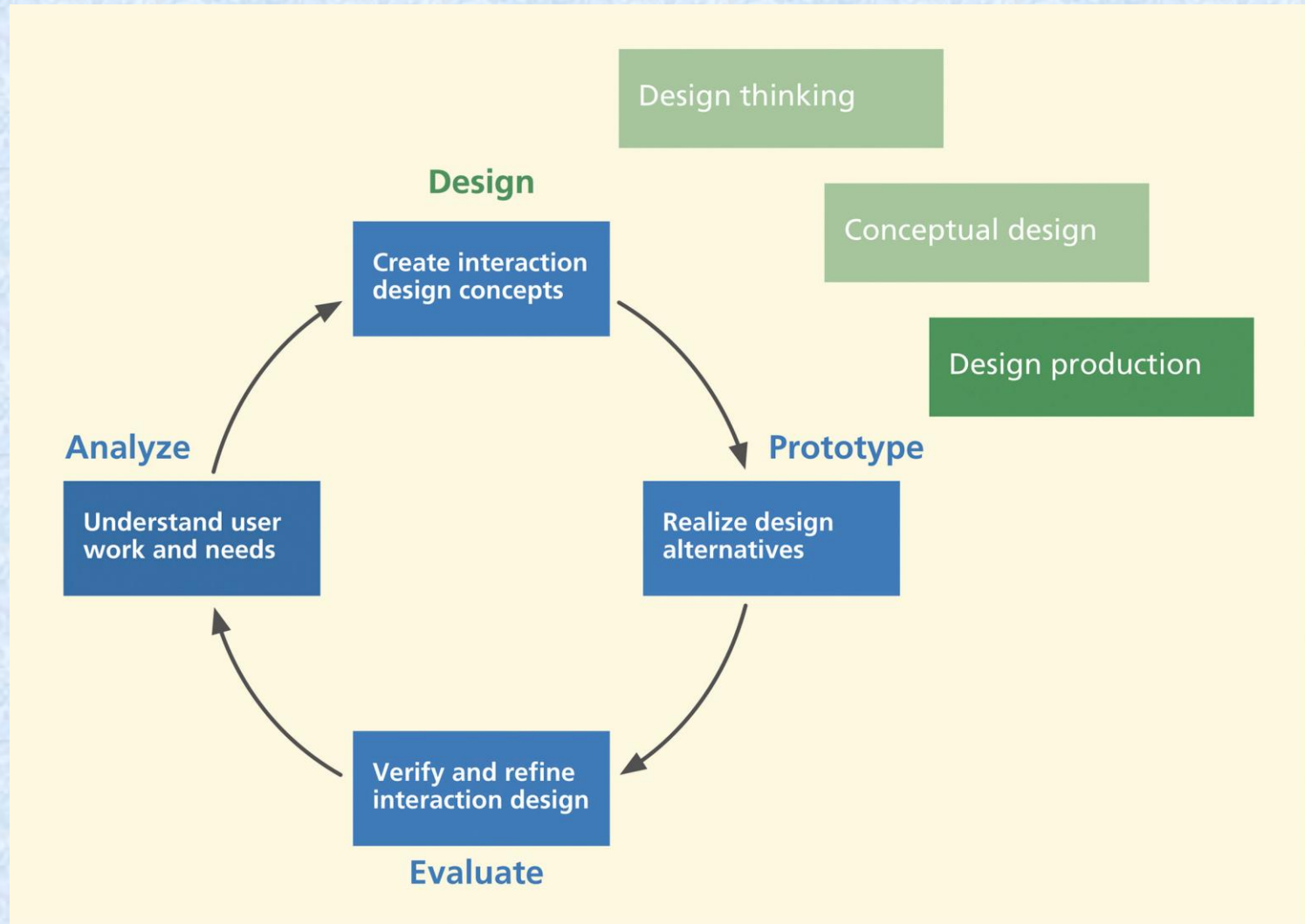


User experience design

Chapter 9. Design Production

Introduction



Macro view of design iterations

- **“Blow up” of how lifecycle iteration plays out for various kinds of design**

Analysis

CI, CA, requirements and modeling

A: Ideation and sketching

Sketches

Ideation iteration

Evaluation via critiquing

Multiple alternative conceptual design ideas

B: Conceptual design

Storyboards

Conceptual design iteration

Conceptual design prototypes

Conceptual design candidates

Evaluation via storytelling

Illustrated scenarios and wireframes

C: Intermediate design

Intermediate design iteration

Intermediate design prototype

Mockups of conceptual design forerunner

Evaluation via concept validation with key stakeholders

Annotated wireframes, visual comps

D: Detailed design

Detailed design iteration

Detailed design prototype

Complete specification of interaction design

Formative evaluation with users

E: Design refinement

Design

Often overlaps in practice

Implementation

Release of version to SE

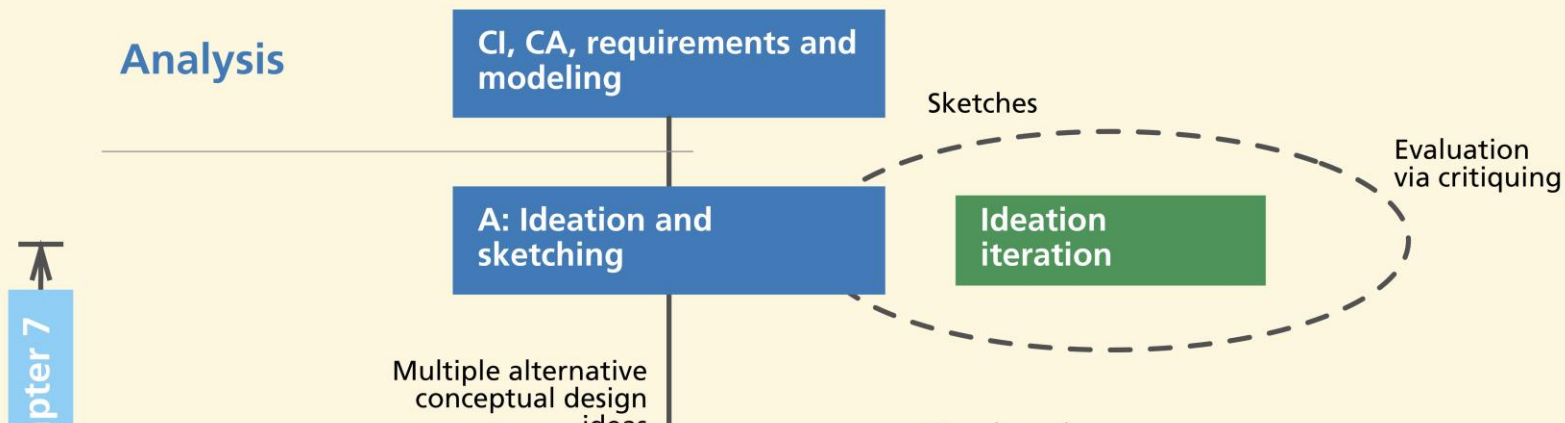
Chapter 7

Chapter 8

Chapter 9

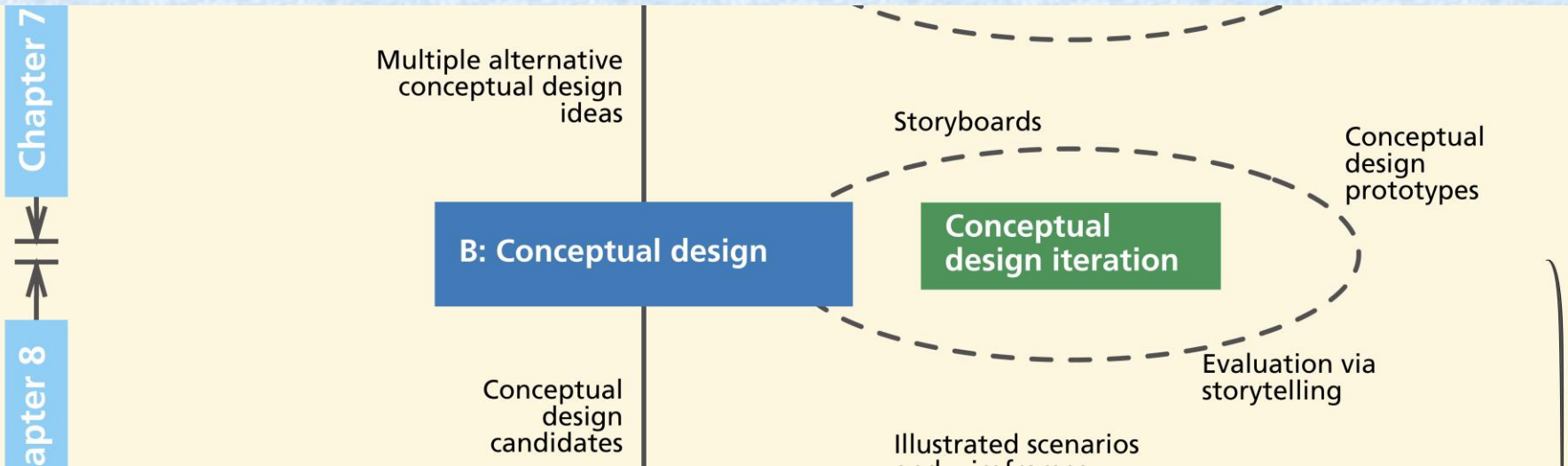
Ideation Iteration

- **Lightning-fast**
- **Loosely structured iteration**
- **For purpose of exploring design ideas**
- **Role of prototype played by sketches**



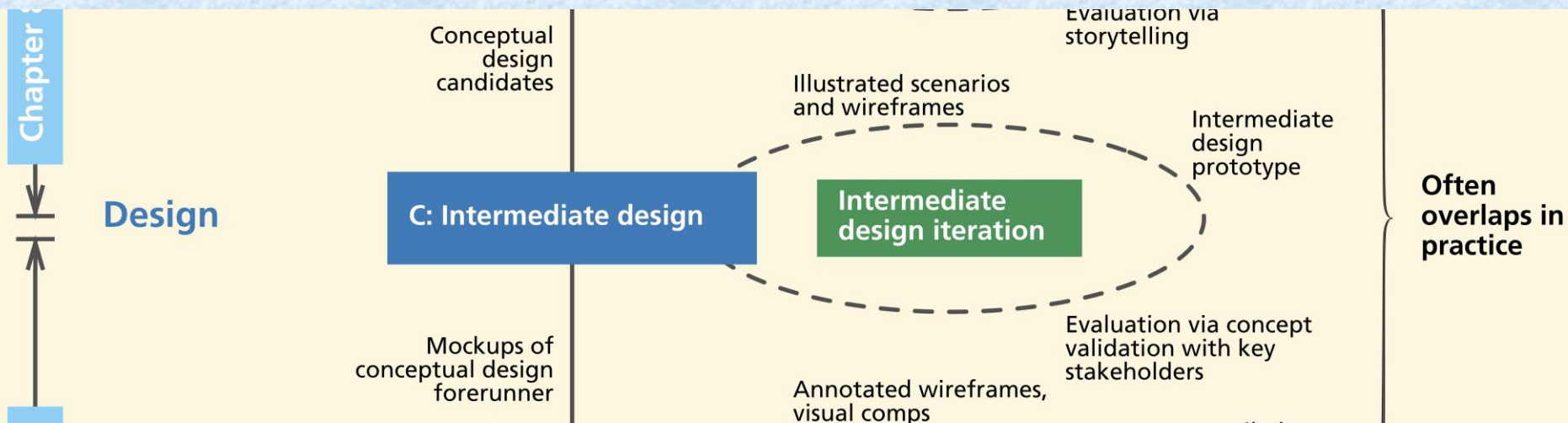
Conceptual Design Iteration

- Critique and compare multiple design concepts
- Sort out best one
- Weigh concept feasibility
- Prototypes: low-fidelity paper, storyboards



Intermediate design iteration

- To arrive at one intermediate design for layout and navigation

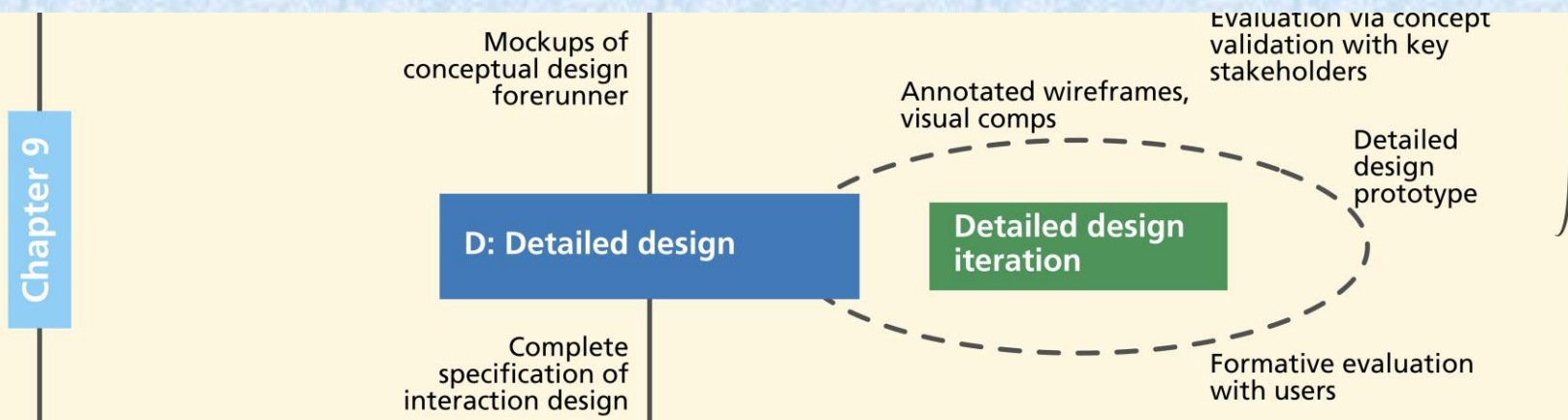


Intermediate design iteration

- **Prototypes might evolve**
 - From low-fidelity to wireframes (coming soon)
- **Fully interactive high-fidelity mockups as vehicle for demonstrations and design reviews**

Detailed design iteration

- To decide screen design and layout details
- Includes “visual comps” (coming up soon) of “skin”
- For look and feel appearance

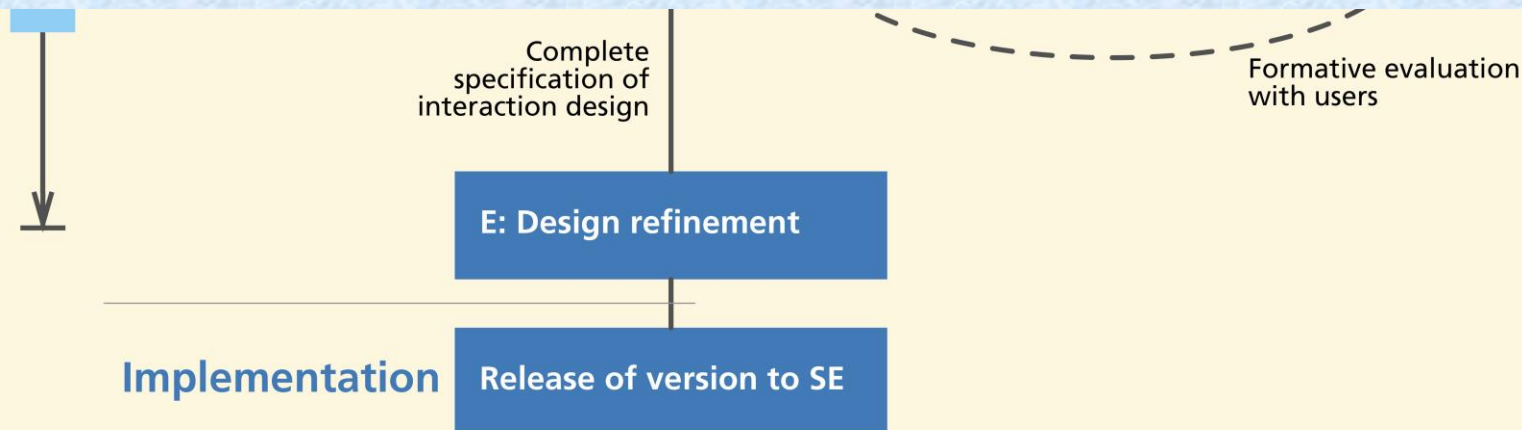


Detailed design iteration

- **Design will be fully specified with complete descriptions of**
 - **Look and feel**
 - **Behavior**
 - **How all workflows, exception cases, and settings will be handled**

Design Refinement Iteration

- **Prototype usually medium to high fidelity**
- **Evaluation**
 - **Rapid method**
 - **Full rigorous process**



Doing intermediate design

- **Screen layout and navigational structure**
- **Represent key work flows with sequences of wireframes, click-through prototypes**

Doing detailed design

- **Annotated wireframes**
- **Evaluate and iterate detailed designs to refine wireframes**
- **Include all user interface objects and data elements**
 - **Still represented abstractly but annotated with call-out text**

Visual design and visual comps

- **Need visual designer who has been involved in**
 - **Ideation, sketching, and conceptual design**
- **Now produces what we call visual “comps”**

Visual comps

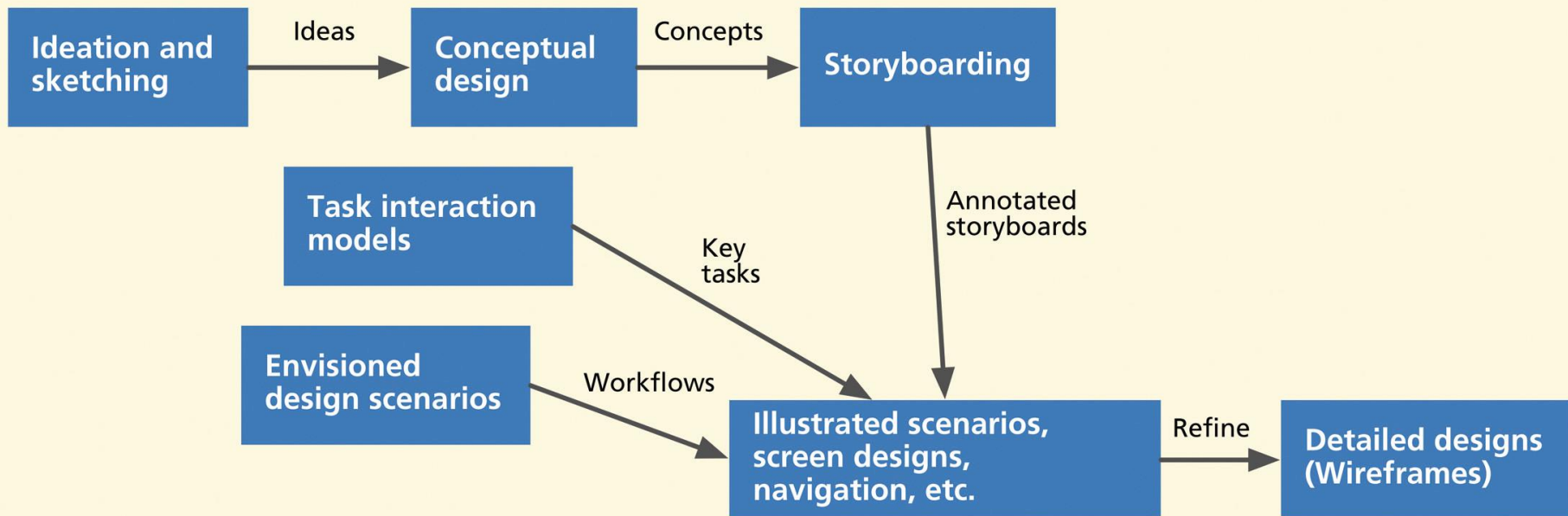
- **“Comprehensive” or “composite” layout**
- **Very specific and detailed graphical look and feel**
- **Pixel-perfect mockup of graphical “skin”**

Visual comps

- **Consistent with**
 - **Company branding**
 - **Style guides**
 - **Best practices in visual design**

Wireframes

- The path to wireframes



Wireframes

- **De facto representation medium for interaction design at this stage**
 - **Prototyping**
 - **Documenting**
 - **Communicating to implementers**

Wireframes

- **Major bread-and-butter tool of interaction designers**
- **Made of lines and outlines**
 - **Hence the name “wire frame”**

Wireframes

- **Somewhat abstract schematic diagrams and “sketches”**
- **Define Web page or screen content and navigational flow**
- **Show approximate visual layout, behavior**

Wireframes to represent design objects

- **Boxes and other shapes to represent emerging design objects**
- **Drawing is usually simple**
 - **Often just rectangular objects**
 - **Objects can be labeled, moved, and resized**

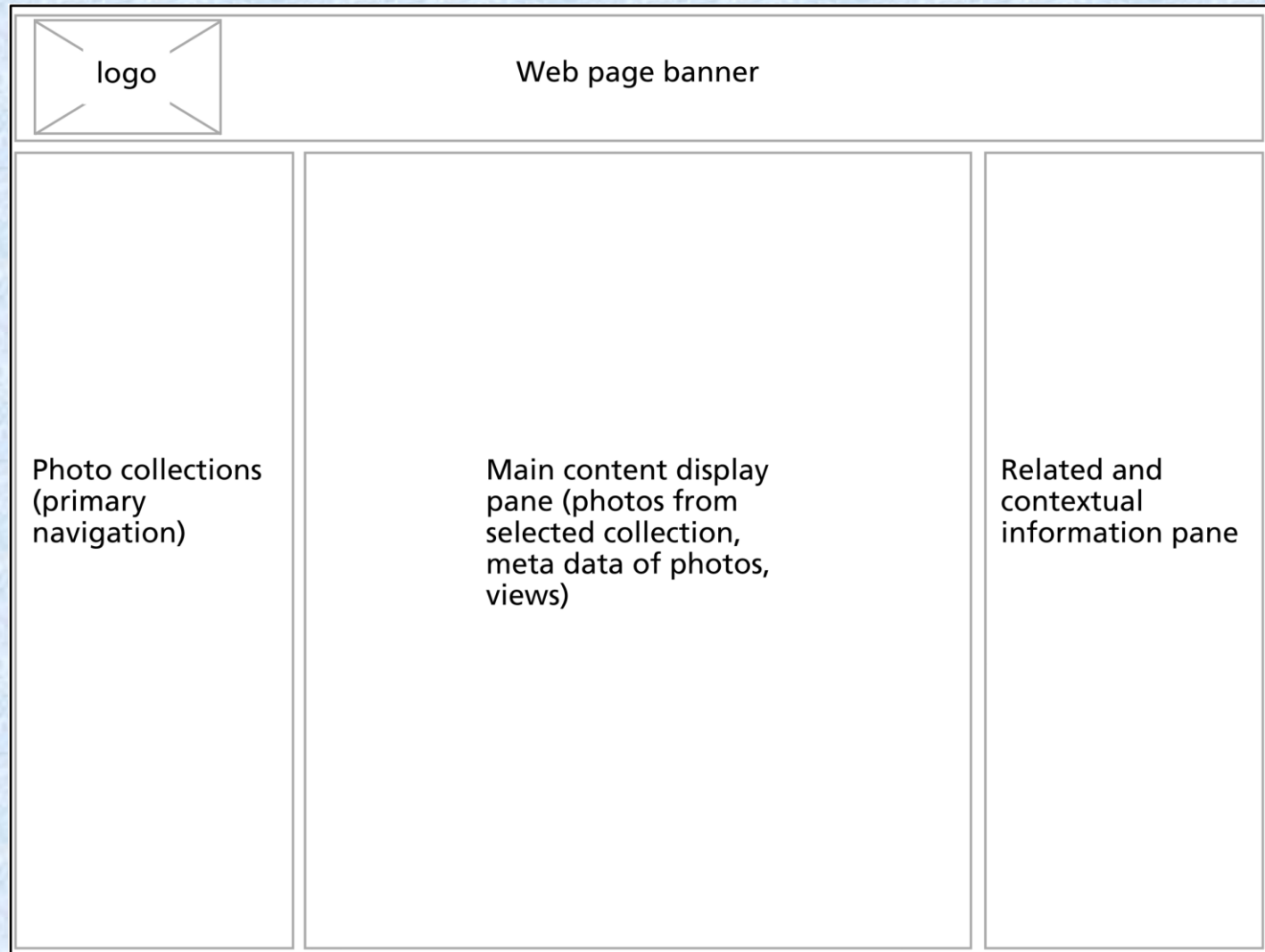
Wireframes to represent navigation

- **Sequences of wireframes to show usage over time**
- **Depict envisioned task flows**
 - **In terms of user actions on user interface objects and corresponding state (screen) changes**

Example, wireframes

- **Web-based photo organizing and sharing application**
- **Illustrates high-level conceptual design**

Example, wireframes

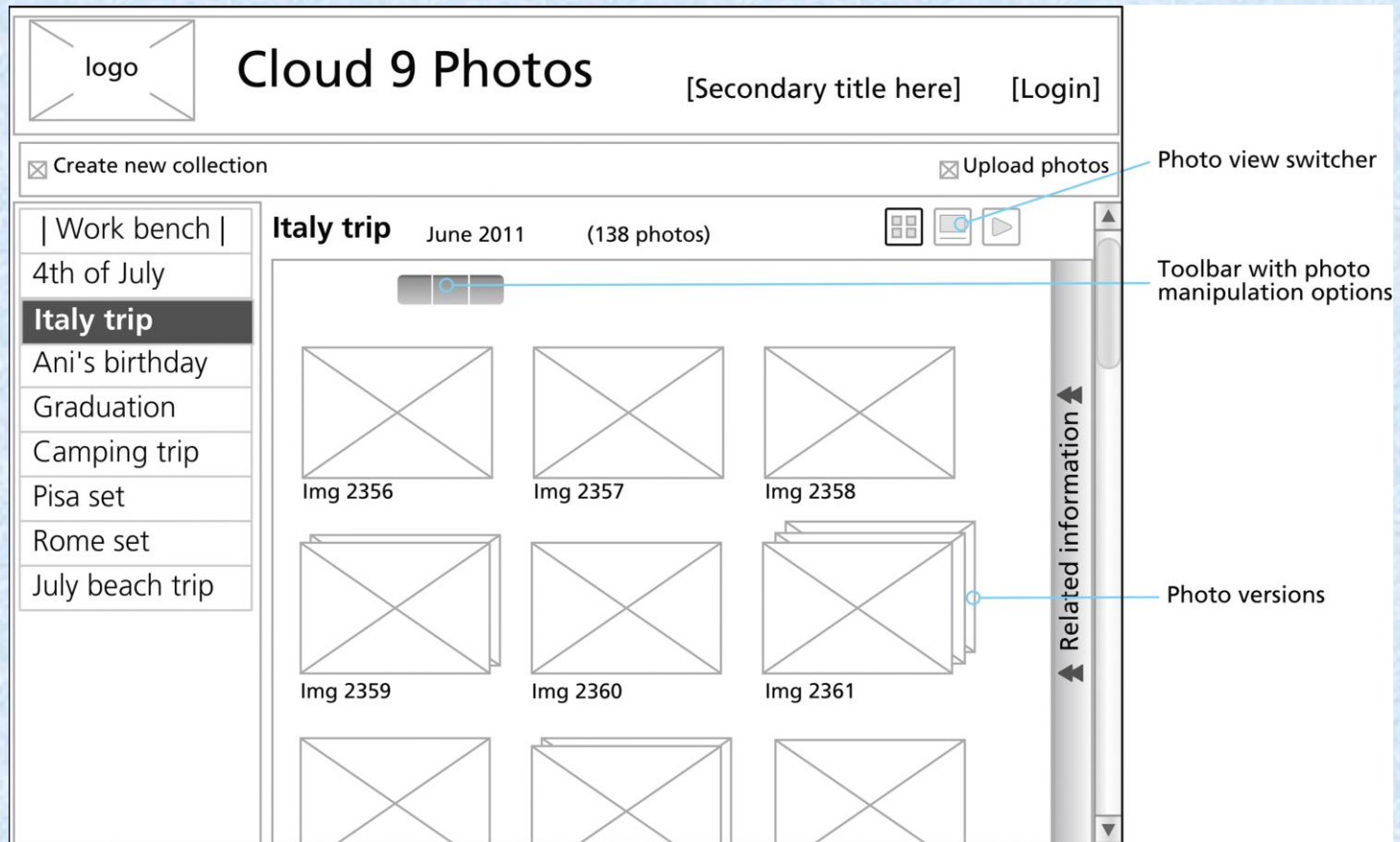


Example, wireframes

- **Nav-bar on left shows all user's photo collections**
- **Center pane is main photo display area**
 - **Thumbnails or individual photos**
- **Right-hand pane shows detailed information about any selected photo**

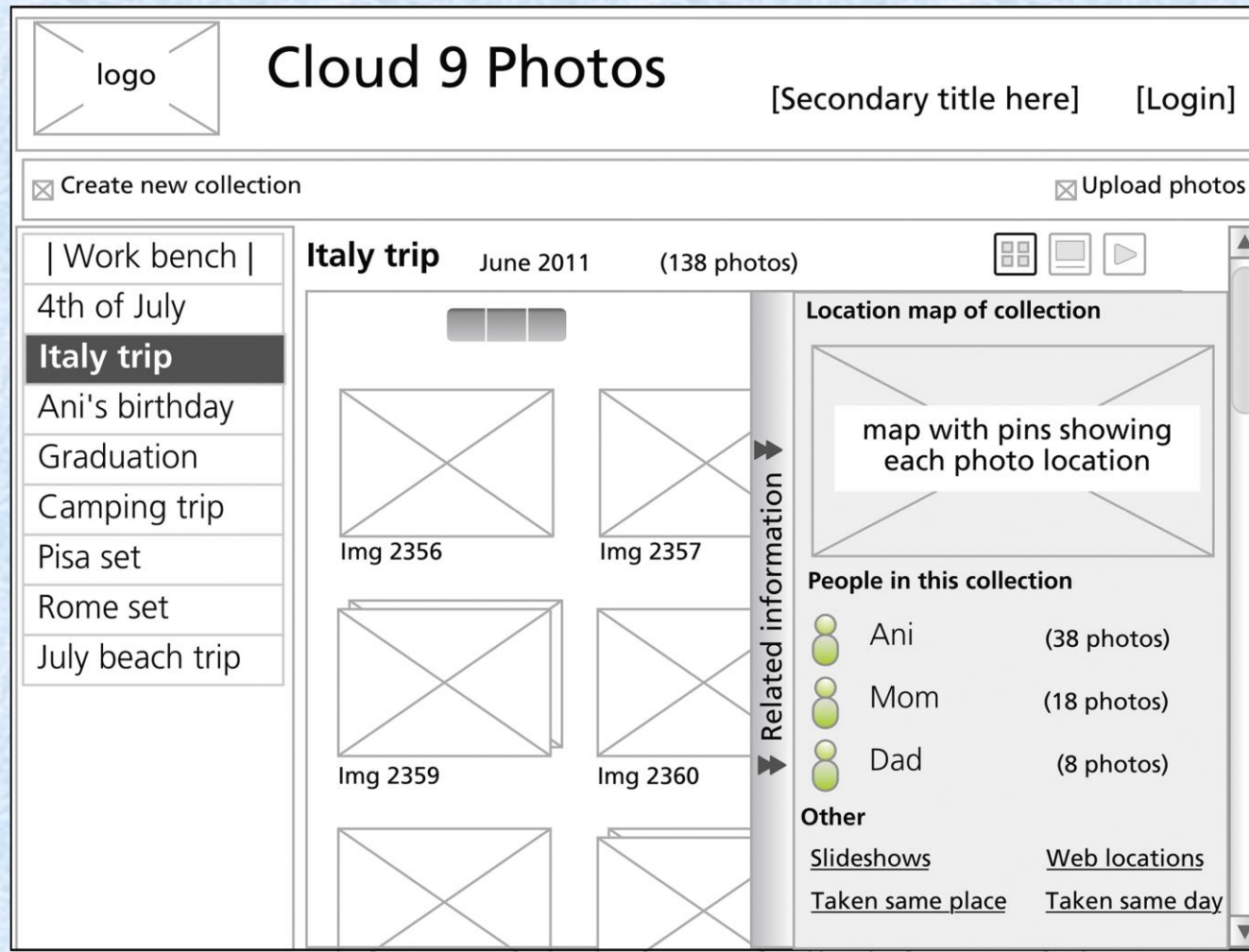
Example, design further elaborated

- Shows right-hand side information pane collapsed



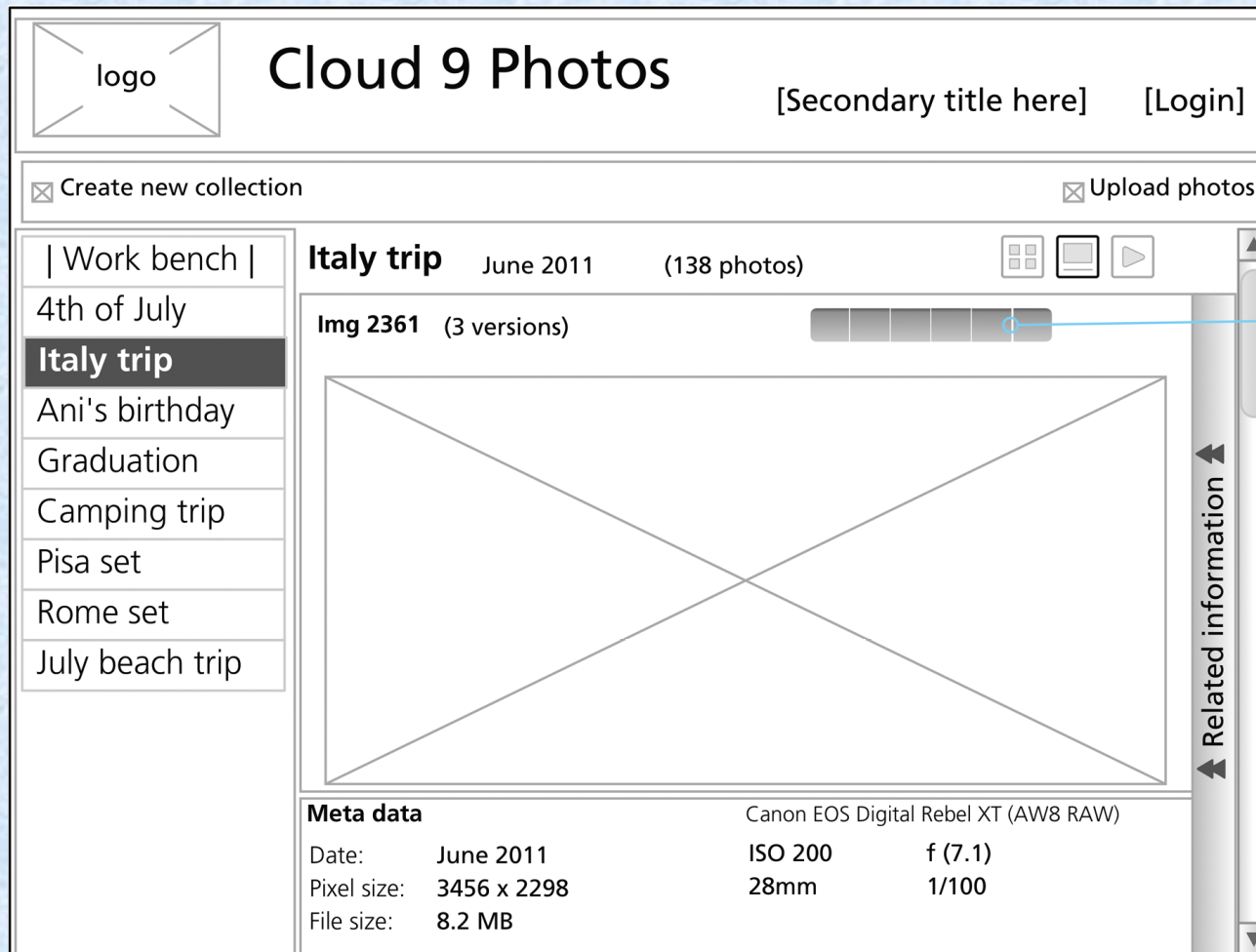
Example, show behavior

- What happens when a user clicks on vertical “Related information” bar



Example, show behavior

- What happens when user clicks “one-up” icon in upper right hand corner



1. Toolbar with photo manipulation options

How are wireframes used?

- **Conversational props to discuss design alternatives**
- **To elicit feedback from potential users and other stakeholders**
- **Helps you keep your eye on information architecture on screen**

How are wireframes used?

- **Designer can move through deck of wireframes**
 - **One slide at a time**
 - **Simulating potential scenario**
 - **Pretending to click on interaction widgets**

How to build wireframes?

- **Any drawing or word processing software**
 - **To support creating and manipulating shapes**

Tools for wireframe mockups

- **Tools designed specifically for this purpose**
 - **OmniGraffle (for Mac)**
 - **Microsoft Visio (for PC)**
 - **Balsamiq**
 - **Adobe InDesign**

How to build wireframes?

- **Templates available for many basic shapes and UI objects**
- **Some parts of wireframe can be generic, others detailed**
- **Can add color, graphics, real fonts**

Hints and tips for wireframing

- **Be able to create multiple design representations quickly**
- **Keep it modular—just as with any prototyping technique**
 - **Not too many concepts or details “hard coded” in any one frame**
 - **Build up using layers**
 - **Use separate layer for each repeating set of widgets on screen**

Hints and tips for wireframing

- **Example, container “window” of an application with its different controls**
 - Specify once as layer and reuse in subsequent screens
- **Use stencils, templates, and libraries of widgets**
 - Avoid re-inventing widgets
- **Find shared objects in tool libraries**