

Accessible Print Guidelines



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WHY ACCESSIBLE PRINT

Globally, at least 2.2bn people have visual impairments that interfere with their daily lives (WHO, 2019). Although there is a vast range of different experiences associated with visual impairments (e.g. blurred vision, distortions, blind spots), low-vision is defined as a condition in which daily tasks (such as cooking, cleaning, mobility and recognising faces) are difficult to perform.

The goal of any print material is convey information to recipients and, in order to do so, needs to be accessible to everyone, including people with disabilities. Devices and technical aids can help, but are not always available or affordable. These guidelines provide detail on how to make print documents more accessible to the majority of those with visual impairments.

We thank you for reading these guidelines and for taking the steps to make your documents more accessible.

1. CONTRAST & COLOUR

1.1 Contrast

High contrast is one of the most critical factors for legibility for those with low vision. The contrast between the colours is generally more important for legibility than the specific colours used.

Good practice examples of high-contrast colour combinations are black/dark blue on an off-white or light yellow background, and white/yellow text on black or dark blue.

Use a single colour background for a text, avoid colour effects like fading or two-tone designs.

Many people with low vision suffer from glare, and so for many a dark background with light lettering is preferred.

Below an illustration of a good contrast example of yellow font on dark blue background:

Good, high-contrast colours for text and background

An example of bad contrast: yellow font on orange background:

Do not use low-contrast colours for text and background

For designers, specific contrast ratios are recommended. Contrast between text (or foreground elements) and color should be: **4.5 to 1** for text **smaller than 18 points** and **3 to 1** for text **bigger than 18 points**. Tools to enable ratio calculations are provided on page 13.

1.2 Text colour

Printed and electronic material is clearer when in black and white. Use coloured text for titles, headlines or highlighted information. Always in the highest possible contrasting colour with the background.

In this document, for instance, the text for headings is dark blue and bold. See also the two illustrations below.

First, a good example: black text on white background, followed by a bad example: yellow text on white background:

Printed or digital text is clearer when in black and white.

Printed or digital text becomes invisible when in a non-contrasting colour.

2. FONT

2.1 Font family/type

Choose standard fonts that are clear and simple with easily recognisable upper and lower case characters. Avoid fonts that are highly stylised, ornate, decorative such as Serif- or handwriting-style. Use consistent fonts throughout to avoid confusion.

Arial, Verdana, Helvetica are good choices.

2.2 Font size

Keep text in a large font, 12pt absolute minimum although 14pt+ is preferred. This applies to all elements of the document, not just body text. For example page numbers, footnotes, subscripts and superscripts, image captions and 'small print' should all be the same size as the body text.

2.3 Font style

Use a bold or heavy font for headings or to emphasize information. CAPITAL letters should be used only in titles and headings if needed.

Avoid *Italics*, underlined text or UPPER CASE letters in texts. Limit their use to an absolute minimum.

When quoting, use quotation marks instead of italics. As an option, you can additionally indicate between brackets, when the quote starts and ends.

2.4 Font heaviness

Choose fonts with medium heaviness. Avoid fonts with light type with thin strokes or one with a combined thin and heavy stroke.

Use **bold or heavy** font when emphasizing a word or passage or for titles, subtitles and headings.

3. SPACING AND ALIGNMENT

3.1 Letter spacing

Use monospaced letter type. This means that each letter is separated by exactly the same small distance from the other letters in a word, while there is more space between words.

Letters that are too close together, or too separated, as well as different (proportional) spacing, highly complicated legibility for partially sighted readers and are therefore not accessible.

3.2 Leading (line spacing)

Leading is the space between lines of text and should be kept to between 25 and 30 percent of the font size (usually 1.1 - 1.5) as to assist readers move their eyes more easily to the next line of text.

An example of poor leading...

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3.3 Alignment

Whenever possible, use left alignment. This is highly recommended as it facilitates reading and is preferred over justified text.

Justified text is not recommended, since it can leave big gaps between words that make reading very complicated for partially sighted readers.

3.4 Margins

Use wide margins as this helps when reading (minimum 2cm). Use spiral binding margin, since this is especially helpful in bound materials when making use of reading aids, such as magnifiers and CCTV.

3.5 Columns

An option is to divide text into columns, if you so choose. It can make text easier to read, as it requires less eye movement and less peripheral vision. For this to work, depends on the font size and the size and orientation of your (printed or electronic) document.

A4 or larger with Arial 14pt for example. Do not use columns in smaller brochures and leaflets.

4. GENERAL FORMATTING

4.1 Headings

Ensure that headings are visible and easily identified.

In printed and electronic information it is a good practice when the headings are in bold font, and a bit larger than the general text, in the same colour as the text, or in a different, but high contrast colour.

The heading can be displayed on a contrasting stripe or rectangular background with contrasting bold lettering.

Here is an illustration of a good example of a heading on a contrasting rectangular background feature in dark blue with bold white lettering:



Heading 1

4.2 Page numbers

Include page numbers in documents of more than two pages to aid navigation. Do this even if the original document does not have page numbers, unless there is a good reason not to have them.

Ensure that page numbers are visible and in a consistent location. For printed and electronic information, it is a good practice when the page number is displayed in bold lettering on a contrasting stripe, circle or square background.

The illustration below shows a good example of a page number displayed in bold white lettering on a contrasting blue square background that clearly stands out from the white background of the document:



Page 11

4.3 Table of Contents

A table of contents is useful to include for quick navigation in electronic versions. Make the list of contents active, so that readers can click on an item in the content, taking them directly to that item in the text.

4.4 Tables

Ensure that the tables have visible **bold** borders with sufficient space between text and border.

Example:

Tables may become difficult to interpret if the text size is enlarged. It is usually easier if the full width of the table is available to the reader, so consider whether changing page orientation, using A3 paper, or printing on two facing pages may help. Consider whether reformatting would be helpful, for example changing column width or splitting the table into two. Repeat the heading row for any tables breaking over a page.

5. GRAPHICS AND ILLUSTRATIONS

When choosing or designing graphics and illustrations, the same principles apply of contrast, colours, simple design, good size, and heaviness (bold).

5.1 Contrast

Use illustrations and pictures with contrasting colours. Also contrasting contours are a good option. Use heavier lines. Avoid fine, thin lines.

5.2 Clear and simple design

Illustrations should be clear, recognisable and easy to understand. The power of good design is for readers to 'get the picture' right away.

Avoid complicated and overcrowded images, unless these serve a specific purpose and have an adequate description going with it.

5.3 Size and position

Use a large size and whenever possible displayed directly following the related text.

Depending on the type of document, and on the type of illustration, an option could also be to display it on a separate page, dedicated to the illustration.

5.4 Text over image

Avoid text on an image, unless visibility can be guaranteed with high contrast between background and lettering. It is good practice to create a one colour, high contrast background the size of the text, or larger than the text, to place contrasting font on.

Here are two illustrations:

First, a good example of legible text over images: the white rectangle forms a good contrast with both the dark blue lettering and with the colour images that make up the background.



Next is a bad example: the lettering on the background of coloured images is invisible, and should therefore not be used or even considered.



5.5 Description

Ideally all non-text elements presented in a document should have a text-based description that serves the equivalent focus. The essence and function of an illustration should be described in text.

6. DOCUMENT PRODUCTION

6.1 Paper

There are three important factors to consider when choosing paper:

A. **How much light the paper reflects.** Ensure the paper has a matt finish. Avoid glossy papers, as light will reflect off the surface and obscure the print.

B. **Amount of "show through".** It is important to choose paper that is thick enough so that the text printed on one side can not be seen on the other side to the extent that it interferes with legibility. 80 gsm is sometimes sufficient but not always. 100 gsm is usually suitable. If it is not possible to choose paper thick enough to prevent show-through, print single sided.

C. **Colour of paper.** Choose a paper colour that will give an adequate contrast between the text and background. Generally, white paper with black text produces the best contrast. When you want to use white paper, avoid pure whites. Better is to choose off-white and other softer, matted whites.

6.2 Binding

Documents should be bound on the left to enable them to be opened out flat. Readers who rely on scanners or magnifiers need to be able to place the document flat, so care should be taken with the number of pages in your document and the binding methods you choose. Some book binding methods can make it difficult to open a document so that it is completely flat. Staples work well for shorter documents. Wire binding allows a larger document to be bound and still be opened out flat for use under a magnifier.

ADDITIONAL GUIDELINES AND TOOLS FOR DESIGNERS

There are a number of guidelines and tools that exist, primarily for digital, but that can be applied by designers to improve the accessibility of print content design.

- [Tanaguru Contrast-Finder](#) - identifies good colours to use that have strong contrasts
- [EightShapes Contrast Grid](#) - enables you to test foreground/background colour combinations for contrast
- [Accessible color palette builder](#) - build an accessible colour palette
- [Color Oracle](#) - colour blind simulator that converts your colour palette into what those with common colour visual impairments will see

References

Compiled with thanks to the following organisations

CNIB, Canada

<https://cnib.ca/sites/default/files/2018-07/CNIB%20Clear%20Print%20Guide.pdf>

European Blind Union

<http://www.euroblind.org/sites/default/files/media/ebu-media/Guidelines-for-producing-clear-print.pdf>

Royal National Institute of the Blind, UK

<https://www.rnib.org.uk/sites/default/files/UKAAF%20creating%20clear%20print%20and%20large%20print%20documents.pdf>

Ontario's Integrated Accessibility Standards Regulation (IASR)

<https://accessiblecampus.ca/reference-library/accessible-digital-documents-websites/clear-print-guidelines/>

Round Table on Information Access for People with Print Disabilities,
Australia

http://printdisability.org/wp-content/uploads/2013/09/round_table_-_clear_print_guidelines-PDF.pdf