Chapter 6: Producing accessible materials

Introduction

This chapter explores the ways in which research teams can produce accessible materials for people with sight loss, so that everyone has equal access to information that is legible, usable and meaningful.

The aim should not be to produce separate 'accessible' versions of materials, but to apply the principles of accessibility to all outputs. Researchers we spoke to who have previously worked on Pocklington projects found that this gave their outputs greater clarity and structure, and therefore benefited all readers.

Pocklington-commissioned research has implications for the health, manufacturing, housing, academic, social care and charity sectors – all of which may include people with sight loss. All materials must reflect the fact that people with sight loss will be involved at each stage of research, from critiquing the tender to reading the full report.

People with sight loss access information in a variety of ways. To demonstrate this, the next two sections of the chapter give an overview of the alternative formats available for people with a visual impairment and the software commonly used to read text. It is the responsibility of the researchers to discuss with participants how they wish to receive information and to respond to their individual requests. It is important to avoid making assumptions that make connections between a level of sight and a preferred way of accessing information. Bear in mind that someone who has recently lost their sight might not be aware of the range of computer software available to promote accessibility, and some people may be completely unfamiliar with computers.[1]

The section entitled 'Making text accessible: Clear Print guidelines' provides tips on how to make printed information accessible. Applying these techniques to documents makes them more accessible for all readers and can reduce the need for alternative formats. The techniques outlined in this section should be applied to all written materials that are provided to research participants such as participant information sheets, informed consent forms and documents used in data collection such as surveys and questionnaires.

The UK Association for Accessible Formats (UKAAF) and the Royal National Institute of Blind People (RNIB) are authorities on accessible information. Their research-based guidance, experts on accessibility within Pocklington and other sight loss organisations and several online resources have informed this chapter. The latter are listed in the section of this chapter called 'Helpful resources'.

Equal access to information is a principle that Pocklington strongly supports. Making information available in accessible formats allows people to make informed decisions and promotes the rights, independence and inclusivity of individuals.[2]

---

1 RNIB (2012), Employment factsheet: staying in work. RNIB, London. http://www.rnib.org.uk/sites/default/files/staying_in_work_factsheet_0.doc[last accessed July 2014].
2 UK Association for Accessible Formats, Feedback – why quality matters http://www.ukaaf.org/feedback#_Feedback_from_users [last accessed July 2014].

Alternative formats

Alternative formats present information differently to standard print, for use by blind and partially sighted people and people with print disabilities, such as dyslexia or motor difficulties.

The most common alternative formats are large print, audio, braille and electronic documents.

Electronic documents
When written text is converted into a format that is readable on the computer – such as Microsoft Word, PDFs, PowerPoint and Excel Spreadsheets – it can be accessed visually with screen magnification software or through auditory means with text-to-speech technology.

Large print
UKAAF defines large print as minimum text size of 16 point, but ideally a minimum of 18 point.

However, there is no uniform definition of large print. Therefore, if someone states this as their preferred format or you offer it as a choice, ask the reader what their optimum text size is. If you produce a large print document, add a note at the beginning that specifies the exact font size.

Audio
Some people with sight loss may prefer to have documents read to them via CD or in digital formats like MP3.

A DAISY CD (which stands for Digital Accessible Information System) is a special type of CD that can be played on a DAISY player or on DAISY software on a computer. It allows the reader to navigate to a page, chapter, heading or section and to bookmark a section for future reference.

For further information on audio software, see:

RNIB, Audio http://www.rnib.org.uk/information-everyday-living-reading/audio [last accessed July 2014].

For tips on putting together an audio document, see:

UK Association for Accessible Formats, UKAAF minimum standards: audio http://www.ukaaf.org/guidancedocuments/pdf/ms01/finish?eprivacy =1 [last accessed July 2014].

The University of Stirling carried out a project commissioned by Pocklington to find out what works well for visually impaired people with dementia in terms of the design of their homes. The Good Practice Guidelines were made available in MP3 format.

Braille

Braille is a tactile code that enables people with sight loss to read by touch. Each pattern of braille dots corresponds to a letter in the alphabet or a number. Several methods can be used to produce braille – whether writing the original document in braille or converting an existing text file into braille:

- A pointed stylus that pushes dots into paper
- A mechanical note taker that is similar to a typewriter. It has six keys (one for each dot in the braille cell) that punch the braille paper. It is small and lightweight.
- A mechanical brailler is a sturdy desktop machine that also works like a typewriter.
- Embossers print braille output from a computer by punching dots onto paper.
- Electronic note takers are portable computers with a braille or QWERTY keyboard that can give speech feedback and allow the user to take notes and make appointments.[3]

It is estimated that around 5% of blind and partially sighted people read braille. However, it is a useful medium and has been brought up to date due to advancements in technology.

For further information on how to produce braille, and another tactile code called Moon, see:

RNIB, Braille and Moon: tactile codes http://www.rnib.org.uk/braille-and-moon-tactile-codes [last accessed July 2014].

---

3 RNIB, Reading and producing braille www.rnib.org.uk/braille-and-moon-%E2%80%93-tactile-codes/writing-and-producing-braille [last accessed July 2014].

For braille users' attitude towards braille and its relationship with other technology, see:

Phillips, A. and Beesley, L. (2011), Braille profiling project. RNIB, London
http://www.rnib.org.uk/sites/default/files/braille_profiling.doc [last accessed July 2014].

When producing alternative formats, it is important to consider the following:

- **Plan ahead.** Factor in the time it will take to apply certain techniques to your work and check that the document is fully accessible. Everyone has the right to receive information at the same time and planning ahead reduces the risk of someone receiving a braille version after another receives a large print version.
- **Promote the availability of alternative formats.** At the beginning of the document, include a note in a minimum of font size 16 that advertises the availability of alternative formats.
- **Think carefully about the wording.** If you are converting a written document into an alternative version, a direct translation may not be suitable. For example, when converting to braille, be careful to amend any visual details or instructions such as 'As you can see from the photograph above…'. If the photograph contains relevant information, a text description should replace the image.
- **Preferences are changeable.** It is important not to make assumptions about people's preferred formats. A certain level of sight does not correspond to a favoured means of technology. Indeed, some people will use different technology for different tasks. For example, someone may like to read a book via audio, yet receive the minutes of a meeting in braille.

How people with sight loss access printed information

Understanding the range of ways people access text sheds light on the features of a document that are easily accessible to a sighted person, but present accessibility issues for someone with sight loss. People with sight loss may use the following to read print.

Remaining vision

Many people might continue to read standard print, relying on their remaining vision or develop techniques to make best use of their remaining vision.

Change their computer settings

For some people, the answer may be as simple as adjusting the computer settings so that fonts and icons appear larger, and the colour scheme is changed.

Magnifiers for paper documents

Hard copies of documents can be viewed with a hand-held magnifier, which enlarges the text on the page. Alternatively, some use a video magnifier (also known as a CCTV, which stands for Closed Circuit Television). The document or picture is placed on the table below the camera, and an enlarged image is projected onto a screen. Some video magnifiers can be connected to a TV or computer screen.

Assistive software for electronic documents

'Assistive software' is the general term for the programmes that can be used on a computer to improve user access.

A **screen magnifier** magnifies everything on a computer screen so that only part of the screen is shown at once. It will usually include a feature that allows the reader to change the font and background colour to reflect personal preferences.

A **screen reader** converts information displayed on a computer screen to speech. The user sends commands by pressing different combinations of keys on the computer keyboard to instruct the speech synthesiser. A command can instruct the synthesiser to read or spell a word, read a line or full screen of text, find a string

of text on the screen, and so on. The settings can be adjusted so that the screen reader vocalises bullet points, quotation marks and a change in font size.

People who read braille might use a **refreshable braille display** in conjunction with a screen reader. As information is received from the computer, pins move up and down to form braille characters so that users can read the digital information in a tactile form.

Computer users have an increasing amount of choice when it comes to assistive software and can customise it to match their needs and budget. For example, someone might find that a free screen magnification programme like Lightning Express is suitable for their needs, whereas another might prefer to purchase Super Nova Reader Magnifier, which has high levels of magnification, settings to alter the screen colours and text-to-speech for additional support.

For further information on the range of assistive software available, see:

RNIB, Using technology http://www.rnib.org.uk/information-everyday-living/using-technology [last accessed July 2014]. These pages of RNIB's websites provide beginner's guides to assistive technology as well as information on the range of paid-for and freely available software.

Sight and Sound Technology (2009), Solutions for the blind or visually impaired and for people with learning and reading difficulties. Sight and Sound Technology Ltd, Northampton http://www.sightandsound.co.uk/downloads/docs/Sight_And_Sound_Brochure.pdf [last accessed July 2014] lists the common screen readers and gives information on the features of each one.

WebAIM, Screen reader user survey number 5 results http://webaim.org/projects/screenreadersurvey5/#intro [last accessed July 2014] presents the results from a survey conducted in January 2014 of preferences of screen reader users, which demonstrates the increasing range and proficiency of screen readers.

Making text accessible: Clear Print guidelines

The accessibility of a document refers to the way it is written and presented, including the structure of the text and the use of images. The techniques listed in this section are known as Clear Print guidelines and should be applied to all documents from the outset. A Clear Print document is not an alternative format as such, but provides you with the 'raw material' for conversion into Large Print, audio and braille. It also makes the document compatible with screen readers as an electronic version.

While sighted people might be able to quickly identify the sections that interest them and skim read, it is not so easy for someone using a screen reader that reads the document out loud from beginning to end, or magnification software that shows a small section of the document at a time. Applying the rules outlined in this section can make it easier for people to extract information from the text.

Paper

If you are providing a hard copy, matt paper is preferable to glossy paper to avoid a glare. Unless the paper quality is high, do not produce double-sided documents as images and text can show through from the other side.

Please avoid:
- **Scanned documents.** Screen readers are often unable to identify the words in a scanned document and will fail to convert them into speech.
- **Enlarging by photocopying.** Simply enlarging the document from A4 to A3 will produce low quality text and the larger paper can be inconvenient to hold and navigate. Only in exceptional circumstances would it be acceptable to use a photocopier to produce large print materials.

Type of electronic document

An accessible document can be created with a Word document. An accessible Word document can then be converted into a PDF (Portable Document Format), which most screen readers are able to interpret. If you are sending an electronic file and wish to send it as a PDF, you should also send a Word document. This is because as long as it is not protected or read-only, Word

documents can be altered by the reader to reflect formatting preferences such as font size and type. PDFs cannot be altered in this way.

The following resource explores the accessibility features that can be used when creating a PDF document.

Adobe Systems Incorporated (2004), Creating accessible Adobe PDF files: a guide for document authors http://www.adobe.com/enterprise/accessibility/pdfs/acro6_pg_ue.pdf [last accessed July 2014].

Colour & Contrast

People with sight loss can experience difficulties identifying different colours. Do not rely on colour alone to convey information. Use maximum contrast between print and background. Avoid placing text in shaded boxes.

Styles

Using styles in applications like Microsoft Word is one of the most important tools that can be used to create accessible information. A style contains information about the appearance of the text, such as font size, colour and alignment.

If styles are applied when the document is produced, readers will be able to:
- Quickly gather an idea of the way a document is structured.
- Navigate through the document.
- Adjust the styles in accordance to their personal preferences. For example, the style 'Normal' in this document is set to font size 14. If the reader wishes to view the text in font size 18, they can modify the properties of 'Normal' so that the entire document updates at once.

The use of styles is also beneficial for the author of the document:
- It is easy to modify the style instead of all individual headings.
- A table of contents can be generated easily once styles are applied.

For an explanation of the main features of Styles, see Appendix 1 Styles. Depending on which version of Microsoft Word you are using, the way that you apply Styles will vary slightly. The following

resource provides instructions tailored to a particular version of Word:

Accessible Digital Office Document (ADOD) Project, Accessibility of Office documents and Office applications http://adod.idrc.ocad.ca/ [last accessed July 2014]

Layout of the text

- **Alignment of text.** Text should be left aligned so that the starting point of the next line is easily found. Do not double justify the text as this will give irregular spacing between words. Instead, leave a jagged edge on the right hand side. Avoid indenting the first word of a paragraph.
- **Direction of text.** Text should always be horizontal. Ensure that it is clear where the next words are.
- **Spacing between lines.** As a general rule, the space between one line and the next should be at least 1.5 to 2 times the space between the words on a line.
- **Spacing between paragraphs.** Leave a space between paragraphs as this makes it easier for readers to follow the text. If you want a new paragraph to start on a new page, insert a page break at the beginning of the new paragraph. When a screen reader comes across the page break, it will jump straight to the next section. If it comes to blank spaces in between paragraphs, it will read out 'blank space, blank space'. This can make the document confusing and the reader may think that they have reached the end.
- **Margins.** Margins are important in a print version so that the reader can access all parts of the document if they use a magnifier.
- **Columns.** Do not use columns. It is easier for readers to follow the information line by line across the whole width of the page.
- **Recurring features.** Features that are found several times throughout the document, such as headings, page numbers and images, should follow a rule in terms of where they are placed each time, for example, images are right aligned.
- **End the document.** To signify that the document has reached its conclusion, write 'End of Document'.

Formatting the text

Typeface
Pocklington's preferred font is Arial.

Avoid highly stylised typefaces such as ornamental, decorative or handwriting. Research has been inconclusive as to whether either Sans Serif (such as Arial) or Serif fonts (such as Times New Roman) are more accessible for people with sight loss, but there is anecdotal evidence that suggests a clear Sans Serif typeface is preferable. [4] It will often come down to personal preference.

Type size

Clear print documents should use a minimum type size of 12 point, ideally 14 point. Large print documents are anything from type size of 16 point and upwards.

Modifying the letters

- **Capital letters**. Only use upper case letters when grammar necessitates, rather than for headings or emphasis. Words made up of capitals create a block, which is more difficult to read.
- **Italics.** Avoid italicising words as it can make them significantly harder to read.
- **Underlining.** Do not underline words as it obscures the full body of the letter.
- **Bold.** Bold can be used for emphasis of particular words but should be used sparingly.
- **Hyphenation.** Try to avoid splitting words at the end of a line as this disrupts the reading flow.

Hyperlinks

Hyperlinks are accessible in electronic, print and audio versions as long as the following guidance is applied:

- The screen reader will say 'link' out loud when it identifies a hyperlink. Make it clear it is there by using a cue, such as a phrase like 'Click on this link for…'
- Do not underline the hyperlink.
- If including a link in a hard copy, provide the whole URL in black font, and remember that phrases like 'click here' will need to be changed.
- In an electronic version, it is fine to leave the hyperlink in the blue font that it defaults to.

---

4 RNIB (2006), See It Right: making information accessible to people with sight problems, RNIB, London, p.31.

- If including a link in an audio version, remember that a long link will be harder to follow and type out. Alternatively, direct someone to find a particular page by typing a phrase into a search engine.

Bullet points

Bullet points and numbered points may be used. The best bullet point to use is the default circular one [●]. More decorative bullet points may be interpreted as graphics by screen readers. It is better to left align them rather than indent them. Do not use Roman numerals as the letters are difficult to differentiate from one another.

Text boxes

Text boxes should be avoided as screen readers tend to interpret them as graphics and miss the text that is written within them.

Quotations

To denote a quotation, use a quotation mark from the keyboard ('), rather than a graphic or italics. You may wish to increase the size of the quotation marks so they are especially clear. Another way of highlighting the quotation is to cue it accordingly with phrases like 'One participant reported that…' or 'Common responses included…'

Referencing

It is unlikely that one referencing style will suit everyone. The method you choose will vary depending on the number of references you have and the extent to which you think they should be read as part of the flow of the document, or only if readers wish to know the source of information.

Footnotes

Footnotes should be used sparingly, if at all. If they are used, please note the following:
- If someone is viewing the document with magnification, to read a footnote they must lose their place on the page and find it again.
- In a PDF, there is a risk that a screen reader will take the reader from the main text to the footnote and, once it's read through it, fail to return to the content flow.
- In a printed document, they should be point size 12 at a minimum.

- If feasible, avoid italics even in the footnotes.

Endnotes

If you use endnotes, the references will be grouped in a list at the end of the document. Again, this can cause the reader to lose their place in the document, but causes less disruption to the flow of the text.

In the body of the text

- References can be included in the body of the text. The name and date of the source is presented in between parentheses, for example (Name, date). The full list of references would then be presented at the end of the document in alphabetic order.
- Usually, screen readers will read out the parentheses that encompass the reference so it should be clear that this is a reference.
- This method does break up the flow of the text and if the reference contains multiple names it might be difficult to follow.

Images

Images include graphs, charts, diagrams, photographs, illustrations and symbols. It is important that all readers have access to the information they contain. There are certain rules that can be applied to ensure that images are accessible:

Position them appropriately in the document

- Images can be left aligned or right aligned, but must be consistently placed throughout the document.
- If text is being wrapped around an image, put the image to the right so that the text remains left aligned.
- Text should not be placed over an image as this makes the contrast less clear.

Add a description

Decide if the image requires a description

Any image that provides essential information that is not readily accessible elsewhere in the text, or that will form the basis of a discussion, must be described. It may not be necessary to describe decorative images.

Choose the most appropriate type of description

Consider what information you wish to convey through the image. You can describe the image in one the following ways:

- **Main text.** Include a description of the image in your main text.
- **Add a caption.** A caption can be used to clarify the type of image, its order in the document and a description of the information it contains.
- **Use Alt Text.** Alt Text is the text a screen reader will read out when it identifies an image in the document. To add a description using Alt Text in Word, right click on the image and select Format picture.

For helpful guidelines on creating meaningful descriptions for images, see:

WebAIM, Alternative text, http://webaim.org/techniques/alttext/ [last accessed July 2014]. This webpage shows you how to add AltText.

UKAAF (2012), Describing images 1: general principles. UKAAF, London. It can be downloaded from http://www.ukaaf.org/formats-and-guidance#accessible [last accessed July 2014]. This gives guidance on deciding which images to describe and how to make the descriptions meaningful.

Create large print images

Large print images are designed with high contrast and clearly designed print or large print text.

Create tactile images

Tactile images are made of raised lines, shapes and textures with raised text (such as braille). Experts are trained in converting a visual image into a tactile one.

Data tables

Simple and well-structured data tables are relatively accessible. The main issue is the lack of overview when someone with sight loss listens to a data table or uses a large magnification.

- **Structure.** Use the correct table mark-up, such as the in-built table function on Word, rather than emulating the visual table layout with spaces, tabs and line breaks.

- **Avoid complex tables.** Consider splitting complex tables into several simpler ones so that there is only one header per table.
- **Title.** Add a title or caption to each table.
- **Description.** The table must be accompanied by a description. Depending on the complexity of the table and what you wish the readers to take away from it, the description may include information about the general layout (such as number of rows and columns), the data within the table and any pattern that the data reveals.
- **Label the headings clearly.** Use meaningful column and row headings. Abbreviating words can introduce accessibility issues.

Charts and graphs

- **Description.** Charts and graphs often present accessibility issues, so it is crucial to add a clear description of what is being shown and what trends are apparent.
- **Display the data in a table.** Consider showing the data that you used to create the chart in a tabular form as well.
- **One graph per page.** If producing a hard copy, print each chart or graph onto a separate page.
- **Contrast.** Ensure that there is a good differentiation between the sections of the graph (for example the bars if it is a bar chart). Colours must be of good contrast. However, colour coding should not be the only way to indicate your point.

Photographs & Illustrations

- Photographs should not contain a lot of detailed information that could be inaccessible to readers with sight loss.
- They should be sharp and crisp with good contrast.
- Make the photograph as large as possible while still retaining image quality.
- Ideally illustrations should be line drawings with thick, dark strokes or outlines. Pictures with undefined edges, such as watercolour paintings, are harder to see.
- If the image contains text, ensure that this information is also displayed elsewhere, say in a description, as readers might not expect it to be there and miss it.

Forms, questionnaires and surveys

If the research team decides that a form, questionnaire or survey is the most appropriate way to collect data, it should consider the following:

- Forms, questionnaires and surveys can be conducted in a variety of formats such as large print, electronic and audio. Researchers are required to respond to individual preferences.
- Provide your telephone number so that a research participant can contact you in case they prefer that you complete the form on their behalf.
- You may wish to consider including a summary that describes the number of questions and sections, estimated time it takes to complete and any instructions.
- Tailor the structure and wording of the form to suit the format of the questionnaire. For example, a printed form that asks readers to 'tick the appropriate answer' would need to be amended for use in an electronic form.

Printed forms to be completed by hand

- Do not assume that people will be able to complete a printed form. It is best to ask people their individual preferences.
- Provide as much space as possible for the answers.
- If you use tick boxes, be consistent with their placement and make sure that they are clearly linked to just one answer. Put them on the left before the corresponding answer to avoid a jagged column of tick boxes on the right hand side.

Electronic forms

- Ask readers to respond with X rather than a tick as it is easier to find on the keyboard.
- Microsoft Word is a suitable file format with which to produce an accessible electronic form.
- Provide blank spaces for readers to give their answers rather than 'tick' boxes, as screen readers may interpret them as graphics.
- A colon character will usually be read out loud by a screen reader and is a useful way to indicate that their answer is to follow.
- To see examples of how you can phrase questions and structure your electronic survey so that it is straightforward and accessible, see Appendix 2 Electronic surveys.

Online survey tools

If your participants can access an online survey, and it is thought to be an appropriate methodology for the study, please note the following:

- Online survey companies may operate under different accessibility or disability legislation (American, EU, UK). For example, Survey Monkey measures its accessibility according to Section 508 (a federal law that outlines standards that make online information and services accessible to users with disabilities) and states that it is in accordance with it **except** the ranking question style, which asks respondents to rank options in order of preference.
- With each question, screen readers will read the question text first and then list the possible answers.
- Spend time thinking about the question style and design. Screen readers will verbalise different items (such as a drop-down menu) depending on how the individual has set theirs up, so presenting questions in the most simple and straightforward way can make your survey more compatible with different screen reader settings.
- Avoid a matrix structure. A matrix table type question has multiple columns and rows. It is better to list individual questions. For an example, see Appendix 3 Online survey tools.

For more information on the accessibility of survey tools:

Survey Monkey, Are your surveys 508 compliant and accessible? http://help.surveymonkey.com/articles/en_US/kb/Are-your-surveys-508-compliant-and-accessible [last accessed July 2014].

Snap Surveys, Snap Web Accessibility Guidelines – W3C http://www.snapsurveys.com/support/snap-web-accessibility-guidelines-w3c/ [last accessed July 2014].

Delivering a presentation

If the audience comprises mainly people with sight loss, it may be more effective not to use PowerPoint slides or videos and talk through the presentation instead.

If PowerPoint is being used:

- **Provide copies of the slides in advance and on the day.** Invite people to request copies of the presentation in preferred formats in advance. For example, some members of the audience may wish to receive an electronic version of the PowerPoint to read through in their own time. Others may prefer a slide per page print out of the PowerPoint on the day so that they can follow it through with a magnifier. The print out should use only black and white and be single sided unless the paper is of high quality, in which case it can be double sided.
- **Announce the use of PowerPoint.** The presenter should say at the beginning that PowerPoint will be used but that all text and images on the slides will be said out loud and described.
- **Audio describe.** All information on the slide should be read out loud. Any information presented by an image, data table or chart should be described. If there is a hyperlink you wish audience members to take note of, you will need to have sent it in advance or say that you will send it out following the presentation.
- **Add a sound effect.** Adding a sound effect to denote the next slide may help people follow the progress of the presentation, either when using a screen reader at home or during the presentation.
- **Contrast.** A good colour contrast between font and background, such as black text on a white background, is crucial. Your background should be a block colour, rather than faded or multicoloured.
- **Font size.** Use a minimum text size of 32 point. Use an extra slide rather than squashing items on one.
- **Limit the amount of information on the slides.** Put only the key points onto the slides. All additional information should be provided by the presenter.
- **Keep information static.** Do not use moving graphics on your slides.
- **Try to avoid complex charts and graphs.** Complex charts and graphs do not translate well to PowerPoint slides. If charts and graphs are essential, provide a hard copy of the relevant image.
- **Avoid extraneous images.** It is best to avoid decorative images and only include images that contain useful and relevant information. The image must be described by text or audio description.

For examples demonstrating what to do and not do when putting together a slideshow presentation, see Appendix 4 PowerPoint presentations.

If a video is used:
- Ensure that videos don't convey information in a purely visual way. If they do, the video either needs to be produced with a proper audio description, or visual action needs to be described during the video.
- Adjust the lighting so that there is not glare on or from the screen.

Emails

If participants prefer to receive information by email, it is good practice to consider the following:

- Send the body of the email in Arial, black, at least point size 16, or adhering to individual preferences if you know them.

- If you do not know someone's preference send your email as a plain text email format. Different browsers can interrupt these more easily and some will display the email using the user's preference settings.

Subject line
- Use a clear, meaningful subject line for your email. This will help screen reader users locate it in their inbox.

Attachments
- Attachments should be sent as Word documents. In the body of your email, explicitly say that it is there and which format(s) it is in.
- Name the attachment appropriately. Separating the words so that it is not one long, unintelligible, word will make it easier for screen readers to verbalise to the user.

Helpful resources

What are alternative formats?
Sensory Engagement, Accessible formats
http://sensoryengagement.auriondemo.com/assets/documents/Accessible_Formats.doc [last accessed July 2014] is a helpful resource describing the alternative formats available, published by

the partnership formed by RNIB, Action on Hearing Loss, NCBI and DeafHear.

How to make information accessible

RNIB (2006), See It Right: making information accessible to people with sight problems, RNIB, London. A book and companion CD-ROM giving practical advice on designing, producing and planning for accessible information. It includes information about all accessible formats, and checklists for each.

UK Association for Accessible Formats, Formats and guidance www.ukaaf.org/formats-and-guidance [last accessed July 2014] combines industry expertise and users' voices to produce and promote accessible format standards and guidance.

The accessibility of specific computer programmes

Accessible Digital Office Document (ADOD) Project, Accessibility of Office documents and Office applications www.adod.idrc.ocad.ca/ [last accessed July 2014] is a helpful resource as it details techniques for accessible Office documents based on the version you are working with – for example, Microsoft Word 2003, 2007, 2010 etc.

World Wide Web Consortium, W3C www.w3.org/ [last accessed July 2014] is the global authority on accessible web design standards.

Appendix

1. Styles

Styles inform the reader of the structure of the document. A screen reader will read out changes to styles. For example, as the Appendix is styled as Heading 1, a screen reader will say 'Heading one, appendix'. This informs the reader of the structure of the document. The most commonly used Styles are Headings (1, 2 and 3 depending on how many subsections the document has), List Bullet, List Number and Normal. They are displayed below:

Heading 1

1 Heading 2

1.1 Heading 3

Normal
- List Bullet
1. List Number

Hyperlink

2 Heading 2

2.1 Heading 3

The main features of the Style function are as follows:

- **Headings.** While a sighted person or a magnifier user might be able to tell that larger, bold text is a heading, screen readers will not differentiate it from the main body of the text. This makes it difficult or impossible to understand the structure of the document and to navigate around it. Using the Style function, headings can be made accessible by giving each one a 'heading level'. Apply Heading 1 only once to the main title of the document. Use Heading 2 for all major subheadings. Any subheadings beyond this should descend in number order. Try not to skip from Heading 1 to Heading 3 or 4 so that headings continue in a logical and hierarchical order.
- **Normal.** Normal should be applied to the body of the text. It is good practice to style all blank lines as 'Normal' too.
- **Lists.** List Number is helpful for numbered or ordered items, and List Bullet is helpful for other lists. A screen reader can announce the beginning and end of a list if it is styled in this way.
- **Modify the properties of a Style.** The properties of each style – such as font size, indentation and colour – can be modified by the author or the reader.
- **Document map.** Once you have applied Styles you can check the overall structure by using the 'Document Map' view.
- **Contents page.** Once you have applied styles, you can create quickly generate a contents list at the beginning of your document. This gives the reader an immediate feel for the structure, content and length of your information. It is also a helpful way to check that the document is styled correctly. To avoid having a large gap between the title and the page number, link them with a dotted line (known as a tab leader).

More detailed guidance on Styles can be found at the following resources:

Diverse Cymru, Making Word and PDF documents accessible: advice guide http://www.diversecymru.org.uk/downloads/Equality_Advice/making_Word_and_PDF_documents_accessible.pdf [last accessed July 2014] gives straightforward technical instructions on how to apply styles to printed documents and Alt Text to images.

RNIB, A guide to creating a Clear Print document that will work well when uploaded to iWebDocs https://webdocs.rnib.org.uk/Documents/iWebDocs_example_of_a_good_document_Word_2003_version.doc [last accessed July 2014] gives detailed guidance on how to apply styles to Microsoft Word documents.

2. Electronic surveys

When creating surveys to be completed electronically or by hand, think carefully about the most appropriate way to phrase the question so that it is as accessible as possible and instructions are clear.[5]

For 'tick box' style questions seeking simply 'yes' or 'no' answer:

1. Will you attend the event?
    Type Yes or No here:

For multiple choice questions, do not ask people to find tick boxes or click within boxes, but rather add an x, or assign letters to each answer as shown in the following example:

2. What is your preferred format?
A. Audio CD
B. Braille
C. Large print (18 point Arial)
D. Microsoft Word document with plain formatting sent by email
Type A, B, C or D here:

---

5 The examples are based on those given in: RNIB (2006), See It Right: making information accessible to people with sight problems, RNIB, London, p.110-111.

If you selected option D please type your email address here:

If you are inviting respondents to provide several responses:

3. Please tell us which of the following modes of transport you have used in the last month by typing an 'x' after each item as appropriate:
A. Car
B. Bus
C. Taxi
D. Train
E. If other, please specify here:

3. Online survey tools

If you are using an online survey tool, it is important to spend time thinking about the most straightforward way to phrase and structure your questions. If possible, practise the survey yourself using a screen reader.

Matrix table type questions, which contain several columns and rows, should be avoided. The table can be difficult to navigate through if a screen is magnified and only displays one section at a time.

An image of a matrix table type question is shown below:

Figure 1: An example of a matrix table type question

A better way to format the survey would be to separate the question into several individual multiple choice questions, as shown in the image below:

1. How important is it that your doctor is approachable?

◯ Extremely important

◯ Somewhat important

◯ Not important at all

Figure 2: An example of a multiple choice type question

4. PowerPoint presentations

The following three images show examples of an inaccessible slide, an accessible slide and a slide that shows how to include an image.

An example of a problematic slide

Text boxes should not be used as they are inaccessible to screen readers.

All text should be left aligned and not dotted around the page as it is difficult to follow.

The image should be left or right aligned

The typeface - at only 24 - is too small and the font is decorative. It should be at least 32 and in Arial.

The contrast between text and background is poor

Figure 3: An example of a slide that presents accessibility issues

Figure 4: An example of an accessible slide

Figure 5: A slide detailing how to present an image in a slide

The presenter could describe the image by saying 'A woman is using a CCTV to read her cookbook. The cookbook is placed under a magnifier and a zoomed in section of it is displayed on her computer screen'.

End of document.