



Handbook and Guidelines

Best Practice for the Production of Alternative Format Media

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Company Registered by Guarantee No. 2367626

for the Herefordshire and Worcestershire Lifelong Learning Network
Alternative Format Media Co-ordination Project



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GLOSSARY OF TERMS

Alternative Format Media (A.F.M.)

The presentation of material in various formats, including of Braille, large print, audio (tape, floppy disc, CD, DAISY, Digital Voice Recorder), Audio Tactile and Tactile to enable people with a print disability to access the information.

Assistive Technology/Supportive Software

Assistive technology is available in many different forms and including JAWS (Job Access With Speech); Supernova; ZoomText; Window Eyes; Easyread; ReadOut and Keyboard shortcuts.

Audio

A medium such as tape, floppy disc, CD, DAISY, Digital Voice Recorder used to record information which enables people with a visual impairment to have access to or to make their own recording.

Audio Tactile

A facility that uses a tactile image (overlay), that can be placed on a special unit so that when a specific point is touched a voice will describe the image. It is possible to program up to ten layers of information so that success touches can give additional detail.

Braille

A system which creates a character or cell using dots arranged in a grid of two dots horizontal by three dots vertical to donate characters. The presence or absence of dots gives the coding for each symbol.

Cassette Tape

Generally used to record personal notes, information in meetings or lectures using a tape recorder, Dictaphone or modified cassette recorder. Tapes can have either a 60 or 90 minute capacity.

Compact Disc (CD)

Standard CDs can hold up to 80 minutes of audio and will either be writable or rewritable.

Copyright

The law enforced by the 1988 Copyright, Designs and Patents Act created to protect an individual and/or company's right to control the way in which their materials may be used.

Digital Accessible Information System (DAISY)

A Daisy book is a digital talking book which is superior to regular audio books as it enables the print disabled to make book marks and move from chapter to chapter as well as page to page.

Educational Institution

Establishments where learners initially up to the age of 16, attend for compulsory education, then post 16 for further and higher education.

Employer

An organisation (or person) employing paid or unpaid workers to produce goods or services.

Further Education (FE)

Further education covers the types of education which go beyond what has been achieved in compulsory education, but which are not at degree level (Higher Education). Typically, further education includes A levels, AS levels and vocational qualifications.

Formatting

The process of arranging text, pictures etc in a specified format to meet the requirements of a house style or criteria of software such as PowerPoint.

Guidelines

Principles put forward to set standards or determine a course of action.

Higher Education (HE)

Higher education refers to studying for qualifications such as Diplomas of Higher Education, Bachelor's and Master's degrees. Many courses take place in universities, but can also be taught at higher education colleges, specialist art institutions and agricultural colleges.

Handbook

A reference manual giving advice and guidance on a subject.

House Style

A house style sets out how an organisation should communicate on all levels with internal and external audiences. Its purpose is to ensure a consistent, professional look in documents and publications.

Large Print

Documents produced in a greater font size to meet the needs of the end user.

Law

Legislation applicable to individual or international countries created to protect the rights of citizens, organisations or even countries.

MP3 or MPEG-1 Audio Layer 3

Is a digital audio encoding format for consumer audio storage for the transfer and playback of music and speech on a digital audio player.

Policies

Plans of action created by an organisation for the well being of all persons within that organisation.

Print Disabled

The print disabled group includes the blind, the deaf blind, the visually impaired, the dyslexic and those with motor impairments which make it difficult to control paper documents.

Procedures

Written processes that detail activities to be followed to achieve a task or course of action.

Reformatting

The process of altering the format of documents, so that they can be reproduced in a specific type of AFM to meet the needs of print disabled people.

Supportive Equipment

Input devices modified to make them easier to see and understand including keyboards with lowercase keys; big keys; large print keyboard with high contrast colours; large print adhesive keyboard stickers in high contrast colours; embossed locator dots help find the 'home' keys; scroll wheels on mice; foot-operated mouse; hand held or desk mounted magnifiers.

Tactile

Graphs, diagrams and simple pictorial information can be produced as tactile images to enhance learning. The use of tactile images will be complementary to Braille or audio versions of notes produced for lectures, meetings or training. Tactile images can also involve the use of many different types of materials such as wood, cloth, metal as well as shapes like cubes, tubes and spheres.

Visual Impairment

The term 'visual impairment' refers to people with irretrievable sight loss and this simple definition covers a wide spectrum of different impairments. It does not include those whose sight problems can be corrected by spectacles or contact lenses.



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Alternative Format Media

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What is Alternative Format Media (AFM)?

Alternative Format Media refers to the transcription of the printed word into a format other than standard print that can be accessed by people who have a print disability (a visual impairment).

There is a wide range of conditions causing a print disability from dyslexia to total loss of sight for which magnification may not be the answer. There are a variety of options available and it is important to select the most effective solution.

AFM is not just restricted to Braille and large print but will also cover a variety of audio, digital, tactile and audio tactile formats that could meet the needs of people who are print disabled.

Users Requirements

When producing documents for delegates, learners or members of staff it should be good practice to ask if anyone will require material in an alternative format to avoid being discourteous. Remember to allow extra time for transcription into Braille or audio.

For instance do not assume that because someone has little or no vision that they read Braille. There are between 15 and 20,000 people in the UK who regularly read Braille, around 1% of approximately two million people whose vision is such that they could be registered as blind or partially sighted. In addition diabetic retinopathy is a significant cause of visual disability among those of working age and can adversely affect the sense of touch.

Another factor is that a number of people with colour blindness may not be able to recognise particular colours or see any colours at all.

When notes are distributed at meetings, lectures or training events the participants may wish to emphasise points by highlighting or make annotations. Many people with an impairment may not have this luxury; therefore, it is essential to be prepared, in advance of the event, by asking if anyone has any special requirements for materials or equipment.

Types of AFM

Large Print

Many organisations will have their own House Style which dictates the type of font and size to be used. However, the plainer the font style the easier it is to read, keep to the Arial font, avoid the rounded and flowing cursive or fantasy styles.

Generally documents are printed in non bold and Arial font size 12. The text can be reproduced in larger font to suit the needs of the client; however, there are limitations to the size that text can be reproduced as large print. For example, this paragraph and a heading, reproduced as Arial 36 will fill an A4 page and even more if produced in Arial 36 Bold. As well as the implications in the size of the enlarged document there are the effects on costs.

This document is produced in Arial font size 12 but some examples of other font sizes are:

Size 8: - Many organisations will have their own House Style which dictates the type of font and size to be used.

Size 10: - Many organisations will have their own House Style which dictates the type of font and size to be used.

Size 18: - Many organisations will have their own House Style which dictates the type of font and size to be used.

As the font size increases the greater the loss of white space between words. Also when text is justified, as in this document, hyphenation may automatically occur at inappropriate places in words.

Before creating anything in large print preview the effect of changing the font size and check the outcome on diagrams etc. If the diagram or chart has been imported into the document then frequently the size of the image will not change. As a result it is very doubtful that it and the finer detail will be seen by the person asking for larger print. The diagram may need to be enlarged independently of the font.

It is important to remember some people may not be able to see certain colours or any colour. In those circumstances it may be advisable to ask if they would prefer certain colours of text or if they would like a description printed on the diagram of the illustrative colour(s). This may assist if the presenter refers to colours as part of the presentation.

Braille

The Braille system is a method that is used by print disabled people to read and write. Each Braille character or cell consists of six raised dots arranged in a grid of two dots horizontally by three dots vertically. The presence or absence of dots gives the coding for each symbol.

An example of a Braille cell



A dot may be raised at any of the six positions to form sixty-four permutations of letters and numbers, including the arrangement in which no dots are raised. A Braille cell is approximately 6mm / ¼” high, the same height as letters in Font size 26. A Braille book is typically at least 20 times as bulky as a print version. The lines of horizontal Braille text are separated by a space, much like visible printed text, so that the dots of one line can be differentiated from the Braille text above and below. Punctuation is represented by its own unique set of characters. Numbers are preceded by a cell which indicates that a number follows, so an additional cell is added where numerical information is shown.

Before creating anything in Braille it will be necessary to reformat the document. It must be in a plain font, like Arial, with the following removed:

- pictures;
- graphics;
- bold;
- italics;
- underlining;
- bullet points;
- headers and footers, including any page numbering.

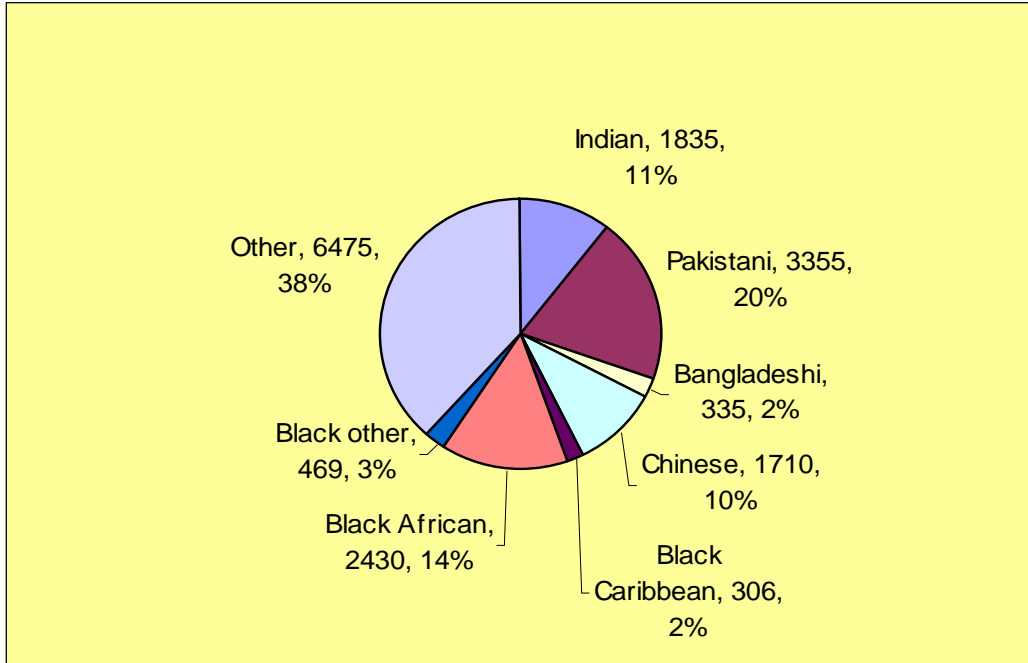
Brailled pages are numbered at the top right hand corner. If there is an index and/or references to page numbers in the body of the text, these will have to be amended to allow for the increased quantity of pages created during the brailleing of the document.

To avoid losing the impact of the picture or graphic to the document, include a description, at the appropriate position, of what the picture or graphic represents.

Many pictures, diagrams and graphs appear in documents in colour and the pie chart on the next page is typical. In addition to those who cannot see a colour, there are some people who have been without sight since birth and will not know what colours looks like.

The following graph and information is for illustration purposes only.

The pie chart may be created as a tactile image supported by a written description in Braille. However, because there are some very narrow portions, the pie chart could be split apart (exploded) to assist the print disabled.



“Ethnic groups of students in a further education sector:

The chart indicates the number of students by ethnic groups other than ‘white’ and ‘information refused’ and/or ‘information unknown’ in per cent and by headcount in a college sector.

Refer to tactile image number 1. Working clockwise from the top of the pie chart the breakdown is as follows:

Indian	1,835	11%
Pakistani	3,355	20%
Bangladeshi	335	2%
Chinese	1,710	10%
Black Caribbean	306	2%
Black African	2,430	14%
Black other	469	3%
Other	6,475	38%

The data shows that there were a total of 16,915 students, about 6.2 per cent of all students in that year, distributed across ethnic groups other than ‘white’ and where the information is ‘refused/unknown’. It indicates a substantial increase in the proportion of students declaring their ethnic origin”.

The same reformatting will apply to tables and indented information. It will be necessary to remove the table lines and borders, remember not to omit the information, from the document wherever possible.

Bear in mind the size of a Braille cell, this means that where data appears in a table it will not necessarily fit into a line of Braille across the page. Therefore the table data will probably have to be reformatted or rewritten.

For example in a simple table as below:

PRINTER/COPIER READINGS

Year & Month	Colour Copies		Black & White Copies	
	Reading	Monthly total	Reading	Monthly total
2007				
January	0008810	1,367	0011474	1,711
February	0011097	2,287	0012399	925

It may mean that the size of the headings and numerical data, with the additional cell, will result in the information only fitting into two columns across the page when converted into Braille.

Printer/Copier readings

Year 2007

Colour Copies

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Feb	0011097	2,287

Black & White Copies

Month	Reading	Monthly total
Jan	0011474	1,711
Feb	0012399	925

In summary, Braille is not just a straight conversion process as it frequently involves reformatting and/or rewriting as well as checking before it is finally embossed.

Audio

Recording to Cassette

Generally used to record information in meetings or lectures using either a tape recorder, Dictaphone or modified cassette recorder. The latter can be used to also record own thoughts, ideas, notes etc. The Dictaphone will use either micro or mini tapes, all have the capacity to record up to 60 minutes using both sides of the tape. However, there are tapes available which will record up to 90 minutes. The drawback is that the tape will need to be turned and in the case of the tape recorder there is a small portion at the beginning of the tape and the end which will not record any sound. This needs to be through the recording heads before anything can be recorded.

Digital Voice Recorder (DVR)

The digital voice recorder creates audio files of recorded sounds and speech. Depending on the type of DVR the facilities include up to 300 hours recording; USB connection to PC; up to 512 MB memory; built-in variable control voice actuator (VCVA) function; up to 5 folders; standard and long playback mode.

One very important point to remember is that when recordings are taking place the participants must avoid the tendency to hold more than one conversation at the same time, it is also essential that each speaker identifies themselves when they start to speak. Whoever is leading the meeting or lecture must be strict about ensuring that participants follow these simple rules.

Pre-recorded information

Cassette Tape There are still some people who prefer to use a tape as they find it easier to cope with than a CD player, MP3 or DAISY.

CD (also known as a Compact Disc). Standard CDs can hold up to 80 minutes of audio. Check if the CD can only be written to once and therefore the original recordings cannot be edited.

DAISY, or Digital Accessible Information SYstem A Daisy book is a digital talking book which, depending on the type of play back system used, is designed to allow the user to move around the text as efficiently and flexibly as a print user can:

- making bookmarks
- pausing
- moving from chapter to chapter
- heading to heading and page to page

DAISY can be suited to many print disabled people from dyslexia to non-sighted through its ability to synchronize text with audio. Using this framework, a talking book format is presented that enables the user to find their way around the contents easily.

DAISY books have the benefits of regular audiobooks, but they are superior concerning searching the content and displaying synchronized text. For example, DAISY books can enable users who are print disabled to move around an encyclopedia which as a regular audio book would be of little use because the reader lacks the facility to identify and quickly find a subject.

MP3 or MPEG-1 Audio Layer 3 is a common audio format for consumer audio storage, as well as playback of music on digital audio players.

Before downloading an audio version of text onto CD, DAISY or MP3 check that the speech pronunciation makes sense. Many electronic speech software systems may pronounce proper names, words, phrases or sets of initial letters as they appear and not as spoken for instance 'ECDL' can be pronounced as 'ec dl'.

Tactile

Talking Tactile Technology (T3) The T3 is an audio tactile tool and consists of a flat bed device connected to a computer or laptop. The equipment works using a CD, pre-programmed with information in audio format and an overlay which is created on special paper and heated to produce raised images.

The information must be downloaded from the CD into the computer or laptop before the overlay is placed face up on the screen. When a specific point on the overlay is touched a voice will describe what the image is, each contact point may have up to ten layers of detail. This means that each successive touch on the same image provides a greater depth of information.

T3 is not, however, a substitute for Braille but is a useful learning tool for many disabilities.

Other tactile images Graphs, diagrams and simple pictorial information can be produced as tactile images to enhance learning. Pie and bar charts as well as simple maps can be created using special paper on which the outlines are raised using a unique heating process. To assist with the understanding of the tactile image Braille may be added to the lines on a chart, a description of the diagram or map. However, it is worth remembering that many print disabled people do not read Braille.

Do not forget that in Braille, numbers are preceded by a cell which indicates that the next cell will be a number. It is important that enough room is allowed for this additional cell. Because of the size of Braille cells the wording should be kept as brief as possible but without losing any quality of information.

The use of tactile images will be complementary to Braille or audio versions of notes produced for lectures, meetings or training. Tactile images can also involve the use of many different types of materials such as wood, cloth, metal as well as shapes like cubes, tubes and spheres.

Copyright

A brief résumé for the purpose of this document:

The Copyright, Designs and Patents Act 1988 is the principal legislation protecting the intellectual property rights in the UK. When an individual or company creates a work including manuscripts, documents, manuals, leaflets, newsletters, articles, published editions of magazines and periodicals, computer programs and logos the creator has the right to control the way in which their materials may be used. In 1992 the Copyright (Computer Programs) Regulations extended the rules covering literary works to include computer programs.

The rights cover copying and adapting. In many cases, the creator will also have the right to be identified as the author and to object to distortions of his/her work. Normally the individual or collective who authored the work will exclusively own it. However, if a work is produced as part of their employment then it will normally belong to the person/company who hired the individual.

Under the Act permission to use all or part of material is allowed for private and research study purposes, copying or lending for educational purposes. Producing a back up copy for personal use of a computer program.

The duration of copyright may be anything from 25 to 70 years depending on the circumstances.

An Important Change to Copyright

A change to the Act occurred on 31 October 2003, and is called the Copyright and Related Rights Regulations 2003 (Statutory Instrument 2003/2498). The full text of the Regulations can be found on the HMSO website - <http://www.legislation.hmso.gov.uk/si/si2003/20032498.htm>

The following attempts to highlight a few of the many implications for FEs and HEs. However, managers within FE and HE should seek legal advice in case of any doubts about how copyright affects them.

The major features of the changes to the law

The Statutory Instrument is lengthy and complex. It brings into effect laws permitting copying by Visually Impaired Persons (or FEIs and HEIs wishing to make copies for students who are visually impaired). Some of the major changes to the law that are of relevance to UK FE and HE are as described below.

Visually Impaired Persons

The new law allows two situations in which producing "accessible" (e.g., large print, Braille, or audio, as appropriate) copies of copyright material for Visually Impaired People without seeking prior permission from the right holders do not infringe copyright. Visually Impaired People would be able to benefit from either or both exceptions depending on the circumstances.

First, single accessible copies of a work may be made by or on behalf of a Visually Impaired Person for their personal use. Various conditions apply to this exception. For example, activity under this exception is infringement-free provided that the Visually Impaired Person has lawful possession or lawful use of a "master copy" (this includes having a copy borrowed from the library) of the work and an accessible copy of the work is not already commercially available.

Second, multiple accessible copies of a master copy can be made for and distributed to Visually Impaired People without seeking the permission of the right holders as long as the author remains named, and as long as such copying does not interfere with the legitimate exploitation of the work.

Only educational establishments or bodies conducted not for profit may make copies under this exception. Where there is a licensing scheme covering the work or works in question the provision of multiple accessible copies will be subject to the terms and conditions of the scheme. For details of the Copyright Licensing Agency's (CLA) Visually Impaired Persons Licence see the guidelines accessible from the CLA website at <http://www.cla.co.uk/directive/vip.html>. The exception does not apply if there are commercially published versions of a work, no matter how expensive they are, which are accessible to Visually Impaired People.

These permissions only apply to literary, dramatic, artistic and to certain musical works, but do not apply to databases, films or broadcasts, for reasons that are unclear, but presumably because of vigorous lobbying by rightsholders representing these types of work. It also defines what is an "unreasonably restrictive" licensing scheme, which can in some circumstances then be overruled. This includes when the scheme purports to stop people doing what the law permits.

Fair dealing for research or private study

Much of the copying that goes on within HEIs and FEIs is defensible because of the well-known "fair dealing" exception to copyright, which hitherto has permitted copying for research or private study. The law has changed significantly in this regard. This exception is reduced to fair dealing only for research for a non-commercial purpose, or for private study. Furthermore, "private study" is now defined as NOT including "any study which is directly or indirectly for a commercial purpose" This could have significant implications for those undertaking private study with a view to gaining money in the future, and is discussed further below. There is also a new obligation that sufficient acknowledgement is required unless it is impractical. This forces people to use good citing habits, and also hammers home the importance of protecting the author's moral right to be identified as the author of a work.

Instruction or examination

Another important exception to copyright, widely relied upon by academics and students alike, is the permission to make copies of copyright materials for the purpose of setting, marking or answering examinations. The term "examinations" has been often interpreted (though it must be said without any legal precedent) to not just mean formal examinations, but also assignments and dissertations. The exception for setting or answering questions in an exam now requires the exam setter to provide sufficient acknowledgement of the source where practicable, but not the exam answerer!

Recordings of broadcasts by educational establishments

Many HEIs and FEIs also take advantage of an exception that permits the recording of certain broadcasts for educational purposes. There is a new requirement introduced for acknowledgement to be given. There is a new Clause, which states that copyright is not infringed if communication to the public occurs as long as any person outside the premises of the educational establishment cannot receive the communication. The problem here is defining "the premises", but prima facie this prevents distance learners at educational establishments having access via the Internet or an Intranet to such recordings. Of course, if the establishment has an Educational Recording Agency Ltd (ERA) licence, the problem will not apply to those broadcasts covered by the licence. There is also a statement that the educational purposes must be non-commercial. In practice, based upon comments made by officials at the Department of Trade and Industry (the Government Department responsible for copyright law), this is unlikely to cause a problem for FEIs and HEIs.

The above **Important Change to Copyright** contains extracts from a document written by Charles Oppenheim, Professor of Information Science at Loughborough University June 2004 and published on the Joint Information Systems Committee (JISC) Legal Information Service website - © June 2004

Hints and Tips

In General

- Ask if anyone needs any special requirements for materials or equipment well in advance
- Remember some people may not be able to recognise particular or see any colours at all
- Braille and large print may not be the most effective solution

Large Print

- Choose a plain font style when reformatting
- Check what effect enlarging may have on diagrams, pictures and charts
- As the font size increases there is a greater loss of white space between words and inappropriate hyphenation may occur

Braille

- Reformat to a plain font style and remove bold, underlining, italics, bullet points, headers and footers and all page numbering
- Can the pictures, graphs and diagrams be reproduced as a tactile image
- Include a description of pictures, graphs and diagrams before deleting
- Remember reformatting to Braille will dramatically increase the size of the document

Audio

- Covers cassette tapes, CDs, DAISY, MP3 and Digital Voice Recorders (DVR)
- Discussions and conversations can be recorded onto cassette tape, Dictaphone or DVR
- If a recording is being made at a meeting or training session either for personal use or distribution, strict control must be used to avoid more than one conversation taking place at the same time and speakers need to identify themselves
- Before downloading an audio version of text check to ensure that words are pronounced correctly

Tactile

- Simple graphs, pictures and diagrams can be made into a tactile image
- An audio tactile image can be created which has the facility to provide an extensive range of information
- Any form of material can be used to create specific tactile images
- Tactile images can be complementary to Braille and audio versions of materials for lectures, training or meeting

Copyright

- The principal legislation is the Copyright, Designs and Patents Act 1988
- It is there to protect an individual or companies rights to control the way their materials are used
- In 2003 a change to the Act occurred which permitted copying by Visually Impaired Persons or HEs/FEs on their behalf
- It is the organisations responsibility to ensure that there is no breach of copyright



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An example of a Braille cell

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Before creating anything in Braille it will be necessary to reformat the document. It must be in a plain font, like Arial, with the following removed:

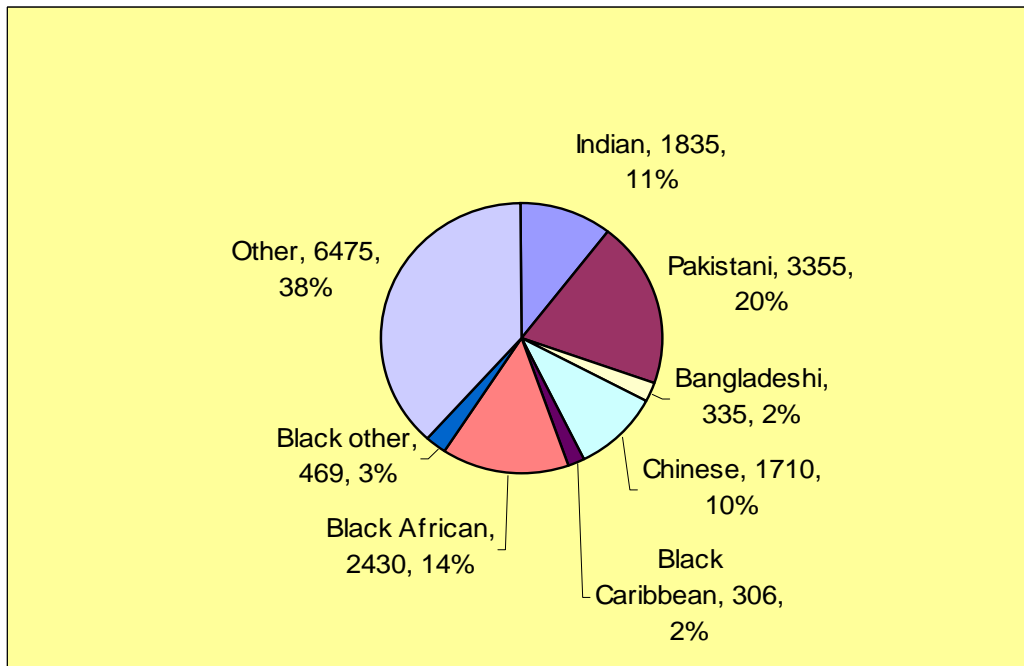
- pictures;
- graphics;
- bold;
- italics;
- underlining;
- bullet points;
- headers and footers, including any page numbering.

Brailled pages are numbered at the top right hand corner. If there is an index and/or references to page numbers in the body of the text, these will have to be amended to allow for the increased quantity of pages created during the brailleing of the document.

To avoid losing the impact of the picture or graphic to the document, include a description, at the appropriate position, of what the picture or graphic represents.

Many pictures, diagrams and graphs appear in documents in colour and the pie chart on the next page is typical. In addition to those who cannot see a colour, there are some people who have been without sight since birth and will not know what colours looks like.

The graph, data and information in the quotation marks are for illustration purposes only.



“Ethnic groups of students in a further education sector:

The chart indicates the number of students by ethnic groups other than ‘white’ and ‘information refused’ and/or ‘information unknown’ in per cent and by headcount in a college sector.

Refer to tactile image number 1. Working clockwise from the top of the pie chart the breakdown is as follows:

Indian	1,835	11%
Pakistani	3,355	20%
Bangladeshi	335	2%
Chinese	1,710	10%
Black Caribbean	306	2%
Black African	2,430	14%
Black other	469	3%
Other	6,475	38%

The data shows that there were a total of 16,915 students, about 6.2 per cent of all students in that year, distributed across ethnic groups other than ‘white’ and where the information is ‘refused/unknown’. It indicates a substantial increase in the proportion of students declaring their ethnic origin”.

The same reformatting will apply to tables and indented information. It will be necessary to remove the table lines and borders, remember not to omit the information, from the document wherever possible.

Bear in mind the size of a Braille cell, this means that where data appears in a table it will not necessarily fit into a line of Braille across the page. Therefore the table data will probably have to be reformatted or rewritten.

For example in a simple table as below:

PRINTER/COPIER READINGS

Year & Month	Colour		Black & White	
	Reading	Monthly total	Reading	Monthly total
2007				
January	0008810	1,367	0011474	1,711
February	0011097	2,287	0012399	925

It may mean that the size of the headings and numerical data, with the additional cell, will result in the information only fitting into two columns across the page when converted into Braille.

Printer/Copier readings

Year 2007

Colour

Month	Reading	Monthly total
Jan	0008810	1,367
Feb	0011097	2,287

Black & White

Month	Reading	Monthly total
Jan	0011474	1,711
Feb	0012399	925

In summary, Braille is not just a straight conversion process as it frequently involves reformatting and/or rewriting as well as checking before it is finally embossed.

Audio

Recording to Cassette

Generally used to record information in meetings or lectures using either a tape recorder, Dictaphone or modified cassette recorder. The latter can be used to also record own thoughts, ideas, notes etc. The Dictaphone will use either micro or mini tapes, all have the capacity to record up to 60 minutes using both sides of the tape. However, there are tapes available which will record up to 90 minutes. The drawback is that the tape will need to be turned and in the case of the tape recorder there is a small portion at the beginning of the tape and the end which will not record any sound. This needs to be through the recording heads before anything can be recorded.

Digital Voice Recorder (DVR)

The digital voice recorder creates audio files of recorded sounds and speech. Depending on the type of DVR the facilities include up to 300 hours recording; USB connection to PC; up to 512 MB memory; built-in variable control voice actuator (VCVA) function; up to 5 folders; standard and long playback mode.

One very important point to remember is that when recordings are taking place the participants must avoid the tendency to hold more than one conversation at the same time, it is also essential that each speaker identifies themselves when they start to speak. Whoever is leading the meeting or lecture must be strict about ensuring that participants follow these simple rules.

Pre-recorded information

Cassette Tape There are still some people who prefer to use a tape as they find it easier to cope with than a CD player, MP3 or DAISY.

CD (also known as a Compact Disc) Standard CDs can hold up to 80 minutes of audio. Check if the CD can only be written to once and therefore the original recordings cannot be edited.

DAISY, or Digital Accessible Information SYstem A Daisy book is a digital talking book which, depending on the type of play back system used, is designed to allow the user to move around the text as efficiently and flexibly as a print user can:

- making bookmarks
- pausing
- moving from chapter to chapter
- heading to heading and page to page

DAISY can be suited to many print disabled people from dyslexia to non sighted through its ability to synchronize text with audio. Using this framework, a talking book format is presented that enables the user to find their way around the contents easily.

DAISY books have the benefits of regular audiobooks but they are superior concerning searching the content and displaying synchronized text. For example, DAISY books can enable users who are print disabled to move around an encyclopedia which as a regular audio book would be of little use because the reader lacks the facility to identify and quickly find a subject.

MP3 or MPEG-1 Audio Layer 3 is a common audio format for consumer audio storage, as well as playback of music on digital audio players.

Before downloading an audio version of text onto CD, DAISY or MP3 check that the speech pronunciation makes sense. Many electronic speech software systems may pronounce proper names, words, phrases or sets of initial letters as they appear and not as spoken for instance 'ECDL' can be pronounced as 'ec dl'.

Tactile

Talking Tactile Technology (T3) The T3 is an audio tactile tool and consists of a flat bed device connected to a computer or laptop. The equipment works using a CD, pre-programmed with information in audio format and an overlay which is created on special paper and heated to produce raised images.

The information must be downloaded from the CD into the computer or laptop before the overlay is placed face up on the screen. When a specific point on the overlay is touched a voice will describe what the image is, each contact point may have up to ten layers of detail. This means that each successive touch on the same image provides a greater depth of information.

T3 is not, however, a substitute for Braille but is a useful learning tool for many disabilities.

Other tactile images Graphs, diagrams and simple pictorial information can be produced as tactile images to enhance learning. Pie and bar charts as well as simple maps can be created using special paper on which the outlines are raised using a unique heating process.

The use of tactile images will be complementary to Braille or audio versions of notes produced for lectures, meetings or training.

To assist with the understanding of the tactile image Braille may be added to the lines on a chart, a description of the diagram or map. However, it is worth remembering that many print disabled people do not read Braille.

Do not forget that in Braille, numbers are preceded by a cell which indicates that the next cell will be a number. It is important that enough room is allowed for this additional cell. Because of the size of Braille cells the wording should be kept as brief as possible but without losing any quality of information.

Tactile images can also involve the use of many different types of materials such as wood, cloth, metal as well as shapes like cubes, tubes and spheres.

Copyright

A brief outline for the purpose of this document:

The current act is the Copyright, Designs and Patents Act 1988. When an individual or company creates a work including manuscripts, documents, manuals, leaflets, newsletters, articles, published editions of magazines and periodicals, computer programs and logos the rights to control the way in which their materials may be used. The Copyright (Computer Programs) Regulations, which came into force in 1992, now covers computer programs for literary works.

The rights cover copying and adapting. In many cases, the creator will also have the right to be identified as the author and to object to distortions of his/her work. Normally the individual or collective who authored the work will exclusively own the work. However, if any work is produced as part of employment then it will normally belong to the person/company who hired the individual.

Under the act permission to use all or part of material is allowed for private and research study purposes, copying or lending for educational purposes, producing a back up copy for personal use of a computer program. However, if there are any concerns about the law and how it will affect the organisation it is advisable to check with legal representatives or by looking at the latest versions of the Act and Statutory Instruments.

Under The 1988 Copyright, Designs and Patents Act the duration of copyright may be anything from 25 to 70 years depending on specific circumstances.

Information derived from the UK©CS Fact sheet P-01: UK Copyright Law and should not be regarded as legal advice.

Hints and Tips

In General

- Ask if anyone needs any special requirements for materials or equipment well in advance
- Remember some people may not be able to recognise particular or see any colours at all
- Braille and Large Print may not be the most effective solution

Large Print

- Choose a plain font style when reformatting
- Check what effect enlarging may have on diagrams, pictures and charts
- As the font size increases there is a greater loss of white space between words and inappropriate hyphenation may occur

Braille

- Reformat to a plain font style and remove bold, underlining, italics, bullet points, headers and footers and all page numbering
- Can the pictures, graphs and diagrams be reproduced as a tactile image
- Include a description of pictures, graphs and diagrams before deleting
- Remember reformatting to Braille will dramatically increase the size of the document

Audio

- Covers cassette tapes, CDs, DAISY, MP3 and Digital Voice Recorders (DVR)
- Discussions and conversations can be recorded onto cassette tape, Dictaphone or DVR
- If a recording is being made at a meeting or training session either for personal use or distribution, strict control must be used to avoid more than one conversation taking place at the same time and speakers need to identify themselves
- Before downloading an audio version of text check to ensure that words are pronounced correctly

Tactile

- Simple graphs, pictures and diagrams can be made into a tactile image
- An audio tactile image can be created which has the facility to provide an extensive range of information
- Any form of material can be used to create specific tactile images
- Tactile images can be complementary to Braille and Audio versions of materials for lectures, training or meeting

Copyright

- The principal legislation is the Copyright, Designs and Patents Act 1988
- It is there to protect an individual or companies rights to control the way their materials are used
- Under the act permission to use all or part of material is allowed for private and research study purposes, copying or lending for educational purposes, producing a back up copy for personal use of a computer program
- In 2003 a change to the Act occurred which permitted copying by Visually Impaired Persons or HEs/FEs on their behalf
- It is the organisations responsibility to ensure that there is no breach of copyright



Guidance Information about Assistive Technology, Supportive Equipment and Software

Produced by the Royal National College, College Road, Hereford HR1 1EB
Telephone: 01432 265725 www.rncb.ac.uk
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for the Herefordshire and Worcestershire Lifelong Learning Network
Alternative Format Media Co-ordination Project

Assistive Technology (AT)

Assistive technology is available in many different forms and includes:

Electronic Technology/Software

There are a wide range of software applications available for use by people with visual or other impairments including some of the following:

- Job Access With Speech (JAWS). The purpose of JAWS is to make personal computers, using Microsoft Windows, accessible to print disabled users (visually impaired). It accomplishes this by providing the user with access to the information displayed on the screen via text-to-speech;
- Supernova has been developed for all print disabled, from low vision to blind. It is ideal for both individual users, who experience varying or deteriorating eye conditions during a working day or for institutional settings such as in school or work, that need to provide solutions for visually impaired groups with a range of sight difficulties;
- ZoomText is a screen magnifier for Microsoft Windows. It is available in two editions: ZoomText Magnifier and ZoomText Magnifier/Reader, which includes a built-in screen reader. There is also a cut-down version called ZoomWare, intended for a more mainstream market;
- Window Eyes provides those with no vision access to Windows based computers by speaking the contents of the computer's screen. All applications, word processors, Internet, email are available to those with no vision. Window-Eyes gives you total control over what you hear, when you hear it, and how you hear it;
- Easyread is a software digital talking book player, allowing the user to read and listen to content through a combination of text, audio and images. One of the main advantages of using EasyReader is that the content is easy to navigate through, a reader can skip through sections of the content and place bookmarks to highlight areas of interest;
- ReadOut CD-ROMs, which can only be used on a computer, contain material in electronic form synchronised with real-voice audio-recordings of text. Basic computer skills are needed to use ReadOut but it does have navigational software to search and locate material.

Other facilities include:

- Customisation of graphical user interfaces to alter the colours and size of desktops, short-cut icons, menu bars and scroll bars;
- Optical Character Recognition (OCR). Converts the printed word into text, via a scanner. Standalone reading aids integrate a scanner, OCR software and speech software in a single machine, these function together without a separate PC;
- Braille translation. Converts the printed word into Braille, which can then be embossed via a Braille embosser;
- Keyboard shortcuts and MouseKeys allow the user to substitute keyboarding for mouse actions. Macro recorders can greatly extend the range and sophistication of keyboard shortcuts;
- Sticky keys allows characters or commands to be typed without having to hold down a modifier key (Shift, Ctrl, Alt) while pressing a second key. Similarly, ClickLock is a Microsoft Windows feature that remembers a mouse button is down so that items can be highlighted or dragged without holding the mouse button down throughout;
- Customisation of mouse or mouse alternatives' responsiveness to movement, double-clicking, and so forth. Customisation of pointer appearance, such as size, color and shape;
- ToggleKeys is a feature of Microsoft Windows 95 onwards. A high sound is heard when the CAPS LOCK, SCROLL LOCK, or NUM LOCK key is switched on and a low sound is heard when any of those keys are switched off;
- Predictive text;
- Spell and grammar checkers. The spell checker software will only suggest a correction provided that the spelling of the word is similar to the correct spelling. It must also be remembered that the spell checker will not question the spelling where errors have occurred which create another valid word for instance 'weather' instead of 'whether' or 'there' instead of 'their' or vice-versa.

Hardware equipment

There are a wide range of items available that provide support to people with impairments including:

- Large monitors;
- Adjustable task lamp, using a fluorescent bulb, it shines directly onto the paper and the angle can be adjusted to suit;
- Copyholder holds printed material in near vertical position for easier reading and can be adjusted to suit;
- CCTV (Closed circuit television or video magnifier). Printed materials and objects are placed under a camera and the magnified image is displayed onto a screen;
- Desktop compact cassette dictation system. To allow audio cassette playback with the aid of a foot pedal;
- Scanner. A device used in conjunction with OCR software. The printed document is scanned and converted into electronic text, which can then be displayed on screen as recognisable text;
- Refreshable Braille display. An electronic tactile device which is placed below the computer keyboard. A line of cells which correspond to Braille text move up and down to represent a line of text on the computer screen;
- Electronic Notetaker. A portable computer with a Braille or QWERTY keyboard and synthetic speech. Some models have an integrated Braille display;
- Braille embosser. Embosses Braille output from a computer by punching raised dots onto continuous paper*. It connects to a computer in the same way as a standard printer;
- Perkins Brailler. To manually emboss Grade 1 or 2 Braille onto single sheets of paper*.

*This is a special, thicker quality paper for use in the Embosser and Perkins which allows the raised dots to be retained without loss through pressure when being read with the tip of a finger.

Supportive Equipment (SE)

Input devices may be modified to make them easier to see and understand:

- Keyboards with lowercase keys
- Keyboards with big keys
- Large print keyboard with high contrast colours (such as white on black, black on white, and black on ivory)
- Large print adhesive keyboard stickers in high contrast colours (such as white on black, black on white, and black on yellow)
- Embossed locator dots help find the 'home' keys, F and J, as well as 5 on the keyboard
- Scroll wheels on mice remove the need to locate the scrolling interface on the computer screen
- Footmouse - Foot-operated mouse

Other items include:

- Special lined notepads and pens with thicker nibs
- Hand held or desk mounted Magnifiers.

More ambitiously, and quite crucially when a keyboard or mouse prove unusable, AT can also replace these with alternative devices: trackballs, joysticks, graphics tablets, touchpads, touch screens, a microphone with speech recognition software, sip-and-puff input, switch access, and vision-based input devices.

Software can also make input devices easier to use.

Learning difficulties

There are also a number of programs and applications that can be run on a computer system which assist people who, for whatever reason, have learning difficulties and these include:

- Age-appropriate software;
- Cause and effect software;
- Hand-eye co-ordination skills software;
- Diagnostic assessment software;
- Mind mapping software;
- Study skills software;
- Symbol-based software;
- Text-to-speech;
- Touch typing software.

In addition to the above there is also the T3 (Talking Tactile Technology) package which can assist with the learning of subjects for all ages and abilities. The program uses a human voice which is activated when a specific point on an overlay is touched.

The voice will describe, using the correct pronunciation, what the image is and each contact point may have up to ten layers of detail. This means that each successive touch on the same image provides a greater depth of information.

It must be emphasised that the T3 does not replace other forms of Assistive and Supportive Technology/Equipment, it can work alongside them.

Support with the cost of AT/SE may be available through the Government's 'Access to Work' scheme.



Alternative Format Media (AFM)

Guidelines on what you may expect from an Employer, Training or Educational Establishment

Produced by the Royal National College, College Road, Hereford HR1 1EB
Telephone: 01432 265725 www.rncb.ac.uk
Company Registered by Guarantee No. 2367626

for the Herefordshire and Worcestershire
Lifelong Learning Network
Alternative Format Media Co-ordination Project

There is a wide range of conditions from dyslexia to total loss of sight for which Braille or magnification may not be the answer. It is important to select the most effective and efficient Alternative Format Media solution, from the variety of options available, for you.

What is Alternative Format Media (AFM)?

Many believe that Alternative Format Media is restricted to Braille and Large Print, but it also covers a variety of audio, tactile and audio tactile formats that could meet the needs of people who are print disabled (having a visual impairment).

What Formats can you request?

Apart from Large Print and Braille there are a number of Audio options such as Cassette Tapes, CD's, DAISY and MP3, as well as Tactile images which include Audio Tactile. This is not an exhaustive list and the organisation may have access to or use other formats.

If you require training materials, organisational documents or articles in a specific or preferred format do not be afraid to ask. However, allow sufficient time for the organisation to produce the material, especially if it is for Braille which invariably requires reformatting and may not be produced in house but have to be ordered from a specialist supplier. The same will apply to producing audio, tactile and audio tactile images.

Your Requirements

Your existing or future employer, training or educational establishment may not automatically know about your eye condition. If you have a gradual sight loss due to illness or an accident, you are unable to recognise particular colours or see any colours at all do not hesitate to let someone know.

You may feel sensitive and not wish to openly discuss your eye condition, nevertheless, to avoid causing anyone, especially yourself, any embarrassment you should advise someone with responsibility for disability support as soon as possible. They should be able to make the necessary arrangements for you to receive whatever support you require.

Support with travel and specialist equipment in the workplace may be available through the Government's 'Access to Work' scheme.

The Disability Discrimination Act requires that organisations make "reasonable adjustments" to enable access to services by people with disabilities. One definition of reasonable is 'realistic' and although this is intended to apply to the organisation it could apply to you. You need to be realistic about your requirements, for instance as a rule a Braille book is 20 times greater than the print version. Could you manage with a different format i.e. DAISY?

Section 6



Support and Advice

Help, support and advice can be obtained from:

Royal National College for the Blind
College Road
Hereford
HR1 1EB

Tel: 01432 265725

Email: info@rncb.ac.uk

All the documents in this portfolio have been structured in such a way that they can be changed to Braille, Large Print and Audio with the minimum of reformatting