

HTML Email Text Font Readability Study

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Web Marketing Today, March 1, 2001

In February 2001 my Doctor Ebiz readers patiently answered survey after survey to help me determine what they considered the most readable fonts and sizes for HTML e-mail. While this may come as no surprise to you, it is causing me to change my standards.

Readability between Serif and Sans Serif

Common wisdom developed over centuries is that serifs, the little horizontal lines at the tops and bottoms of characters, make text easier to read. That is why nearly all books, magazines, and newspapers use a serif font such as Times New Roman or Bookman. The fallacy, however, is the assumption that serif fonts are easier to read in any medium. In fact, the computer screen is a much different medium than the printed page. The resolution is much less, about 72 dots per inch (dpi) for the computer screen vs. 180 dpi or 300 dpi or even higher for printed matter.

We conducted two separate surveys with serif typefaces. First we compared Times New Roman 12 pt., the default for many Web browsers, with Arial 12 pt.

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Times New Roman 12 pt	Arial 12 pt
520	1123
32%	68%

I was a bit shocked by the 2 to 1 results, since I had been led to believe that serif fonts were more readable. In the next test I compared two serif fonts, and gave viewers an option "could not distinguish between the two."

This time I didn't identify the typeface by name, but only by letter so people didn't necessarily know what face they were seeing. I compared Times New Roman 12 pt. with Georgia 12 pt., a serif typeface developed by Microsoft especially for screen readability. However, my results showed that Georgia is not available on as many computers as Times New Roman or Arial, since the "could not distinguish" response was significant.

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Times New Roman 12 pt	Georgia 12 pt	Could not distinguish
421	656	190
33%	52%	15%

While Georgia seemed to be substantially more readable than Times New Roman, the number of users that did not have Georgia font installed on their computer seemed to be significant at 15%. And since Arial was strongly preferred over Times New Roman, I moved to examining the readability of Sans Serif fonts.

Readability of Sans Serif Fonts

Another font that Microsoft developed to increase screen readability is Verdana, and it seems to be much more widespread among computer users, even Mac users, than Georgia. My first test pitted Arial 12 pt against Verdana 12 pt.

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Arial 12 pt	Verdana 12 pt	Could not distinguish
803	653	56
53%	43%	4%

Verdana has a much more open letter and takes up more space than Arial, which contributes to its readability, but at 12 pt. respondents still showed some preference for Arial (53%) over Verdana (43%). The fact that only 4% couldn't distinguish between the two indicated that both fonts are widely installed on computers.

Size and Readability of Sans Serif Fonts

Finally, I tested readability vs. size for Arial vs. Verdana, and came up with an interesting result.

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	magficati alorem.	
Arial 12 pt	Verdana 12 pt	Could not distinguish
415	283	10
59%	40%	1%
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Arial 10 pt	Verdana 10 pt	Could not distinguish
239	456	13
34%	64%	2%
Lorem ipsum frangali puttuto rigali fortuitous confulence magficati alorem. Lorem ipsum frangali puttuto rigali fortuitous confulence magficati alorem.	Lorem ipsum frangali puttuto rigali fortuitous confulence magficati alorem. Lorem ipsum frangali puttuto rigali fortuitous confulence magficati alorem.	
Arial 9 pt	Verdana 9 pt	Could not distinguish
152	527	29
21%	74%	4%

I also asked respondents which sizes of Arial and Verdana were "too large" for body text type and "too small" for body text type. These were the answers:

	Verdana 12	Arial 12	Verdana 10	Arial 10	Arial 9	Verdana 9
Too Large	450	98	24	10	34	41
	64%	14%	3%	1%	5%	6%
Too Small	5	19	50	142	599	479
	1%	3%	7%	20%	85%	68%

Both approaches showed the same conclusion. At the 12 point size, Arial is preferred for readability 6 to 4, while two-thirds of respondents see Verdana 12 pt. as too large for body text. But at 10 pt. and below, the readability preference shifts to Verdana. At 10 pt. Verdana is preferred over Arial for readability 2 to 1. And at 9 pt. Verdana is preferred over Arial for readability by a 3 to 1 margin.

The study seems to indicate that a newsletter set in Verdana 10 pt. is considered "not too small" by 93% of readers. Verdana 9 pt., however, is considered too small for body text by two-thirds of the respondents.

My Conclusions

My readers clearly prefer sans serif fonts to serif fonts for body text. Therefore, in my HTML e-mail newsletters -- and on my websites -- I am moving toward 12 pt. Arial for body text, and Verdana for 10 pt. and 9 p. fonts. I haven't done adequate studies comparing Georgia against Verdana for readability, but since Georgia isn't as widely installed as Verdana, I plan to stick with Verdana. For headlines I'll continue to use larger bold Verdana fonts.