



Common Visual Design Elements of Weblogs

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Weblogs (blogs) have been heralded as a new space for collaborative creativity, a medium for breaking free of the constraints of previous forms and allowing authors greater access to flexible publishing methods. This generalization seems extreme: genre studies done by Crowston and Williams (2000) and Shepherd and Watters (1998) lend credence to the notion that weblogs are evolutionary descendents of other visual media, such as newspapers and pamphlets.

Previous work on weblogs has largely focused on the nature of weblogs as textual artifacts. Authors such as Dave Winer (2001), Meg Hourihan (2002), and Rebecca Blood (2000; 2002) have focused on "voice," essayistic style, "community," and a pantheon of other concepts drawn from preexisting rhetorical, journalistic, sociological, and linguistic frameworks. This focus, while admirably productive, does not fully map the potential landscape of weblog research. In particular, such textual foci slight visual factors that may contribute almost as much "style" to weblogs as the particular textual practices (c.f. "voice") of individual authors. To our knowledge, very little work has been done to date that examines either the visual elements of weblogs or the relationship between the visual and textual elements of those same sites.

The availability of visual design elements - division of the screen into columns, image use, color and typeface choice (Hagerty, 1996) - along with the placement of elements on the page permitting meaning to be suspended in the visual (Lacan, 1998), allows for non-textual self-expression. Visual design inhabits "the field of vision, which is much wider arena than a sphere for the circulation of images or question regarding the nature of representation" (Rogoff, 1998, p. 31). An informal survey of weblogs reveals that new users of the medium have adopted fewer "innovations" than their forbears: as notions of what constitutes a "weblog" concretize, the creative use of visual and hypertextual features seems to be in decline. Design innovations breaking out of a certain "acceptable" visual style are increasingly rare, while weblogs that conform to expectations - three-column, smaller text down the side, prominent header and footer, some links and sparse image use (Herring, Scheidt, Bonus, & Wright, 2004)- continue to be created. Detailed analysis suggests that adult males are most likely, for example, to use unique templates, with teenage females ranking second in their use of customized templates. New weblogs often appear simpler than older weblogs.

In this study, we apply content-analytic methods (Bauer, 2000) to a random sample of weblogs as a means of exploring current visual trends within the blogosphere. Detailed coding for the presence of common structural, visual features allows correlation of those trends with the demographics of content producers.

Literature Review

Martin Bauer's work on classical content analysis (2000) serves as an introduction to the theoretical underpinnings of content analysis. Because it discusses the practical grounds on which coding categories are established, it contributes directly to the methodology of the examination of visual features of weblogs.

Content analysis methodologies rely heavily on the genre classifications to which individual texts (in the semiotic, rather than the literary or textual sense) have been assigned. Work by Crowston and Williams (2000) provides an analysis of the transfer of print and offline genres to

the World Wide Web. They argue that some genres are reproductions of their offline counterparts, while others emerge naturally in order to take advantage of the technical affordances provided by the web. The previous work of Shepard and Watters (1998) on the evolution of cybergenres - defined by the manner of content, the form in which it is encoded, and the functionality being provided - also must play a significant role in genre-based analyses of visual design practices within the weblog community.

Robert Hagerty's "The Elements and Principles of Visual Organization" (1996) also supports our use of content analysis and genre studies methodologies. He suggests that visual literacy relates to the notion of a "line" - "Line is the path of a moving point in space. Lines create edges and boundaries. It depicts movement" (p. 274). In a similar fashion, he comments on the tendencies of certain kinds of structural elements to cause certain reactions: "Horizontal lines suggest rest, quiet, and calm. The human body rests and slips in horizontal position [...] Vertical lines suggest the state of alertness and attention. Soldier standing at attention is a vertical position" (p. 275). This initial set of design criteria - using the "line" as a building block upon which other structures can be built - supports the notion of "zoning" or subdividing a page into regions for further analysis.

Methodology

Sample

The study is based on a random sample of 154 weblogs collected during September 21, 2003. By collecting this sample during a very narrow window of time, we hoped to establish a "snapshot" of the state of some features of the blogosphere. In order to reduce bias in our data collection, we chose to use the "random blog" feature of the blog-tracking website <http://blo.gs/>. The particular data sample upon which this study is based was originally gathered for use in another project by the [Blog Research on Genre \(BROG\) group](#) at Indiana University. We selected the blo.gs site as a primary data source because it tracks a large number of weblogs from diverse sources, including antville.org, blogger.com, pitas.com, weblogs.com, and individual bloggers. Blo.gs takes advantage of the fact that much of current blog software can be configured to "ping" (sending a message to a central hub - usually weblogs.com) when bloggers update their sites. Weblogs included in this analysis were limited to those written in English. Photo and audio weblogs that did not contain a significant amount of text were also excluded from consideration.

Data Collection and Analysis

We employed techniques from classical content analysis and computer-mediated discourse analysis (CMDA) to analyze the collected data. A grounded theory approach was used to develop a coding scheme consisting of 23 elements. We also coded for the demographic characteristics (gender and age) of the blogger. Content coding was carried out by both authors, with 77 weblogs being coded by each author. Content-analytic methods (Bauer, 2000) were then used to extract descriptive statistics from the coded data.

Discussion

Single author weblogs predominate in this corpus with 147, while seven have two or more authors. Seventy-one of the single author weblogs have male authors (48.3%), while 73 are female bloggers (49.7%). Of the seven multiple author weblogs; two have all male authors, one has all female authors, and four have both male and female authors. In our experience, both this gender distribution and the percentages of the sample allocated to single-author and multi-author blogs are typical of other random sampling of weblogs during this period.

Summary statistics of element incidence across all coded categories are provided in Table 1. Coding scheme elements will be discussed individually.

Code	Incidence across all Weblogs
CMC elements	51.90%
custom images	43.50%
color in headings/titles	41.60%
custom colors	40.30%
color alteration	33.80%
custom table borders	24.70%
custom banner	22.10%
data representations	18.20%
color bars	17.50%
custom font	12.30%
graphical dividers	7.80%
graphical dividers	7.80%
color clash	6.40%
smilies	4.50%
per-post icons	3.90%
photo background	3.90%
text effects	3.20%
language	2.60%
too wide	2.60%
scrolling headers	1.90%
custom calendar layout	0.60%
custom cursors	0.60%
music	0
video	0

Table 1

Computer-mediated communication (CMC) elements - including email addresses, instant messenger (IM) contact information, tag boards, message boards, and guestbooks - are present in 51.9% (n=80) of the weblogs analyzed. Male webloggers employed a higher percentage of CMC elements than females, 50.0% (n=40) for males to 47.5% (n=38) for females with 2.5% (n=2) of unknown gender.

Color alterations, changing the base color of a common weblog template, are present in 33.8% of the weblogs (Figure 1). Of those that used templates that had been altered for color, 57.7% (n=30) had female webloggers while 40.4% (n= 21) had male webloggers and one of unknown gender (1.9%).



Figure 1

Color bars, custom horizontal or vertical rules between entries made up of color(s) only, were present in 17.5% (n=27) of the weblogs analyzed (Figure 2). The use of color bars was evenly split between males and females (n=13) with one of the multiple weblogger weblogs displaying this design feature as well (3.7%). We perceive that this is primarily an aesthetic decision, rather than one that is technologically determined.

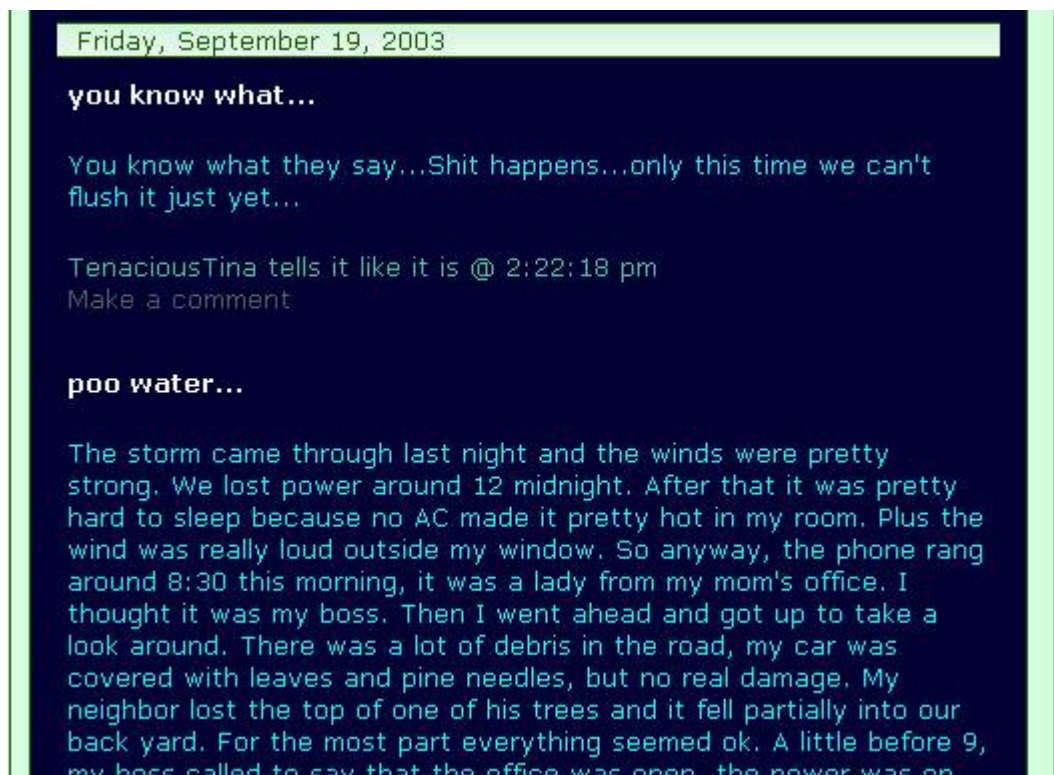


Figure 2

Colors that clash were present in 6.4% of the weblogs (n=18) (Figure 3). Colors that clash were defined for coding purposes as color schemes that distracted from the visibility of the words, and more specifically those color schemes that register first visually, before one realizes that there is associated text. This characteristic was present more often in weblogs by females, 55.6% (n=10), than in those by males 44.4% (n=8).



Figure 3

Colors in titles and headings, any color other than black or white, are present in 41.6% (n=64) (Figure 4). Male webloggers utilize 51.6% (n=33) of the colored text headings, while female webloggers 40.6% (n=26) used colors other than black and white. Unknown gender webloggers and weblogs with multiple webloggers account for 7.8% of those using color in their text headings, 3.1% (n=2) and 4.7% (n=3) respectively.



Figure 4

Custom banners were present in 22.1% (n=34) of the weblogs (Figure 5), with slightly more males than females utilizing this characteristic, 47.1% (n=16) for males and 41.2% (n=14) for females. Unknown gender and multiple blogger categories accounted for four custom banner weblogs (5.9% each). One might interpret this as a very low level of customization, since having a custom banner is one of the more visible aspects of the weblog and might be used in order to make a particular blogger's site memorable.



Figure 5

One weblog (0.6%) utilized a custom calendar design in their weblog (Figure 6). The weblog that exhibited this characteristic was operated by a male weblogger.

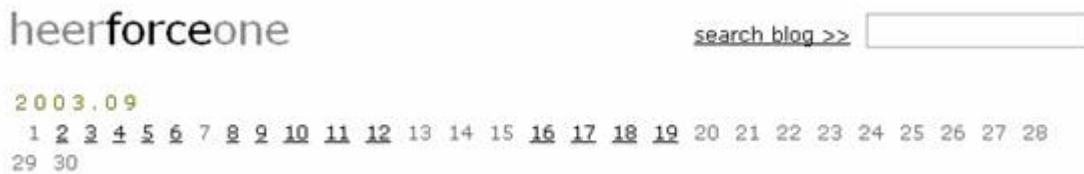


Figure 6

Custom color text was present in 40.3% (n=62) of the weblogs analyzed (Figure 7). Female webloggers used significantly more color with 58.1% (n=36) of the weblogs displaying this customization. Male webloggers used only 38.7% (n=24) of the custom color, while multiple weblogger weblogs used 3.2% (n=2).



Figure 7

One female weblogger (0.6%) utilized a custom cursor, specifically [Comet Cursor](#) that followed the cursor movements with a trail of stars.

Custom fonts were present in 12.3% (n=19) of the weblogs (Figure 8). Female bloggers utilized 52.6% (n=10) of the custom fonts, while 42.1% (n=8) were used by male bloggers and unknown gender bloggers accounted for 5.3% (n=1).

Friday, December 05, 2003

time to state the obvious.

the grammys suck.

thank you.

[Whip Me](#)

#12:47 AM

Figure 8

Custom images were found in 43.5% (n=67) of the weblogs analyzed (Figure 9). Image use was nearly evenly split between weblogs of male and female bloggers. Males utilized 47.8% (n=32) of the images, while 46.3% (n=31) were posted by female bloggers. Images were posted on three (4.5%) of the weblogs being operated by multiple bloggers. One blogger of unknown gender (1.5%) utilized custom images in their weblog design.



Figure 9

Thirty-eight (24.7%) of the weblogs had custom table borders (Figure 10). Of these weblogs 57.9% (n=22) with custom table borders were found in weblogs by female bloggers, while 39.5% (n=15) were by male bloggers. One weblog with multiple bloggers (2.6%) also used custom table borders.



Figure 10

Data representations such as counters, [WeatherPixie](#), and quizzes such as [Quizilla!](#) are present in 18.2% (n=28) of the weblogs (Figure 11). Female bloggers posted 60.7% (n=17) of the data representations found in the corpus, while male bloggers posted 39.3% (n=11).

The Dante's Inferno Test has banished you to *the Third Level of Hell!*
Here is how you matched up against all the levels:

Level	Score
Purgatory (Repenting Believers)	Low
Level 1 - Limbo (Virtuous Non-Believers)	Low
Level 2 (Lustful)	Low
Level 3 (Gluttonous)	High
Level 4 (Prodigal and Avaricious)	Moderate
Level 5 (Wrathful and Gloomy)	High
Level 6 - The City of Dis (Heretics)	Low
Level 7 (Violent)	Moderate
Level 8 - the Malebolge (Fraudulent, Malicious, Panderers)	Moderate
Level 9 - Cocytus (Traacherous)	Low

Take the Dante's Inferno Hell Test

Figure 11

Graphical dividers, custom horizontal or vertical rules between entries made up of images or another non-color based divider, were found in 7.8% (n=12) of the weblogs (Figure 12). Female webloggers utilized 75.0% (n=9) of the graphical dividers. Male weblogger weblogs displayed 16.7% of the graphical dividers found in the data, while one multiple weblogger weblog (8.3%) had graphical dividers.



Figure 12

Four (2.6%) of the weblogs used more than one language. All four presented text in a combination of English and Singlish¹ (Figure 13). Additional all four weblogs had female webloggers.

Thirty, Singapore Roads are not designed to race. Pls go Gudang and show off ur skills. Dun kill others in the process.

I'll certainly pray for you, the driver, may you recover soon. GOD BLESS! --Concerned Sebok

DONG Tattooed This Here On 5:27:17 AM
[No One Heard](#)

Lord, I must confess that I had not been to the church for months. Forgive this sinner, lord, for he have not forgotten you just yet. In his heart, he prays for your forgiveness and yearns for your blessings. You'r

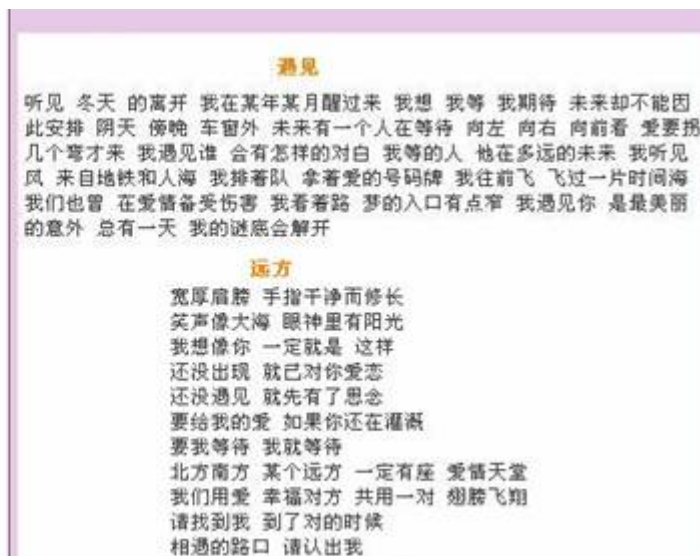


Figure 13

As a part of this study, the use of music played when the weblog was accessed or in navigating through the weblog was included as a coding category. We had previously seen a few blogs that included this feature - enough to think that it might be something we needed to specifically identify and account for. However, we found no instances of music use in the sample being analyzed. .

Pre- and post-icons, or icons in the header and footer of posts, were used by 3.9% (n=6) of the webloggers. Fifty percent (n=3) of the weblogs with pre- and post-icons had female webloggers. Male webloggers used 33.3% (n=2) of the pre- and post-icons, while a single unknown gender webloggers accounted for 16.7% of their usage.

Six webloggers (3.9%) added photographic backgrounds to their weblogs (Figure 14). All six of these weblogs had female webloggers.



Figure 14

Three of the weblogs (1.9%) used scrolling headers, marquee, in their designs. Female webloggers used 66.7% (n=2) of the scrolling headers while a male weblogger (33.3%) used one.

Graphical smilies were used in 4.5% (n=7) of the weblogs (Figure 15). Female webloggers used 57.1% (n=4) of the smilies present. Male webloggers displayed 28.6% (n=2) of the graphical smilies while an unknown gender weblogger (14.3%) used a smilie in their presentation.



Figure 15

Five female bloggers (3.2%) used text effects in creating their webpages. Text effects were defined for coding purposes as drop shadows, embossing, etc. used as an effect in an image composed of text.

Four female bloggers (2.6%) used page designs that required some amount of scrolling to the right to see the entire page. Often the scrolling did not reveal additional text or graphics.

The coding scheme developed for this project included codes for instances of video usage on weblog pages; however, no instances were found in this data set.

Table 2 presents the gender and age breakdown for those using standard weblog design templates. Standard weblog templates are defined as those lacking customization features coded for in this project.

	Male		Female		Total
Unknown Age	2	14.3%	1	7.7%	3
Adult	6	42.9%	1	7.7%	7
Teen	2	14.3%	7	53.8%	9
Emerging Adult	4	28.6%	4	30.8%	8
Total	14		13		

Table 2

Teenage females utilize the highest percentage of standard templates with 53.8% of female bloggers using standard templates falling into this group. Adult males follow with 42.9% of all male bloggers utilizing standard weblogging templates.

Table 3 illustrates the breakdown by gender and age group for those using customized weblogging templates. Customized weblogging templates are defined as templates that show one or more customization areas as found in the coding scheme for this study.

	Male		Female		Total
Unknown Age	5	8.9%	4	6.8%	9
Adult	29	51.8%	13	22.0%	42
Teen	11	19.6%	30	50.8%	41
Emerging Adult	11	19.6%	12	20.3%	23
Total	56		59		

Table 3

Adult males utilize the highest percentage of customized templates with 51.8% of male bloggers using customized templates falling into this group. Teenage female bloggers follow with 50.8% - or just over half - of female bloggers with customized templates falling into this group. It merits some comment that the males and females in the "emerging adult" category are almost equal in number, with the greatest disparity being between males and females in the "teen" and "adult" categories, where adult males and teen females predominate.

Conclusion

One pattern clearly emerging as a result of this research is that individual bloggers do not tend to make substantive structural changes to the layout of their sites. This confirms one of the

predictions / observations leading to this study: that "significant" customization among weblog users is in fact somewhat rare. Certain changes, such as the use of altered colors or of simple alterations to standard templates, dominate. We believe that this preponderance of altered color comes as a result of the simplicity of making those changes: Webloggers wishing to change colors must merely find the bit of their current template that defines the colors and replace a few values. Little, if any, HTML knowledge is required in order to make these changes. The high frequency of image use is also related to the lack of difficulty of including simple images in weblog posts. More complex changes, of course, may require either extensive knowledge of HTML or programming skills.

A second pattern we have observed is the frequency with which design schemes used by consumers of popular weblog software are simply minimally modified versions of templates provided by software selected by the end user (particularly Blogger, but also Movable Type and Radio Userland, among others). As a part of the process of this study, we noticed that we were often quite reliably able to guess which software was driving a particular site (85+% of the time). It is possible that many users see no reason to further customize their weblogs, or simply lack the technical expertise to do so.

Within certain social groups, the scarcity of customized weblogs is in itself interesting. Within the demographic of adult males, 42.5% have made no discernable changes to their weblog templates. This works in opposition to the stereotype of the "adult male techie," likely to make changes and act as an early adopter of technologies. With the "teen female" demographic, the 53.8% measure of those who use standard templates does not seem significantly different than that of the "adult male" population.

One final observation we must make is that an overwhelming proportion of the customizations we observed came in some sort of sidebar - an area running vertically down the web page but with less visual prominence than the main content area (where most weblog posts occur). In many cases, this area is where color customizations are made, images are included, and where CMC features (form fields, links to RSS and RDF feeds, poll boxes, and blogrolling elements) are placed by end-users.

Future Work and Predictions

Multivariate and factor analysis should be used to verify interpretations of the simple statistics that we have extracted. Future researchers may want to focus on the ways in which users place elements into the sidebar of their individual weblogs, in order to produce a generalizable theory which can account for that behavior.

As a general prediction, we believe that the number of weblogs with significant visual customizations is unlikely to change substantially in the near future. The growth rate of weblogs is still increasing, and we observe that the population of new users is less likely to be comfortable with the process of customization than those users who have a great deal of familiarity with technology and the weblog format.

We believe that more detailed ethnographic information, probably gathered via interviews or survey methods, might allow for some enlightenment with regard to the internal motivations of weblog users as they construct and revise their sites over time. At present, we know of no research that is addressing either the technological choices being made by weblog users or the social imperatives that drive their behaviors. We presume that the amount of individual customization may increase as the technological skills of the users advance, but that this customization may also become more prevalent on the web as software interfaces continue to evolve.

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¹ Singlish, or Singapore Colloquial English, is the combination of English with the native language of Singapore, including Chinese and Malay (Gupta, 2003).