A study of the Typeface

Abstract:
Typeface are now of huge importance in development of beautiful web sites. A certain trend has been taking place over the past few years in its usage and implementation. Through this paper i wanted to explore the design issues that go into the design, selection and implementation of typeface. What is considered as good typeface? What makes it a good typeface? What are the most popular fonts in current web design? These are the questions this paper tries to answer. Since typeface usage varies from media to media, this paper is concentrated for design issues related to the web.

What is Typeface?
Typeface is a part of typography which involves the design of "a set of one or more fonts, in one or more sizes, designed with stylistic unity, each comprising a coordinated set of glyphs." In simple words, it involves the design of over 250 characters including the alphabets in upper case and lower case, punctuation marks and other symbols of text. There are various terms and design aspects one has to look into while designing a new typeface. Some of these are listed below:

Serifs and Sans Serifs:
Serifs are typefaces with extended strokes and styling on the glyphs. Sans Serifs are fonts with no such styling.

X-height
The X-height is nothing but the height of the fonts. They are maintained at a certain level for all glyphs.

Punch Width/Counterform
This is the inner width of the glyphs

font TALL X-HEIGHT

Punch Width/Counterform
This is the inner width of the glyphs

Trebuchet WIDE PUNCH WIDTH
Ascenders and Descenders
Ascenders are the parts of a letterform that extend above the x-height. Descenders extend below the baseline. In the word "dismantling", the tops of the d, t, and l are the ascenders and the bottom of the letter g is the descender.

What is a Good typeface?
While considering Serif versus Sans Serif fonts, it must be noted that though Serif fonts are more stylish and may seem appealing to the eye, Sans Serif has been pretty much set as the standard usage. Serif was considered to be better for reading because it gave a feel of “running text” given its extended strokes. But due to the low resolution in most computers, these strokes are almost unnoticeable. Research now shows that Sans Serif works better on computer screens where as Serif works better on print where the strokes are far more visible.

The Punch Width needs to be consistent and “wide enough”. The X-height needs to be in proper proportion with respect to the Punch Width. Consider the image below:

→ departures  → departures
→ departures  → departures
→ departures  → departures

The blurred image below represents the view of old people with low vision power. As can be seen in the lower portion of the image, it is difficult to distinguish between the ‘e’ and ‘a’. This is due to inadequate punch width. If the font were wider then it becomes easy to distinguish between the two letters. The fonts below work out much better.

→ departures  → departures
→ departures  → departures
→ departures  → departures
The ascenders and descenders need to be more pronounced else it becomes indistinguishable. Consider the image below:

![image with examples of ascenders and descenders]

The ‘t’ in the blurred image are not easy to recognize because the horizontal bar in the ascender is not clear enough. Although the t on the left side is easy to distinguish because of its extended stroke at the end. On the right, the ‘t’ has no extended stroke, so it becomes difficult to differentiate it from a ‘i’. Besides the above main criterion, it is also necessary to work on the size, line spacing, bold texts, italic texts, letter spacing, alignment, etc. These are factors which are now controlled in the CSS style sheets.

A note on Accessibility

The previous sections talk a bit on the accessibility issues to be considered especially in case of the elderly. As vision declines with age, there are problems with loss of light and loss of focus. The Americans with Disabilities Act (ADA) has set a list of guidelines including setting the body-width to height and stroke-width to height ratios for the use of appropriate typefaces. It has also come out with its own typeface called APHont. (left)

![sample of APHont Regular (nonbold)]

This is a sample of APHont Regular (nonbold):
The quick brown fox jumped over the lazy dog.

![American Printing House for the Blind’s typeface APHont.]

The Appropriate Typeface

The Software Usability Research laboratory (SURL) [1] has been carrying out some interesting research on typefaces. They have presented various papers on typefaces including one on associating typefaces with personalities. This study clearly shows that there are different typefaces for different usage purposes. Some work better and are better suited for a given context even if it suffers from some accessibility issues. Though the use of Comic Sans is considered inappropriate for formal presentations and documents, they work perfectly well when presenting to children.

![example of Comic Sans MS and Bold]
There more papers available here [2][3][4] which discuss in detail about the appropriateness in using a particular typeface in resumes, companies and emails.

**Most Widely used Fonts**

Georgia, Verdana and Trebuchet were most popular in the 90’s and early 2000’s. Of late, Helvetica and Copperplate is gaining huge popularity. Most of the current popular websites use Helvetica for body content and Copperplate for headers. Arial is also very popular and still in use for main body content.

A list of the best 100 fonts of all time is put up here: [http://www.100besteschriften.de/](http://www.100besteschriften.de/)

**Conclusion**

There are plenty of options available for deciding on the fonts to be used for a given website. It is best practice to know your audience and consider the above design issues when going for new fonts. Nowadays websites come with the option of adjusting the font sizes. Maybe it is now appropriate to allow the user to select a font based on 3-4 choices.

Fonts are important. They should appeal to the user. They are just an integral part of UI design as any other. The research studies and the numerous websites providing free fonts and premium fonts for sale highlight the need for good, clean and aesthetically beautiful fonts.

**References**
