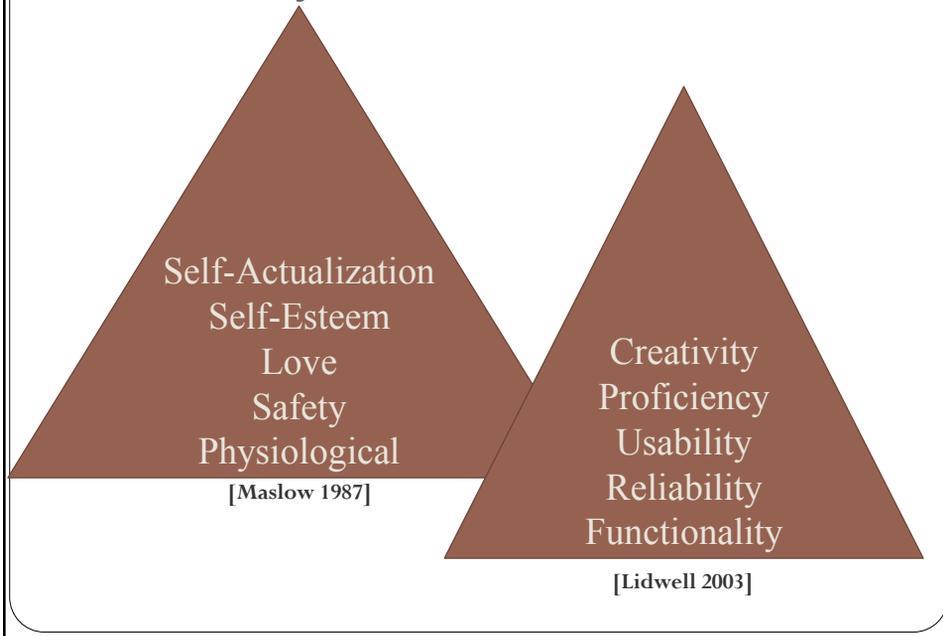


# Human-Interface Guidelines

## Questions?

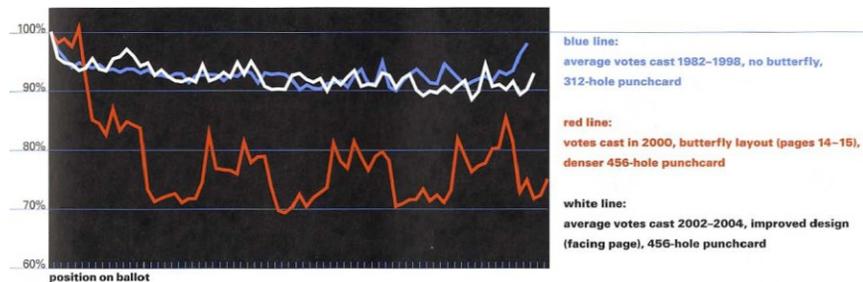
- Next week's reading
- HW #2 graded. One week to request regrades online.
- HW #4 available

## Hierarchy of Needs



## 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

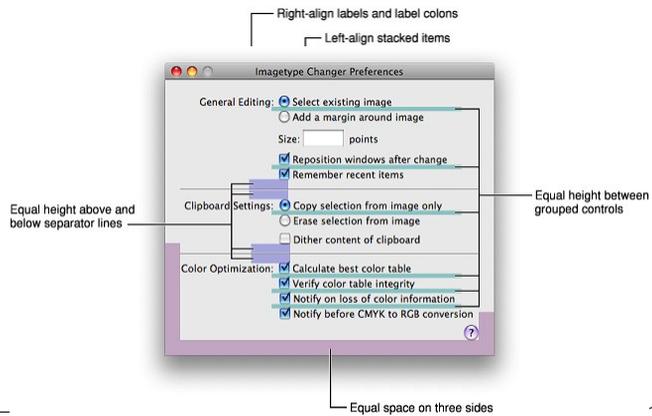
- Forgiveness – enables exploration
- Perceived Stability
  - Consistency with OS X guidelines?
  - Remember user settings
- Aesthetic Integrity
- Modelessness – Must be visible and reversible. Modes ok:
  - Short-term
  - Alerts / wizards
  - Match real-world metaphor
  - Change attribute, not behavior

## 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

### Use the computer without a display

When you select these settings, they will automatically start each time you log on.

#### How long should I read about

Turn on Narrator

Narrator reads about any text on the screen. You will need speakers.

Turn on Audio Description

Hear descriptions of what's happening in videos (when available).

#### Set up Text-to-Speech

#### Adjust how links and floating windows

Turn off all unnecessary animations (when possible)

How long should Windows notification dialog boxes stay open?

7.0 seconds

#### See also

[Audio Devices and Sound Themes](#)

[Learn about additional assistive technologies online](#)

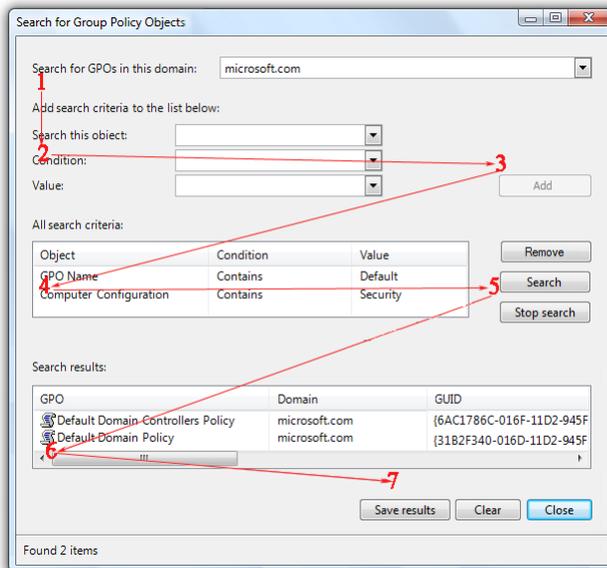
Save

Cancel

Apply

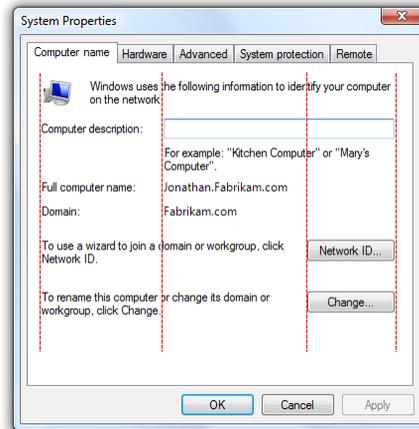
## Vista – Layout I

- Flow



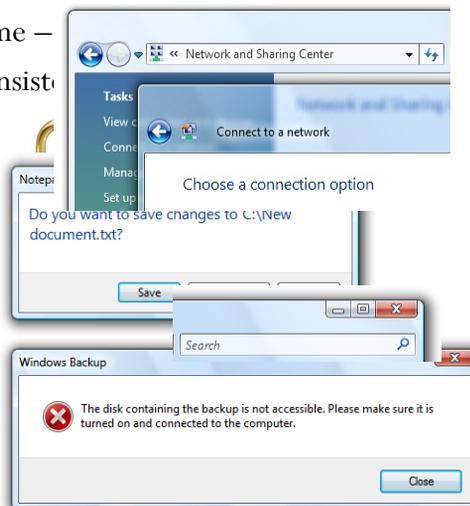
## Vista – Layout II

- Grids



## Vista – Top Rules II

- Use common controls and dialogs
- Use standard window frame –
- Use icons and graphics consistently
- Use “task dialog”
- Use wizards
- Use Windows Live interfaces, provide a Back button
- Use the Windows Search interface
- Use the Vista “tone” in all
  - Be accurate, encouraging,
  - Not distracting, condescending

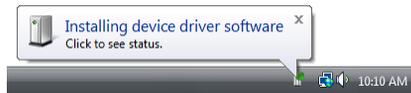


## Vista – Top Rules III

- 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 ensure 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 unneeded 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](#)