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ABSTRACT

The rapid evolution of information technology over the past several decades has opened many new and unique modes of communication. Clearly, the web is one such technology. However, it is quite possible that a fascination with the technology per se can hinder participants from one of its main functions—effective communication. The following essay explores a return to the basics of designing an effective web-based communication strategy. The key components of this strategy are: 1) consistent look and feel, 2) conceptual consistency, and 3) positive attention.

INTRODUCTION

The evolution of information technology from its rudimentary beginnings in the latter part of the last century to its current state has clearly been an amazing series of technologically driven advancements. Nothing exemplifies this advancement more than the development of the Internet and web. It was not that long ago that the IBM Selectric, the Dictaphone, and conference calls were the state of the art technologies, and it is even more difficult to conceptualize what the future may hold. But for now, the present is the period of the web: news, shopping, information, databases, businesses, entertainment, chat rooms, voyeurism, whatever the interest, it will be available on the web.

Curiously, almost ironically, with all the advancements in personal computers and allied technologies the focus is not all that different from that which was confronting Gutenberg and the development of the printing press—communication. The central function of the web, and a point often overshadowed by the gadgets and gizmos, is effective communication. The projected purpose of the following analysis is the development of a foundational format for developing and designing an effective web-based communication strategy.

Providing a consistent look and feel

Visually consistent

Consistency refers to action sequences, layouts, typestyle, and colors within a visual interface (Shneiderman, 1993). Web pages are often dynamic, making consistency a challenge. Specifically, when something is posted online, the various end-user devices used to access the content may alter the ultimate presentation. For example, different monitors, browsers, or web devices may change the manner in which the information is displayed. Elements such as text may appear in a different font, size, or color than the one you've set as a default in your own browser. The rule of thumb is to design your pages with flexibility in mind, taking advantage of one of the Web's great strengths: person-to-person, two-way interaction. The moment your HTML is accessed by a reader, you and the reader are effectively collaborating on how the page displays.

You want your pages to look consistent, however the more you struggle to control the appearance, the more likely you are to create a mess for some end-users. For example, controlling line widths by way of a table set for a specific screen dimension can cause a mess for people with smaller monitors or different screen resolutions.

The principal goal is communication. You want to aim for a visually appealing Web page, but do not create so many controls that you forget that what you see on your screen is unlikely to be exactly what your end-users see.

Use of white space

An often-overlooked factor in Web page design is screen resolution. As mentioned earlier, many pages appear to tolerate a range of screen resolutions fairly well, some become a mess if you look at them in any resolution other than the one the designer intended. Screen resolution refers to the dimensions, in pixels, of your screen's display. If your monitor is old, you probably get 640 pixels across and 480 down. Newer models typically give higher resolutions, such as 800 x 600 and 1024 x 768. Some go as high as 1600 x 1280. Many designers often use 800 x 600 as a common denominator.

Upon viewing Web pages at different resolutions, you will notice that objects appear to become either smaller or larger. A graphic that measures 800 pixels across will fill the entire width of an 800 x 600 screen. If you view the same graphic at a resolution of 1600 x 1280, it will take up less than half of the screen, leaving a lot of empty space.

Effective Web designers typically go to great lengths to lay out everything precisely, but when they do not pay heed to different screen resolutions, only end-users with the same screen resolution as the designer will see the page as it was intended. End-users with a higher resolution display may see things very spread out and those with lower resolution displays will see everything crammed into a smaller space.

As many computer users have found, making a basic Web page is not that difficult. Making a page that stands out, however, can pose a challenge. Programs that offer WYSIWYG functions can make some design techniques extremely easy but chances are you'll still find yourself tweaking code.

Font choice

Fonts will give a certain unique look and feel to a web site. For example Helvetica and Times new roman are common fonts. For example, we will select one word and compare the two fonts.

- SEX (using the impact font)
- **SEX** (using the arial font)
- **SEX** (using bookman old style)
- SEX (using batang)
- **Sex** (using impact)

The main idea here is that fonts will give different feelings (Ziegler & Hoppe, 1986).

The definition of fonts from webopedia:

> A design for a set of characters. A font is the combination of typeface and other qualities, such as size, pitch, and spacing. For example, Times Roman is a typeface that defines the shape of each character. Within Times Roman, however, there are many fonts to choose from — different sizes, italic, bold, and so on. (The term font is often used incorrectly as a synonym for typeface.)

The height of font characters is measured in points, each point being approximately 1/72 inch. The width of font characters is measured by pitch, which refers to how many characters can fit in an inch. Some common pitch values are 10 and 12. A fixed pitch font is one where every character has the same width. A proportional font is where font widths vary depending on the shape of the character.

Computers and devices use two methods to represent fonts: bitmapped and vector graphics. A bit-mapped font means that every character is represented by an arrangement of dots. To print a bit-mapped font, a printer simply locates the character's bit-mapped representation stored in its memory and prints the corresponding dots. Each different bitmap font, even when the typeface is the same, requires a different set of bitmaps.

The other font definition method utilizes a vector graphics system to define fonts. In vector graphic fonts, the outline of each character is defined geometrically. The font typeface can be displayed in any size, so a single font description really represents many fonts. For this reason, vector fonts are scalable, they can be any size (scale). The most widely used scalable-font systems are TrueType and PostScript.

Besides scalability the main advantage of vector fonts over bit-mapped fonts is that they make the most of high-resolution output devices. Bit-mapped fonts look almost the same whether

printed on a 300-dpi printer or a 1,200-dpi printer because they are often static. Vector fonts look better, the higher the resolution.

Vector fonts do not typically look good on low resolution output devices such as monitors but appear very well on high resolution devices such as laser printers. Many computer systems, therefore, use bit-mapped fonts for screen displays. Bitmapped fonts are preferred for printing applications where computer processing power is at a premium – the nature of vector fonts is that every character must be generated as it is needed. This is a computation-intensive process that requires a powerful microprocessor to make it acceptably fast.

Post Script Fonts

A vector graphics system developed by Adobe Systems. PostScript is primarily a language for printing documents on laser printers and electronic documents. PostScript is the defacto-standard for many desktop publishing applications because it is supported by imagesetters, the very high-resolution printers used by service bureaus to produce camera-ready copy.

True Type Fonts

A vector graphics font technology developed jointly by Microsoft and Apple. Because TrueType support is built into all Windows and Macintosh operating systems, anyone using these operating systems can create documents using TrueType fonts.

Since being introduced in 1991, TrueType has quickly become the dominant font technology for everyday use, and is even displacing PostScript in many publishing environments.

With the vast variety of font-styles and types available today, the temptation is to use as many as possible. In the early days of desktop publishing and laser printing when fonts became very accessible, users were often tempted to include as many as possible into a document. Documents often looked like a ransom-note- too many type styles. As stated earlier, consistency is the key to a good communication strategy.

Color choices

The Web has a huge palette of colors available for your pages. Color is a simple way of enhancing Web pages appearance while not adding downloading time for end-users accessing your pages. To get colors to look good, however, can require some skill.

The trick is to avoid color dithering. Specifically, not all monitors can see all colors- some see millions, some see thousands. Worst of all, Windows, Mac and Linux machines don't even

see the same sets of colors. Dithering occurs when you use a color another machine can't see, that machine tries to fudge the color by combining colored pixels that look similar to your color when viewed together. Unfortunately, the effort is not always successful, causing unattractive combinations. Dithering can be a big problem for particularly for background colors as it creates dot patterns that may make text difficult to read.

Developed early on to prevent dithering, "the Netscape 216 palette" was developed to set web color standards. First implemented in Netscape Navigator, this palette is supported by all popular browsers, adding color consistency across machine platforms. Learning the Netscape palette takes a little extra work, and your first obstacle could be your HTML editor. When you pick a color within an editor, you usually use the typical RGB color wheel (the RGB system indicates colors by giving values for red, green, and blue). The color wheel spans a spectrum far beyond that of the Netscape palette; HTML doesn't even use the RGB system rather it indicates colors with different numeric values (hexadecimal). This situation gives is what can create the dithering situation.

Eye-catching vs. pleasing

Web sites are designed for different industries. For example a web site for www.cbs.com is designed to be very eye catching and exciting due to the fact that they are in the entertainment industry. A software company such as www.lotus.com is more corporate and less eye catching simply because they are in a different type of industry.

Conceptually consistent

Site theme

You need to be consistent with the theme you will chose throughout your web site. For example if your site is about baseball, you will not find anything related to football or basketball. However, if your site is about sports you then will have a bunch of different sports themes like baseball, football, basketball, hockey, soccer, etc.

Web page navigation aid

A site may look good and offer useful information but if it doesn't have a sensible navigation scheme, it will confuse end-users. A simple, understandable navigation scheme is a key factor in creating a useful website. It's a critical aspect of site design that has a direct effect on the bottom line success. Navigation is mostly a matter of common sense and although it varies for different types of sites, there are certain basic principles that apply to almost all sites. Here are the three basic principles of web site navigation:

1. Inform end-users exactly what is available on your site.

2. Ensure they can navigate to the information quickly.

3. Ensure the ability to request additional information.

Positive Attention

Creating a successful Web site takes patience. You must wait for the visitor to come to you and engage your site's attractions. The better your site, the greater the likelihood of keeping the visitor. In fact, it is notoriously difficult to catch and keep users' attention on the Web, which offers so many interesting distractions.

The key is planning. Despite the Web's seemingly random and constantly evolving state, there's nothing haphazard or quick and dirty about a profitable Web site. It takes coherent design and carefully thought-out content; as the saying goes, you can catch more flies with honey than with vinegar. Once the site is up, you've got myriad ways to get the word out and leverage the site to fix your company in the minds of consumers. Some methods cost pennies, others cost thousands; the trick is figuring out which ones are worth the price.

How to obtain the wrong kind of attention

Suicidal Pages

No matter how perfect the design, a page may hang if one or more of the images referenced becomes unavailable to an end-users browser. Often instead of skipping over the errant graphic, the browser may pause for long periods of time, waiting for it to download..

Bizarre Colors

End-users don't always have has a 24-bit display card like the one you used when preparing your Web graphics. When a visitor with an 8-bit, 256-color display visits your page and hits those million-color JPEG images, dithering occurs. Your visitor's system creates a palette of colors that it can display, likely jettisoning many of the hues in the originally carefully crafted images. Even 256-color images aren't immune to this problem: There's no guarantee that all the graphics on a page happen to contain the same 256 colors.

Slow Images

Your images aren't always as sharp or colorful as those you see elsewhere on the Web depending on how you prepared them. You may just be using the wrong image format using GIF where JPEG would work better. Learn when each kind of image should be used, and you can have a better image in seconds.

Graphical Slow Down

Many end-users don't want to wait long enough to let your 500K image files download. Well-meaning Web-page designers don't always try to take the simple steps needed to reduce the size of their graphics. 500K image files can often be shrunk down to 80K without losing much quality.

How to Obtain Repeat Visitors

The purpose here is to get people to comeback to your site frequently. What we're trying to avoid here is the so called "cob web" site. A "cob web" site is a type of site that doesn't change. Some of the reasons that people come back to a site include:

- Visitors return for content and are interested in what you have up on your site. The graphics and plug-ins are icing on the cake. Content may be text, white papers, stock quotes, software to download, flash and news.
- Visitors return due to ease of navigation. When people reach a web site they want to be able to find the information that they are looking for as easy as possible. In other words they don't want to try to figure out where things are on your site. The navigation has to be intuitive. People don't want to become frustrated when they are looking for something on the site. Make it as easy as possible for people to figure out (if necessary) where things are. For example don't bury information that will be critical (Grose, Forsythe & Ratner, 1998).
- Giveaways. People like to get freebies. Some strategies seek to give you something upfront first and then hope that you will comeback. While others will continue to keep in touch with you by sending you e-news letters daily, monthly, quarterly.

CONCLUSION

The purpose of this paper has been to develop a fundamental and basic strategy for the design and development of an effective web communication strategy. Thus it is suggested that in order to be effective, web creation and construction should: 1) provide consistent look and feel, 2) be conceptually consistent, and 3) attract positive attention. In conclusion, technology should not overrun the real goal—effective communication.

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