

The Basics of Typography

Typography is a central component of design. It gives us an understanding of the heritage behind our craft. It's one of the primary ways we, as a society, pass on information to others. Imagine a website, a magazine or even TV without text. Typography is a subject that raises passions and it can become a consuming obsession. If this subject is relatively new to you, or perhaps something you want to know more about, then this guide can start you on that journey.

What Is Typography?

From a descriptive and simplistic point-of-view, **typography** is the arrangement of type. But there is so much more to it than that. It can mean different things depending on whom you ask.

For me, how typography is used in a design is deeply rooted in its overall theme, tone and message. It works with your layout, grid and color choice to create a well-rounded design.

Your choice of typefaces and your technique of setting type give your composition its character, pace and style. Not only does it give the copy legibility, it also helps the reader gain a greater insight into the subject of the design.

Typefaces vs. Fonts: Difference?

A lot of people use the terms “typeface” and “font” interchangeably. But they're two very distinct things. Before we get started talking about typography, let's get our terms straight.

A **typeface** is a set of typographical symbols and characters. It's the letters, numbers, and other characters that let us put words on paper (or screen). A **font**, on the other hand, is traditionally defined as a complete character set within a typeface, often of a particular size and style. Fonts are also specific computer files that contain all the characters and glyphs within a typeface.

When most of us talk about “fonts”, we're really talking about typefaces, or type families (which are groups of typefaces with related designs).

A simple illustration of how influential typography can be is to look at the same text with different typefaces. Notice how typography can define and alter the message:

- ❶ A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.

Typeface: Garamond
Weight: Regular
Size: 24pt
Leading: 30pt
Tracking: 25

- ❷ A HELICOPTER IS A TYPE OF
ROTORCRAFT IN WHICH LIFT
AND THRUST ARE SUPPLIED
BY ONE OR MORE ENGINE
DRIVEN ROTORS.

Typeface: Helvetica Neue
Weight: 35 Thin
Size: 24pt
Leading: 48pt
Tracking: -10

- ❸ **A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.**

Typeface: Futura
Weight: Bold
Size: 24pt
Leading: 28.8pt
Tracking: 0

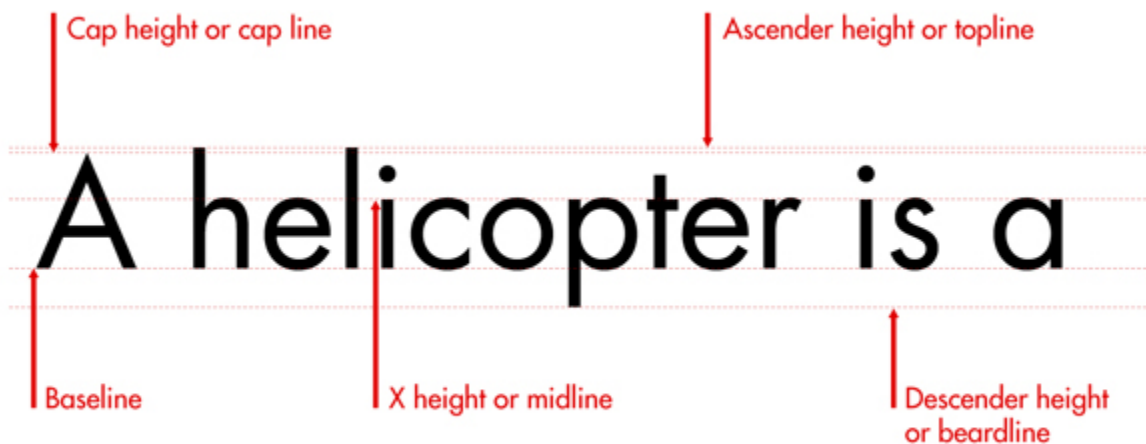
It's this level of integration with a design theme that makes typography one of the most powerful tools in the designer's toolbox.

Next, let's go through a few basic typography terms and concepts.

Lines

A line of characters has at least five lines that it can be aligned to. These horizontal lines are guides for capital letters, ascenders, lowercase and descenders (we'll discuss these terms shortly).

Here are the five lines:




- **Baseline:** The one you might be most familiar with is the baseline. This is the line that the text sits on.
- **Cap height (or cap line):** This marks the top of capital letters.
- **Ascender height (or topline):** This line shows where the top of letters such as *k* and *h* touch. Strangely, in a lot of cases, this line is slightly higher than the capital line. It took me a while to get this into my head because, intuitively, you would think that capital letters would be the tallest characters.
- **X-height (or midline):** This shows the height of lowercase letters (excluding ascenders and descenders). It is typically measured using the height of the letter *x*.
- **Descender height (or beardline):** Descenders are the parts of characters that go below the baseline (such as the letters *p* and *y*). This line shows where the bottoms of the decenders are.

Leading

Leading describes the amount of space between lines of text. You can measure leading by obtaining the distance between two baselines. Leading is called line-height in CSS.

A helicopter is a type of rotorcraft in which
lift and thrust are supplied by one or more
engine driven rotors.

A red double-headed vertical arrow is positioned to the right of the text, spanning the height of two lines. To the right of the arrow, the word "Leading" is written in red.

Leading is powerful. It can affect how readable long blocks of text are.

When you decrease leading, lines get closer to each other, making a block of text appear more compacted. Lowering the amount of leading can cause descenders and ascenders to collide, and this could have an adverse effect on readability. But as a visual style, low amounts of leading can increase the pace of the reader and invoke the feeling of cramped conditions and claustrophobia, which can be desired when you are using type in this expressive manner.

Increasing leading can reduce the pace of a piece of text; it can slow the reader by introducing more white space. It can display a more relaxed feel in text blocks. Too much leading can cause continuity problems, as the eyes of the reader is required to travel a greater distance between lines of text.

Look at the examples below. All are set in the same typeface, weight and measure. However, each one has different leading values.

❶ A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.

Typeface: Futura
Weight: Bold
Size: 24pt
Leading: 22pt
Tracking: 0

❷ A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.

Typeface: Futura
Weight: Bold
Size: 24pt
Leading: 28.8pt
Tracking: 0

❸ A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.

Typeface: Futura
Weight: Bold
Size: 24pt
Leading: 72pt
Tracking: 0

- **Example 1** is set to a negative value (a value that is smaller than the type size). You can see the ascenders colliding with descenders and its effects on readability and aesthetics.

- **Example 2** is set at an often-recommended value, which is 120% of the type size. This means that if your font size is 10pt, then leading should be set at 12pt.
- **Example 3** is set to 200% of the type size. You'll notice the disruption in the pace and flow of reading the text.

Here are a few leading guidelines:

- Leading can affect text blocks in different ways. A short block of text (such as a tagline/slogan) versus a long block of text (such as a paragraph or news column) will be affected by leading in its own way. Just because it works well on one doesn't mean it will work equally well in the other.
- The more words you have in a line, the more leading you will need to maintain a pleasurable reading experience.
- If you increase **word-spacing** (the space between each word), you'll have to increase leading to improve the readability of the text block.

Tracking

Tracking (or **letter-spacing**) is the space between groups of characters. This is called the letter-spacing property in CSS.

Tracking set to -50

A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.

Tracking set to 0

A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.

Tracking set to 100

A helicopter is a type of rotorcraft in which lift and thrust are supplied by one or more engine driven rotors.

Tracking can be described as being *loose* or *tight*. Loose tracking is when the letters have a larger distance between them. Tight tracking is when the letters are closer.

Tracking has similar guidelines as leading, and all of these best practices are tied to readability.

The longer your line (or *measure* as it's often called) the more loose your tracking needs to be. This rule is not set in stone. Variables such as typeface choice, background color, number of columns and the surrounding design elements can also influence the readability of a block of text. Each time you set type, you should be looking at the overall picture.

Kerning

Kerning describes the amount of space between two characters.

Trust Wonder Vendor

Not kerned

Trust Wonder Vendor

Kerned

There is often confusion between tracking and kerning. While tracking is a global setting that affects how close all the characters are, kerning is more the microscopic view of the space between two letters. Some character combinations might require more kerning than others to avoid collisions (e.g., compare *KX* versus *ll*).

Certain characters sit together in a manner that creates and minimizes space. For example, the lower-case *l* in Helvetica is a rectangle; if you put 5 of them together, (i.e., *lllll*) the space between each of them will be equal.

Now consider a character like the capital *W*. The area it takes up is less simple to define as the diagonal of the final line creates space underneath it. With this in mind, once you place the rest of the sentence next to it, this space then makes a noticeable difference when compared to the rest of the characters:



5 lowercase 'l's in Helvetica

Weather is the state of the atmosphere as measured on a scale of hot or cold, wet or dry, calm or stormy, clear or cloudy.

Note the larger space between the capital 'W' and the 'e' in the first word 'weather'

Kerning is the art of adjusting the space between characters so that the eye can flow easily across the copy without being distracted by discrepancies. Remember: good typography is never noticed.

Alignment

How you align your text has a huge impact on how people will read and perceive it. The decision of alignment should be made with your design theme in mind, and of course, readability and legibility.

Flush Left (or Ragged Right)

Text is aligned to the left. This alignment complements the natural way we read text in western culture. When done correctly, it is one of the biggest factors in improved readability.

Be sure to pay attention to the right-hand side (or the **rag**). It is important to make sure there is a good balance with line length; make sure that they are not too similar, but also not too far apart.

Flush Right (or Ragged Left)

Text is aligned to the right. If we read from left to right, flush right can hamper the natural flow of the text. Use it as a contrast to the main body of text to highlight complimentary copy.

Watch out for punctuation marks on the right-hand side as they can disrupt the alignment.

Justified

The start and end of text lines are both aligned to the left and right.

While justified alignment looks clean because it fits neatly into a box, it can also be hard to read because there is less visual cue between the termination of a text line. Variances in spacing can appear between words in order to keep the lines even.

Be vigilant on over- hyphenation, as some programs hyphenate words at the end of text lines to keep the text justified. In addition, some lines might have too much word-spacing, so you might need to adjust line breaks as needed.

Centered

Text is aligned to the center of the text area, rather than the edges.

Exercise caution when using centered alignment — there is nothing worse than poorly set centered text. There is no shared point where the line begins and ends, so it can be very hard to read.

Centered text looks best when there are only a few lines of text (2-3 lines).

Done well, centered alignment can look classy and elegant. Be sure that your text area is wide enough to break the text into logical lines and that there is enough contrast between the line length to make the text inviting.

Flush Left (or Ragged Right)

Design Instruct is a regularly updated web magazine for designers and digital artists where you can find and learn design tips and tricks. We feature high-quality tutorials from some of the top designers and digital artists from around the world, as well as articles that cover an array of topics to keep you informed and inspired.

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Justified

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Classifying Type

There are a number of **different ways to classify typefaces** and type families. The most common classifications are by technical style: serif, sans-serif, script, and display.

Crimson Text
is a **serif**
typeface.

Gill Sans *is a*
Humanist
sans-serif typeface

Snell Roundhand
is a ***Formal***
script typeface

Cup and Talon
is a **Display**
typeface