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Designing better documents with desktop publishing

The Page in Print
Second edition
Sue Stoney and Jan Herrington
The Page in Print
Designing better documents with desktop publishing
Second edition

Sue Stoney and Jan Herrington
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Sue Stoney and Jan Herrington
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Preface

The ready availability and sheer power of desktop publishing has forced many users and producers of documents to look beyond the mere presentation of words on a page. Even the most rudimentary of word processors gives the user the power to produce professional documents that command the reader's attention.

This book was originally published in 1994 in response to the growing demand for guidance in producing documents in the face of an abundance of choice. This new edition has included extra material on electronic publishing, including a chapter on designing electronic documents for applications such as the World Wide Web. The book has been produced to offer an easy and painless introduction to desktop publishing and its principles, regardless of the medium. The Page in Print: Designing Better Documents with Desktop Publishing is supported by the smaller reference book A Thumbnail Guide to Desktop Publishing which provides a ready reference guide to terminology and concepts central to document production.

Although designed to work together, both books can be used independently as a standalone resource. The package has been produced for anyone who regularly works with words and images on a page or screen: business people, students, lecturers, teachers, and writers.

Sue Stoney and Jan Herrington
The Desktop Publishing Revolution

Over the last ten years, the computer—or more specifically, desk-top publishing—has radically changed the way businesses and institutions create documents. The desktop publishing revolution has moved the traditional typewriter, scissors, glue and ruler from the desk into the computer. The capabilities of desktop publishing software allow anyone with a computer to access the power of the press without the prior training given to graphic designers, and often without the skills and knowledge required to be effective.

Businesses and institutions in the '90s need to compete and this means that the quality of their documents has to improve to give them a competitive edge, and provide a more professional image. Roughly 8%–10% of the costs of an average business are spent on printing and desktop publishing has provided the impetus necessary to achieve high quality publications for a relatively low cost. For example, a brochure printed by traditional means ten years ago that cost a business $25 000 would now cost in the region of $2 000—a huge saving. The savings average between 50% to 99% depending on the size of the job and the desired quality of the finished product. Some desktop publishing jobs will cost nothing but the paper they are printed on!

Lichty (1994) claims that over 150 000 newsletters are published on a regular basis and that this figure is expected to grow by 40% per year. The implications of this are enormous.

Who are the people producing these newsletters? Who are the writers? Who are the designers? One and the same, in all probability.
The revolution

Desktop publishing evolved with the advent of the Apple Macintosh computer, the Laserwriter printer, the mouse, scanner and appropriate software. Almost every personal computer is now capable of producing typeset quality documents. This means that every business and institution, no matter what its size, has the capability and potential to produce many of its publications in house for enormous cost savings. As the cost of hardware continues to fall and the capabilities continue to rise, more and more offices, individuals and groups are purchasing the equipment to give them the facility to produce their own documents to a publishable standard.

Desktop publishing software is one of the most popular and fast-growing applications for personal computers available today. Almost anyone who has a computer on their desk could be asked to produce an advertisement, a brochure, a newsletter, a training manual or even a book!

These people need to understand the modern conventions of layout, design and typography.

Typewriting conventions

Secretaries, typists and personal assistants who might previously have prepared documents in a style similar to that below left, are now being asked to lay documents out to a professional standard (below right).
Some of the problems being encountered are to do with the fact that many secretaries have been traditionally trained on typewriters. Typing conventions are quite different from desktop publishing conventions; from details such as spacing after punctuation, spacing between paragraphs and the use of typographical conventions.

**The single-handed publisher**

There is also an increasing trend for individual workers to produce documents—from conception to publication—single-handedly. It is no longer the norm to hand-write pages, give them to a typist or word processor operator, proof read them, make changes, and so on until they are reasonably happy with the result. Many people now choose to compose *all* their documents on computers because they have computers on their desks, because they can write and edit until they are happy with the final product, and most importantly, because they use the computer as an aid to the writing process.

The flow-on effect of training people in the conventions of desktop publishing is that every document produced should have improved readability, legibility and appearance—a result which can only enhance the professional image, and possibly the productivity, of the organisation.
Hardware and Software

A computer system is made up of two main components: the hardware and the software. The hardware is the physical equipment and includes items such as the keyboard, mouse, monitor, processing unit and printer. Software is application programs—generally bought off-the-shelf—which provide the means by which the text and graphics can be laid out and arranged.

Hardware comes in a multitude of configurations, and choice depends upon personal preference, ability to handle necessary software, price, usability and upgradability. There are two main categories of computers used by desktop publishers: Macintosh and Windows-based personal computers.

Hardware

When considering hardware for desktop publishing, you may find that existing computing equipment is adequate for most requirements. Once projects become more challenging, it may be necessary to upgrade existing facilities to include more memory, a bigger hard disk, a CD-ROM drive and a larger, higher resolution monitor. Internet access may also be important to access resources and publish on the Web.

Random Access Memory (RAM)

The famous adage, coined by the Duchess of Windsor, is that you can never be too rich or too thin. You can add to this that you can never have too much RAM! Random Access Memory is the part of the computer which stores programs and data until it is saved to disk, or until the computer is switched off. The minimum RAM that you should look at for desktop publishing is 8 megabyte (Mb). This
minimum is fast becoming 32Mb. Most new machines are capable of being upgraded to 64 and 120Mb—bigger than some hard disks in current use!

Generally speaking, you should buy the biggest RAM size that you can afford, or at least ensure that the upgrade facility is substantial. RAM size has become a crucial issue as the software programs are becoming huge and are requiring more and more memory to hold them. A cheap method of increasing RAM size is to buy a piece of proprietary software which can double the size. Be very careful when selecting such an option as many of these can be incompatible with applications software which you may be running.

**Hard disk**

Large disk or hard disk storage is required to store the data, documents and files that you have created, and also the application programs. You will find that many projects consume hard disk space at a terrifying rate, especially graphics and photographs. Again, buying the biggest you can afford is a wise move. The minimum you should be considering is 80Mb, but 500Mb would be considerably better.

There are software programs around which effectively double the size of your hard disk by compressing the data, but again a word of caution—some can have diabolical results on existing programs, particularly telecommunications. Disk compression software can often slow your system down to a crawl and is often not considered worthwhile. There are however, one or two very good (and more expensive) programs on the market which compress and decompress your data ‘on the fly’ with a negligible effect on speed. Make sure you choose a system which does not alter your data in any way (known as lossless compression).

**CD drives**

You may find that much of the software you would like to have to enhance your documents comes on CD-ROM disks. CD-ROM stands for Compact Disk Read Only Memory. They are much like the CDs we are familiar with for music recordings. CD-ROMs are capable of storing many hundreds of megabytes of data, and require a special CD-ROM cutter to press them. CD-ROM is ‘write once’ technology—they cannot be written over many times. Many of the software houses are now using CD-ROM because the size of software programs are becoming enormous. Clip Art and fonts are also being packaged on CD-ROMs, again because of the capacity. This is a very useful facility because it allows you to copy only what you need on to your hard disk, whilst having the option of having the rest readily to hand.

When buying a CD-ROM drive buy the fastest you can afford and check out the technology of the day (it changes frequently). CD-ROMs have a variety of different
standards and it is important that you buy one which can read as many different formats as possible.

A very useful CD-ROM technology is the Photo CDs. The Photo CD allows you to have your photographs embedded on the CD-ROM for integration into your documents. The CDs are capable of holding 100 photographs, but you do not have to add them all at once. They can be added incrementally as you take them. A disadvantage is that the resolution of the photographs is much lower than using 35mm and full pre-press facilities.

**Monitors**

The general rule in desktop publishing is the bigger the monitor, the better. This allows you to view the full page layout, or even two pages side-by-side if the screen is big enough. The minimum size you should be considering is 15 inches, and remember that monitors are measured diagonally, not along the top or sides.

There are a number of types of monitor—CRT, Trinitron and flat panel. For desktop publishing you probably won’t consider the flat panels as they are not yet large enough, and the colour monitor is very expensive. As you are going to be reading from your screen for long periods you want to find one which offers high resolution and good focus.

The Trinitron monitors are generally considered the best for this type of application. You will also want a flat, square screen so that graphics are not distorted, and coated to minimise reflected glare. Try to work in a non–fluorescent environment with incandescent light as your light source.
Scanners

There are two major types of scanners used by novice desktop publishers—the flatbed scanner and the hand-held scanner. Black and white and colour scanners are available, but most users will want to be able to scan a coloured image.

A scanner will allow you to put images from an external source into your document. The scanner works a little like a photocopier, except that it will digitise the image to disk and from there you can manipulate it, crop it, change colours of elements and so on. There are two types of scanning software—image and OCR (Optical Character Recognition). The image software will scan anything in as an image only, and you can manipulate it as an image. If you want to be able to scan in text and edit it with a word processor, you will need OCR software.

Digital cameras

There are now digital cameras which work in conjunction with a PC or Macintosh computer. These cameras use a battery for power and have a mini memory built into them to store the images. Price will vary, depending on how many high resolution images the camera can store.

Once the photographs have been taken, the camera can be connected to the computer with a cable, and the images downloaded into memory. They can then be imported into documents or edited as if they had been scanned in. The advantage of the digital camera is that it can take the photograph and download it straight to the computer, unlike the scanner where the photograph has to be taken, processed and then scanned. For many applications, digital cameras can have a very useful role.

Printers

There are three main types of printers used by most small to medium organisations for their desktop publishing—dot matrix, ink jet and laser.

The dot matrix gives the poorest resolution, and although it is a cheap means of printing, the printed output will always look amateurish. The ink jet method of printing continues to improve and is a cheaper option than laser printing, but can lack the crisp look of the laser. Whilst the resolution is generally around 360dpi (dots per inch—the more the better) the characters can be thick and somewhat fuzzy. They are also frustratingly slow, particularly when printing pictures. Colour ink jet printers are now affordable and are a reasonable option for the Small Office, Home Office (SOHO) user, but if you want the very best image for text at a reasonable cost then the laser printer is the one to buy. Laser printer resolution starts at 300dpi and goes up to 2400 dpi (with a proportional cost increase, of
course!). Printing costs are less than you would pay a commercial printer and printing speed is markedly higher.

**Colour printers**

Thermal transfer printers are generally fairly low resolution and work in a similar fashion to dot matrix in that they have a series of pins which are heated and which melt four different colours from thermal wax sheets on to the paper. These printers have a printing standard of 300dpi. The four colours used are blended (or dithered) to produce other colours. The advantage of the thermal transfer printer is that they are generally fairly cheap with an average print cost of 80 cents per page. One of the major problems with thermal transfer is that the coloured wax can rub off.

Dye sublimation printers are mid price printers. The printing process is very similar to the thermal transfer in that there are multicoloured sheets of cling film which are advanced over the paper one colour at a time and the dye is sublimated on to the paper. This method of printing is good for high quality drafts or for final prints when high resolution is not necessary.

Coloured ink jet printers are now totally affordable for the SOHO environment. The printer is fitted with a number (usually three or four) of different cartridges of coloured ink which are again dithered to produce the final blended colours. It is important to note that three cartridge printers blend yellow, red and blue to make black. As 90% of most printing is black, this is an expensive method. Four cartridge colour printers may cost more to run but they are less expensive to run. The cost per page varies between 90 cents and $1.30, and the final output is very good for solid graphics, but not so good for half tone photographs. Ink jet printers are very good for short run jobs, for example, menus, and the finish is permanent.

The wax jet printer is similar to the ink jet, except that blobs of wax are blown on to the paper. The wax colours are held in separate containers which can be plugged in as needed. The printer is not as cheap as an ink jet. The final output is 300dpi, and the printer can produce a page of coloured printing fairly quickly, which, together with the low cost, makes it good for high volume jobs. The quality is not the highest, but it is certainly good enough for final proofs if very high resolution is not called for.

Overall, the thermal wax is the most consistent, but the highest quality colour printing employs a system of separated film—a separate negative for each of the colours to be printed, either for spot colour or for four process colour printing. The colour is produced by having overlapping screens of fine dots which form overlapping rosettes which blend the final colours together.
Software

The software required for desktop publishing consists of page layout software, graphic design and illustration software, photograph manipulation software and occasionally some software allowing the user to manipulate type into shapes. It is possible for the novice to use just the page layout software to complete a job, but once the projects become more ambitious, some of the other, more sophisticated, software will become necessary. Page layout software comes in a variety of capabilities, ranging from Aldus PageMaker and Quark XPress for the high end user, to Framemaker which is considered mid-range to Home Publisher for the SOHO user.

Examples of graphic design and illustration software include Aldus Freehand and Adobe Illustrator. Photograph manipulation software includes Adobe's Photoshop for high end users and Apple's PhotoFlash for low end users. Broderbund's Typestyler is one example of software allowing the user to fashion headings and single words into shapes, including pennants, circles and squares.

It is possible to produce very good quality documents using some of the high-end word processing packages currently available. Most of these allow graphic manipulation and importation, text layout into columns, a variety of styles using stylesheets and different formats. It is important to ensure that your software allows a WYSIWYG (what you see is what you get) view, otherwise you will have to be constantly printing to ensure that your document looks the way you want it.

Text handling

There are many desktop publishing software programs on the market, ranging from very cheap to very expensive. What are the differences? The biggest variations between the programs are in the text handling capabilities, and very often you will need to evaluate these when choosing your software. However, you will find that some of the cheaper programs have a surprising number of the text handling abilities of their more expensive counterparts. Some of the more useful text handling features are listed below:

- Column grids
  Many programs are able to generate on-screen guidelines or grids which allow you to specify margins, column widths and spaces between columns. Grids also allow you to place elements on the same place on each page.

- Free rotation
  This is a feature found in many of the new packages which previously required a drawing package. A free rotation tool allows you to rotate text and graphics through 360° allowing you to make text into a graphic element.
• **Stylesheets**
Styles simplify repeat jobs and provide consistency throughout a document. Instead of formatting each type of text separately, once you are happy with the formatting, you can make it a style and apply the group of characteristics with a single command.

• **Text wrap**
Some software applications impose severe restrictions on text wrap. Text wrap is the ability to shape text around a graphic, and is a useful feature for adding graphic interest. It can also be used to shape text for appeal in layout.

• **Filters**
Filters allow you to import your text from a word processing document complete with formatting. Check that your word processing software is supported by the page layout software.

• **Page masters**
It is useful to set up a master page so that key elements, such as page number, document title, logos and so on, appear in the same place on every page. If you intend using facing pages, check that the master page handling can cope with this.

• **Table of Contents**
Some programs will automatically generate tables of contents and indexes.

• **Document length**
Some of the cheaper software programs have serious document length restrictions. If you are planning a book, check out this text handling ability.
• Autoflow

If your imported text block is too big for the page or column, autoflow capability will add extra pages to hold the remaining text.

• Internet

Some packages allow you to convert text to a form which is readable on the Internet (such as HTML). This enables users to download the document directly into an Internet format without having to manually add all the formatting codes, which is a tedious and time-consuming task.
CHAPTER

3

Introduction to Typography

One of the most important elements of desktop publishing is typography, the assembly of type and letter forms to present the printed word. Good typography can make an enormous difference to the way a page presents, as well as increasing the readability and legibility of the document. Good typography will not only make it easier for the reader to read the document, but will also make the reader want to read it.

In order to make informed choices on formatting characters, it is necessary to understand the mechanics of typography and some of the terminology.

Typefaces

Computers have helped in the evolution of type. Modern type is much more readable than the type of Gutenberg's day. There is also a vast array of typefaces available for every type of document and desired image. Typefaces also includes the more esoteric characters such as Dingbats which can add graphic appeal to documents. There are also specialist typefaces available for applications such as writing music and illustrating maps. Software tools are available which allow the users to create their own typestyles based on standard fonts. This is a boon to the desktop publisher as it is then possible to create original looking graphical effects from existing fonts. Some of the tools generate random looks to the type.

Page formatting is an important element of typography. The more appealing and well laid out the page, the more likely it is to be read. There is an art in combining text and graphics in such a way that the readability and legibility of the page is enhanced.
**Postscript fonts**

Postscript is an essential piece of software which is used to ‘describe the appearance of text, graphical shapes, and sampled images on printed or displayed pages’ (White, 1994, p. 41). Postscript is a language which can be used on any computer platform and is used to describe the appearance of a page as a whole. Text characters are treated as graphical shapes which allow them to be manipulated in a variety of ways (scaled, resized and distorted). The Postscript files are sometimes installed in the printer, but they can also be held in the computer.

Postscript allows high resolution printers to produce high quality type without individual files for each size. Postscript is a well established desktop publishing standard, with huge selections of typefaces available. Postscript itself is a programming language used for printing graphics. Your document is converted into a program which draws the images onto paper with a laser beam.

**TrueType fonts**

Developed by Microsoft and Apple, TrueType is a font technology built into the Apple System 7 software. TrueType and Postscript are converging to become totally compatible. TrueType fonts don’t rely on postscript and can therefore be used with the computer’s system fonts. They also allow type to be set at any size without distortion and allow the user to see an accurate representation of the font on the screen.

**Bitmapped fonts**

Bitmapped fonts have characters which are formed in particular patterns of dots. In order to use them, the computer needs to have a full range of fonts in every size and style, requiring large amounts of storage. Some software can scale the fonts, but the result is often unattractive jagged edges. Bitmapped fonts do not smooth out the edges like outline fonts. They are generally not suitable for desktop publishing because they do not allow sufficient range of sizes and sometimes styles. They are often found on freeware or shareware diskettes. If you are not sure whether a particular font is bitmapped, test it at an unusual point size, for example, 19.3. If it is bitmapped it will look very unattractive.

**Anatomy of type**

Characters are generally measured in point sizes, but some typefaces appear smaller on the page than others, even though the point sizes are the same. This is because the x-height of fonts vary. It is the x-height of a font which is critical for legibility. The diagram opposite shows the various components of characters.
Readability and legibility

A readable font helps the reader to read a long passage easily without distracting the reader with unusual features, such as long ascenders or unusual letter forms. Legibility is what makes a short piece of text jump out at the readers, for example the STOP in a stop sign.

Type styles

When planning the layout of your document, you will need to consider which typestyles you want to use to reflect the image or "feel" of the document. Typefaces are grouped into several categories: Roman or italic, serif or sans serif and script and italic.
Roman

Roman fonts are a classification which have normal weight with thick and thin, no slant or tilt and are generally fairly formal. (This is Times Roman.)

Italic

Italic typefaces, with their vertical tilt, contrast with straight or Roman typefaces and are often used where emphasis is required. (This is Palatino italic.)

Serif and Sans Serif

Fonts used for general documents come in two broad styles, serif and sans serif. Serif fonts have little strokes, or feet at the end of each part of the letter. Sans serif fonts are without these strokes. For example, compare the two words below:

Serif WET
Sans serif WET

Serif fonts, with the strokes, are best used in long passages of text because they are more comfortable to read and are more recognisable. For example, look at this word:

III

This sans serif combination could easily be mistaken for the Roman 3. The serifs in the example below, however, show clearly that it is the word III.

III

A child reading Aladdin could read one of the character’s names:

Iago

as Lago. The capital l could easily be mistaken for a lower case L. A serif font makes the initial letter beyond doubt:

Iago
By changing the body style of your document to a typeset font with serifs, you immediately have a better looking, more inviting and readable document.

Sans serif is considered to be a modern, clean looking and functional typeface and is very useful for headings or small bodies of text. While serif fonts are more readable, sans serif fonts are more legible, that is, more recognisable.

For example, compare the following for instant recognisability:

DANGER    DANGER

Sans serif fonts are best for shorter blocks of text with a lot of white space around them which makes them ideal for headings.

Script

Script types represent handwriting or calligraphy and can be very elegant used in invitations and announcements. They should be used selectively and not for general text. And they should never be used in all capitals!

This is a very formal and elegant script face.

This is an old English heavy script style.

This is a childlike style which simulates hand printing.

This is a very robust, but formal script style.

This stylish typeface is very effective in moderation.

This is a very functional style which possibly could be used for text in the right document.
This script style simulates brushstrokes.

This script has a touch of the exotic.

And this is all capitals. Can you read it?

Decorative

Decorative type can add beauty and distinction to a page. They are most often used for headlines or display text, but are considered too difficult to read for the main body of text.

This decorative face is quite childish.

This one is like a stencil.

This is a very chunky one.

This decorative font is very twenties.

This one is quite laidback.

This one is made up of little lines.

This is extremely elegant and romantic.

This one is very casual.
**Pi fonts**

Pi faces cover all the fonts which contain no alphanumerical characters, but instead include small graphics which can be used to decorate or add graphical elements to your document. They are particularly useful for bullet points.

The most common Pi Fonts are Wingdings and Zapf Dingbats and the range of graphics include those below:

![Graphics](image)

**Selecting a typeface**

Using all your favourite typefaces in one document is like wearing all your favourite clothes at once! Some will be of a lighter weight than others, the length may not complement the other clothes you are wearing, and may also give the wrong colour combination. Combining fonts will create exactly the same problems unless you choose with care and ensure that your fonts complement each other and give the required look and feel.
Do not fall into the trap of selecting a typeface because you particularly like it or because it is unusual. Typefaces must be in harmony with the subject matter about which you are writing, otherwise they become distracting. For example:

**French Restaurant**

A French restaurant being advertised with an oriental style font causes a conflict. Similarly, there is a real conflict in the meaning of the phrase and the typeface used here:

**Holiday in the Sun**

The feel of this announcement is quite different to its meaning: it’s a serious meeting but the mood is pure cocktail party!

**Union Meeting at 12.00 noon**

Many decorative typefaces are often difficult to read and should only be used for headlines or display. Used badly they can destroy your document. But used selectively and effectively, they can transform the ordinary to the dynamic.

The final word on selecting a typeface is that you must think about your objectives and your readers. For example, if you want to catch your reader’s eye, use a display font for headings or outquotes.

If in doubt, exercise restraint. Print off some samples and ask yourself if this is the look you really want.
Layout: Planning and Design

The key to successful document design is to plan. Planning not only involves how the finished document will look, but also takes into consideration such fundamentals as size of paper, type of paper, colour, ink colour, and the size and shape of the finished document.

Thumbnail sketches

The first step in the planning process is to roughly sketch your ideas out on paper. Example are shown below:
These 'thumbnail' sketches, as they are known, should be executed quickly and should show such things as placement of various articles, headings and graphics. Once the thumbnail is designed to your satisfaction, laying out the page becomes a very simple matter.

Anatomy of a page

The following diagram shows the basic design elements of most documents. Each page will have common elements such as headers and footers, margins, gutters, and design features such as outquotes and graphics. The terms used are defined in the accompanying booklet A Thumbnail Guide to Desktop Publishing.

Measurements

The figure below illustrates the various measurement preferences that can be used when setting up the layout of your document.
Traditionally graphic designers have used the point system, with 1 point being $\frac{1}{72}$ inch, and picas $\frac{1}{6}$ inch. With more lay people using desktop publishing, many programs allow the use of more traditional methods of linear measurement, that is, centimetres and inches.

**Specifying type size**

Type size is generally described with a point system with 72 points equalling 1 inch. In general, 72 points is considered very large and 6 points very small.

*This is 72 pt.*

This is 6 point. It's tiny isn't it? You can hardly read it without your glasses.

This is 11 point. This is quite good for the body of your text.

This is 14 point. This is good for headings in your text.

**Page proportions**

When designing your page size, the proportions considered to be most pleasing to the eye are 1:1.618. This is the ratio most often used in art and architecture. However, for ease of calculation, a ratio of 2:3 works well.
When laying out your page, it is important to think about the difference between the true centre and the optical centre. People who are trained as typists were often taught to place things in the dead centre of the page, with the result that they often look dull. The optical centre of the page is the spot to which the eye automatically gravitates, and is approximately one-third of the way from the top of the page.

Page layouts

Centred

Centred layouts are the most traditional. Again, people trained as typists were always taught to horizontally centre display type. This type of layout is pleasing to the eye and simple to design, but the result is often static and can be fairly uninteresting.

Off-centred

Asymmetrical layouts are used to create interest or a sense of movement in a page. They are designed around an imaginary axis which is off-centre on the page, the most common being one-third of the width of the page from one of the margins.

This dividing of the page into one-third and two-thirds means that an effort has to be made to balance the elements in terms of graphics, colour and weight of type.
Grids

A grid helps layout the document, by showing the column guides, number of columns, spacing between columns, double side and facing pages. This makes graphic and text placement much easier. Grids help to bring order and balance to the page and also help to ensure that consistency is maintained between editions of the document. Grids are such an important design element that books have been written on the topic (see Hurlburt, 1978 for examples).
Oblique axis

With modern high-end software it is possible to "skew" the type around an axis which is neither horizontal nor vertical. An oblique axis is considered to bring vitality and interest to a document and is particularly useful for cover pages, fliers and advertisements. This is often known as a "Z" layout and if you look carefully at the first example, you will see the "Z".

Note that the terminal anchor is a graphic or element that either terminates your reading, or leads your eye to the next page. The terminal anchor should not be too eye-catching or dominant as your eye will be drawn to it first and you will then have to go against reading gravity to get back to the top of the page.

Using white space

White space as a graphic element

White space, rather than an undesirable element, is considered to be an important design feature when laying out your page. White space should be planned just as the rest of your document is planned. When doing your thumbnail sketch, ensure that you consider good use of white space to enhance the appearance of the document and make it more readable. White space should be used to "rest" the eye between blocks of information or text.
Margins

For general text documents, margins should be 10% to 15% of the page width on each side, unless you are using variable margins for special effect. Top margins should be slightly larger than the side margins and the bottom margin should be slightly larger than the top margin (to account for the optical centre). Margins which are too small makes the document looked cramped and difficult to read.

Line Length

The general rule for full page-width line length is no more than $2^{1/2}$ alphabets (65 characters). Anything longer or shorter reduces the readability of the text.

Spacing

Spacing is another important element of document design. The earlier versions of desktop publishing software lacked the finer degrees of control for spacing which were available with typesetting, but this has been remedied in later versions of high end word processing and desktop publishing software.

Letter spacing

Add extra space around words entirely in upper case or in words with a high x-height. Bold rounded characters need more space as do large characters. Your software will have a dialogue box which will allow you to expand type by a specified number of points, for example:
Letter spacing can look really effective in headings, particularly in uppercase, as in the example below:

**THIS IS AN UPPER CASE HEADING**

**THIS IS AN UPPER CASE HEADING EXPANDED BY 3 POINTS**

**THIS IS AN UPPER CASE HEADING CONDENSED BY 1.5 POINTS**

**Line spacing**

Line spacing is another way of enhancing the readability of your document. Line spacing or **leading** can change the ‘colour’ of your document, as close line spacing will make the page appear darker and open line spacing will make it appear lighter.

This paragraph is 11 point type on 13 point leading. Notice that the lines are so close together that the ascenders and the descenders touch each other. Notice also that the whole thing also looks fairly black and it’s not that inviting to read.

This paragraph is 11 point type on 20 point leading. Notice that the lines are just too far apart. It looks too disjointed and spread out to be very effective. It’s too light when it’s printed on a whole page, although it could be used in certain passages for effect.

This paragraph is 11 point type on 14 point leading. This is much more appealing. The eye is much more comfortable in finding the start of the next line, and the text colour is not too dark or light. It’s just right!
Justification

Justifying text is a matter of personal preference, but beware of large spaces between words and rivers of white space. One way to overcome this problem is to lengthen the line slightly and increase the leading fractionally.

Paragraph Formatting

An alternative to having paragraphs formatted with a blocked left alignment and 6 or 12 points space between is to indent the first line. A desktop publishing convention is to make the indent a multiple of the leading, eg a 10 point leading should have a 10 or 20 point indent. If you browse through some texts and magazines you will notice that they don’t indent the first paragraph of a chapter or story, but indent all subsequent paragraphs. This is because the indents are a clue to the beginning of a paragraph, but it is obvious with the first paragraph, because it is the first. You will also notice that some designers put the first word or phrase of a new chapter or story into small capitals. This is supposed to catch the reader’s eye and make them want to read on.

Have a look through some of your favourite articles and decide what you do and don’t like, and why. You can then adopt or modify features to suit the style of your document.

Drop Caps

These are another way of beginning a chapter. Beware of using them for every new story in a newsletter—they can look overdone very quickly. Use a decorative typeface for your drop cap, or even a contrasting one (such as a sans-serif for serif text). The World Wide Web has a number of sites with some beautifully decorated alphabets ideal for drop or initial capitals.

Don’t restrict yourself to setting the drop cap next to your text—grey it out, make it huge and superimpose it over the rest of the text. However, make sure your first paragraph is still readable! Another technique is to kern a standard drop cap so that is lines up nicely with subsequent lines—use your eye to do this.
Columns

If you have a lengthy document, dividing it into columns can improve the readability. The shorter line means that your eye can find the beginning of the next line more readily. If you are using columns, either set them so that the right margin is ragged (unjustified) or make the gutter between the two wide enough so that the eye doesn't travel right on through to the next column.

Putting text into columns enables you to scan the text quite quickly and select the important points. It means that you can have quite a small font size. For example, this font size is 9 point. It would look much smaller if it was spread across one very wide margin.

If you are using columns, it is nice if they all end at the same point on the page. To achieve this you can do some serious text editing (time-consuming) or you can increase the line spacing by fractions until the bottom of the last column equals the others. Another way is to insert an image, as long as it is relevant and meaningful, or you can put in a line of graphics.

Rules and borders

Rules and borders add interest and definition to your page. Rules are often used to separate sections on a page from each other. Pull quotes or outquotes are often separated out with rules or borders. Rules can be lines, thick, thin, broken, dotted or double; or they can be composed of graphic elements such as dingbats or even very small clip art, for example:
Borders can also be made up of lines: single, double, dotted, thick or thin, and they can also be rounded (for use with rounded type), although square corners are easier to use successfully.

The border style should complement the contents of the box and it is possible to use decorative borders, for example:

- This border gives the appearance of having been cut out
- This border would need to display something very simple
- This border would be useful for displaying a photograph

Artwork

There is a wide variety of clip art and artwork available, either bundled in with software, or through shareware deals. Artwork is also available commercially and if you are interested in colour you will have to be prepared to pay for it. Artwork may also be scanned into digital or computer readable form. This is the ideal way
to reproduce photographs or line drawings. This form of artwork can be very expensive on memory and disk space, however. Another way of incorporating artwork into your work is to draw it yourself, if you have the talent! There are many drawing programs on the market with a wide range of prices. The World Wide Web (WWW) is another rich source of artwork, but beware of copyright restrictions.

Clip Art

There is a vast selection of clip art available for use in almost any type of document. There is also clip art for every budget, from freeware to shareware to commercially produced, black and white to colour. Some examples of clip art are presented below:
The key to using clip art successfully is to be aware of what is constantly used by everyone. This can cause the graphic to lose any impact it might have. A good technique is to customise the clip art in some way, by cutting parts out and adding other things to it. One way of doing this is to take it into a drawing package, but there are software tools around which will allow you to do amazing things to your graphics, from stretching, squeezing, twisting, distorting or morphing. Of course, if you have access to a digital camera, you can use real pictures which can make your work much more engaging.

Clip art saves time and money, but use it sparingly. Too much is distracting and makes the page look confusing.

**Graphics formats**

- It is useful to understand graphics formats so that you can choose the correct option when scanning or buying pre-packaged graphics. There are quite a variety of graphic file formats, the most common being TIFF, PICT and Postscript.

TIFF and PICT are bitmapped formats, which means they are measured in pixels. For example, most VGA monitors have a resolution of 640 by 480 pixels and when designing for computer displays, this is the standard you should aim for.

**TIFF**

Tagged Image File Format (TIFF) is a common bitmap file format which is useful to use if you are transferring data between Macintosh and PC platforms.

**PICT**

PICT is a Macintosh file format, although some PC programs can read it. PICT supports 24 bit colour and can be automatically compressed when saving.

**Postscript**

Unlike the above two formats, Postscript files are vector based rather than bitmapped and are the standard for file exchange. Vector based means that the image is defined by its position and size depending on the output device, and the postscript program tells the output device whether to turn its pixels on and off, and what colour to make them, depending on the resolution required. The higher the resolution, the smoother the edge of the graphic.

If you use a piece of software like Photoshop to create or manipulate your images, you will find that you can choose an option called “anti-aliasing” which uses degrees of shading to give the impression of smoother edges. The illustration
below demonstrates this. Notice how the picture on the right has smoother edges than the picture on the left. This is because the picture on the right has been anti-aliased. The third picture is a close up of the picture on the left and demonstrates the anti-aliasing.

You will often see the format EPS (Encapsulated Postscript Files) which includes a small preview of the graphic. Postscript files are usually large as they are not compressed. You may have trouble importing EPS files into your word processing program, as they usually need to be converted to either TIFF or PICT.

**Screen tints**

Screen tints are a way of adding colour to your document. Many DTP programs can generate screen tints, usually as tints, reverses and solids. Solids are black type on white background, reverses are white on black background, for example:

This is reverse print
Tints use a pattern of dots to simulate grey colours, for example:

![This is a tinted background](image1)

![This is shadow print on a tinted background](image2)

When reversing out, a sans-serif font gives the most legible type. Do not reverse out more than a small amount of text as it is difficult to read.

**Layout**

**Templates**

These help to keep the page to page layout consistent. A template or master page template means that repeated elements are automatically printed on every page in the document. It is useful to have separate pages for left and right pages.

Templates can be bought commercially or they are available from shareware. For example, there is a publishing kit available which includes letterheads, business cards, envelopes, postcards, presentation layouts, award layouts, newsletter and bulletin layouts. Templates for invitations, follow-up cards and envelopes are also available.

**Importing graphics**

If you wish to import graphics from a variety of sources, ensure that you have the software to cope with this. Most of the latest programs will allow you to use all the common graphic file formats, including Kodak Photo CD format, which is a great way of getting photographic clip art, or of digitising your own photographic material into a document.

**Rotation**

Look out for software which allows you to do this. Rotation can be useful for cover pages or for creating decorative headings.
Layout: The look and feel

Layout is an important stage where, again, you have to consider the 'look and feel' you want for your document. Once your words, or copy, and graphics have been determined, you can decide how you want the finished product to look. Your components can then be 'fitted' onto the page.

It is important to remember that many of the documents you plan will have future editions (e.g., newsletters, reports, etc.) so it is important to think ahead and create something which can be used as a template for further issues.
Designing your Documents: How to be Better

There are a number of simple principles that you can employ in both the design and the desktop publishing of your document. The following hints and tips will ensure that you have a more visually pleasing professional document every time.

Use white space creatively

Many people treat white space as a waste of space. And yet your use of space is one of the most powerful tools you have available to you as a desktop publisher.

FROM TYPING TO DESK-TOP PUBLISHING

Sometimes when you open a desktop published document you can see at a glance that it has a very commercial look about it. In experimentation you will discover that the amount of white space can determine whether your document looks like something that one might see on the pages of a newspaper or magazine, or by someone who is only seen in the process.

There are some 'dead giveaways' that you are a novice or a typist in disguise. and if you know about them, you may be able to avoid using them yourself.

It is useful to consider the words of Parker (1969):

'The refinements that differentiate the great from the good are often relatively small in themselves, yet their cumulative effect can be critical to a document's overall effectiveness. (p. 1)

There are two reasons people who are used to typewriters often misuse the new capabilities of desk-top publishing:

- They continue to use the old methods, simply because they are used to them.
- They find they have so many new choices open to them that they use them all, sometimes on the same page.

One of the most frequent 'giveaways' are things like slug punctuation or dotted lines, and overly decorative roman and gothic typefaces. Additional problems can arise if you use italics with don't match the style of your headline, using too many different typefaces in one title, putting boxes into the margin boxes, putting a series of numbers in a single line, and using asterisks or hyphens instead of bullets.
White space allows your readers access to the message, and you can also use it to create beautifully presented page designs. If you are concerned that you will be wasting paper, be assured that by using space creatively, you can often fit more on the page. This can be achieved by using such devices as font selection, and the use of narrower columns which allow you to reduce line spacing and type size.

**Design your page layouts as a double-page spread**

Most documents are printed on both sides of the paper, and this gives you so much more scope to design an interesting layout. You can include a gutter measurement which gives you extra space on the inside edge to allow for binding. You can vary the design to give you a mirror image rather than identical pages. Most programs have a setting to automatically achieve this effect.

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### From Typing to Desktop Publishing

Sometimes when you pick up a desktop published document you can see a glance that it is not very professional that shows an inexperienced user who has used a typewriter throughout their working life, or by someone who is very new to the profession.

It is useful to consider the words of Parker (1989):

> The refinements that differentiate the great from the good are often relatively small in themselves; yet their cumulative impact is considerable enough to present a document's overall effectiveness.

Reasons for misuse:

- They continue to use the old methods, simply because they are used to them.
- They find that they have so many new choices open to them that they become confused, sometimes to the point where they use no choices at all.
- Sometimes when you pick up a desktop published document you can see at a glance that it is not very professional that shows an inexperienced user who has used a typewriter throughout their working life, or by someone who is very new to the profession.

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### Use formatting and diagrams to create visual interest

Some designers of documents believe that the page layout can be terribly boring because it is just words. They resort to inappropriate clip art to provide some visual interest. But this is unnecessary, and often annoying to readers. Use formatting, headings, tables, diagrams and white space to give your document impact. Read the text and think about what you can do with it:

- **✓** Is there some information that could be presented visually, for example, in the form of a graph or diagram?
- **✓** Is there a list that could be separated from the text with bullets or ticks?
✓ Is there any anecdotal text that could be highlighted or boxed?
✓ Are there any quotes that could be highlighted with the body of the text wrapping around?
✓ Is there any information which could be put into a table?

Consider using more than one column on the page, not for newspaper-like columns, but to position headings and textual material more effectively. For example, you could have one narrow and one wide column—the wider column for the text, the narrower one for headings, quotations, definitions, or visuals. You also have the facility to extend the full width of the page for some items.

Learn to use styles

Styles, or style sheets, are used to repeat a certain combination of character and paragraph formats to a selected paragraph. In other words, you might have spent some time getting your heading just right by executing these six commands:

Changing the font to Avant Garde:

This is the major heading

Increasing the size to 22 pt:

This is the major heading

Applying bold:

This is the major heading

Adjusting the paragraph spacing to 16 pt above and 8 pt below:

This is the major heading

Centring the text:

This is the major heading

Applying a rule underneath:

This is the major heading
You would have to repeat at least six commands each time you wanted a heading that looks the same. The easier option is to select the heading and make it a style. You can then apply it to any other paragraph to achieve the same result.

There is an impression that style sheets are fairly complicated, and that you have to be an expert to use them. In fact, the two or three simple steps required to apply a style are much quicker and easier than remembering and re-executing the formats of a paragraph.

Take the time to learn how to apply a style. Once you know how, you will be amazed at how much time it saves.

**Use serif fonts for text**

Use serif fonts (the ones with the little strokes or feet at the end of each letter form) for text. The reader is usually more comfortable reading serif text than sans serif text if it is a paragraph or longer passage of text.

For example, which passage (opposite) is more comfortable to read?
Sometimes when you pick up a desktop published document you can see at a glance that it has a very amateurish look about it. An experienced desktop publisher would recognise instantly that it has been produced either by someone who has used a typewriter all their working life, or by someone who is very new to the process. (Serif font)

Use sans serif fonts for headings

While not ideal for text, sans serif fonts really come into their own in headings and very short passages of text. The combination of serif text and sans serif headings works very well. Notice this combination of Helvetica and New Century Schoolbook:

From Typing to Desktop Publishing: Common Mistakes

Sometimes when you pick up a desktop published (DTP) document you can see at a glance that it has a very amateurish look about it. An experienced desktop publisher would recognise instantly that it has been produced either by someone who has used a typewriter all their working life, or by someone who is very new to the process. (Sans serif font)

Space your headings

Leave a larger space above a heading than below it. This moves it closer to the text to which it relates and gives it the prominence that it deserves. A ratio of about 2 to 1 (2 above, 1 below) is a useful standard. Notice the spacing in the example above.
Refine your heading's punctuation

Punctuation in headings, such as colons, apostrophes, semi-colons, inverted commas and exclamation marks, can often look too prominent if it is the same point size as the words. Reduce the size of punctuation by one or two points. Notice the colon and apostrophe in the example below, and then the difference when they are reduced by 2 points:

**Desktop Publishing: How it’s done**

Don’t put full stops at the end of headings. It makes them more like text, and has the psychological effect of stopping the reader from reading on.

Use formats to determine your heading hierarchy

Use formatting creatively to give you levels of headings, rather than indenting into the text area. Some documents are indented so far with headings, sub-headings and sub-sub-headings that they are pushed right into the centre of the page, in a very ineffective layout. Instead of indenting, use character formats such as point size, bold and italic, and paragraph formats, such as space before and after to determine your heading hierarchy.

Use proportionally spaced fonts

Many documents are typed in a style which suggests that they have been produced on a typewriter. They might use a typewriter font, like Courier. A font like Courier is designed for each letter to take up exactly the same amount of space. But other fonts are proportionally spaced. For example, compare the two fonts below:

<table>
<thead>
<tr>
<th>Courier</th>
<th>million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bookman</td>
<td>million</td>
</tr>
</tbody>
</table>

Notice that the Bookman *m* takes up much more space, and the *i* and the *l* much less space, because this font uses proportional spacing.
Match the font to the printer

City-named fonts such as Geneva, Chicago, New York, and Monaco were originally designed to be used on a dot matrix printer and may not give you the quality you could achieve with fonts specifically designed for the laser printer. Avoid these fonts unless you are sure you have a laser version or the document will be printed on a dot matrix printer.

This is a city named font called Monaco. Notice how Monaco just doesn’t look good. If you had a whole page of it instead of just a paragraph, you’d very quickly see its limitations. It’s not nice. It’s not designed for laser printing.

This is a city named font called Chicago. Notice how Chicago doesn’t look so good either.

Mind you, on a dot matrix printer, they look very stylish.

Divide long documents into a number of shorter file

If you are writing or desktop publishing a long document, such as a report, thesis or book, divide each section into a separate file.

<table>
<thead>
<tr>
<th>10 items</th>
<th>476.1 MB in disk</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreTitle pages</td>
<td></td>
</tr>
<tr>
<td>Title pages</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Chapter 1</td>
<td></td>
</tr>
<tr>
<td>Chapter 2</td>
<td></td>
</tr>
<tr>
<td>Chapter 3</td>
<td></td>
</tr>
<tr>
<td>Chapter 4</td>
<td></td>
</tr>
<tr>
<td>Chapter 5</td>
<td></td>
</tr>
<tr>
<td>Chapter 6</td>
<td></td>
</tr>
<tr>
<td>References</td>
<td></td>
</tr>
</tbody>
</table>
You will find most commands work much more quickly with a short document, for example, the spelling check, print preview, routine saving and moving around within the document. You can link these shorter documents for pagination and printing in sequence. The better software allows for multiple file compilation, bringing multiple files together for printing with automatic page numbering and index generation.

**Use tables for text**

Tables are traditionally used for figures, but you can also use them creatively with text to give you a high degree of control over where words, lines and shading appear on the page. However, they can be a little slow to move around in, so don't use them for whole documents.

**Use the spelling check**

Because it is harder to see errors on the screen than it is on paper, it is always worthwhile running the spelling check over your finished document.

The check will also bring up spacing errors, where two words have not been separated by a space, and advise you if you have inadvertently repeated a word. Of course, you still need to proofread to eliminate spelling errors which actually spell a real word, such as *meal* instead of *mean*, *their* instead of *there*, *took* instead of *book* and so on.
Save, save, save

Learn the commands or function key that saves and try to use it automatically, whenever you pause for thought or at the end of a sentence. If your document consists mainly of words (not many graphics or pictures), it will take only a second or two to save it, which may save you a lot of anguish if your computer crashes or there is a power failure.

If you are the forgetful type, you can ask your word processor to save automatically. You simply select how often you want it to save by typing in the number of minutes, and it will do it automatically.

Don’t use bold in text for emphasis

The tendency when you want to emphasise something is to use bold. Too much bold, such as a whole sentence or even a phrase, can be annoying. Try using italics instead. Bold is better if you have an embedded heading.

Reduce the size of acronyms

If you type acronyms (all capitals) in the same size as your text, they tend to dominate and stand out much more than they should. Reduce their size by one point and they blend in to the page.

For example, notice the acronym UNESCO in this ten point type. It seems too big. However, UNESCO looks like this when reduced by one point. Much better. This tip really makes a difference if you work for the Government and you have acronyms all over the page.
Use non-breaking spaces

In recent years, the tendency is to leave spaces between the thousands in long numbers, not to put commas. This can cause problems when, in a number like 3,000, the number breaks over the line and you have half the number on one line and the other half on the next line. To avoid this, put non-breaking spaces between the thousands. You can also do this for page numbers (p. 245) and words that might look a bit odd if separated (like ‘student body’).

Give the text within boxes ‘breathing space’

If your document includes text within boxes or borders, make sure you give them breathing space around the edges. Don’t have the text right up to the line, and if your box of text is included in a column of text, don’t extend the box out into the margins. Keep the edges of the box in line with text above, and indent within it.

| This text is a good distance from the edges and the whole box is in line with the margins of the paragraph above, rather than the text being in line and the box extending out into the margins. |

Keep a file of interesting page layouts

When you see an eye-catching example of good page design, keep a copy for future reference. Keep a file of ideas, and then when you begin to design a document you will have a ready source of inspiration.

Print out before you decide it’s OK

At the designing stage in particular, keep printing out to ensure that you are on track. There are differences between the way a document looks on the screen and the printed page, so reserve judgement until you see your design on paper.

Make back-up copies

Make back-up copies, such as one on your hard disk and another on a floppy to keep at home or at another location.
CHAPTER 6

Common Mistakes Beginners Often Make

Once you begin to become familiar with good practice in desktop publishing, you will quickly be able to spot the kinds of bad practice which beginners, and people who have learnt their skills on the typewriter, often make.

Below are listed 20 'mistakes' that you will often find in beginners' work. How do you measure up?

Returns at the end of every line

Beginners who come to desktop publishing from the typewriter will often put a return (like a carriage return) at the end of every line.

The wraparound feature of word processors enables you to concentrate on the sense and content of the writing without having to worry about line endings. The words will automatically flow to the next line.

Overuse of returns

Beginners often use returns to space out headings and to position items on the page. They might use a return between paragraphs, returns around headings, and a whole column of returns to move an item close to the bottom of the page. Use the paragraph and framing commands to give you much more control.
Over- or under-cautious with choice of fonts

When you see five or six different fonts used ineffectively on the one page, you know the work has been produced by a beginner.

**From Typing to Desktop Publishing: Common Mistakes**

Sometimes when you pick up a desktop published (DTP) document you can see at a glance that it has a very amateurish look about it. An experienced desktop publisher can smell a beginner a mile away. A beginner is often one who has used a typewriter all their working life, or is very new to the process. There are some "dead giveaways" that you are a typist in disguise. You should know about them.

It is useful to consider the words of Parker (1989):

"The embellishments that differentiate the good from the poor are often relatively small or irrelevant, yet their cumulative effect can be crucial to overall judgement." (p. 17)

**Reasons for the misuse of DTP**

There are two reasons people who are used to typewriters often misuse the new capabilities of DT:

* They continue to use the old methods, simply because they are used to them.
* They find they have so many new choices open to them that they use them all.

**Common mistakes**

Some of the most frequent "giveaways" in DT are things like:

- Using both and font styles instead of type-set quality inverted commas and apostrophes, using underlining for emphasis and headings, and using more than two typefaces on the same page: There are literally thousands of typefaces available; only one design house offers over 10,000 display faces.

Because word processors offer such a range of fonts, the temptation is to use too many at once. Limit yourself to two or three at the most within a document, and capitalise on their differences.

The other danger with fonts is to limit yourself to a single, reliable font such as Times and use it for headings, text, everything! Times looks particularly bad in headings, and it is much more effective to contrast the headings with the text font.

**Use of underlining to create lines and rules**

Beginners often use underlining to produce a horizontal line or border. Try using the borders feature for a line which won't wrap around if you change the margins.

You will also have much more control over its placement, such as its distance from the text.

This is underlining. It's really inadequate.
Notice how close the underlining is to the text and how it doesn’t allow space for the descendents in the letters g, y and q.

This is a line using the borders feature. It’s much nicer.

You can vary the distance of the line from the text (this is 2 points) and also the thickness.

Using underlining for headings and emphasis

Beginners often underline headings, or use underlining for emphasis. Again, in typewriter days, there was a limit to how many ways you could make something look important and underlining was quite popular.

Our advice on underlining is: don’t. It’s hard to think of a single justified use of underlining when you can use bold or italic for emphasis, and character formats, size and fonts for headings. Give underlining a miss!

Buried headings

Avoid placing a heading within a line or two of the bottom of the page. Give a heading the prominence it deserves by placing it at the top of the next page, or underlining when you can use bold or italic for emphasis, and character formats, size and fonts for headings. Give underlining a miss!

Sometimes when you pick up a desktop published document you can see at a glance that it is a very unprofessional look about it. An experienced desktop publisher would recognize instantly that it has been produced either by someone who has little or no idea of what they are doing, or by someone who has had a very basic training. It is useful to consider the words of Parker (1989):

"The only time this information can be used is when the words are clearly visible." (p. 1)

"They are the words that the typewriter makes the same noise as the words." (p. 1)

"They are the words that the typewriter makes the same noise as the words." (p. 1)

"They are the words that the typewriter makes the same noise as the words." (p. 1)

This heading is buried

Sometimes when you pick up a desktop published document you can see at a glance that it is a very unprofessional look about it. An experienced desktop publisher would recognize instantly that it has been produced either by someone who has little or no idea of what they are doing, or by someone who has had a very basic training. It is useful to consider the words of Parker (1989):

"The only time this information can be used is when the words are clearly visible." (p. 1)

"They are the words that the typewriter makes the same noise as the words." (p. 1)
Evenly spaced headings

Often you will see a heading with one return before it and another return after it. Instead of using returns to allow space between paragraphs and headings, use the paragraph features to define the exact space.

You can allow say 12 points above a heading and 6 points after. This will position the heading closer to the text it relates to, and is a much more pleasing spacing.

Widow and orphan lines

A 'widow' line is the first line of a paragraph at the bottom of a page. An 'orphan' line is the last line of a paragraph at the top of a page. Beginners may notice them. With both, you have a single line separated from the remainder of the paragraph.

Many word-processing packages provide an optional widow control, which prevents both widows and orphans occurring in your document.

The same principle can also be extended to the number of words on a line. Some expert desktop publishers fiddle about until they have a least a third of a line to finish off a paragraph. They most certainly would not put up with a finish like this!
Over use of character formats

When you first start using a word-processor, the temptation is there to use the character formats, such as bold, italic, shadow and outlining, to excess. Each format has its strengths and is very effective when used correctly, but don’t use them all at the one time.

<table>
<thead>
<tr>
<th>Bold is often used for emphasis, but italic should be the first choice. Bold is best for headings and is particularly useful for highlighting headings embedded in text. It is also useful for the question, in question and answer formats.</th>
<th>Italic is possibly the best way of emphasising words and phrases. It can be effective, combined with bold, for headings, and of course for names of books and journals in text and reference lists.</th>
<th>SMALL CAPS GIVE YOU CAPITALS WHICH ARE NOT MUCH BIGGER THAN THE LOWER CASE EQUIVALENT OF THE LETTER. THIS OPTION IS NOT SUITABLE FOR LARGE BLOCKS OF TEXT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlining is a fairly useless feature in desktop publishing. It is hard to think of an example which couldn’t be done better using italic or bold (for emphasis) or borders (for rules). Use with caution.</td>
<td>Outline is very effective for short headings in documents or fliers, or for featuring particular words. It is not effective in long blocks of text.</td>
<td>Shadow is good for posters and fliers, but is not effective in text. Use it mainly with sans serif fonts, as the serifs do not cope well with shadows.</td>
</tr>
</tbody>
</table>

Use of tabs to indent

Another hangover from the typewriter days is to use tabs to indent the lines of a numbered or bulleted paragraph. This is totally unnecessary when you can use hanging indents, and a disaster if you change the margins—you have tab marks all over the place.
Use of tabs to line up columns

An even worse use of the much maligned tab is to line up columns of text. In this instance you would type a few words of one paragraph, then tab, and a few words of the next paragraph and so on across the page. Then on the next line you would continue the process. A much more efficient way is to use tables. You can type entire paragraphs at once and then position them accurately on the page.

Upper case letters for headings

Even beginners know that you would never type whole paragraphs of text in all upper case (capitals), but many continue to use them for headings. Avoid all capitals altogether if you can, or if you must, use them for contrast with a lower case subheading, for example:

CHAPTER 1: The Beginning

Two spaces after a fullstop instead of one

Fullstop, space space. Beginners can’t help themselves, they often do it automatically. But one space is plenty. One space means you have nicer looking text, no danger of ‘rivers’ through your paragraphs and an added bonus is you might fit more on the page.

This is an example of a river. Can you see it? It snakes through the paragraph. Your eye can slip off the text and run down the river. You might even lose your reader altogether. It also looks very tatty having all those gaps. We all read newspapers. They don’t do it. Often, they might not even leave one space. You don’t see two spaces in newspapers. You really need only one space for effect. How long can I keep this up?

Fashions in desktop publishing are as fickle as fashions for anything. One of the fashion victims is justification. Justification has been very fashionable, but is now beginning to lose favour, designers preferring a more readable ragged left margin to the very structured, but less readable, look of justified text.
Justifying usually adds spaces between words in order to force text to fit to the right margin and these spaces can interrupt the smooth flow of reading. This problem is exacerbated in both short and long line lengths, a line length of between 8 and 10 cms being considered the optimum depending on the size of your font.

**Printing on multicoloured paper for document sections**

Beginners often use overkill in their attempts to help their readers find their way around in the document. At all costs avoid a multicoloured, one colour to a chapter, document, which uses colour to indicate content. From a design point of view they are garish, and there are far better ways to help people find their way in the document.

By all means use colour to separate sections, but print the text on white.

**Asterisks and hyphens for points**

Asterisks or hyphens when listing points is a dead giveaway that you are a beginner. Bullets or dingbats are a much better alternative.

A bullet is a simple round dot. Dingbats you might consider using are arrows, pointing fingers and ticks. You could even match the dingbat to the subject matter as in the example below:

Dietary guidelines include:

- Providing nutrition education and encouraging all Australians to eat a nutritious diet
- Reducing the incidence of obesity
- Decreasing total fat consumption
- Increasing consumption of complex carbohydrates and dietary fibre (wholegrain cereal, vegetables and fruits)
- Reducing alcohol consumption
- Decreasing the consumption of salt.
Using too much bold or italic in the text

Sometimes in writing there is a need to emphasise a point or to bring the reader's attention to something. One way of doing this is to use bold or italic, and beginners are inclined to over-use this feature. If it is overdone, it loses its effectiveness entirely. The text colour on the page is affected and the reader doesn't know where to look next. Besides, if so much needs to be done to emphasise the meaning, how well written can it be? Perhaps it needs rewriting rather than an abundance of bold.

Inch and foot marks instead of typeset quotation marks

Beginners, and some not-so-beginners, often use inch and foot marks instead of typeset quotation marks and apostrophes. This means you end up with horrible straight marks all through your document instead of curvy, expressive punctuation.

"Why put up with these straight little things?"

“When you can have these wonderful curves!”

Hanging punctuation

Hanging punctuation outside your text, rather than lining it up within the text area, gives a more polished look, such as in the example below:

“Sometimes when you pick up a desk-top published document you can see at a glance that it has a very amateurish look about it. An experienced desk-top publisher would recognise instantly that it has been produced either by someone who has used a typewriter all their working life, or by someone who is very new to the process”.

Notice the difference in the passage below, where the inverted commas are not "hung":

“Sometimes when you pick up a desk-top published document you can see at a glance that it has a very amateurish look about it. An experienced desk-top publisher would recognise instantly that it has been produced either by someone who has used a typewriter all their working life, or by someone who is very new to the process”.
Using a single column of text from margin to margin

Margins don’t need to be confined to the edges of the page, but beginners often design every page as if they did. Creating wider margins gives you more flexibility in your page design and adds an important design feature: white space. White space can be used to provide contrast and to give a clean, uncluttered look.

Using hyphens instead of em and en dashes

Beginners often use hyphens for dashes. A hyphen joins (e.g., easy-to-understand) while a dash separates (e.g., A solid corporate image will make it easier to advertise—and sell—your product). Dashes, like brackets, often come in pairs. They can be a very powerful device in your writing.

Don’t use a hyphen with a space on either side for a dash, when you can use an em dash (—).

This - a mere hyphen - simply cannot do the job of an em dash.

This—a pair of commanding em dashes—works perfectly.
An en dash (--) is a bit longer than a hyphen and a bit shorter than an em dash, and is useful in situations like dates and other numbers, for example: 22–23 December, 18–20 months.

If you can remember to apply these simple principles effectively and consistently to your desktop published documents, the quality of your work will improve dramatically and you will no longer be mistaken for a beginner.

**Typewriter fonts**

Courier is a monospaced (every letter takes up the same amount of space) typeface. Just looking at it reminds you of typewriters.

Avoid using monospaced fonts unless you are trying to demonstrate the old-fashioned way type used to be handled. Certainly do not use it for text, unless for special effects.
Preparation for Printing: Producing the Master

The preparation of the final master copy and the selection of printing options are the final stages in the production of a finished printed document. This can be the most exciting stage in the process, but it can also be the time where you lose control of the document and the way it looks.

It is important to be aware of the choices available to you to avoid disappointment in the finished product.

Proofreading

Before you commit yourself to print the final master copy, ensure that you have proofread the document thoroughly. Use the spelling check routinely, and check the text for accuracy both on screen and also on a paper version.

Using proofreaders' marks

The publishing industry uses a common set of proofreaders' marks. Proofreaders' marks facilitate the correction of typescripts and if correctly used, aid the communication process between the printer, author and graphic designer.

For a list of common proofreaders' marks, and their use in the text, see Standard proofreaders' marks overleaf.
### Standard proofreaders' marks

<table>
<thead>
<tr>
<th>Marginal mark</th>
<th>Text mark</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Editing Marks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/</td>
<td>None</td>
<td>Correction obvious</td>
</tr>
<tr>
<td><strong>STET</strong></td>
<td>Leave as original</td>
<td>Leave as originally</td>
</tr>
<tr>
<td><strong>WF</strong></td>
<td>Wrong font</td>
<td>Wrung font</td>
</tr>
<tr>
<td><strong>sp out</strong></td>
<td>Twelve</td>
<td>Spell out</td>
</tr>
<tr>
<td><strong>align</strong></td>
<td>This is an example of lines of type not aligned vertically when they obviously should be.</td>
<td>Align vertically</td>
</tr>
<tr>
<td><strong>align</strong></td>
<td>Align horizontally</td>
<td>Align horizontally</td>
</tr>
<tr>
<td><strong>N.P</strong></td>
<td>last First</td>
<td>New paragraph</td>
</tr>
<tr>
<td><strong>run on</strong></td>
<td>last First</td>
<td>Run on</td>
</tr>
<tr>
<td><strong>tris</strong></td>
<td>(1) Last, First Secondly the issue First the main</td>
<td>Transpose</td>
</tr>
<tr>
<td>[ ]</td>
<td>Centre</td>
<td>Centre</td>
</tr>
<tr>
<td><strong>Punctuation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.</td>
<td></td>
<td>Because of the noise he couldn't concentrate on his work. Insert full stop, comma, etc</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1993-1994 En dash</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An advertisement, or a brochure, would do Em dash</td>
</tr>
<tr>
<td>( )</td>
<td>An advertisement, or a brochure, would do Brackets</td>
<td></td>
</tr>
<tr>
<td><em>lower by 3pts</em></td>
<td>H2SO4 Superior, Inferior</td>
<td></td>
</tr>
<tr>
<td><strong>Type styles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>rom</strong></td>
<td>Make Roman</td>
<td>Make Roman</td>
</tr>
<tr>
<td><strong>ital</strong></td>
<td>Emphasise this word</td>
<td>Italicise</td>
</tr>
<tr>
<td><strong>bf</strong></td>
<td>Bold this word</td>
<td>Boldface</td>
</tr>
<tr>
<td><strong>bf ital</strong></td>
<td>Bold and italicise this word</td>
<td>Bold and italic</td>
</tr>
<tr>
<td><strong>lc</strong></td>
<td>LOWERCASE</td>
<td>Lowercase</td>
</tr>
<tr>
<td><strong>caps</strong></td>
<td>uppercase</td>
<td>Capitals</td>
</tr>
<tr>
<td><strong>caps</strong></td>
<td>title case</td>
<td>Upper and lower case</td>
</tr>
</tbody>
</table>
Choosing paper

The quality of the paper you choose has a profound effect on the way ink dries. Some paper allows ink to dry on the surface, whereas poorer quality paper absorbs the ink causing 'bleeding' of the ink, obscuring the clarity of the characters. This is an important factor to take into account when making the choice of typefaces and ink colours.

Paper categories

There are two main categories of paper, these are offset or uncoated, and coated.

Offset or uncoated

Uncoated paper is the most often used paper, and is the common stock for newsletters, fliers and brochures. However, it is not good for halftone photographs.

Coated

Coated paper is often used for catalogues, magazines and upmarket brochures. Coated or glossy papers come mainly in white to allow for colour printing. The quality of coated papers varies from A3 to A1 with A1 being the highest quality. It is also possible to get non-glare coated which reduces the amount of reflected light and allows it to be easily written on.

Colour

Paper Colour

There is no standard for paper colours. Each paper manufacturer has their own set of colours and each varies. It is therefore important to check out several mills if you want to find a specific colour or shade.

Fashion dictates paper colour as it does other trends. Currently earthy tones are fashionable, but innovative designers are always attempting to forecast changes in paper colour trends.

When selecting colour, consider the effect and feel you are aiming for and remember that a slight off white will reduce reflected glare thereby increasing ease of reading.
Ink Colour

This is an important issue to consider when selecting both inks and paper. Unlike paper, ink colours are standard and some desktop publishing packages come with a complete range of Pantone colours so that the effect of ink colours can be checked with the document before printing. However, it is important to remember that ink is partly transparent, particularly the lighter shades and can therefore be affected by the colour of the background paper.

Foil

A cheap but effective way of using colour on documents or parts of documents such as invitations, business cards and advertising materials is to use foil. The use of foil can add a great deal of impact to your work very simply. Use it for headings or for the whole document. All you need to do is print the document in black and white, tape the foil over the top of the part to which you wish to apply the colour, and either run it back through the laser printer or through a photocopier. The foil is fused on and the effect is instantaneous.

Foil can be purchased by the sheet, in rolls like ribbon or in packets from some specialty shops and mail order companies. It comes in a multitude of colours and styles, such as shiny, matte, embossed and glitter. Although foil is not cheap to buy, for a short print run it is much more economical than using a commercial printshop.

Textured papers

Textured papers are used for particular looks and some suit special applications, such as business cards and invitations. There are four main categories of textured papers: woven, laid, felt and linen.

Woven

Woven paper has a very slight pattern left by the mesh screen during the manufacturing process. Although known as patterned, it is a smooth paper and can be used for almost any purpose, including correspondence.

Laid

Laid is the most common pattern for a textured paper with lines laid out in both directions.
Felt
When making felted papers, manufacturers use fabric coated rollers to impress the pattern while paper is still 80% water.

Linen
The linen look is embossed onto dry paper with steel rollers as a separate manufacturing step.

Acid-free
Acid-free paper is an expensive option at this stage, but very nice to both handle and read.

Cutting costs
When selecting paper, remember that paper is costed according to the weight. It is possible to save considerable cost by selecting a lighter paper stock, for example 110gsm (grams per square metre) instead of 150gsm. The same can be applied to covers, selecting 210gsm instead of 240gsm. If you are using your own printer and photocopier, ensure it can handle your chosen paper weights and types.

Recycled paper
Environmental issues aside, recycled paper has become a fashionable look to have for particular types of documents, particularly brochures and fliers, even though costs are generally higher. The range of recycled paper is increasing steadily, although it needs to be selected with care as the ink absorption levels are greater than with new stocks.

When considering recycled paper, it is important to note that white recycled paper tends to look off-white because of the inks and dyes that are not bleached out in the manufacturing process. It is also difficult to match colours as no two batches of paper are the same, therefore sufficient paper needs to be selected from the one dye lot at the beginning of the job.

Printing
The final look of a publication is determined by the budget set in the planning stages. The planning process will determine whether the printing will be black and white or colour. The more colour introduced, the greater the cost. Images such as photographs will also increase the cost.
It is a good idea to obtain quotes from a number of printers as costs vary. It is, however, important to be specific on requirements.

It is worth visiting the printer after your initial document design. He or she will be able to show you how to cut costs, how to avoid errors (shading may look good out of your printer, but the copying process may make it look very uneven). The printer will also be able to give you an idea of turn-around time, costings, and even how to improve on your design.

Colour is another factor to consider. Colour can stimulate 40% more interest than black and white (Berry & Martin, 1991), but obviously costs a lot more to produce. An alternative is to choose “spot” colour which is premixed and printed in one or two places on your document. Spot colour is used to highlight and emphasise and is a cheap way of creating interest.

Process colour is where four colours (Cyan, yellow, magenta and black—also known as CYMK) are printed and overprinted separately to produce colour variations. Photographs are printed this way. Process colour is quite expensive due to the complex and lengthy procedures involved.

**Halftone colour**

Halftones are used for printing photographs in a single colour. Because halftone printing does not use the full strength of the ink, the paper colour will show through which can completely alter the character of the image. Again, it pays to check these details with your printer before selecting ink and paper colours.

**Dot gain**

You may specify an ink strength (or allow your desktop publishing program to do it) and when you get the final product back, find the colour much darker than you envisaged. This is called dot gain—the ink can spread on uncoated paper. Talk to your printer and perhaps lighten the ink colour to accommodate the problem.

**Finishing**

The last stage of the process is the finishing which involves binding, guillotining, and sometimes folding. Simple binding methods, such as stapling can be easily done in house, but more complex methods such as perfect binding may need to be sent out to a professional binding organisation.
Designing a Presentation

Giving a talk or presentation 10 or 12 years ago, your visuals would have been limited to hand written overhead transparencies or 35mm slides. It is much more appropriate today to use computer technology to supplement your presentation.

You can use desktop publishing techniques to design effective overhead transparencies, or you can use software which enables you to give presentations direct from the computer.

When designing a presentation consider the audience, the topic and the room in which you are going to present. Each of these elements will have an influence on the type of presentation format you will choose.

35mm slides

Slides are still used occasionally today, in spite of the plethora of new ways to present visuals, and they work well in a large room. As the room needs to be darkened to get the best effect, the presentation should be short or you may find the audience getting sleepy! Keep in mind too, that notetaking is not possible with this style of presentation.

Slide presentations tend to be formal, but have the useful facility of the projector being able to be operated by remote control. Rear projection is also possible with slides, which prevents the audience being distracted by the projector. Slides are difficult to update, as each one has to be rephotographed.
Computer presentations

With modern technology it is possible to use the computer as the presentation medium. Create the slides on the screen and use a datashow to project the image on to a screen. Again the room needs to be darkened to get the best effect. With presentation software some very interesting effects can be obtained such as builds, dissolves and multiple images. With this method the presentation is easy to update instantly, even during the presentation!

Overhead projector transparencies

These are perhaps the cheapest, easiest and most common means by which to communicate information to an audience. The lighting can stay at near normal strength, allowing the speaker to communicate directly to the audience and allowing the audience to take notes. Parts of transparencies can be covered over, allowing 'builds' or gradual uncovering of information. They can also be written on as the presentation progresses.

Design fundamentals

- Include only key words, save the text for your talk
- Highlight points with bullets, dingbats or checkboxes
- Use the 3:2 format with a landscape orientation for slides or a 4:3 format for overheads. This ensures that all the information fits on the projector and limits the amount of information can be contained on the visual
- As with other documents, choose an appropriate typeface. Keep in mind that sans-serif typefaces work well for short presentations as they enhance legibility.
- As with all your documents, be consistent. If you repeat information have it in the same position so as to lessen distraction to the audience.
- Overhead transparencies need a minimum of 24 point typeface although larger is better.
- Put a border round each visual, this provides the audience with a focus and neatly confines the information.
- Try to get good visual contrast. Make titles larger, don't embolden all the text, only the key things such as headings.
When using colour, keep in mind that light backgrounds with dark text work best on overheads, and dark backgrounds with light text work best on slides. Black and white always provides good visual acuity. Yellow background with black text has been shown to provide excellent readability whilst improving retention. Avoid red, blue and green for text. Blue is an excellent background colour with yellow text.

When using your colour monitor to create your slides and transparencies keep in mind that what looks good on the screen can fade enormously when projected onto a large screen.

When using colour, don’t go overboard. Remember the less is more rule. Choose one or two colours and stick to them.

Limit graphics to those which add something to the presentation. If they are not relevant, don’t use them. They will only distract.

When scanning images for on-screen presentation, restrict the image to 72 dpi as this is the maximum that a computer can display. It has the added advantage of keeping the file size smaller.
Newsletters

A newsletter is a cheap, efficient way to advertise a business, organisation or product. It does take however, a great deal of planning to get the format and the layout right. A newsletter is designed to be read by a specific group of people, and whether it is advertising goods or services, or simply informing on past, present and future occurrences, it should be easy to read, concise, interesting and leave a lasting impression.

When planning a newsletter production, several issues should be kept in mind:

- Who is the intended readership?
- Are their needs already being met by an existing newsletter or publication?
- What are the newsletter's long-term goals?
- How much money is available to spend on production? Is there enough for colour, or only black and white?
- What is the purpose of the newsletter—to inform, to advertise or a combination of both?
- What are the deadlines for the newsletter?
- Who will be responsible for the articles, the compilation of materials and the overall production of the newsletter?
- What is the format of the newsletter—the number and size of pages, method of fixing pages together.
When planning the newsletter it is a good idea to create some dummies. This means that decisions can be made as to how many columns, what type of artwork and its placement, the size and style of the newsletter.

Another thing to keep in mind is whether the newsletter is to go through the post and will therefore need a self-mailing section. If so, this will need to be part of the overall design.

Once a final dummy has been designed, a name and banner can be designed. If the newsletter is going to sit on a rack or in a newsstand the banner needs to be at the top of the front page and be large enough to grab attention. If the newsletter is produced on behalf of an organisation, it may just adopt that organisation's name and logo on its banner, but if it is for a society or small business, then it may need to have its own identity. If the newsletter is not going to sit in a news rack, the banner can be positioned down the side for visual interest.

Once the type of paper, colour of the ink and general format of the newsletter have been decided, the design needs to be refined and a grid developed. Many desktop publishing software systems have built in grids which can be used. When selecting a grid several things need to be kept in mind:

- Keep it simple
- Make it flexible enough to cope with different length articles and variable sized graphics.
Remember the issues of visual hierarchy. Where will the eye be drawn first, what visual map will it follow on the page?

Select an appropriate typeface and typesize.

Two to three columns are easier to lay out than four or five, and are generally easier to read.

To eliminate the need to copyfit exactly to the bottom of the page, it is usually easier to have a ragged bottom margin. This saves having to change the leading to make text match evenly along the bottom of each column.

It is usual to print a small contents box on the first page to draw reader’s interest. If your newsletter is in magazine format with a separate front cover, the contents can be laid out on the cover with accompanying pictures, photographs, clip art and page numbers.

Design a style sheet to maintain consistency throughout the newsletter and between newsletters.

With more and more of the employed population dealing with information on a day to day basis, an efficient means of dissemination, both formal and informal is becoming increasingly important. Newsletters are one such method, and their importance as a communication device should not be overlooked. As such, as much care should be lavished on their production as on a company report or advertising brochure.
Electronic publishing

As more and more of the world gets “on-line”, we will see a growth in electronic publishing. Electronic publishing allows us to use computers to capture and disseminate information. All parties involved in the process need to use computers and can talk to each other dynamically or at a distance. This will allow you to have newspapers and magazines delivered to your computer which focus on the things that interest you, rather than paying for all the things that don’t.

From a desktop publishing point of view, businesses are going to be under increasing pressure to produce their advertising materials on-line. Imagine an electronic brochure for a product, which not only shows images of the product, but may run a short video showing how it’s made; give you the history of the company when you click on a button; or give you testimonials from satisfied customers at the click of another button.

Some companies are now producing CD-ROMs for their product line and distributing them through the mail, rather than paper brochures. It is estimated that 1% of the paper brochures are read, but at least 10% of the CD-ROMs are looked at, which is an overwhelming response in marketing terms.

Another means of electronic publishing is, of course, via the Internet. The distribution of material can be worldwide, even if the product is aimed at a specific segment of the market. Counters can be put on the first page of the electronic brochure so that everyone who browses the pages is counted and the company can determine whether the cost of maintaining the electronic pages is worth it.

Whilst an initial reaction might be that the cost of electronic publishing is too high, the Internet is increasingly being seen as the way to broaden the advertising focus.
The cost of CD-ROMs is also dropping and a CD with many extra features, can probably be produced for much the same cost as a glossy, full-colour brochure.

We are now beginning to see annual reports being dropped onto CDs and it will not be long before they are on the Internet. In the long term shareholders will no longer receive annual reports through the mail, but will be expected to access them on-line. Oracle Corporation (a big software company) distributes their annual report on CD and are able to incorporate some interactive features which make it much more interesting and informative than a paper-based annual report.

**Benefits**

Readers benefit enormously from electronic publishing. They can receive an overview of articles or papers and select only those which interest them, and they can search by topic, author or keywords from both current and past issues. Readers can also access materials from other organisations and institutions, thereby expanding their knowledge base. The aim is to tell the reader what they want or need to know. Drafts of documents can be circulated and commented upon, and the whole process is synchronised by an administrator.

Just about all printed material is able to be published electronically, saving on printing and paper costs, as well as clutter on your desk. We are going to see the electronic publication and distribution of minutes of meetings, newsletters, gazettes and marketing materials. These documents will also become more "interactive" with readers able to ask questions and make suggestions, and they can access the published materials at their convenience.

The documents themselves can become more exciting with the inclusion of video and sound and this ability then allows documents to become training tools.

**Designing for electronic publishing**

Just as there are specific rules for designing for print based media, design rules for electronic publishing are emerging. As most readers will be viewing documents on their screens, it must be remembered that monitors deliver text at between 72 dpi (Macintosh) and 96dpi (Windows), and you cannot pre-determine what resolution your readers are going to have their computers set to. A document viewed on a 1024 x 768 resolution is going to look much better than a document viewed at 640 x 480 resolution. Aiming for the lowest common denominator (that is, 640 x 480) may not do your work justice, but is probably the safest way of accommodating these differences. If you use non-standard fonts which the reader doesn’t have in their machine, the substitution font may look terrible! A way of overcoming this is to turn your type into a graphic which then can be displayed on any monitor. The
problem with this, however, is that these graphics transmit slowly. Some
document programs, such as Adobe Acrobat, have their own means of embedding
fonts so that the reader reads the document in the intended font. This has
copyright implications of course, so beware! As we see more and more documents
electronically published we will see an upsurge in type foundries producing fonts
suitable for electronic viewing.

Making the text readable is another key issue. Try using 14 or 16 point rather than
10 or 12 point. Although it appears large to people used to print-based materials, it
is much easier to read on the screen. Sans-serif fonts are also easier to read as serifs
often don’t show up properly on low resolution screens. Try to choose a typeface
which has an even weight rather than radical thick/thin transitions, thick strokes
will thicken even more on screen, and thin strokes tend to disappear. Select a
typeface with a large x-height and nice open counters, but choose extra leading to
accommodate this, and try loosening the tracking between the characters so that
they don’t run into each other on screen. Look for a font designed for electronic
presentation, such as Lucida Fax. Times New Roman is not suitable for on-screen
viewing as it has a small x-height, and the characters tend to bump into each other.
A font growing in popularity for electronic publishing is Univers, because of its
legibility and clarity.

Finally, restrict the length of the line as a long line can be very tiring for the reader
to follow. Breaking your text into columns is a good way of overcoming this
problem, or have a narrow column next to a wider column if your document
allows such a layout.

When designing your electronic document keep the following points in mind, but
also explore some of your favourite web sites with a view to analysing their
design. You will probably find that the techniques outlined are common to most of
them:

- Use a sans-serif font
- Try to use a font designed for electronic display
- Make it larger than usual
- No radical thick/thin transitions
- Large x-height and open counters
- Extra leading (as much as 5 points extra)
- Extra tracking between characters
- Break large documents into columns.
References and Useful Texts
