Clear Communication by Design

Presented by Michelle Boulton
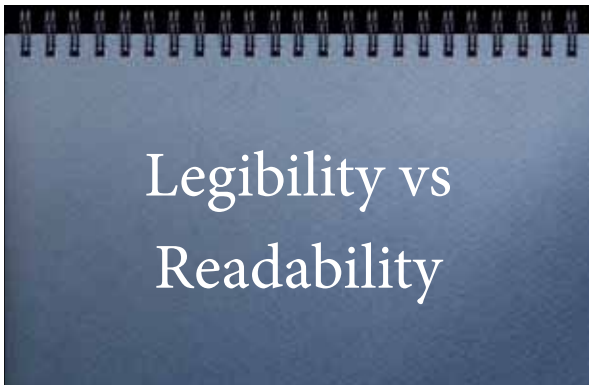Michelle Communications
mboulton@editors.ca

Words don't exist in isolation.

They are part of a page or a screen. How those words are arranged on the page or screen affects how they are perceived.

The best designs are clean, clear, and concise.

They help the reader navigate through the document to find the information they need and want.

Legibility describes how easy it is to distinguish one letter from another.

Readability describes the ease with which a text can be read and understood.

These are different things but they are both based on the anatomy of type.

Legibility vs Readability

The purpose of Typography

Anatomy of Typography
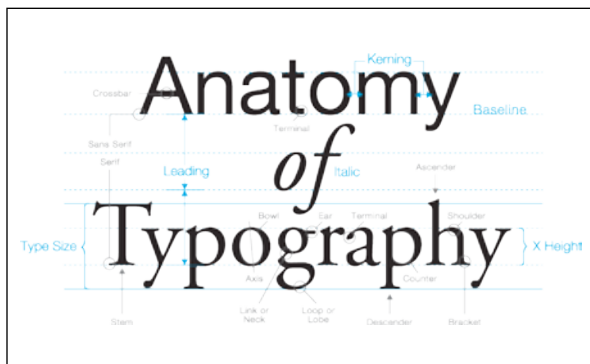

Serif
Sans Serif
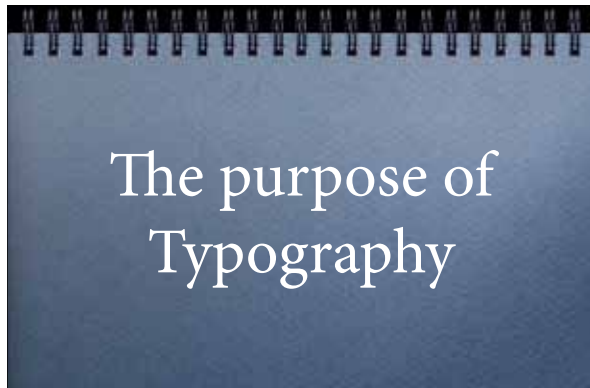
What is Typography?

It has a few different definitions:

- The art or process of setting and arranging type.
- The style and appearance of text in print or on screen.
- Designing with type in order to communicate a message.

Typography should not call attention to itself — its purpose is to make the text easier for the reader to navigate and understand.

Many factors influence the effectiveness of typography:

- Choice of typeface
- Type size
- Line length
- Line spacing
- Alignment
- Letter spacing
- Letter case
- Type style
- Contrast

Typeface

Typefaces can be roughly divided into two main groups / classifications:

Serifs

- Serif typefaces have been around since 1470.
- Serifs are believed to be more readable than sans serifs because the serifs help to guide the eyes along.
- Serifs are more commonly used than sans serifs, and they are the usual choice for long texts such as newspapers and books

Sans serifs

- Sans serifs did not appear until in the mid-19th century, and they were not in common use until the 20th century.
- Sans serifs are often used for headings rather than for body type.
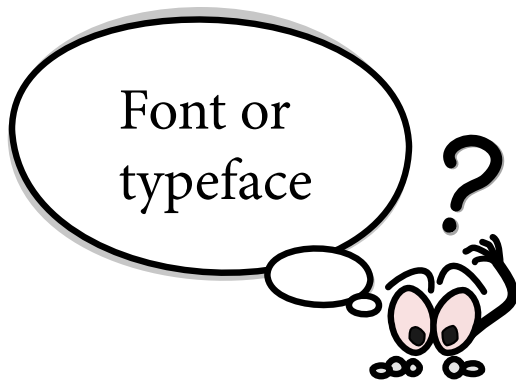
Font or Typeface?

This might be a good time to talk briefly about the difference between 'Font' and 'Typeface'

The **font** is the physical collection of letters, numbers, symbols, etc. (whether it's a case of metal pieces or a computer file).

The **typeface** is the design of the letters (the way it looks).

The way I relate the difference is by comparing them to songs and MP3s (or CDs, if you prefer a physical metaphor). The MP3 is the delivery mechanism, not the creative work. In the same way, the font is the delivery mechanism and the typeface is the creative work.
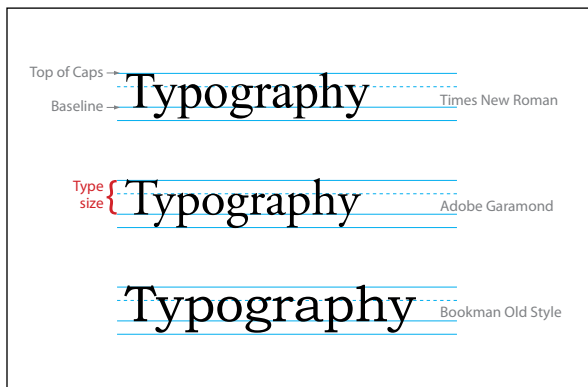
Type size

Type size is generally measured in points.

The distance from the baseline (where all of the letters sit) to the top of the capital letters determines the letter's point size.

Different typefaces in the same point size can appear to be different sizes.

Things that affect the "apparent size" of type:

- How thick the letters are
- The height of the ascenders and descenders

How big should my text be ?

There is no universally applicable guideline for font size, but the general range for body type is 9 to 12 points.

Optimal size will depend on many things, including line length (or column width), clarity and proportions of the chosen typeface (see previous slide), and the age of the intended readers.

Magnim verrum nos quid mo berum quo ommost, si bearchi liquis dolo verehendis dentist. Nem dem abo. Ehenda voluptat repero beruptae consequi occae con eatur, omnisciatet et ratiis molorem esciis re core peritat ipsam quassincto velitae et venditas dit alit odit, volupienit aut occusdaes si as resti dolorenimus amus estiorae nonseque corpore, optatur?

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When we read, our eyes don't move smoothly across the page.

Among these articles of faith, legibility is perhaps the most emotive.

Line length

Line length is also commonly referred to as "column width." It determines how well your eyes can follow the text and it is crucial to readability.

A common question is, what is the optimal line length?

Before I can answer that, we should talk a bit about how we read.

Reading takes place in small leaps — fast eye movements — from one word or phrase to the next. This happens because a sharp and detailed visual perception can only happen in the central part of our retina.

What our eye can see is something like the bottom image in the left-hand column. The eye clearly picks up 5–10 characters at a time.

So, the question was, what is the optimal line length? The optimal line length for body type is about 55–60 characters (including spaces) per line.

If a line of text is **too long**, it can be difficult to continue from the end of a line to the beginning of the correct next line in large blocks of text.

If a line is **too short** the eye will have to travel back too often, encouraging readers to skim rather than read the text.

Rule of thumb: You should be able to read from the beginning of a line to the end without turning your head.
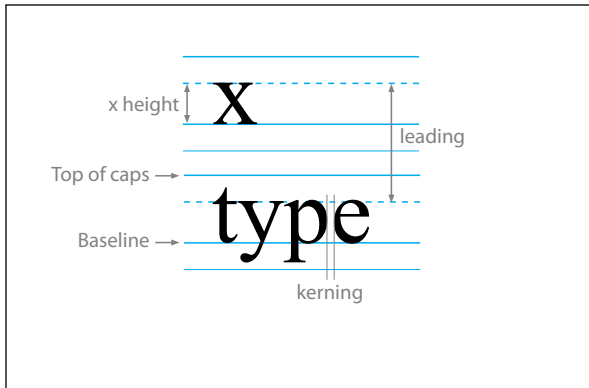
Line spacing (or leading)

Line spacing, or leading, refers to the space between lines of type in a body of text.

The word 'leading' come from the early days of printing, when strips of lead were inserted between the lines of type.

Correctly spaced lines improve the overall appearance of the text and make it easier for the reader to follow.

**Line length and line spacing are inseparable.**

Typically, long lines (wide columns) require more line spacing than short ones. A wide column with narrow line spacing looks very dense and heavy. Additional line spacing helps readers move more easily from one long line to the next one.

Rule of thumb: make line spacing that 2–3 points larger than the font size. For example, 10-point text would have 12–13 point line spacing.

Kerning

Let's go back to that earlier slide to talk briefly about kerning. Kerning refers to the space between individual characters within a word.

Most modern typefaces don't require additional kerning, especially at body text sizes.
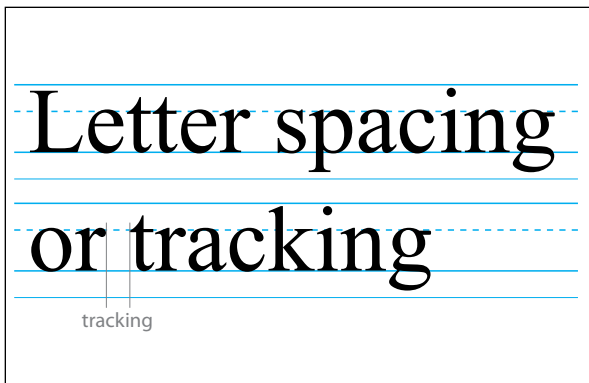
Letter spacing, or tracking

Tracking is the spacing between the words. By increasing the tracking, you can create a more open, airy feel. Decreasing the tracking is rarely desirable, but can be used on occasion to bring up a short line of text.

Type size, line length, and leading are interrelated. If you increase the type size, for example, you will also want to increase the space between lines to maintain legibility.

Rule of thumb: space between letters should be less than space between the words, and space between the words should be less than the space between lines.

Use as few type styles as possible.

Avoid **extra heavy** or condensed styles.

Use **bold** and *italics* sparingly.

Almost always avoid reverse type.

Type style

Use as few type styles as possible and always be consistent, sticking to the same style for headings, subheadings, and body type throughout a document.

- Avoid extra heavy or condensed styles.
- Use variations such as bold and italics sparingly.
- Almost always avoid reverse type.

Here is an example:

The paragraph on the left, set in Minion Pro Regular, is easy to read. The paragraph on the right is also Minion Pro, but the style is Condensed Bold, which makes it much harder to get through.

Law enforcement officials confirmed Friday that four more copy editors were killed this week amid ongoing violence between two rival gangs divided by their loyalties to the The Associated Press Stylebook and The Chicago Manual Of Style. "At this time we have reason to believe the killings were gang-related and carried out by adherents of both the AP and Chicago styles, part of a vicious, bloody feud to establish control over the grammar and usage guidelines governing American English," said FBI spokesman Paul Holstein, showing reporters graffiti tags in which the word "anti-social" had been corrected to read "antisocial." "The deadly territory dispute between these two organizations, as well as the notorious MLA Handbook gang, has claimed the lives of more than 63 publishing professionals this year alone."

(Minion Pro Regular)

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(Minion Bold Condensed)

Contrast

Contrast describes the relationship between the colours chosen for text and the background on which the text sits.
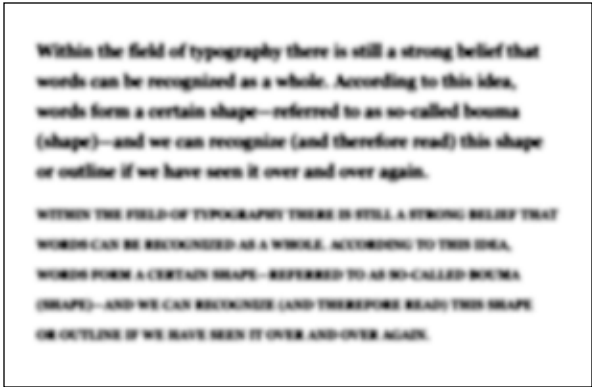
The greater the contrast between text and background the more readable the text will be. So, black text on a white background is the easiest to read. From there every combination makes text less readable.

text
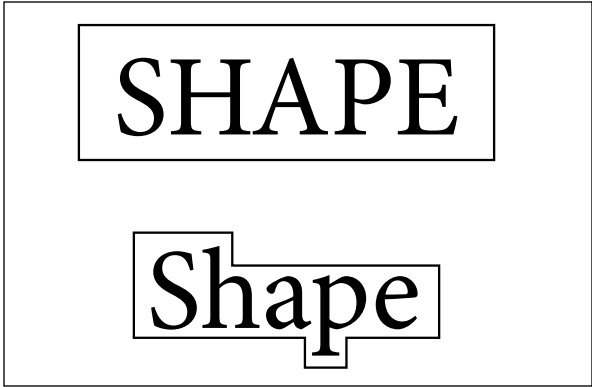
text

SHAPE

Shape

Letter case

OUR EYES RECOGNIZE WORDS BY THEIR SHAPE AS WELL AS BY THE LETTERS THEY INCLUDE. TEXT SET IN ALL CAPS IS THE LEAST LEGIBLE BECAUSE EACH WORD IS THE SAME SHAPE.

Another Problem Occurs When You Use Title Case In Sentences. Title Case Is A Mixture Of Upper And Lower Case And Is Suitable For Titles Only Because It Is Too Hard To Read.

Within the field of typography there is still a strong belief that words can be recognized as a whole. According to this idea, words form a certain shape—referred to as so-called bouma (shape)—and we can recognize (and therefore read) this shape or outline if we have seen it over and over again.

WITHIN THE FIELD OF TYPOGRAPHY THERE IS STILL A STRONG BELIEF THAT WORDS CAN BE RECOGNIZED AS A WHOLE. ACCORDING TO THIS IDEA, WORDS FORM A CERTAIN SHAPE—REFERRED TO AS SO-CALLED BOUMA (SHAPE)—AND WE CAN RECOGNIZE (AND THEREFORE READ) THIS SHAPE OR OUTLINE IF WE HAVE SEEN IT OVER AND OVER AGAIN.

Alignment

Four basic types:

- Justified
- Left-aligned (ragged right)
- Right-aligned (ragged left)
- Centred

Letter case

When we read, we recognize words as much by their shape as by the letters they include. Text that is set mainly in lowercase letters have ascenders and descenders (such as the h and p in this example). This gives words in lowercase letters a more distinctive shape than those in all capitals.

Lowercase text is the most legible. Text set in all caps is the least legible because each word is the same shape.

When you use **title case** in sentences, the mixture of upper and lower case is also hard to read and should be reserved for headings.

To illustrate this, let's look at some blurry text set in sentence case and then text set in all caps (third slide down). As blurry as this is, I'm sure most of you can make out the top text. Now try the bottom text. It's the same text, but the bottom text is in all caps and much harder to make out.

Alignment

Justified columns (with straight left-hand and right-hand edges) are common, but they produce word spacing problems. In justified text, each of the lines are forced to be the same length, resulting in irregular spacing between words. This decreases readability because it causes the eye to stop at unexpected spaces.

Left-aligned text is flush along the left side, but has a ragged right-hand edge. Left-aligned text is the easiest to read.

Right-aligned text is flush along the right side, but has a ragged left-hand edge. Right-aligned text is much more difficult to read because the reader has to seek out the beginning of each line from a different place.

Each line of **centred** text is centred along the middle. It is difficult to read and is not meant for long body texts. Centred text is best saved for headlines and special circumstances (such as invitations) consisting of only a few lines.

Content & Structure
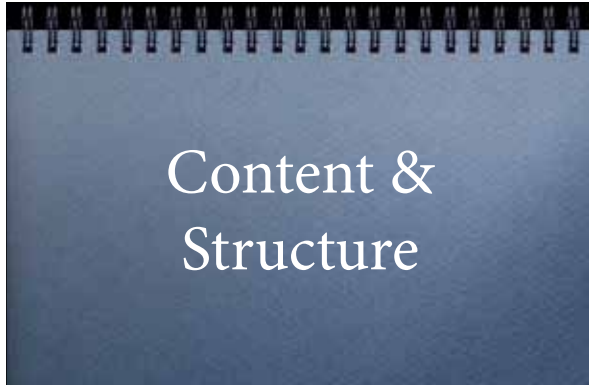
Paragraphs

Paragraphs do not occur in nature. Whereas sentences are grammatical units intrinsic to the spoken language, paragraphs are literary conventions designed to divide masses of content into appetizing portions.

There are two common ways of indicating the start of a new paragraph:

- Indenting the first line
- Inserting extra space above the first line

If you insert extra space, be aware that the end of a paragraph may not be clear if it comes at the bottom of a page.

Indenting first lines is the better option if you want to save space.

Widows and orphans

(I know you all know this.)

A **'widow'** is a very small line or single word left alone at the end of a paragraph.

An **'orphan'** is a word or short line that appears at the beginning or end of a column.

Why do we hate widows and orphans? Because these dangling bits of text can make the story harder to read, destroy continuity for the reader, and make layouts look unbalanced. Both should be avoided.

Good Organization

Present the big picture before the details — this is one of the most basic principles of good organization.

It's hard to absorb the details if you don't know why they are being given to you. Imagine trying to put together a complicated jigsaw puzzle without first seeing the picture of the completed puzzle.

An individual piece of information means more to your readers if they know how it fits into the big picture.

Clear Communication by Design (Outline)

1. How does good design improve communication?

2. Legibility vs Readability

3. Typography
   - choice of typeface
   - type size
   - line length
   - line spacing
   - alignment
   - letter spacing
   - letter case

Use an Outline

Take a good look at your document and the flow of information from beginning to end.

It's often easier to start with an outline to guide you as you physically reorganize the document.

Your outline can later become your table of contents.

Provide bite-sized pieces

Break your document up into manageable sections and use descriptive headings and subheads.

Headings like "Introduction" or "Background" aren't especially helpful.

Bulleted lists

Bulleted and numbered lists greatly enhance readability due to their conciseness and the additional white space that results from their use.

Tables

Tables often convey information more quickly and clearly than text in narrative form. . .

1. List numbers in a logical order; often that will be smallest to largest, or vice versa. This helps the reader make comparisons and identify patterns, thus giving more meaning to the numbers you are presenting.

2. You can help readers better understand what your numbers mean by providing averages, totals, and percentages, which help focus attention on the message behind the numbers you are presenting.

   - Averages provide a point of comparison.
   - Totals provide the big picture.
   - Percentages (perhaps the least important of the three) provide a sense of proportion.

3. When you want readers to compare numbers, keep them close together on the page. Keep in mind that it is easier to compare numbers in columns than in rows. Numbers in columns are also easier to add and subtract in your head.

4. Rounding is a simple technique that makes numbers a lot easier to understand, compare, and remember.

5. Providing a written summary in the text gives you an opportunity to direct the reader's attention to patterns or exceptions. They help you explain why you think the numbers you are presenting are worth paying attention to.

Successful Table Design

Poor layout accounts for confusion with tables more often than difficult material.

Gridlines add clutter without adding information, and vertical lines stop the eye from scanning easily across rows. If you are using the 'dreaded grid,' your table will already be busy before you even add the numbers or text.

Right-align columns of numbers. When you have numbers of varying lengths, right aligning them makes it easier to compare them. It is also helpful to order them from largest to smallest, or vice versa.

Single-space rows to make comparisons easier. For long tables, because we are not using gridlines, adding a blank line every 4 or 5 lines helps readers keep their place. Alternatively, using light row shading (about 10%) for every alternate row can do the same thing and is not as disruptive as gridlines.

Place tables close to explanatory text. Turning pages back and forth makes it more difficult for the reader to refer to one while reading the other.

Only make tables as wide as they need to be. Instead of stretching tables across a page, consider wrapping the surrounding text around the table. But, make sure to leave lots of white space around the table.

Illustration & Graphics

Graphics

At their best, graphics are instruments for reasoning about quantitative information. Often the most effective way to describe, explore, and summarize a set of numbers—even a very large set—is to look at pictures of those numbers. Furthermore, of all methods for analyzing and communicating statistical information, well-designed data graphics are usually the simplest and at the same time the most powerful.

~ Edward R. Tufte
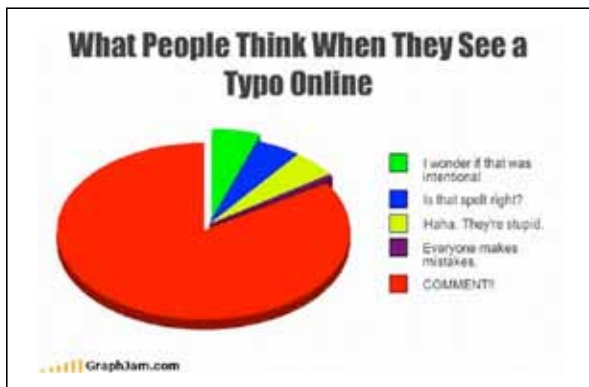
Edward Tufte is very well known for his writings on information design and as a pioneer in the field of displaying data.

Often, visuals are the elements that will draw a reader into a document, make them easy to understand, even out of context. If they are compelling, they will encourage the reader to venture deeper into the document.

The combined use of visual and text is said to be 6 times more effective than the use of text-based communication alone. Visual aids are incredibly powerful tools for enhancing both understanding and knowledge retention.

Visuals can express ideas and convey information in ways that words alone cannot. They communicate by

- showing how things look (drawings, photographs, maps),
- representing numbers and quantities (tables and graphs),
- depicting relationships (flowcharts, schematic diagrams), and
- making abstract concepts and relationships concrete (organizational charts).

They also highlight the most important information and emphasize key concepts.

What People Can Remember
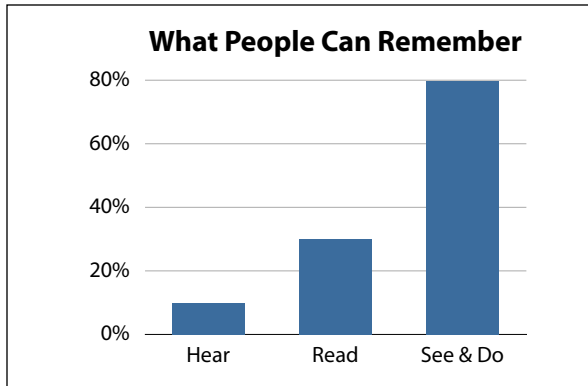
Studies have shown that people "only remember 10 percent of what they hear, 30 percent of what they read, but about 80 percent of what they see and do." (Educational psychologist Jerome Bruner of New York University)

So, whenever you can express information using a compelling visual element such as a graph, flowchart, timeline, or other illustration, the information will be much easier for your readers to absorb and retain.

Selecting Visuals

When you are selecting or developing visuals, consider your purpose and your audience carefully. For example, you would need different visuals for an automobile user guide than you would for the mechanic who might be repairing the same vehicle.

Many of the qualities of good writing — clarity, simplicity, conciseness, and directness — are equally important in the creation and use of visuals.

Even the best visuals only enhance or support the text. The writing must supply the context for the visual.
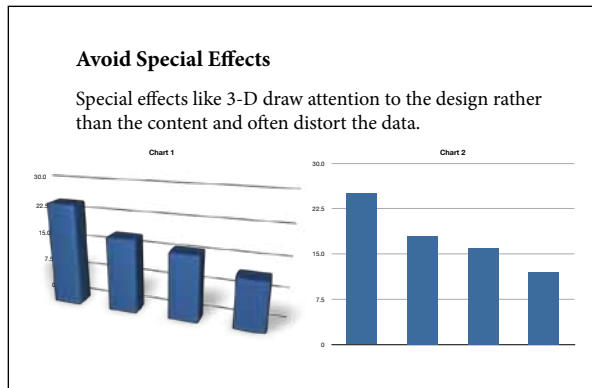
Whenever possible, consider graphic requirements (or opportunities) before you begin writing, or at least early in the structural editing phase.
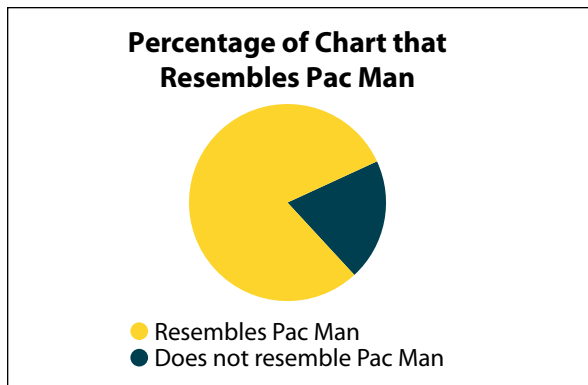
Charts and Graphs

We talked briefly about some of the different kinds of visuals that might be employed in a document: drawings, photographs, maps, tables, graphs, flowcharts, schematic diagrams . . . (to name a few).

Editors often don't have influence over many of the visuals that can be used to complement the text in a document. But, we are often called upon to review and improve tables and graphs, so I want to take a few minutes to talk about ways to use those specific visuals more effectively.

Avoid Special Effects

Special effects like 3-D draw attention to the design rather than the content and often distort the data.

A favourite effect with graphs is 3-D. It looks cool, but makes the graphs significantly harder to read and interpret.

When designing a graph, use the plainest design possible. Excel, for example, offers dozens of standard graph variations, but only a handful of those are simple enough to communicate with ease.

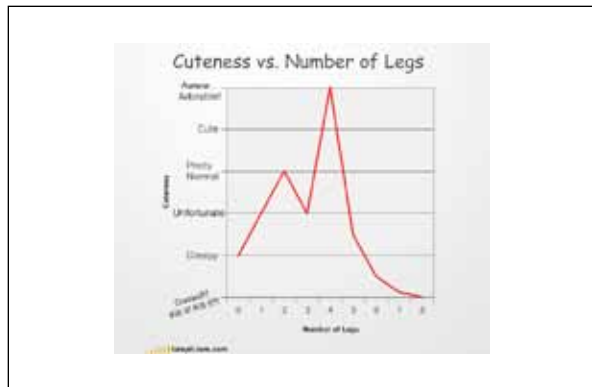Most effective: Straightforward line, bar, and column graphs.
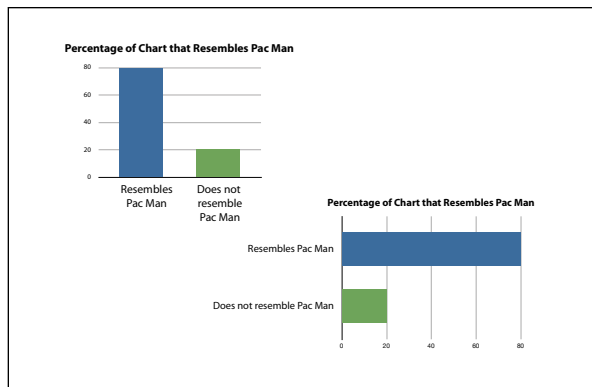
Bar or column?

When a bar graph is placed horizontally (instead of in columns), they are

- easier to label and
- more bars can be shown going down the side of a graph than across its base.

Quick Tip: arrange bars (or columns) in order of size to make comparisons easier.
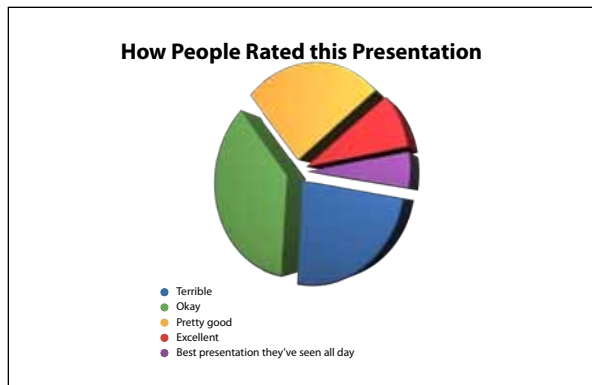

Line graphs

Line graphs are great for showing changes in a series, usually over time.

They illustrate flow (ups and downs) very well.

They are easy to create, straightforward, and quite elegant.

Pie charts

People seem to love pie charts, but they are not really very effective at communicating information. Most people think linearly, yet pie charts ask us to compare quantities in a circle.

Specialists in visual literacy and many statisticians avoid them.

Checklist

- Place visuals as close to the explanatory text as possible.

- Give visuals a concise title that clearly describes what the reader is looking at and why it has been included.

- If your document has a number of figures and tables, number them and refer to the illustrations by their numbers in the text.

- Keep visuals simple and only include information that is relevant to the discussion in the text. If possible, remove unnecessary labels, arrows, boxes, etc.

- Allow adequate white space around (and within) the graphic.

Arrangement on the page
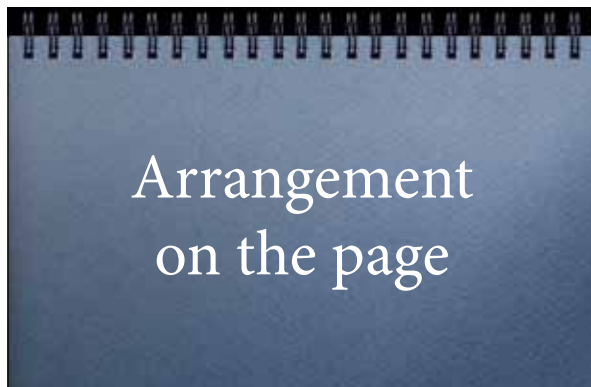
"Design is as much an act of spacing as an act of marking. The typographer's art concerns not only the positive grain of letterforms, but the negative gaps between and around them."

~ Ellen Lupton

White space

Use white space effectively.

Generous use of white space on the page enhances readability, helps to focus attention on important points, and lightens the overall look of the document.

Margins

The white space around the text, the margins, should be looked at as a funnel drawing the reader into the document. If you think of it that way, you realize that margins should be as wide as possible.

Wide margins are not considered good economy (or ecology), but they certainly make the end product more effective. This is not relevant for digital files.

Optical Centre

Mathematical Centre   Optical Centre
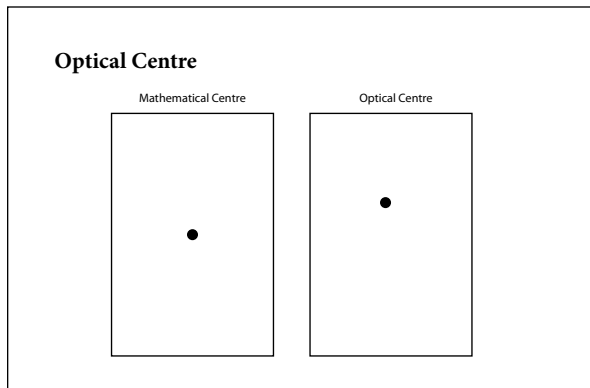
Optical Centre

The optical centre is the point that attracts the viewer's eye unless other visual elements pull the eye elsewhere. It is not the same as the geometric centre. It is a little higher and slightly to the left of the geometric centre of the page.

Because we read from left to right and from the top of the page to the bottom, our eyes naturally move diagonally from the top left of a page to the bottom right. You should balance the elements of your page around the optical centre and not the geometric centre.

Factors that Influence Balance

Visual balance results from 2 major factors:

Weight – The perceived weight of a visual element is a measure of how much things on the page attract your eye.

Direction – The perceived direction of the visual is the direction we think an element should be moving if it was given a chance to move based on the forces acting on it.

Factors that Influence Weight

Size – Larger objects obviously appear heavier.

**Shape –** Irregular shapes appear lighter than regular shapes.

Density – Multiple small objects can balance one larger one.

Colour – High intensity colours, like red, appear heavier than low intensity colours, like yellow.

Location on the page – Visual weight increases the farther an object is from the optical centre; objects at the top appear heavier; objects on the right appear heavier.

Orientation – Vertical objects appear heavier than horizontal items.

You achieve balance when you place items of combined equal weight on either side of the optical centre. Place the focal point close to or above the optical centre. This has implications when you plan margins.
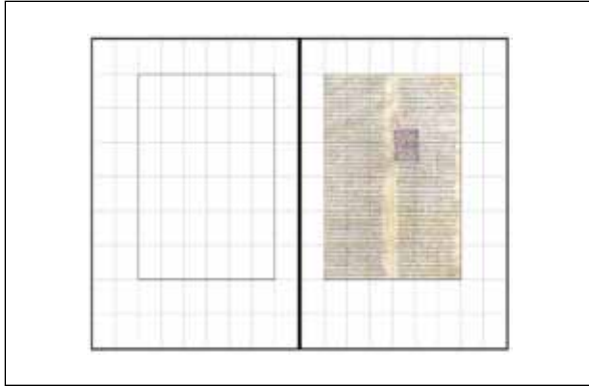
Historical margin schemes

Many medieval manuscript pages were said to have "perfect harmony" between the text block and the margin. THis balance existed long before the computers, printing presses, or even a defined unit of measurement.

Each of the facing pages on the top slide is divided into ninths. The outside margins are two-ninths, which is twice the size of the inside margins, one-ninth. The bottom margins are also two-ninths, which is twice the size of the top margins. And the height of the text area equals the page width.

This system is still as valid, beautiful, and elegant today as it ever was for the medieval scribes.