

Typographic Design For Computerized Text

Most computers (and most computer users) produce English text. Ever since Gutenberg, people have studied how to make that text more readable, since readable text gets its message across quickly and effectively.

When most people think of typography, they think of stylistic issues such as fancy “display” typefaces: Old English, Calligraphy, and so on. But the scientific study of typography does not focus on decorative typefaces used for headlines and short messages. Instead, it concentrates on “body type,” the main text that appears, paragraph after paragraph, in long documents. It’s this text where small differences in readability make a large difference in effectiveness, and it’s here where typographic researchers have done years of perception experiments with people and have developed some rules of good typography.

You should learn these rules of good typography because you want people to read the documents you produce and you want them to understand what you’re saying. It’s hard enough to get your point of view across without throwing additional roadblocks in the reader’s way, but ignorance or carelessness about typography rules does exactly that.

Until recently (really, until the advent of the Macintosh), most of the rules of good typography were beyond the control of the average computer user. That made it ever so much more important for the user to control those aspects that *were* in his or her control. But modern word processing systems allow the user much more flexibility, and it’s up to the user to take advantage of that freedom intelligently rather than using every available feature willy-nilly in a single document.

Basic principle: Good typography helps the reader distinguish among different things. Different letters are easy to tell apart, words are clearly separated from one another, the reader can easily move from one line to the next without getting lost or distracted, it’s easy to see where paragraphs and sections begin and end, and so on. The rules we set forth below all stem from this one basic principle.

Single-character (typeface) rules: The rules in this first category apply to individual letters and symbols—typically to the typeface you choose.

— Mix upper and lower case rather than using ALL UPPER-CASE LETTERS. The upper-case letters are more uniform in height, and thus harder to distinguish. Early mainframe computers typically produced all upper-case output; many still do.

— Use a proportionally-spaced typeface rather than a monospace typeface, in which every letter from “i” to “w” has the same width. The differences in width make the letters more distinguishable. Before the Macintosh, most computers had typewriter-like monospace typefaces for output.

— Use typefaces in which the widths of the strokes that make up the letters varies rather than one in which every line in every letter has a uniform thickness. Variable stroke width also helps distinguish between letters.

Thick strokes (circled)



Thin strokes (boxed)

— Use typefaces with serifs (the tiny stroke-ending flourishes at the tops and bottoms of most letters) rather than typefaces without serifs (“sans-serif” faces). Serifs help the reader distinguish between letters.

Serifs (circled)



Whole-line and paragraph rules: The rules in this category apply to lines and paragraphs of text.

— Limit lines to 10–12 words (about 75 characters) in length; with longer lines, the reader’s eye can wander when moving from the end of one line to the beginning of the next.¹

— Choose unjustified (“ragged-right”) margins over justified (“flush-right”) margins; this keeps the spaces between words uniform and helps the reader distinguish one line from the next.² Justifying margins requires adding additional space between words on a line. At best, this makes the space between words differ from one line to the next. At worst (and you should *never* tolerate this), justified margins with a monospace typeface usually means that spaces are added between words in whole-character increments, so that some spaces between words on a single line may be one character wide while other inter-word spaces on the same line may be two characters wide; this is the cardinal sin of computerized typography because it produces widely varying gaps between words on a single line.

The sun did not shine, it was too wet to play, so we sat in the house all that cold, cold wet day. I sat there with Sally, we sat there, we two, and I said, “How I wish we had something to do.” Too wet to go out and too cold to play ball, so we sat in the house. We did nothing at all.

And then something went, “Bump!” How that bump made us jump! We looked and we saw him step in on the mat. We looked and we saw him: The Cat in the Hat. And he said to us, “Why do you sit there like that?”

Ragged-right
(unjustified)
margins

Flush-right
(justified)
margins

The sun did not shine, it was too wet to play, so we sat in the house all that cold, cold wet day. I sat there with Sally, we sat there, we two, and I said, “How I wish we had something to do.” Too wet to go out and too cold to play ball, so we sat in the house. We did nothing at all.

And then something went, “Bump!” How that bump made us jump! We looked and we saw him step in on the mat. We looked and we saw him: The Cat in the Hat. And he said to us, “Why do you sit there like that?”

Further reading: *The Mac is Not a Typewriter, The PC is Not a Typewriter, and The Non-Designer’s Design Book*, all by Robin Williams (Peachpit Press).

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1. Note that this document, even though it has relatively wide margins, has lines that are a bit longer than this rule allows. Unfortunately, 8 1/2 inches is an awkward size for text output; nobody thought about typography when they decided on the 8 1/2-inch standard. Happily, many word processing systems today are sophisticated enough to allow multi-column output, in which each column can be a more readable width. As a further illustration on the subject of line length, notice how much harder it is to read this footnote than to read the body of the handout. That isn’t simply because the type is smaller; it’s because the lines are longer: They contain more characters than the lines in the body of the document.
2. Despite this rule, most books and many other typeset, published materials do use justified margins, because for longer documents book designers prefer the uniform look that justified margins give each page. While this choice does diminish readability somewhat, most published materials follow all the other rules of good typography, so the one deviation of justified margins has minimal effect. And many books today are being typeset ragged-right, as are more and more magazines and newspapers.