Multimedia Design Principles

Darnell Chance
August 2005
Multimedia Design Principles

Things to consider

Your Audience

• Age level
• Grade level
• Reading level
• Ethnicity
• Etc., etc., etc.

What is the eschatological significance of entropy?
Multimedia Design Principles

Things to consider

The Equipment

What equipment do you have for:

- Creating
- Displaying
- Transporting
Multimedia Design Principles

Things to consider

What will the cost be?
Multimedia Design Principles

Things to consider

What is your skill level?

Are you a super-Techie?

Or, are you a beginner?
Multimedia Design Principles

Things to consider

How much time do you have?
Multimedia Design Principles

Organization

Make detailed outline before you turn the computer on!

Order the information.

• Chronologically
• By development
• According to topics
• From general to specific
• From problem to solution

Refine each section and subsection according to a consistent pattern.
Multimedia Design Principles

Story Board

The purpose of the story board is to allow you to collect your ideas, order the material, and make revision before investing a great deal of time and effort in the mechanics of creating the project. It is an essential step in the process.
Multimedia Design Principles

Story Board

- Begin with an outline.
- “Lay-out” the macro order of the information - sections, headings, etc.
- Put the pages in sequence. (Index cards are very useful here.)
- “Sketch” each page/slide/screen indicating text, graphics, colors, and/or sounds.
- Note any transitions and animations.
- Make off-page notes where helpful.
- Review and Revise (ad nausem)

It is much easier to make changes in sketches than after several pages have been created in the application!
Create a “story board” - be cryptic but complete.
Multimedia Design Principles

Design

Clean  Consistent  Contrast

The appearance of information (text or graphics) effects the way we perceive it.

It impacts the content.

(My comments on design are based on the book *The Non-Designers Web Book* by Robin Williams and John Tollett published by Peachpit Press.)
Multimedia Design Principles

Design

Consistent Contrast

Clean

Keep it uncluttered.
Too much information in a space is confusing.

The hierarchy should be easily seen.
More important material should be at the top and/or the left.
Multimedia Design Principles

Design

Clean       Contrast

Consistent

The mind orders information based, in part, on the perceptual environment.

Constantly changing environments require constant mental adjustment.

This can interfere with the content.

**TIP:** To see the consistency of the entire presentation, view it in the Slide Sorter View.
Multimedia Design Principles

Design

Clean  Consistent

Contrast

Variety within a consistent environment draws attention.

It emphasizes

Gives weight.

Creates interest in specific items.
### Multimedia Design Principles

#### Basic Design Principles

**Alignment - Horizontal**

<table>
<thead>
<tr>
<th>Left</th>
<th>Right</th>
<th>Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________</td>
<td>__________</td>
<td>Don’t mix alignments.</td>
</tr>
<tr>
<td>__________</td>
<td>__________</td>
<td>Center = balance</td>
</tr>
<tr>
<td>__________</td>
<td>__________</td>
<td>Left &amp; Right = movement.</td>
</tr>
</tbody>
</table>

Center

| __________            | __________             |                                |
| __________            | __________             |                                |
| __________            | __________             |                                |
Multimedia Design Principles

Basic Design Principles

Alignment - Vertical

Top

Middle

Bottom

We read from the top down. Therefore the top is the most important position.
Alignment - Horizontal - Text

Base line - the line that text and graphics sit on.

We the people …
Multimedia Design Principles

Basic Design Principles

Proximity

Too close = cluttered, confusing.

Too far = weak, confusing.
Multimedia Design Principles

Basic Design Principles

Proximity

Proximity ties the various components together.
Multimedia Design Principles

Basic Design Principles

Proximity

“White space” is the unused areas of a page or screen. Graphic designers realized long ago that it is important for clarity and appeal. Don’t crowd your materials. Leave plenty of open space.

Crowded

Comfortable
Multimedia Design Principles

Basic Design Principles

Contrast

• Guides the eye on ear.
• Denotes important material
• Creates focal points.
• It can be accomplished with text, color, shape proximity, size, location, or with any combination.
Multimedia Design Principles

Rules of Thumb

K I S S

Keep it simple stupid/sweetie.

Most multimedia presentations can be improved by eliminating some elements or moving them to another screen.
Multimedia Design Principles

Rules of Thumb

Typography (fonts)

Serif fonts
A serif is a terminating mark at the end of a letter stroke.

Sans-Serif fonts
Fonts without terminating marks.

Studies in perception indicate that when blocks of text are used, serif fonts work best for the printed page and sans-serif are best for computer monitors and projection.
Multimedia Design Principles

Rules of Thumb

Typography

- Use only 2 (3 at the very most) fonts in any document.
- Let size and style (bold, italic, underline) create contrast.

This is my great presentation. It took me a long time to create this, and I want everyone to read every work and appreciate my hard work, creativity, and profoundness. **It is filled with wonderful knowledge that you, my students, need to know.** It will make you better persons, and besides, it will be on the test.
Multimedia Design Principles

Rules of Thumb

Typography

Avoid the use of all caps.

- We read as much by the shape of the words as by the collection of letters.
- All capitalized texts have no variety in shape. Therefore, they are more difficult to read.
Multimedia Design Principles

Rules of Thumb

Typography

Avoid all bold.

- Constant emphasis is no emphasis.
- Connect the style to the meaning of the text.

This is my great presentation. It took me a long time to create this, and I want everyone to read every word and appreciate my hard work, creativity, and profoundness. It is filled with wonderful knowledge that you, my students, need to know.

This is my great presentation. It took me a long time to create this, and I want everyone to read every word and appreciate my hard work, creativity, and profoundness. It is filled with wonderful knowledge that you, my students, need to know.
Multimedia Design Principles

Rules of Thumb

Color

Color helps make the foreground/background distinction. Light color indicates background while bold colors indicate foreground.

Avoid strong backgrounds. They put the background “in your face” and de-emphasize texts and graphics which need to be in the foreground.
Multimedia Design Principles
Rules of Thumb

THIS IS MY GREAT PRESENTATION
Everyone pay close attention to what I have done.
It is really, really good!

Is’nt this cool?
Multimedia Design Principles

Rules of Thumb

Color

Limit your pallet to 3 or 4 colors. Like fonts, too many colors will be distracting.

Some colors have inherent meaning.

- Blue = comfort, “clear, blue sky”
- Green = growth, “lush, green forest”
- Red = danger, fire & red light
- Blue is for baby boys.
- Pink is for baby girls.
Multimedia Design Principles

Rules of Thumb

Color

Some colors work better together than others.

More importantly, some background colors should not be used with certain font colors!

Please take note!!
<table>
<thead>
<tr>
<th>Background Color</th>
<th>Recommended</th>
<th>Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Black, Dark Blue, Red</td>
<td>Yellow, Cyan, Light Gray</td>
</tr>
<tr>
<td>Blue</td>
<td>White, Yellow, Cyan</td>
<td>Green, Black</td>
</tr>
<tr>
<td>Pink</td>
<td>White, Yellow, Blue</td>
<td>Green, Red, Cyan</td>
</tr>
<tr>
<td>Red</td>
<td>Yellow, White, Black</td>
<td>Pink, Cyan, Blue, Green</td>
</tr>
<tr>
<td>Yellow</td>
<td>Red, Blue, Black</td>
<td>White, Cyan</td>
</tr>
<tr>
<td>Green</td>
<td>Black, Red, Blue</td>
<td>Cyan, Pink, Yellow</td>
</tr>
<tr>
<td>Cyan</td>
<td>Blue, Black, Red</td>
<td>Green, Yellow, White</td>
</tr>
<tr>
<td>Light Gray</td>
<td>Black, Drk Blue, Drk Pink</td>
<td>Green, Cyan, Yellow</td>
</tr>
<tr>
<td>Gray</td>
<td>Yellow, White, Blue</td>
<td>Dark Gray, Dark Cyan</td>
</tr>
<tr>
<td>Dark Gray</td>
<td>Cyan, Yellow, Green</td>
<td>Red, Brown, Gray</td>
</tr>
<tr>
<td>Black</td>
<td>White, Cyan, Green, Yellow</td>
<td>Dark Red, Dark Cyan</td>
</tr>
<tr>
<td>Dark Blue</td>
<td>Yellow, White, Pink, Green</td>
<td>Dark Green, Blue, Black</td>
</tr>
<tr>
<td>Dark Pink</td>
<td>Green, Yellow, White</td>
<td>Blue, Black, Dark Cyan</td>
</tr>
<tr>
<td>Dark Red</td>
<td>White, Light Gray, Yellow</td>
<td>Black, Dark Blue</td>
</tr>
<tr>
<td>Brown</td>
<td>Yellow, Cyan, White</td>
<td>Red, Pink, Dark Green</td>
</tr>
<tr>
<td>Dark Green</td>
<td>Cyan, White, Yellow</td>
<td>Dark Blue, Dark Red</td>
</tr>
<tr>
<td>Dark Cyan</td>
<td>White, Yellow, Cyan</td>
<td>Brown, Blue, Gray</td>
</tr>
</tbody>
</table>
Objects

Too many graphics can be confusing.
- They are inherently more attractive than text.
- Movement is even stronger.

Balance objects on the page.

Objects require much more computer memory than text.
 Multimedia Design Principles

Form and Content

Balance

The balance between form and content is an age-old issue in art and in communication.

For teachers:

- Content is the material to be learned.
- Form is the way in which that material is presented.
Multimedia Design Principles

Form and Content

Form should **enable** the content but not **detract** from it!

Form can **engage** learners but it must not **distract** them from the content.

Content must have some form, but there needs to be a **balance** that allows the form to focus attention on the content.
Multimedia Design Principles
Tips & Techniques

Presentations: The Good, the Bad and the Ugly
http://www.shkaminski.com/Classes/Handouts/powerpoint.htm
(especially the link "Graphic design tips")

Articles by Cliff Atkinson
http://www.sociablemedia.com/articles_norman.htm

Precision layout... -
http://www.presentations.com/presentations/creation/article_display.isp?vnu_conten-id=1871209

PowerPoint for Teachers -
http://www.powerpoint4teachers.com/designtips.html
Multimedia Design Principles

Examples

BAD

http://www.spa3.k12.sc.us/power/Numbers_files/frame.htm

(use Explorer)

• http://www.spa3.k12.sc.us/ArchPaige/sld001.htm

exemplary.ppt -

beginning.ppt -
Multimedia Design Principles

Examples

GOOD & BAD

PowerPoint Examples from Real People -
http://www.loyola.edu/education/PowerfulPowerPoint/ExamplesFromRealPeople.html
(cf. Medieval Music, Space Show, Multiple Intelligences)

Also - http://www.spa3.k12.sc.us/ArchPaige/sld001.htm
Good

Classical Guitar[very good] - http://www.loyola.edu/education/PowerfulPowerPoint/ExamplesFromRealPeople.html

Student examples
Multimedia Design Principles

FINALLY

It’s not about you!
Your students do not need to know what your favorite color is, or your favorite sport, animal, or flower. Nor is it important what you think is pretty, cute, or “cool”.

It is about the content!
What your students need is a learning experience that is clean, clear and consistent.

Design for your audience not for yourself!