COSC 368: HUMANS & COMPUTERS

Carola Thompson
Visiting Erskine Fellow
University of Canterbury, Christchurch

Week 5, Lecture 1

Today

- AMA
- Structure Plane – Finish Information Architecture
- Skeleton Plane – Part I
  - *Information Design*
  - *Navigation Design*
  - *Interface Design*

Ask Me Anything

STRUCTURE PLANE II
INFORMATION ARCHITECTURE

Information Architecture

- A field (Information Science) that draws on a number of disciplines
  - *Library Science*
  - *Journalism*
  - *Technical Communication*
- Concerned with the organization, grouping, ordering and presentation of information

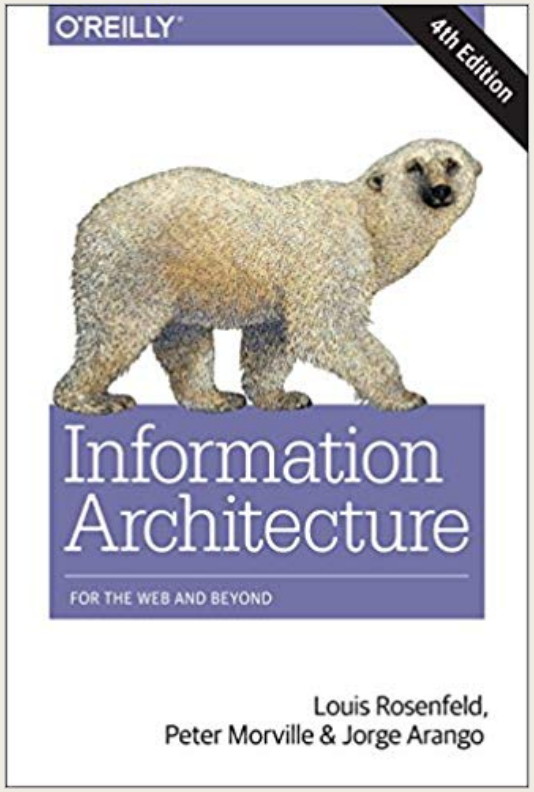
Dan Klyn on Information Architecture

https://understandinggroup.com/information-architecture/explaining-information-architecture/

Making the complex clear through use of:

- Ontology
  - *Discovers, defines and articulates the rules and patterns that govern the meaning of what we communicate*
- Taxonomy
  - *Developing systems and structure for what everything Is called and where everything is sorted and the relationships between the labels & categories*
- Choreography
  - *The structures it creates fosters movement and specific types of interaction. Anticipating the way users and information want to flow and making affordances for change over time*

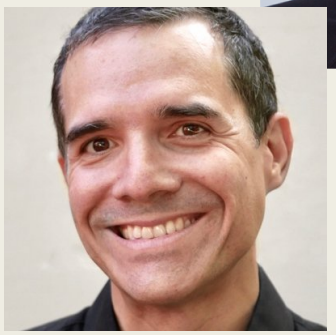
Information Architecture



Lou Rosenfeld

Peter Morville

Jorge Arango



Users, Context & Content

Rosenfeld, et al

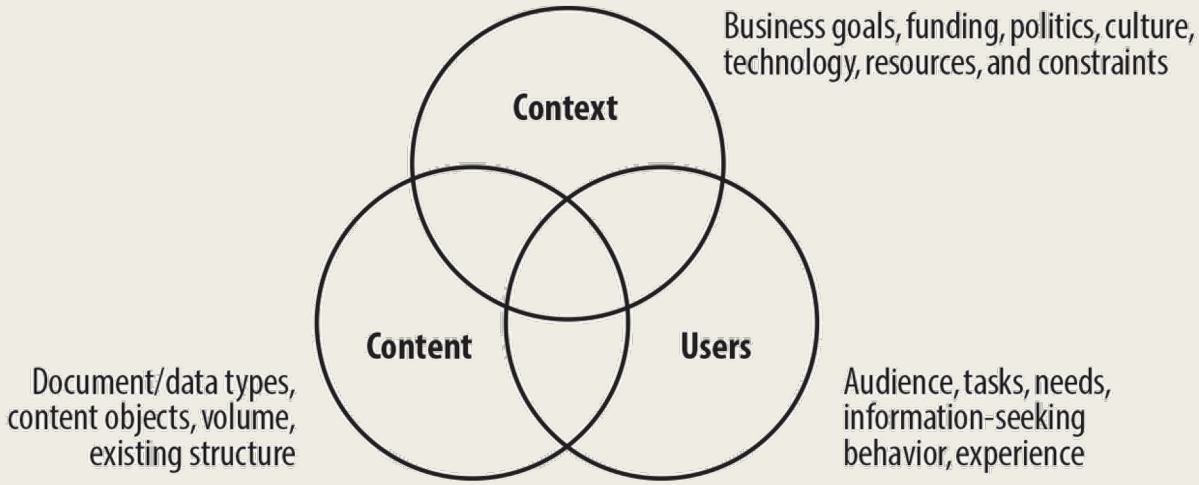


Figure 2-6. The infamous three circles of information architecture

Information Architecture Components

- Organization Systems: Schemes and Structures
- Label Systems: Terms, tags, metadata
- Navigation Systems
- Search Systems

Source: Rosenfeld, et al

Organizational Systems

Organization Schemes

- Exact
  - *Alphabetical*
  - *Chronological*
  - *Geographical*
- Ambiguous Schemes
  - *Topical*
  - *Task-oriented*
  - *Audience-specific*
  - *Metaphor-driven*
  - *Hybrid*

Organizational Structure

- Hierarchy: top down
- Database: bottom up
- Hypertext: cross linked

Source: Rosenfeld, et al

Structuring Content

- Top-down – driven by the strategy plane
- Bottom-up – driving by the scope plane – analysis of the content and functional analysis

Source: Rosenfeld, et al

Top Down Architecture

Where am I? (1)

I know what I'm looking for; how do I search for it? (2)

How do I get around this site? (3)

What's important and unique about this organization? (4)

What's available on this site? (5)

What's happening there? (6)

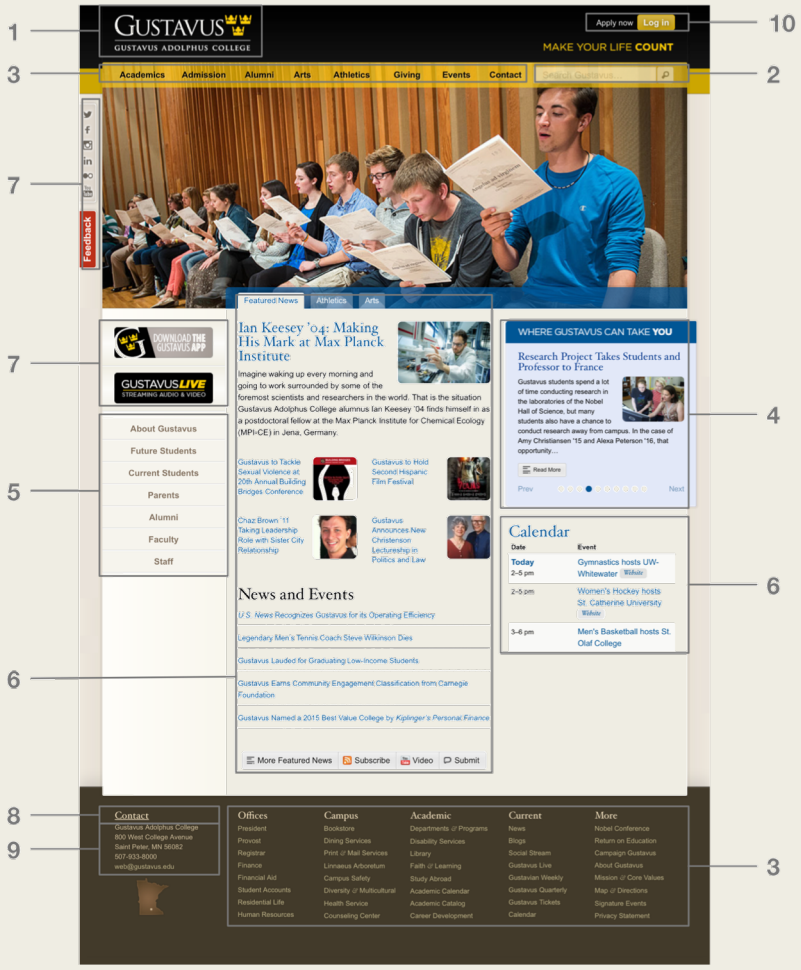
How do I engage with them via various other popular digital channels? (7)

How can I contact a human? (8)

What's their address? (9)

How can I access my account? (10)

Source: Rosenfeld, et al



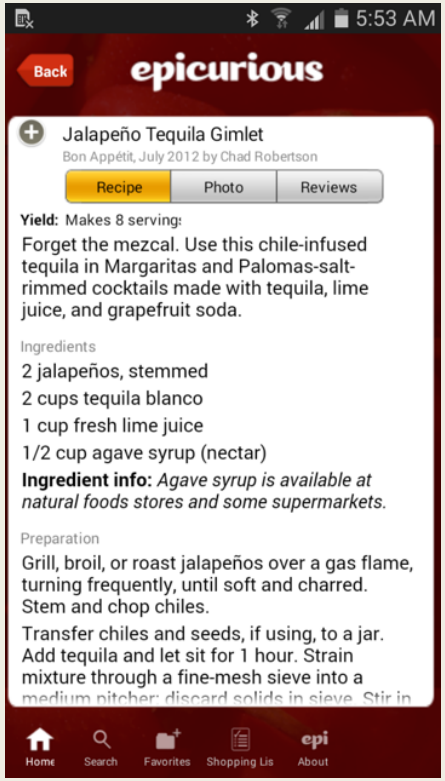
Bottom Up Architecture

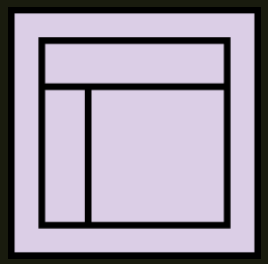
This is bottom-up information architecture; content structure, sequencing, and tagging help you answer such questions as:

- Where am I?
- What's here?
- Where can I go from here?

Instead of being dictated "from above," bottom-up information architecture is suggested by and inherent in the system's content.

Source: Rosenfeld, et al

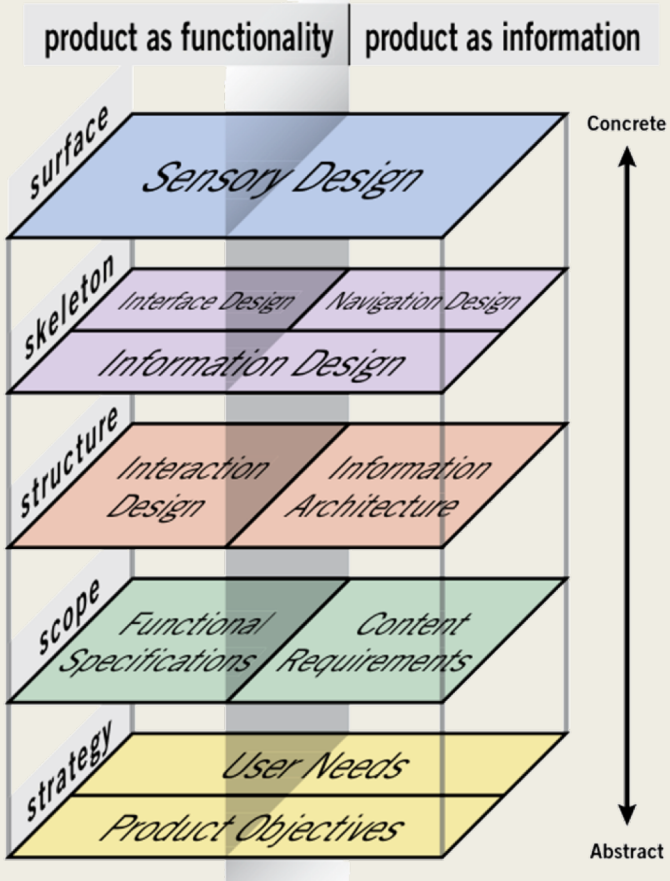




THE SKELETON PLANE – PART I

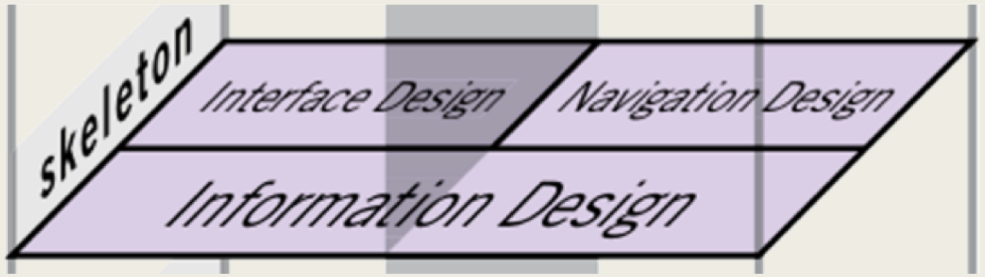
Jesse Games Garrett

Moving from structure to skeleton: moving from conceptual to concrete placement



Skeleton Plane

- Information Design
- Navigation Design
- Interface Design



Convention, Metaphor & Consistency

What we know:

- Most of our behavior is automated and performed by the subconscious – the “behavioral” part of the brain.

What implications does this have for designing your information, navigation and interactions with regard to **convention, metaphor and consistency**?

Information Design

- The **ordering and chunking** of information (Micro-level Information Architecture)
- **Structuring** the information to communicate the conceptual model

Information Design Example

State
Job Title
Telephone number
Street address
Name
Postal code
Organization
City
E-mail address

Name
Job title
Organization
Street address
City
State
Postal code
Telephone number
E-mail address

Personal information

- Name
- Job title
- Organization

Address Information

- Street address
- City
- State
- Postal code

Other contact information

- Telephone number
- E-mail address

Bespoke Information Design: the slippery slope

- Increase in cognitive load, errors and user frustration
- Decrease in efficiency, effectiveness and user satisfaction

Navigation Design

- Deciding the **order** in which to present access/links to functionality
- Communicating to the user the **relationships between the elements** it contains
- Communicating to the user their **current context** in relation to potential **next actions**

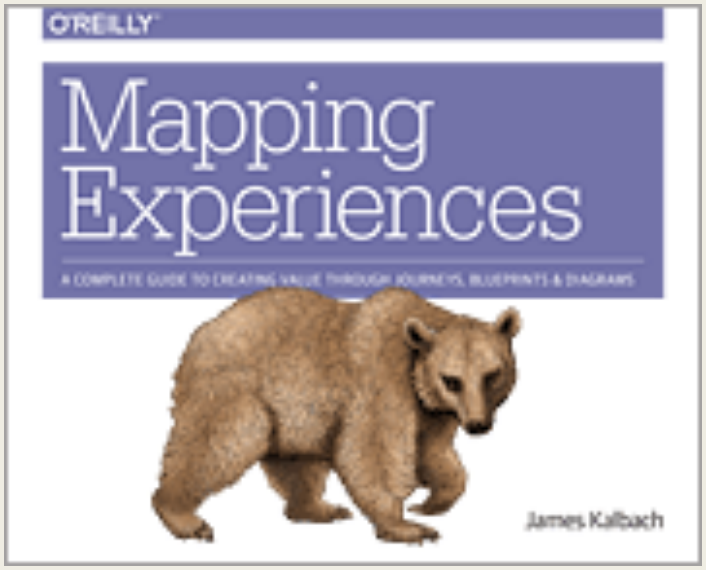
Types of Navigation

- **Global or Main Navigation** – provides links to the key access points to get from one area of a web site to another
- **Local or Sub Navigation** – provides links to "nearby functionality"
- **Contextual Navigation or Inline Navigation** – refers to links embedded in the content
- **Supplementary Navigation** – Quick links or shortcuts to commonly used areas not in the Global Nav or Local Nav
- **Courtesy Navigation** – provides access to information not needed on a regular basis

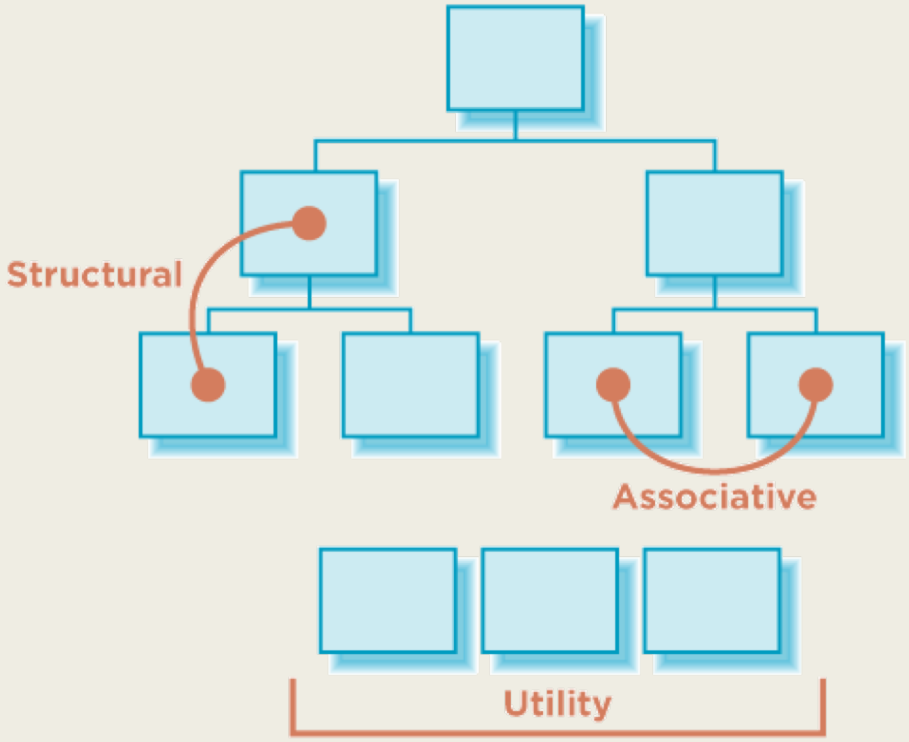
Source: Jesse James Garrett

Designing Web Navigation

James Kalbach

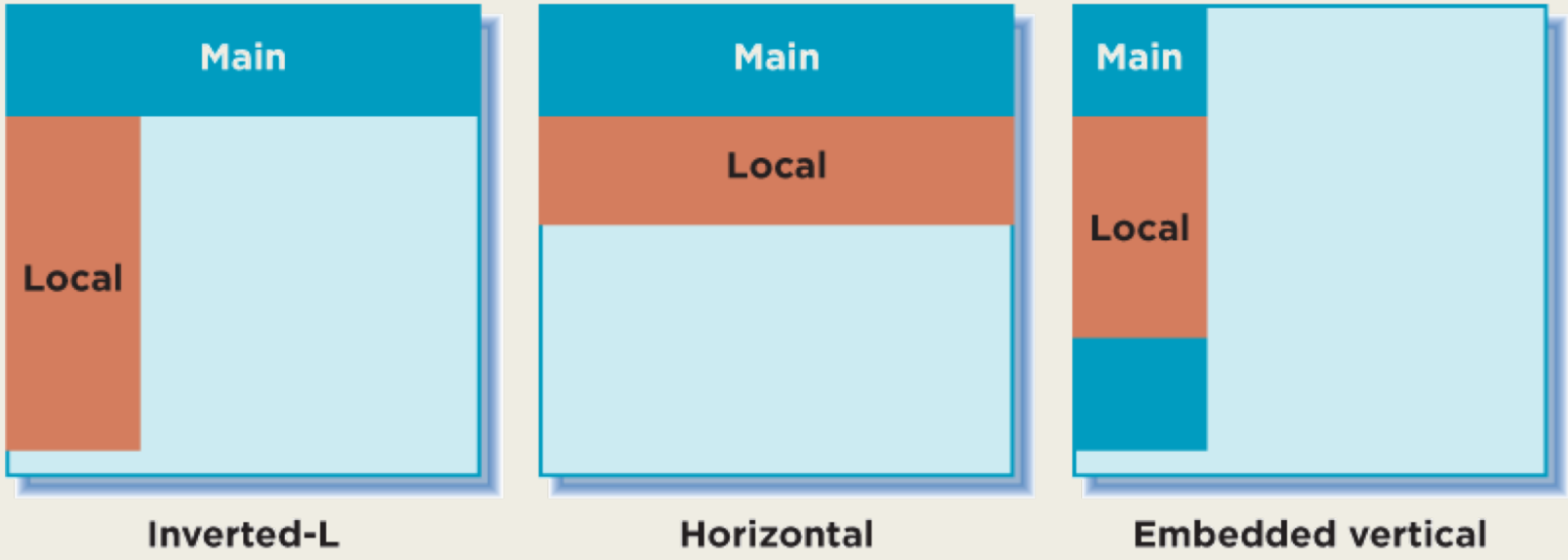


Types of Navigation



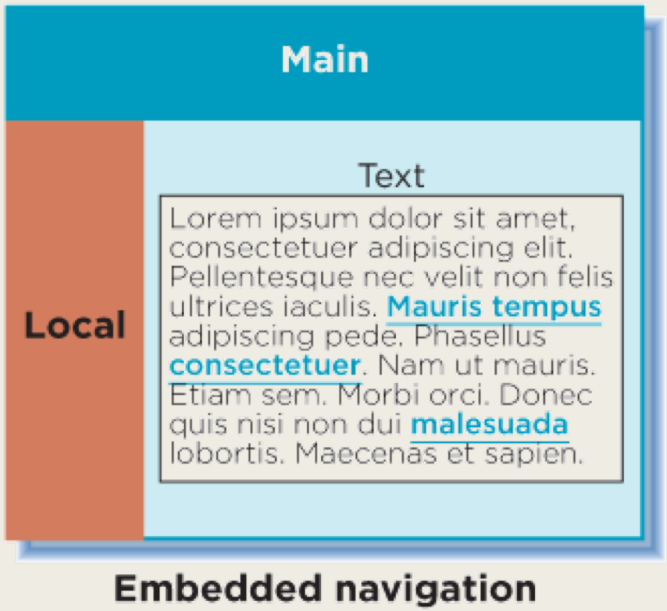
Source: James Kalbach

Structural Navigation

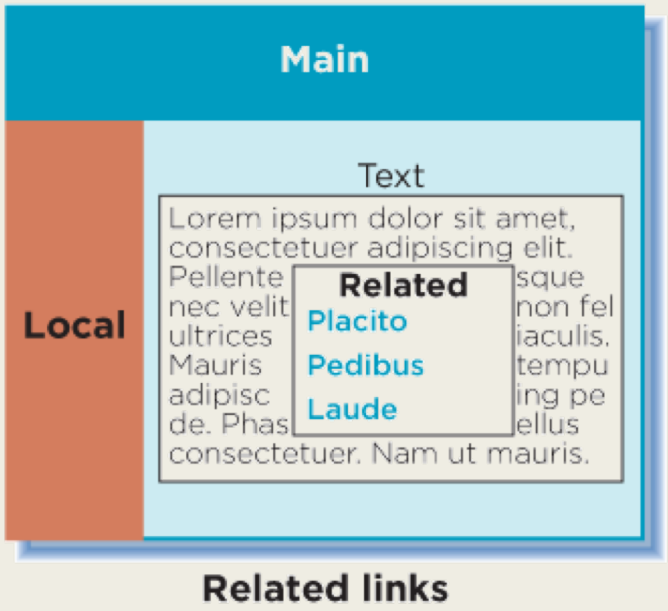


Source: James Kalbach

Contextual Navigation



Embedded navigation



Related links

Source: James Kalbach

Example... https://www.briscoes.co.nz/

Can you identify these?

- Global or Main Navigation
- Local or Sub Navigation
- Contextual Navigation or Inline Navigation
- Supplementary Navigation
- Courtesy Navigation

Bespoke Navigation Design: the slippery slope

- Increase in cognitive load, errors and user frustration
- Decrease in efficiency, effectiveness and user satisfaction

Wayfinding

- Helping people understand **where they are** and **where they can go**
- “you are here”
- Enabled by a combination of **information design** and navig**ation design**

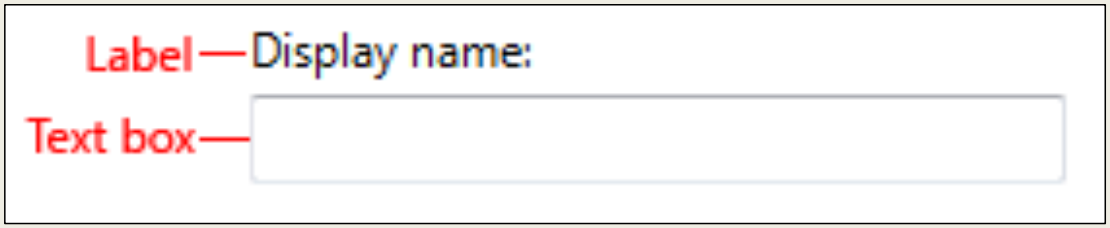
Interface Design

- **Selecting the right interface elements** for the task the user is trying to accomplish
- **Arranging the components** in a way that project the Conceptual Model

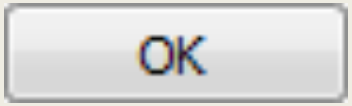
Standard Interface Elements

- Desktop
  - *Apple Mac OS*
  - *Microsoft Windows*
- Web (desktop and mobile)
  - *HTML, CSS*
  - *JS frameworks – react, bootstrap, angular, vue…*
- Mobile Apps
  - *Apple IOS*
  - *Android*

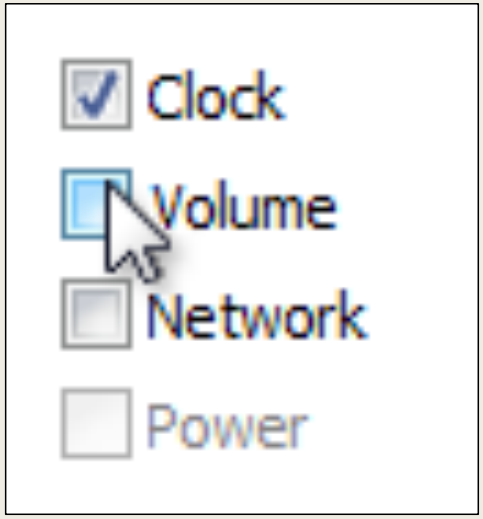
Text Fields



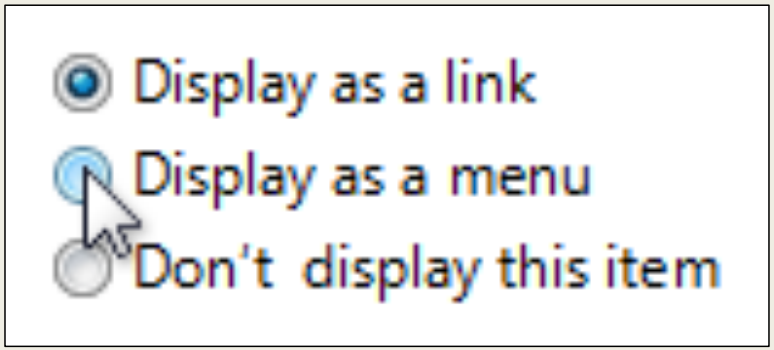
Buttons



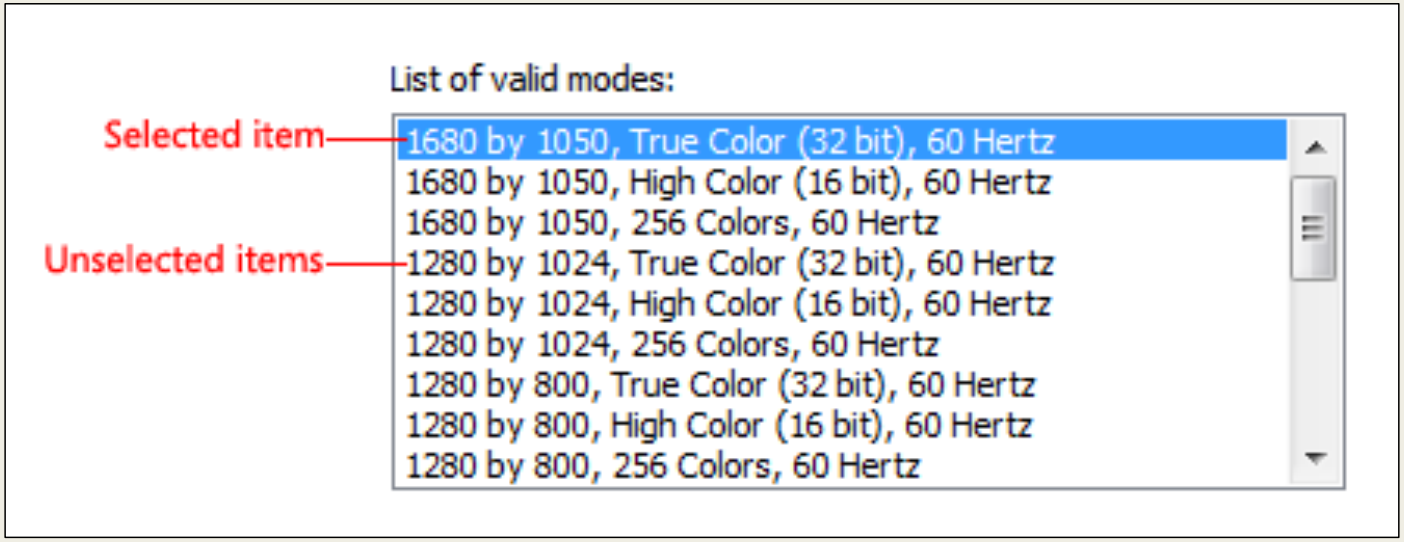
Check boxes



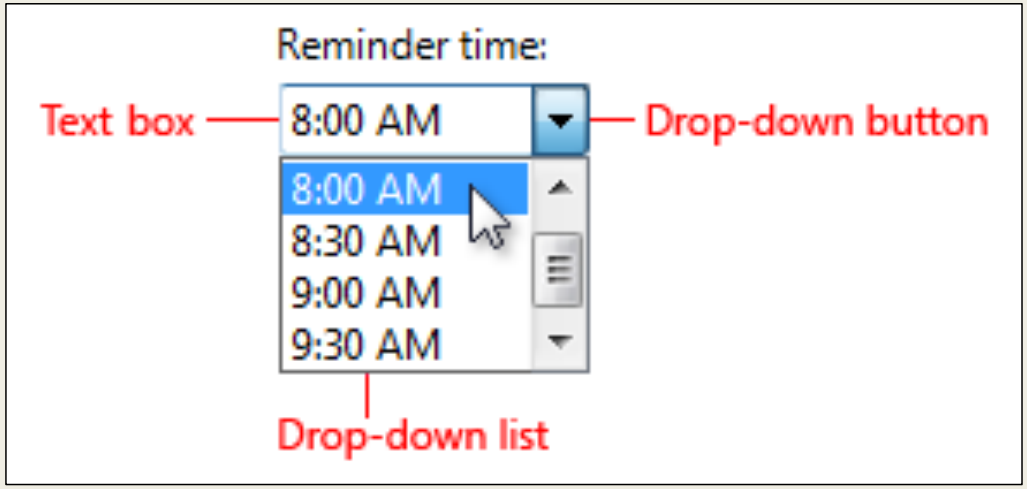
Radio Buttons



List Boxes


List of valid modes:
Selected item
Unselected items
1680 by 1050, True Color (32 bit), 60 Hertz
1680 by 1050, High Color (16 bit), 60 Hertz
1680 by 1050, 256 Colors, 60 Hertz
1280 by 1024, True Color (32 bit), 60 Hertz
1280 by 1024, High Color (16 bit), 60 Hertz
1280 by 1024, 256 Colors, 60 Hertz
1280 by 800, True Color (32 bit), 60 Hertz
1280 by 800, High Color (16 bit), 60 Hertz
1280 by 800, 256 Colors, 60 Hertz

Dropdown List



Bespoke UI Elements: the slippery slope

- Increase in cognitive load, errors and user frustration
- Decrease in efficiency, effectiveness and user satisfaction

Next time:

- The Skeleton Plane - Part II
  - *Prototyping*