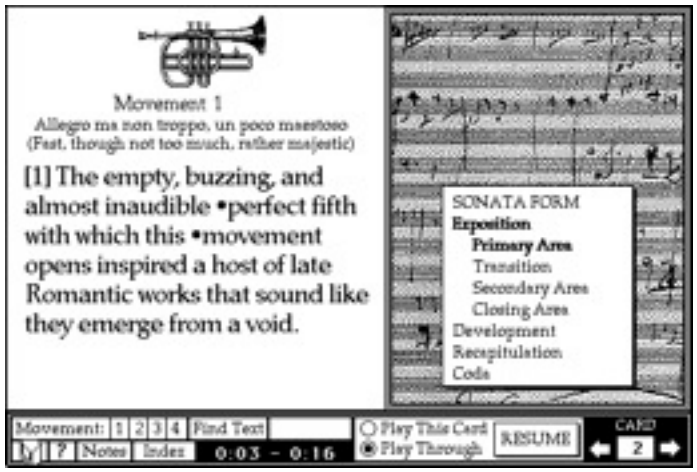
Slide from Jake Wobbrock

Hi-Fidelity Prototypes

- Provide increasing amounts of functionality and refinement
- Usually involve some amount of programming and interactivity
- Can provide functionality to be empirically tested with users
- Take more time and resources to build
- Users can be distracted by limitations

Tools for Hi-Fidelity Prototyping

Powerpoint
Flash
Visual Basic
Hypercard
Photoshop
HTML
Video
Phidgets
Balsamiq



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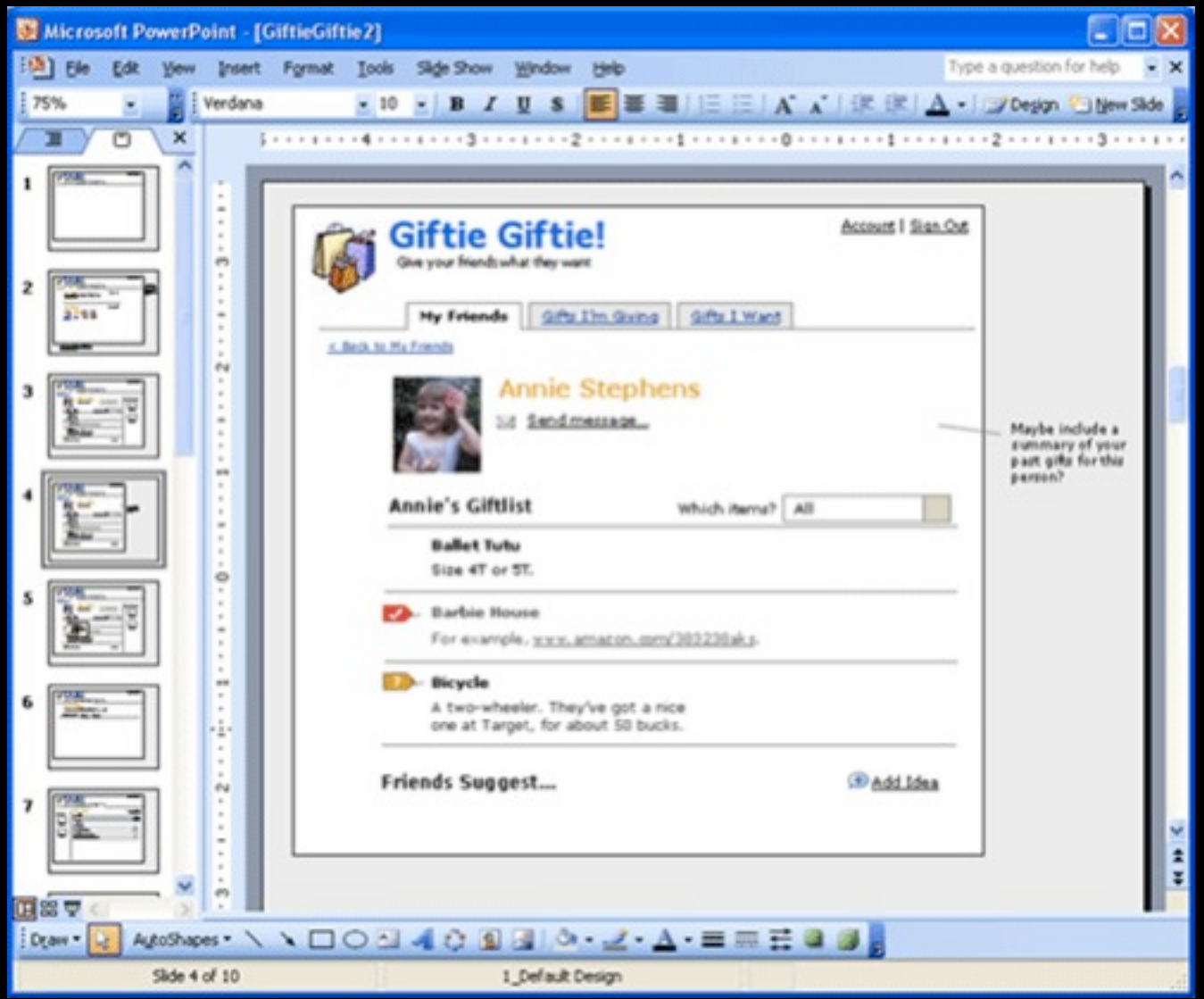
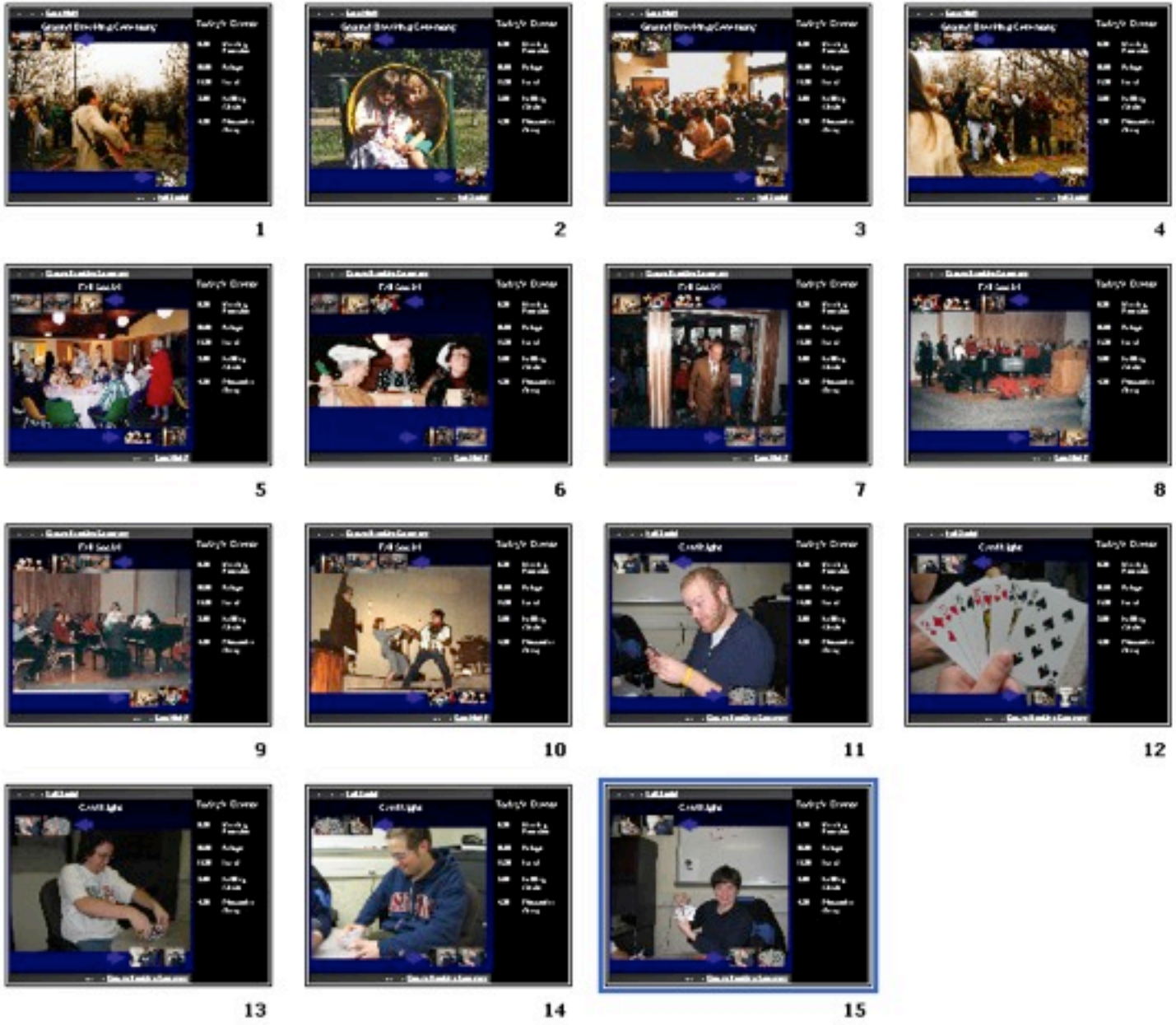


Source: Kelly, Maureen. "Interactive Prototypes with PowerPoint". http://www.boxesandarrows.com/view/interactive (adapted from Scott Klemmer)



Source: Brunette, Kynthia, et. al. "Meeteetse". Indiana University. Student Contest Entry. CHI 2005 (adapted from Scott Klemmer)

Source: Brunette, Kynthia, et. al. "Meeteetse". Indiana University. Student Contest Entry. CHI 2005 (adapted from Scott Klemmer)

Source: IDEO (adapted from Scott Klemmer)

Slide from Jake Wobbrock

Wizard of Oz Technique

Human operator mimics advanced computational functionality

- Speech recognition, gesture recognition, vision, etc.

Allows for testing advanced functionality without full implementation

The Rights of a Prototype

I am Disposable

I am easy to Change

I do not need to be Complete

I do not need to be Updated

Adapted from Scott Klemmer

Two Key Questions

What do I want to Learn?

What do I want to Communicate?

Adapted from Scott Klemmer

Kinds of Prototypes

Role - "are built primarily to answer questions of what an artifact could do for a user"

Look and Feel - "explore and demonstrate options for the concrete experience"

Implementation - "experiments… to demonstrate to their organization the technical feasibility of the artifact"

Integration - "verify that the design is complete and coherent, and to find synergy"

Source: Houde and Hill, "What do Prototypes Prototype"

Prototyping Techniques

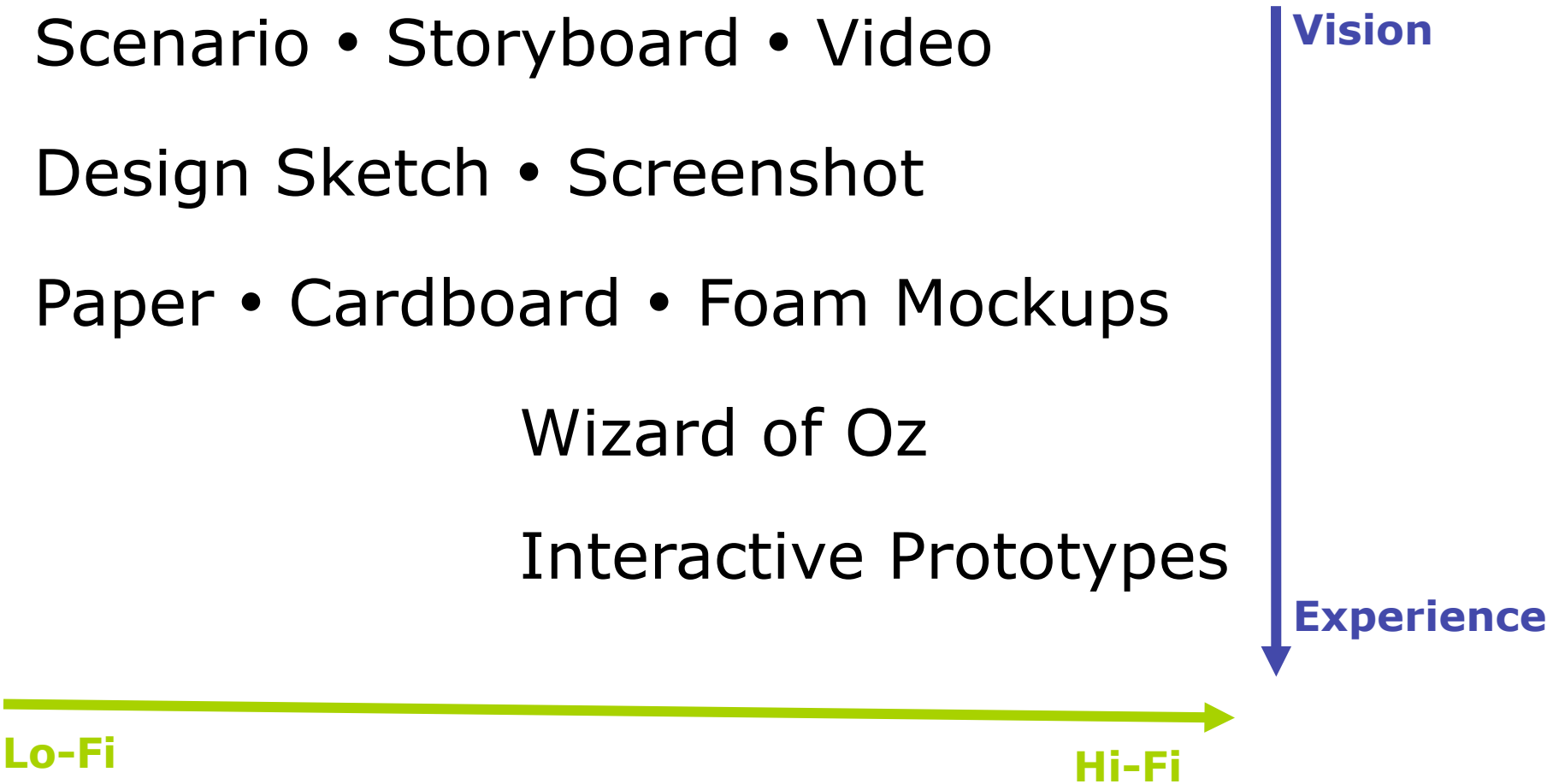
Scenario • Storyboard • Video

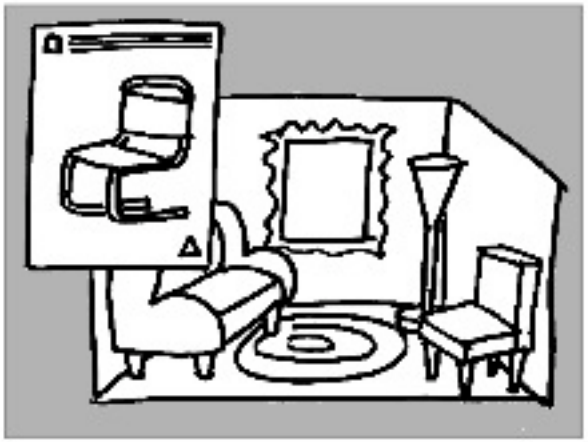
Design Sketch • Screenshot

Paper • Cardboard • Foam Mockups

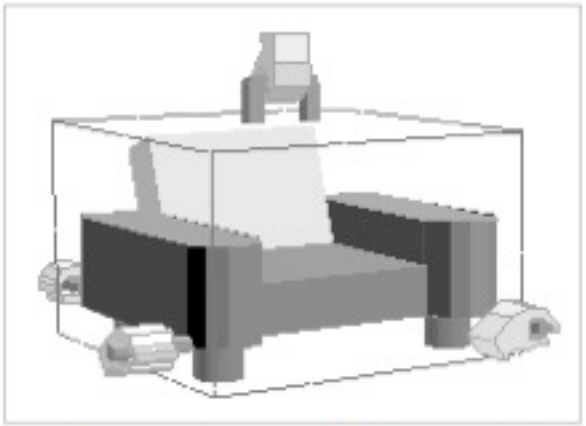
Wizard of Oz

Interactive Prototypes

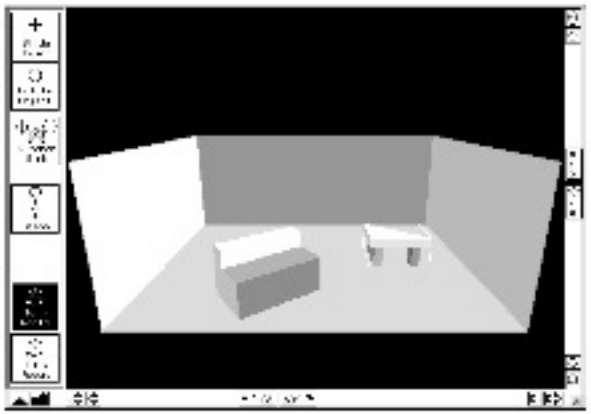




Example 1. Role prototype for 3D space-planning application [E1 Houde 1990].



Example 2. Look-and-feel prototype for 3D space-planning application [E2 Houde 1990].



Example 3. Implementation prototype for 3D space-planning application [E3 Chen 1990].

Source: Houde and Hill, "What do Prototypes Prototype"

Cultures of Prototyping

"Small, entrepreneurial companies tend to be prototype-driven"

"Companies that manage a large installed base of users tend to be specification-driven"

"Organizations intending to be innovative need to move from specification-driven prototypes to prototype-driven specifications"

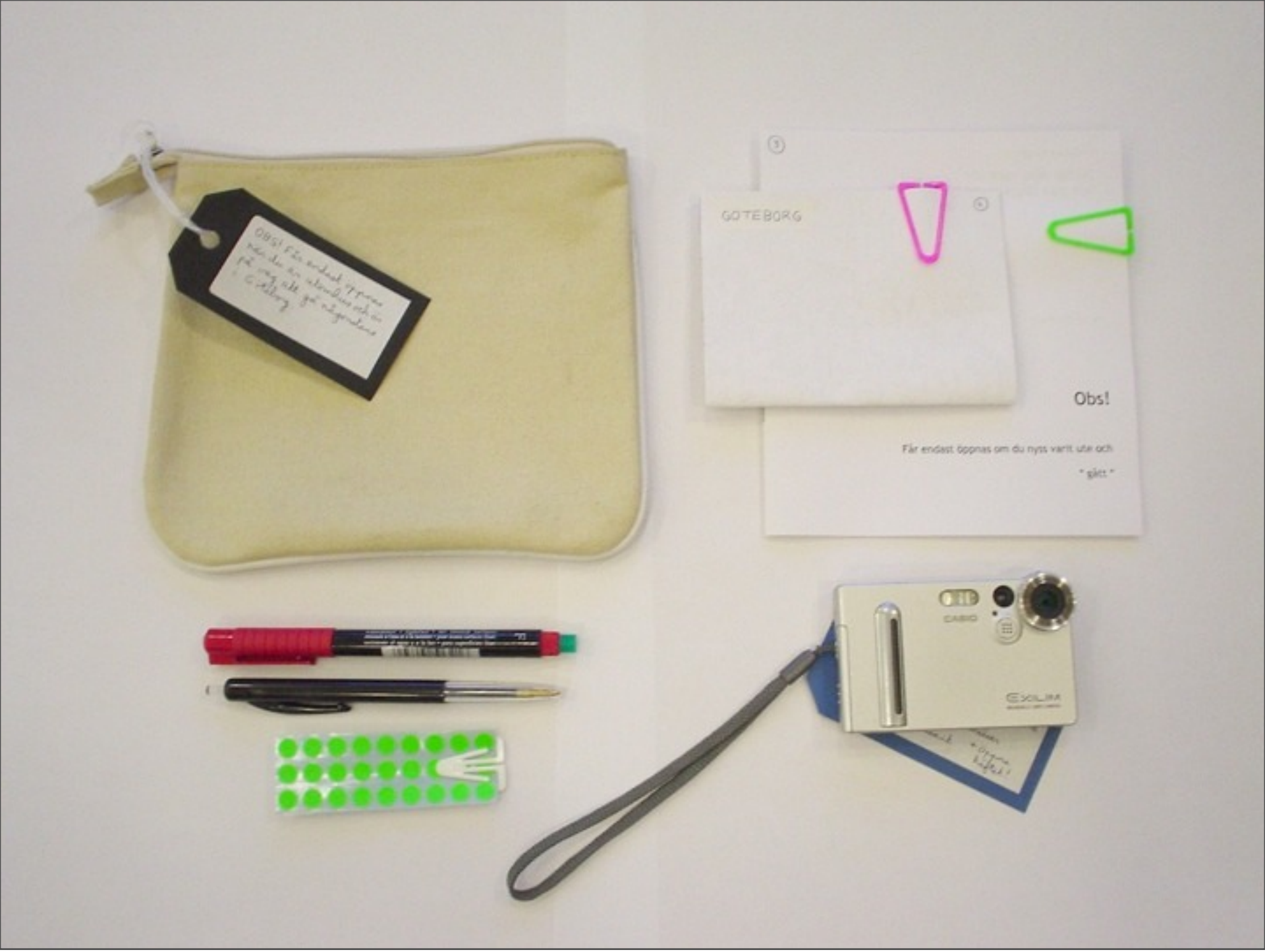
True for development also!!!

Source: Michael Schrage, "Cultures of Prototyping"

Probes

Probes are artifacts, technologies or processes that allow you to capture long-lived, serendipitous, inspired, etc. reflections from users over time

Could be as simple as a structured or unstructured diary, blog, picture feed or postcard


GÖTEBORG
Obs!
Får endast öppnas om du nyss varit ute och
" gått "
CASIO
EXILIM

For Next Time

Reading on working w/ Field Partners

Start thinking about and researching potential partners

Continue user observation

Start preparing 3-5 personas, 3-5 scenarios, and 1-3 prototypes of varying fidelity and purpose

Due Oct 14

- Interview / Field Notes
- Personas
- Scenarios
- Lo-fidelity Prototype
- 10-minute presentation
- 1-page Executive Summary