Human-Interface Guidelines

Questions?

- Next week’s reading
- HW #2 graded. One week to request regrades online.
- HW #4 available
Hierarchy of Needs

Self-Actualization
Self-Esteem
Love
Safety
Physiological

[Maslow 1987]

Creativity
Proficiency
Usability
Reliability
Functionality

[LiDwell 2003]

Ballot Design

• What is wrong with the design of the chart on page 21?
Ballot Design

- What are Lausen's 5 principles of ballot design?
  - User lowercase
  - Organize information hierarchically
  - Keep font variations to a minimum
  - Do not center-align type
  - Use shading and graphic devices to support hierarchy and aid legibility

Mac OS X

- Focus on
  - Design principles
  - Layout guidelines
OS X Design Principles

- Metaphors – possibilities, limitations.
- Mental models – reflect user’s pre-existing models
  - Familiarity
  - Simplicity
  - Availability
  - Discoverability
- Explicit and implicit actions
- Direct manipulation
  - Drag and drop for book check out vs. book/patron/checkout button

OS X - Design Principles II

- User in control
  - Ok to put computer in control for novices?
- Feedback and Communication
  - Animate to show context
- Consistency
  - OS X standards
  - Self-consistent
  - Consistent with earlier versions of itself
  - Consistent with people’s expectations
- WYSIWYG
  - Consider using Previews
OS X – Design Principles III

- Forgiveness – enables exploration
- Perceived Stability
  - Consistency with OS X guidelines?
  - Remember user settings
- Aesthetic Integrity
- Modelessness – Must be visible and reversible. Modes ok:
  - Short-term
  - Alerts / wizards
  - Match real-world metaphor
  - Change attribute, not behavior

OS X – Design Principles IV

- Managing Complexity – KISS
  - Progressive disclosure
  - Inspector windows
  - User preferences
OS X – Layout Guidelines

- Strictness vs. consistency
- Center equalization
- Alignment
- Spacing

Windows Vista

- Focus on:
  - Top rules
  - Top violations
Vista – Top Rules

• Use standard theme (Aero) and fonts (Segoe UI)
  Some layout guidelines ([here](#)):  
  • Visual hierarchy
    • Focus
    • Flow
    • Grouping
    • Emphasis
    • Alignment
  ALSO:
  • Device independence
  • Easy to scan
  • Efficiency
  • Resizability
  • Visual simplicity
  • Consistency

Vista – Layout I

• Flow

[Diagram of Vista – Layout I]
Vista – Layout II

- Grids

Vista – Top Rules II

- Use common controls and dialogs
- Use standard window frame – use glass judiciously
- Use icons and graphics consistent with Vista size/quality
- Use “task dialogs” for new or frequent dialogs
- Use wizards
- Use Windows Explorer – host, navigation-based user interfaces, provide a Back button
- Use the Windows Search Model
- Use the Vista “tone” in all UI text
- Be accurate, encouraging, insightful, objective, user focused
- Not distracting, condescending
Vista – Top Rules III

- Clean up the UI
  - Organize your commands into a simple, predictable, and easy to find presentation, using task-oriented categories and labels.
  - For programs that create or view documents, use the standard menu categories such as File, Edit, View, Tools, and Help.
  - For other types of programs, consider organizing your commands and options into more useful, natural categories based on your program's purpose and the way users think about their tasks and goals. Don't feel obligated to use the standard menu organization if it isn't suitable for your program.
  - Make the most common commands easy to find by putting them in the top level of the command presentation. Don't put frequently used menu items in a submenu. Doing so would make using these commands inefficient. However, you can put frequently used commands in a submenu if they are normally accessed more directly, such as with a toolbar.
  - Provide shortcut menus for all objects and window regions that benefit from a small set of contextual commands and options. Many users right-click regularly and expect to find shortcut menus anywhere.
  - Consider hiding the menu bar if the toolbar or direct commands provide most of the commands needed by most users. Allow users to show or hide with a Menu bar check mark option in the toolbar.
  - Provide menu item icons for the most commonly used menu items, menu items whose icon is standard and well known, and menu items whose icon well illustrates what the command does. However, if you use icons, don't feel obligated to provide them for all menu items.
  - To improve keyboard accessibility, assign access keys to all menu items. No exceptions.
  - Remove borders, separator lines, boxes, and other visual "noise" that isn't necessary or functional.
  - Remove unused text. Eliminate repetition in labels.
  - Use hover states and just-in-time UI in context or on selection.
  - Choose your default UI wisely; don't optimize for unlikely and complicated cases. Instead, design for the most common user scenarios, ensuring they end up as the showcase experiences.
  - Hide complexity in default states; simplify the visual design of elements where possible; show details and functionality on hover.
  - Improve layout—align borders, text, and objects. Provide enough space so items are not touching each other or feel cramped.
  - Ensure consistent use of common elements in your UI. Use standard components and controls unless being nonstandard.

Vista – Top Rules IV

- Use notifications judiciously
  - “doesn’t break user’s flow”
  - “you are potentially interrupting users or even annoying them”
  - Read my & Ben S.’s article on flow and notifications.
  - Why they interrupt flow:
    - They disappear (and do so inconsistently) – requiring attention
    - No way to see previous notifications
    - No way to disable, delay, or prioritize
    - The button to close them is very small, and not keyboard navigable
  - Reserve time for fit and finish
Emotion and Design

- Watch Don Norman [TED video](https://www.ted.com/talks/don_norman)