

The Art of Interface Design

Anne Morgan Spalter

Inter-related Components of Interface Design

- Task analysis and user testing
- Software engineering
- Functional analysis
- **Aesthetic appeal**
- Etc.

Looking Good—Then & Now 1

- Some issues same as in traditional design
 - Overall composition (leading the eye, creating balance, etc.)
 - Use of shape/form
 - Use of color (not having too many different colors, using color to code features, etc.)
- People go to school years and do this as full-time jobs

Some Traditional Design Concerns in Digital Media

- Aligning elements
- Grouping elements properly for dialog boxes or screen design
- Designing clear icons
- Using type of screen
- Use (and over-use) of color
- Reducing clutter and visual noise
- Appropriate and consistent style
- Traditional design strategies: e.g., using small multiples, layering, narrative, metaphor
- [are these the type of things you're most interested in communicating? I can give lots of example, but each could also be a whole course in and of itself. At RISD designers take a full year of typography, for instance.]

Looking Good—Then & Now 2

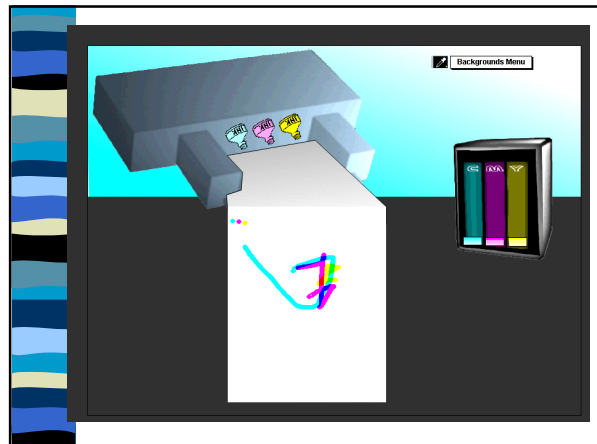
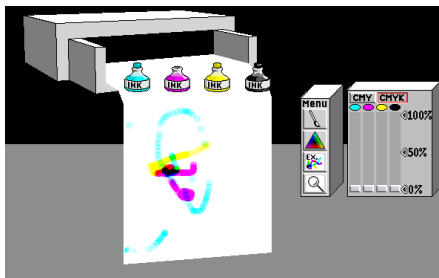
- But some issues unique to digital media
 - Interaction
 - Animation (stuff changing over time)
 - Integration of different media (e.g., text, image, sound)
 - The need to structure a great deal of information (e.g., use of hierarchy and navigation)
 - Ever-changing tools, usage platforms (including new immersive spaces)
 - These and other issues present new aesthetic design challenges
- [I can also give examples of these with more of a visual emphasis than Shneiderman has]

An Example

- I asked a student to recreate some of our java color applets in Director (as shockwave files). I told him to make them look the same as the old ones. He decided to add a bit of his own design to them and the results were very disappointing. It's interesting because the functionality is exactly the same, but the change in aesthetics make it much less pleasurable to use the applets.

Older, Java version

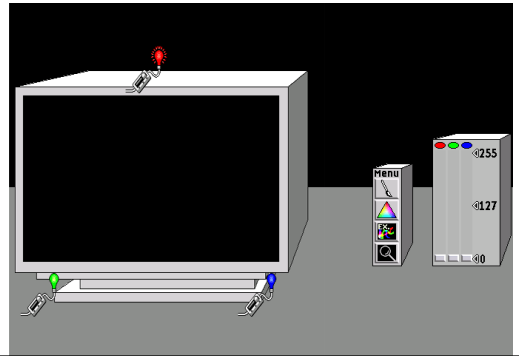
- Not perfect but has nice feeling. This is especially important since the concept being taught is pretty simple



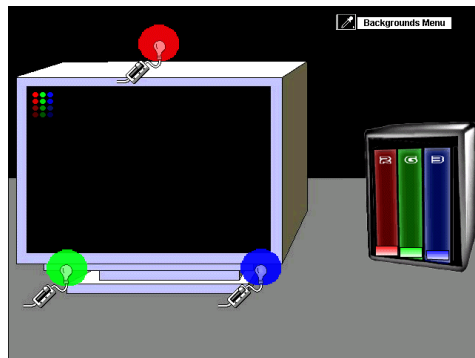
What Changed?

- subtle but important aesthetic differences change pleasure of using applet. New version is too big—bad use of screen real estate causes the program to hog up a lot of the screen, has unpleasant and totally irrelevant background color (greenish) behind printer, also has too much black—not nice use of gray in the older version. Printer doesn't look realistic or diagrammatic—just like a bad 3D model, ink bottles not properly anti-aliased, many problem with perspective: ink bottle position, printer position, paper position, and "case" for sliders. The gradient banding is annoying, the sliders look like binders not sliders and application of gradient makes the colors too black, unattractive font for CMY letters on sliders. Different treatment of slider case and printer—inconsistent style is distracting. Use of black outline on paper makes it separate from printer and seem to be floating above it

And Another...




New Version




What's Wrong

- This one looked better because he used more of the original design, which was a nice one, but now his two applets don't look alike, which, for a series, is bad. And even something as subtle as the way the lights are lit up makes a big difference. Also, the use of purple around the edge of the monitor is a bad choice since it's a color applet...



Everything Must Work Together

- If you don't understand the client's needs, it doesn't matter how beautiful the interface looks.
- A good graphic interface needs to be meshed with good software engineering
- UI work often done in teams with programmers, cognitive scientists, artistic designers, and business people.



Resources

- Information Design: Edward Tufte's book
- Multimedia Design: Designing Visual Interface (Mullet/Sano), Design Multimedia (Lopuck)
- Web Design: Lisa Weinman's and David Siegel's books
- Magazines: Print, How To (these are graphic design magazines that now address many digital design issues)
- Information Visualization (Ware) [some "science of graphic design"]