Usability News

Perception of Fonts: Perceived Personality Traits and Uses

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Summary: This study sought to determine if certain personalities and uses are associated with various fonts. Using an online survey, participants rated the personality of 20 fonts using 15 adjective pairs. In addition, participants viewed the same 20 fonts and selected which uses were most appropriate. Results suggested that personality traits are indeed attributed to fonts based on their design family (Serif, Sans-Serif, Modern, Monospace, Script/Funny) and are associated with appropriate uses. Implications of these results to the design of online materials and websites are discussed.

INTRODUCTION

Often credited with creating first impressions, fonts are typically classified according to unique typographical features (serif, sans serif, etc) and overall appearance. The combination of appearance and typographical features often lead graphic artists and typographers to describe typefaces using personality traits ("less cuddly, more assertive," Berry, 2004). In a BBC audio program (Peacock, 2005), fonts were depicted as feminine and masculine, among other traits. Feminine fonts were described as fine, serifed, sleek, and elegant; masculine fonts were characterized as being blocky and bold.

Most empirical research concerning fonts focuses on the legibility or readability with little concern for the perceived personality of typefaces. Typographers and designers are often interested in the typeface personality or "typographic allusion" which refers to "the capacity of a typestyle to connote meaning over and above the primary meaning which is linguistically conveyed by words" (Lewis & Walker, 1989, p. 243).

Brumberger (2003) describes the Bauhaus school of design and their belief that the "content and purpose of the text should dictate the design – the form – of a document, and that form, including typography, should express the content just as the verbal text itself expresses content" (p. 207). Within communications research, many experts suggest that typefaces can convey mood, attitude, and tone while having a distinct persona based on the font's unique features. Each document should be rendered in a font that connects the mood, purpose, intended audience, and context of the document.

While there are a few studies regarding the perceived personality of typefaces in printed text, there are virtually no similar studies regarding text presented onscreen. Similarly, little research has evaluated user perceptions of what fonts are appropriate for digital uses. With the increased use of the Internet and other forms of media, there is a mounting need to establish user perceptions of typeface persona and perceived uses for documents delivered in digital format.

Purpose

The purpose of this study was to determine whether or not participants consistently attribute

personality traits to a variety of fonts presented onscreen. We also attempted to determine if participants associate fonts with particular onscreen uses.

METHOD

Participants

Participants completed the survey in two parts (personality and uses). A total of 561 participants completed Part A (Personality) of the survey, and 533 completed Part B (Uses). For both parts of the survey, 72% of participants were females and 28% were males. Approximately 60% of participants were full-time students; 45% of participants were in the 20-29 year old age group, and 20% were in the 30-39 year old group. Eighty-one percent of the participants reported visiting websites daily. Approximately 46% of respondents indicated they spend 2 to 6 hours per week reading on the Internet.

Materials and Procedure

An online survey was used to collect the data (http://www.shaikh.us/fontstudy/). PHP and mySQL were used to construct the survey to allow for randomization of stimuli. Participants were provided with a consent form online. The survey took approximately 40 minutes to complete and consisted of a demographic questionnaire followed by two parts. Part A asked participants to rate 20 font samples using 15 personality adjective pairs based on a 4-point Likert scale. In Part B participants viewed 20 font samples and indicated whether they would use the font for 25 different digital uses.

The 20 fonts used throughout the online survey are shown in Figure 1. The fonts chosen included samples of serif fonts (Cambria, Constantia, Times New Roman, & Georgia), sans serif (Calibri, Corbel, Candara, Arial, Verdana, & Century Gothic), scripted/fun fonts (Rage Italic, Gigi, Comic Sans, Kristen ITC & Monotype Corsiva), monospaced fonts (Consolas & Courier New), and display or modern fonts (Impact, Rockwell Extra Bold, and Agency FB). Cambria, Constantia, Corbel, Candara, Calibri, and Consolas are new ClearType fonts developed by Microsoft.

Cambria	Times New Roman	Gigi
Constantia	Arial	Kristen
Corbel	Verdana	Rockwell Extra Bold
Candara	Comic Sans	Rage Italic
Calibri	Century Gothic	Agency FB
Consolas	Courier New	Georgia
	Impact	Monotype Corsiva

Figure 1. Twenty font samples were used in the online survey.

In Part A, the participants saw a randomized sample of text (provided as an image) that included the alphabet, numerals, and common symbols rendered in 14-point as shown in Figure 2. The 15 personality adjective pairs used in Part A are shown in Figure 3. Personality research, adjective lists, and pilot testing were used to determine the final 15 adjective pairs used in the survey.

a b c d e f g h i j k l m n o p q r s t u v w x y z

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1 2 3 4 5 6 7 8 9 0 . : , ; (# ! ? ") @ # $ %

Figure 2. Sample of the text seen in Part A to assess personality traits associated with the

Stable ◯ ◯ ◯ ◯ Unstable	Polite ◯ ◯ ◯ ◯ Rude	Formal ◯ ◯ ◯ ◯ Casual
Flexible ◯ ◯ ◯ ◯ Rigid	Exciting ◯ ◯ ◯ ◯ Dull	Assertive ◯ ◯ ◯ ◯ Passive
Conformist ◯ ◯ ◯ ◯ Rebel	Attractive ◯ ◯ ◯ ◯ Unattractive	Cuddly ◯ ◯ ◯ ◯ Coarse
Creative ◯ ◯ ◯ ◯ Unimaginative	Elegant ◯ ◯ ◯ ◯ Plain	Masculine ◯ ◯ ◯ ◯ Feminine
Sad ◯ ◯ ◯ ◯ Happy	Youthful ◯ ◯ ◯ ◯ Mature	Practical ◯ ◯ ◯ ◯ Impractical

Figure 3. Fifteen adjective pairs were used to assess perceived personality of fonts. The scores were based on a 4-point Likert scale as shown.

Images showing one of three pangrams and the digits 0-9 were used in Part B to assess perceived uses of the fonts. The following pangrams were used (1) The quick brown fox jumped over the lazy dog. (2) Amazingly few discotheques provide jukeboxes. (3) Whenever the black fox jumped the squirrel gazed suspiciously. Display of the pangrams was randomized. The pangrams and digits were shown in both 12-point and 24-point for each font as shown in Figure 4. In Part B, the participants were asked to indicate whether they would use a font or not by clicking a checkbox (yes) or leaving it unchecked (no). Table 1 provides the 25 uses assessed in Part Three. Participants were allowed to choose as many or as few uses as they felt were appropriate; participants could also choose the option, "I would not use this font for any purpose."

The quick brown fox jumps over the lazy dog.
1234567890

The quick brown fox jumps over the lazy dog.
1234567890

Figure 4. Sample of pangrams and digits used in Part B to assess perceived uses of fonts. This sample shows the font Corbel.

Table 1. 25 uses were evaluated for each font.

Websites	Documents	Reading Material	Correspondences	School-Related	Other
Graphics/Logos	Business	eBooks	Email	Online Textbooks	Scrapbooking
Textual Content	Technical	Online Magazines	Instant Messaging	Assignments	Brochures
Advertisements	Children's	Online Scientific/ Research Journals	Letter/Memo	Online Tests	Computer Programming
Headlines	Math	Online News Articles	Electronic Greeting Card		Spreadsheets

		Short Stories			PowerPoint Presentation
I would not use this font for any purpose.					

RESULTS

Personality Traits. The 15 personality traits were collapsed into a mean personality score for each font. Principal Component Factor Analysis with Varimax rotation was used to form factors with eigenvalues exceeding 1.0. Analyses of scree plots and eigenvalues resulted in 5 factors as shown in Table 2. Fonts that shared typographic features (serif, etc) grouped together; but further means analyses of personality traits indicated the font groups also shared common personality traits. The Sans Serif fonts did not score extremely high or low on any personality traits. The Serif fonts scored highest on traits such as Stable, Practical, Mature, and Formal. Fonts in the Script/Funny factor had the highest means for Youthful, Happy, Creative, Rebellious, Feminine, Casual, and Cuddly. Masculine, Assertive, Rude, Sad, and Coarse were most associated with the Modern Display fonts. The final group, Monospaced, had the highest means for Dull, Plain, Unimaginative, and Conforming.

Table 2. Five font factors. Fonts are listed in order of factor loadings.

All Purpose Sans Serif	Traditional Serif	Happy Creative Script/Funny	Assertive Bold Modern Display	Plain Monospaced
Calibri	Constantia	Gigi	**Impact**	Courier New
Century Gothic	Georgia	Kristen	**Rockwell Xbold**	Consolas
Arial	Times New Roman	Rage Italic	Agency FB	
Verdana	Cambria	Monotype Corsiva		
Corbel		Comic Sans		
Candara				

Specific Personality Traits. Table 3 shows the fonts rated the highest for each personality trait evaluated in the survey.

Table 3. Top 3 fonts for each personality adjective.

	Top Three		
Stable	TNR	Arial	Cambria
Flexible	Kristen	Gigi	Rage Italic
Conformist	Courier New	TNR	Arial
Polite	Monotype Corsiva	TNR	Cambria
Mature	TNR	Courier New	Cambria
Formal	TNR	Monotype Corsiva	Georgia
Assertive	**Impact**	**Rockwell Xbold**	Georgia
Practical	Georgia	TNR	Cambria
Creative	Gigi	Kristen	Rage Italic
Happy	Kristen	Gigi	Comic Sans
Exciting	Gigi	Kristen	Rage Italic
Attractive	Monotype Corsiva	Rage Italic	Gigi
Elegant	Monotype Corsiva	Rage Italic	Gigi
Cuddly	Kristen	Gigi	Comic Sans
Feminine	Gigi	Monotype Corsiva	Kristen

Feminine	Gigi	Monotype Corsiva	Kristen
Unstable	Gigi	Kristen	Rage Italic
Rigid	Impact	Courier New	Agency FB
Rebel	Gigi	Kristen	Rage Italic
Rude	Impact	Rockwell Xbold	Agency FB
Youthful	Kristen	Gigi	Comic Sans
Casual	Kristen	Comic Sans	Gigi
Passive	Kristen	Gigi	Comic Sans
Impractical	Gigi	Rage Italic	Kristen
Unimaginative	Courier New	Arial	Consolas
Sad	Impact	Courier New	Agency FB
Dull	Courier New	Consolas	Verdana
Unattractive	Impact	Courier New	Rockwell Xbold
Plain	Courier New	Impact	Rockwell Xbold
Coarse	Impact	Rockwell Xbold	Courier New
Masculine	Impact	Rockwell Xbold	Courier New

Uses. Data for the uses were analyzed using frequency analyses due to the dichotomous nature of the data. All uses except for computer programming had at least one font chosen as appropriate by 50% of the participants; 46% of participants chose TNR for computer programming. Approximately 28% of participants said they would not use Agency FB for any purpose listed. Over 20% of participants said they would not use any of the Modern Display fonts (Agency FB, Rockwell Extra Bold, and Impact).

The uses that had the highest consistency for individual fonts across participants are shown in Table 4.

Table 4. Uses with the highest consistency among participants. Percent saying "Yes, I would use this font."

Use	Font	%
Website Text	TNR	72%
	Calibri	70%
	Cambria	70%
Business Documents	TNR	78%
	Cambria	76%
Children's Documents	Kristen	78%
	Comic Sans	77%
E-Greeting	Monotype Corsiva	74%

Table 5 presents the top three fonts for each of the uses presented in the survey.

Table 5. **The top three fonts for each use. The lowest scoring font is also presented ("Last").**

Summary of Uses by Factor

Sans Serif Fonts. Users preferred Sans Serif fonts for Website Text (62%), Email (60%), and Online Magazines (56%). Sans Serif fonts were least preferred for Digital Scrapbooking (32%), Computer Programming (34%), and Math Documents (36%).
Uses for Serif Fonts. Users preferred Serif fonts for Business Documents (71%), Website Text (67%), and Online Magazines (63%). The three uses that were least associated with Serif fonts were

Scrapbooking (28%), Children's Documents (34%), and E-Greetings (38%).

Script/Funny Fonts. Digital Scrapbooking (61%), E-Greeting (60%), and Website Graphics (53%) were rated as the highest uses for this group of fonts. The Script/Funny fonts were not preferred for Computer Programming (2%), Scientific Documents (3%), Spreadsheets (3%), and Math Documents (3%).

Modern Display Fonts. The three uses rated the highest by users for Modern Display fonts were Website Graphics (47%), Website Headlines (44%) and Website Advertisements (44%). The uses least often chosen for this group were Online Tests (9%), E-Books (9%), Spreadsheets (10%), and Online Assignments (10%).

Monospaced Fonts. Users chose Technical Documents (45%), Computer Programming (40%), and Math Documents (40%) as the highest uses for Monospaced fonts. The uses receiving the fewest votes were Digital Scrapbooking (18%), E-Greeting (21%), and PowerPoint (22%).

DISCUSSION

The results from the online survey resemble previous research based on print samples. Users consistently attributed personalities to fonts displayed onscreen. The 20 fonts chosen for this survey resulted in five factors based on prevalent personality traits. The factors each contained fonts that were related by typographic features. The factors provide designers with some guidance in terms of which type of font is best suited to differing personality expressions. Such knowledge can be used to set the tone of online documents.

The factors found using the personality data were used to analyze the uses from Part B of the survey. Uses were summarized across the factors in order to provide designers with overall guidelines concerning the use of fonts. Sans Serif and Serif fonts were most likely to be appropriate for items that are typically read onscreen. Artistic elements and children's documents were seen as appropriate uses for the Script/Funny fonts. Modern Display and Monospaced fonts were not particularly high on any use. The choices of fonts for uses can be seen as related to the personality of the fonts. The Script/Funny fonts scored high on Youthful, Casual, Attractive, and Elegant traits which are all related to Children's Documents and artistic elements. The Serif and Sans Serif fonts were seen as more stable, practical, mature, and formal; the uses they are appropriate for fit these characteristics.

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