

Typography and Readability

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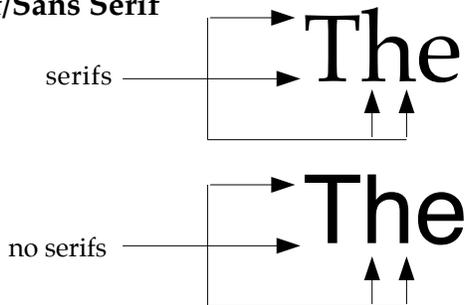
Readability

Reading is one of the more complex tasks we do and for people who have a hard time with it, controlling influential variables is important. Although content and writing style are only two of many variables that influence readability, they are extremely important. The way the page is bound in the book (a stiff spine makes it hard to read text near the inside margins), the way the writing is laid out of the page, the way the text is typeset all influence readability. Other influences are environmental: room lighting, reading posture, background noise, the mood of the person reading, his motivation, and many more.

Fonts

One of the wonderful things about Macintosh computers is that the user has control of the way text looks on the screen and on printed output. Most Macintosh applications have Font menus which allow the choosing of various fonts for pieces of text. Some fonts are more readable than others, and fonts lend themselves to different kinds of text layouts and so can be used accordingly. The Palatino font is used for the body of this handout and the title *Typography and Readability* is done in Helvetica.

Serif/Sans Serif



The Palatino font has serifs (serif).
The Helvetica font doesn't have serifs (sans serif).

Serifs improve readability of large bodies of type (such as books and newspapers) by making tracking from left to right easier. Fonts such as Helvetica without serifs are good for titles and headlines because they stand out and small chunks of text are easily decoded.

Size

Being able to control the size of type is important. Headlines or headings can be made bigger than body type to show a hierarchy of importance and to give the eye something easier to scan when moving through a series of ideas. One wouldn't want to read nine point type for long periods and making a line 36 point text would limit the number of words on a line such that reading quickly for meaning would be impaired. There's a middle ground somewhere between twelve and 18 point for most situations.

This is 9 point Palatino

This is 10 point Palatino

This is 12 point Palatino

This is 14 point Palatino

This is 18 point Palatino

This is 24 point Palatino

Style

The headings in this handout are the same font (Palatino) in bold. Bold (darker) words stand out and are easier to find on a page. You can use bold to highlight **key** words in a sentence as well as for headings. Use **bold** and other styles **consistently** and **frugally** for **best** results.

Case

Lower case letters are easier to read. Body type should be in mixed case (the bulk in lower case and upper case used for capitalization). People who type in all caps are either avoiding learning about capitalization, too lazy to take the caps lock key off, or they're old Apple II users who haven't unlearned the old habits formed in the days when there was only upper case. For materials that others will read, use mixed case. Some writing tools have menu commands for changing the case of a selection after its written.

THIS IS ALL UPPER CASE; IT IS HARDER TO READ.
This is mixed case; it is easier to read.

Proportional vs. Mono spacing (80 columns)

Some fonts are mono spaced fonts, others are proportionally spaced fonts. The difference is that with mono spaced fonts, all letters take up the same amount of width on the screen. An “i” has the same space as a “w” which is obviously wider. In the old days (a few years ago), all screens were divided into columns. In the MS DOS world, screens were 80 columns wide. This meant that they could display 80 characters across and that all letters fit in a column no matter what their width. So, all early screen fonts were mono spaced fonts (one width) and an “i” went in one column and a “w” in another of the same width.

Mono spaced fonts are harder to read because they make it harder to “chunk” words when scanning them from left to right. Within limits, the tighter the letters are together, the easier it is to see the whole word as a pattern and chunk it rather than read it letter by letter. Putting a lot of space between letters almost assures that readers will scan slowly and have a harder time chunking letters into words.

Proportionally spaced fonts give each letter a different width (proportional to the amount of lateral space it takes up) and so, an “i” and a “w” have different widths and are pushed closer together.

On a Macintosh, we no longer talk about an 80 column screen, because we have different width letters in most of our fonts and we can display the letters in various point sizes making the concept of columns useless (a line of two point type might have 200 columns and a line of 100 point type might have one).

Why have mono spaced fonts at all? Mono spaced fonts are easier to use on pre-printed forms, many programming languages use them because they make seeing indentation easier, and there are many other uses for them.

The two mono spaced fonts that come with every Macintosh are Monaco and Courier.

This is an example of Monaco
This is an example of Courier

All of the other standard Macintosh fonts are proportionally spaced. Notice the difference in the amount of space each line takes up in the example below.

This is a line of text (Courier)
This is a line of text (Palatino)

Column Width and Line Tracking

Assuming that the body typeface is 12 point, longer lines are harder to track for beginning readers than shorter lines (to a point). When a reader is using his/her finger to track, it’s easy to get lost on lines (up and down a line) when he/she is not reading for content and can’t intuit the next word. Shorter lines can help this.

Justification and Line Tracking

This text is formatted flush left, ragged right. It is the easiest line formatting to read in bodies of text. It is not always used because computer writing tools give users other options.

This text is formatted flush right, ragged left. It is sometimes used for text on the left side of a center margin or on the left side of a picture. It is rarely used though and makes reading large pieces of text harder.

This text is formatted flush right, flush left or, fully justified. This format is used often for newsletters, magazines, and books and is harder to read than ragged right. The reason is that when the text is flush on the right, one loses the ability to use line lengths as a tracking device. One of the hardest parts of learning to read (before you read for content and can intuit the next word) is getting from the end of one line to the beginning of the next. This diagonal tracking is made easier when the right edge of the text is ragged and there are some visual/spatial landmarks to anchor your peripheral vision to. Fully justified text makes it harder to perform this part of the reading task until you are reading for content and can guess the next word and so, look for it on the next line.

Choosing Reading Materials

Now that you have an idea of what goes into a page of text, you are in a better position to evaluate any printed materials that you are giving others to read. All print materials are not equal: some are designed well and highly readable, others are designed poorly and are less readable. All textbooks, pamphlets, workbooks, handouts, and other print materials that we give people to read should be easy to read: the form should fall into the background rather than be part of a problem in understanding.