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A basic guide to paper and print

Helping you to communicate well

A29 Articles series: Communication
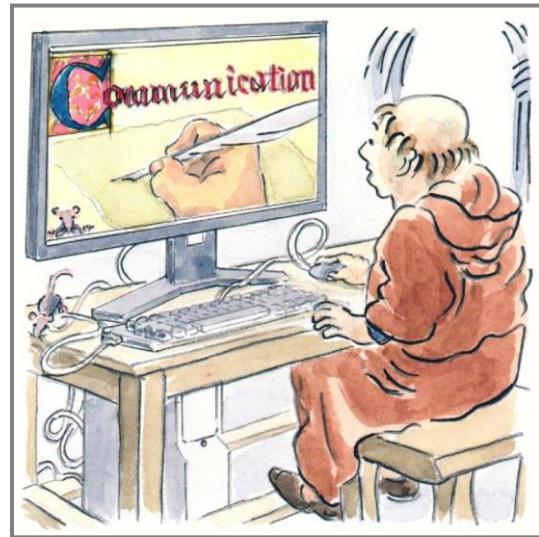
This practical article deals with items that any church communicator or administrator works with day by day: the way we put words and pictures onto a hard-copy surface. In other words, paper and print.

The digital revolution has not yet managed to remove these items from our daily lives so it is worth understanding them. This article is not intended to be a textbook on graphic design but seeks to be a beginner's guide for amateurs who prepare words for printing.

One common application will be that humble offering, the weekly church notice-sheet or newsletter if you still produce one. The aim is to help you develop a critical eye for aspects of a printed sheet that you may currently take for granted. If you can understand some simple principles, you will become a better communicator.

You may use a program such as Publisher which gives some design help, but you can do almost everything using Word. This article assumes reasonable familiarity with Word or equivalent software and mentions a few shortcuts.

It would be an excellent idea to get hold of last Sunday's notice-sheet now (or something equivalent) and read this article with it in your hand. Got it? OK – we start with a quiz.

Trivia quiz

No cheating – exam conditions apply…

1   What exactly is it about an A4 (or A anything) sheet of paper that makes it so special?

2   What are the exact measurements of an A4 sheet?

3   What would a standard sheet of 120 gsm paper feel like, and why? What is gsm?

4   If sheets of card are sold in half-reams, how many sheets would there be per pack?

5　　　A colour printer uses black and which other three specifically-named coloured inks/toners to create its images?

6　　　What is the non-theological link between salvation, justification and baptism?

7　　　When in print is a rule not a commandment?

8　　　Explain what a sans-serif font lacks. Name any two common sans-serif fonts.

9　　　What is a 'descender'?

10　　Why can, say, 10 point type in one font look larger than in another?

11　　When does the phrase 'reversed out' not describe what you did when you drove out of your garage?

12　　When does print 'bleed'?

You will find the answers (with refs **Quiz** followed by the question number) as you read on.

The look of the product

This first part considers the overall look of the printed item and so covers issues of shape, appearance and quality for both the paper and the print you lay upon it.

Paper shape

We start with the shape and size of paper on which you print your notice-sheet or whatever. But, first, some higher mathematics. Take a deep breath.

The distinctive feature of the A papers sizes (in case you are old enough to remember sizes like 'quarto' and 'foolscap') is that the ratio of the length to the width is the square root of two to one, or $\sqrt{2}:1$, which works out at about 1.414.

The beauty of this is that when you cut the sheet in two, you end up with two smaller sheets with exactly the same ratio. Folding A4 into two gives you what is known as A5, folding again gives A6, and so on.

Of course it works the other way too up to A3, A2, A1 and even A0. All these sheets have the same shape, with a ratio of length to width of 1.414. No other ratio will do this (**Quiz 1**).

A4 is the size that most of us work with (297 x 210 mm though not always cut exactly – **Quiz 2**). Incidentally, this fits into a C4 envelope, A5 fits into C5 and A6 into C6. A4 folded into three fits into the standard DL envelope. But I digress.

With that as background, here are some possible shapes and sizes for a notice-sheet.

- A4 unfolded;
- A5 unfolded (ie. A4 cut once);

- A4 folded once into a four-page A5 leaflet;
- A4 folded twice into three – a six-panel format (very common for publicity leaflets);
- A4 folded once *the other way* into four long, narrow panels;
- A4 cut once in the same way into a long, narrow sheet;
- A4 folded to A5 and then folded again the other way to A6.

Each of these formats has pluses and minuses. Here are some examples.

- A six-panel format fits nicely into a normal sized Bible or handbag, gives columns of a length that means you don't have to use large print to read it easily, but is fiddly to fold precisely.

- A4 folded once the 'other' way also gives a good width for print, is easy to fold, is distinctive in appearance, but is rather clumsy to use and people will probably fold it again into two.

- A4 folded to four-page A5 is OK but slightly large to carry and gives line lengths that need larger font sizes than some other formats if it is going to be easy to read.

- A4 unfolded is easy to type, needs no volunteers or machine to fold, can be made into a paper aeroplane during the

sermon, but isn't easy to carry around and people are almost certain to fold it in any shape that takes their fancy.

You get the idea. So are you using the best paper-arrangement (shape, size and folding) for what you want to do with your item? Which size/shape is more likely to be taken home, read and kept?

Paper quality

You can choose all kinds of papers too as a quick look at any stationery catalogue will make clear. There are choices to be made about paper weight, colour, finish and whether it is recycled or not.

Most paper we use has a weight of 80 gsm, which means the paper weighs 80 grams for each (per) square metre. More than anything else this describes thickness (unless the paper is coated). So 60 gsm paper feels distinctly flimsy, 100 gsm feels superior, and 120 gsm will feel high quality but may start to cause problems going through some printers (*Quiz 3*). By the time you reach 160 gsm you are on to what would be regarded as thin card rather than paper.

But within one weight you can still have a range of quality of paper. One factor to look out for is the 'whiteness factor' (for white paper of course!). A paper with a factor of 165 will look better than one of factor 153. In general, the higher the factor the more you pay.

So how good do you want your notice-sheet or other item to feel? As a general rule, put more money into paper being used for promotional purposes than for internal use. So a basic 80 gsm paper may be fine for the weekly notices, but far from fine for a leaflet to be distributed to homes in your area. A coated paper looks better but you are probably talking about going to a professional printer at this point. You will normally buy paper in reams (500 sheets) so the half-ream of *Quiz 4* would be 250 sheets.

Coloured paper can be useful to distinguish the Sunday of the month. So the first is blue, the second green, and so on. That can help if people confuse one issue with the next, or if you want people to pick up leaflets for the Sundays they have missed. It is difficult to read text on a deep blue paper, but easy on a cream or yellow paper.

On the other hand, many churches now use a colour laser or ink-jet printer for their notice-sheet (keep to white paper). It costs more to print, but looks great provided you know how to use colour in page design. It can look messy in amateur hands. The secret is to keep to black

for most text and use one other colour sparingly, plus full colour pictures.

The cartridges in that printer, by the way, are black, yellow, magenta (a shade of red) and cyan (a shade of blue) – *Quiz 5*.

Print look

But there is more to it than this. You have two options for the way the lines of words go on the paper: parallel to the longer side (ie. 'landscape') or parallel to the shorter side (ie. 'portrait'). So an A4 sheet folded into three in portrait setting looks like a standard letter in one column (but it could also be set out in two or three columns when it would look more like a newsletter).

In landscape the lines would be too long if in only one column (unless it was a large font). If in three columns this way round, it looks like a standard publicity leaflet.

So both direction of print and column format can be varied. When it comes to newsletters you may have an A4 page which has some in two columns, some in three, or some in two-thirds (ie. across two of the three columns). Some variety makes the page look more interesting, but can get more complicated to prepare and, if you overdo the variety and are not a professional graphic designer, it can look a real mess.

Next, text and columns can either be 'left justified' or 'fully justified'. These are typesetting terms still used in IT today, although Word uses 'align left' (and 'align right' and 'centre' – or should I say 'center'?), so that the J word can be used for full justification alone.   'Left justified' relates to lines that start at a common left hand margin (like this page), 'fully justified' to lines that match at the right hand margin too which involves tweaking the gaps between each word.

Justification is a matter of preference (please do not quote that sentence out of context!). But 'full justification' when you do not have a sophisticated program to break words at correct points is rarely a good idea. It can look odd if the columns are narrow as the computer tries to squeeze or extend words into the space to be filled.   'Left justification' looks and reads better – and saves lines becoming distorted.

For *Quiz 6*, your computer also asks you to save documents, and gives you a choice of font! Sorry about that one. Typesetting uses a number of Christian terms – and typesetters used to be organised in 'chapels'.

With columns that are 'left justified', it is often a good idea to drop in a dividing 'rule' (ie. line – *Quiz 7*) between the columns. Word, for

example, offers you a box to check or uncheck for this.

So what does your notice-sheet look like in terms of print layout? Are your messages not being read simply because the page is a mess, or in an unhelpful design?

Print quality

The machinery used to make your copies will also have an impact on the look of the product. You may be using a laser printer, a photocopier (often the same machine but you have introduced an extra stage by making a master and copying that rather than printing straight from the computer output), an inkjet printer or a high volume copy printer. Laser technology uses toner rather than ink so does not smudge, though inkjet printed photographs can look better than laser ones.

Whatever machine you use, make sure the print lies straight on the paper and is consistent in density, and any folds you then put in are accurate. Some people are easily annoyed at poor quality. Anything that distracts from the real messages you are trying to put across affects the quality of communication.

Font options

If you are not a graphic artist keep things very simple. It takes a professional to play around with a range of fonts and make the effect work. So, in a notice-sheet, either stick to one font family, or have one for main headings and another for the text. From time to time, but not very often, place a special feature in a box using a different font to make it stand out.

'Serif fonts' are those whose characters vary in width around curves and between vertical and horizontal strokes. They have little features at

the top or bottom of vertical lines called 'serifs' – see letters such as

$$d, i, l, m$$

here in a serif font. The best known is Times (the common variety is often known as Times New Roman). It is easy to read when in a small size which is why most books and newspapers use it, or something similar. But it is not very interesting for a notice-sheet.

'Sans serif' fonts (***Quiz 8***) usually have no or only minor variation in widths and lack the serifs. They look neater and more modern but are not so easy to read in large chunks. They are useful for reports, shorter items and most of us will work with them regularly.

Standard sans serif fonts on computers include 'Arial' and 'Calibri'. You can try 'Tahoma', 'Trebuchet MS', 'Century Gothic' or 'Eras'. Some fonts have more variations than others. For example, Tahoma with the bold command on is not so different from the normal (Roman) version. If you want a really bold Arial that stands out, you can switch to 'Arial Black'.

It is possible to mix serif and sans serif fonts but be careful if you do. Try headings in Trebuchet and text in Times, or headings in Times (if large) and text in Arial. Not all pairings look good.

On Word's Home tab see the Font section and check out all the options. Be aware that 'Comic Sans MS' is popular and can look like handwriting, but many professionals loathe it. It is not a good font for most items.

Funky fonts may be great for your teens' group, but can be hard to read. Go for something simple, but nothing boring. This text is sans-serif (a non-standard font called European), but the main part headings are in a serif font called Georgia. See the 'Laying out the print' heading below in Georgia and contrast it with the sub-heading 'Margins and spaces' in European that follows.

Laying out the print

But how we design the actual print on the page is important if we are to get our messages across. Here are some features to be aware of.

Margins and spaces

To create a well-designed page set generous margins and leave spaces between items. Many churches fail to leave enough clear space on documents. Here are six points to consider.

1   If preparing an unfolded sheet of A4, allow wider margins than you might think. If you want the text centred, try 2.5 or 3.0 cm. left and right and 2.0 or 2.5 cm. top and bottom. Some documents look better with more than this.

2   If you are using columns (eg. as in an A4 newsletter, or if folding the sheet either way), you can get away with less. But never try to cover as much of the sheet with print as you can.

3   If preparing an A4 page that may be bound in its left-hand margin in some way (eg. in a ring binder, or with comb binding or a plastic clip), use a larger left-hand margin than on the right. For example, a letterhead might have margins set at 3.5 cm. left and 2.0 cm. right. Even-numbered pages will need to have this reversed if you are printing on both sides of the sheet ('mirror margins'). Double-sided copying is much more common now than it used to be as equipment has improved. This article is set with equal margins to allow double-sided printing.

4   If you are 'left aligning' your text (as this article) rather than fully justifying it, remember that the right hand margin will appear larger than the one you have set because most last words in the line will not reach all the way to the maximum point you have set for the margin.

5   Top and bottom margins may depend on whether you want to include headers and footers (see the next page). A header and a page number as footer, especially if in a smaller font size than the main text, can look all right at 1.0 or 1.5 cm. from the paper edge.

6   Remember, though, that some printers cannot print too close to the bottom edge so you need to leave enough space to ensure, for example, the page numbers or, if text, the parts that drop below the line on letters such as g, j, p (called 'descenders' – *Quiz 9*) do not get cut off.

To sort your margins out in Word, use the Layout tab and see the Page Setup section.

Columns

A4 letters are usually laid out in one column, A4 newsletters in two or three. What is important to understand for easy reading is the relation between font size and column width.

Most people, who have not been taught to speed-read, read word by word. This means that at the end of a line of type, the eye has to do what manual typewriters used to do (remember them?) – a fast carriage return. If the line is long and the font size small, it is not easy to pick out the start of the next line as the eye rushes back, and reading becomes difficult.

Newspapers get away with very small font sizes by having narrow columns so the eye does not have far to 'carriage return'. They also have only one or two sentences per paragraph. If you use, say, a 10 point font size across an A4 page with generous margins, that is just OK. Drop to 8 point, or try 10 point in A4 landscape format, and it is much harder to read.

So if you have a newsletter or notice-sheet in a small point-size, you need to go into two or three columns on an A4 sheet (depending on how you are folding it). If not going over a fold, you can start a piece in 10 or 11 point across the whole width, then after a paragraph or two, drop to 9 point and change to columns (as this article does). Variety in layout adds interest, provided it is not so complicated that the reader cannot see where to go next.

In Word use the Layout tab and the Page Setup options to find Columns. If you have an A4 newsletter page with three columns, the gaps can be small (experiment to see what different options look like). If you are producing a four page A5 notice-sheet, with the fold in the central margin, it may look better if it is a little wider.

Many church publications run lines that are too long for the font size being used, and compound the problem by writing paragraphs of several sentences. For items you want people to glance at and read such as notice-sheets and newsletters, break long paragraphs up into no more than two or three sentences each. Most newspapers have paragraphs of only one or occasionally two sentences to hold people.

Forget everything you were taught at school about paragraph construction – this is an issue of communication for a reluctant reader.

Font size

Choice of font size is important. As already explained, the longer the line of print (or the wider the column), the larger the font size you need. Most of this article is printed in 9 point in two columns.

So, be very careful. You can get more words on the page if you set them in 6 point but you may create a block of print that is so hard to read that people give up. If you want a small point size, drop to narrow columns, just like most newspapers do.

Word allows you to use half point sizes (in the Font size box on the Home tab type in 9.5 or whatever you want).

If you vary the font size so, for example, 11 point for a piece across two columns, then down to 9 point for the single column work, then up to 14

point for a heading, there is a highly useful shortcut that many people are not aware of. Type all in standard 9 point, then highlight the text you want to change in font size. Click **Ctrl + [** (left square bracket) together to reduce by 1 point, and **Ctrl +]** to increase by 1 point. I will come back to this when we deal with gaps between paragraphs, when these shortcuts really come into their own.

For headings, many people make the mistake of not giving enough contrast in size with the text. If the text is in 9 point, sub-headings can be 11 point bold and main headings 16+ point bold. But if you have A5 as opposed to A4 pages, 16 point may look too big.

Be aware that some fonts look heavier than others. So 16 point Arial Black is equivalent in weight and effect to something like 22 point bold Times New Roman. Try them and see. Some fonts look smaller than others in the same size (such as Calibri where you may need to use one point size up compared with other fonts). The reason is that the point size is taken from the height of an 'x' so the design of that letter affects sizing *(Quiz 10)*.

THE VISUALLY IMPAIRED

To conform with the sections on disability in the Equality Act 2010 you may need to rethink the point sizes you use in documents like notice-sheets. Or, enlarge the document on the photocopier from A5 to A4 page for those who find your standard size hard to read.

General advice for preparing print for the visually impaired:

- Use at least 12 point fonts in general documents, and for large-print versions use 18 point.
- Avoid serif fonts. Stick to Arial or similar.
- Use no more than two columns, with a generous margin between.
- Left align your print, do not fully justify.
- Use pictures to break up the text.

Headers and footers

These are useful for longer documents to give page headings and/or to remind of the title of the section or document on each page, page numbers, author details and so on. But if you use them they need to be quite small or they confuse with the main text. If the text on the page is in 9 point, you can go down as low as 6

or 7 point for a header or footer (depending to some extent on the font used).

If the text is in black, you can put the header/footer in grey to avoid confusion, but do not go too light in shade as some printers may not reproduce it well. Give enough space between the header/footer and the main text so it does not look cramped.

If you have a document with several section breaks in it, and headers and footers that do not stay the same for the whole document, it requires a little practice to learn how to link up different sections and make it all work. Probably not for beginners.

Vertical spacing

I have dealt with lining text up horizontally, but what about vertical alignment?

A page or column looks best if it lines up with other pages or columns at the bottom as well as at the top. But if there have been visuals or changes in font size it may be that the bottom of the columns looks ragged. If one column does not finish as far down as another, one way to neaten it up is to increase or decrease the gaps between paragraphs by just a small amount.

The naked eye will not spot the difference between 10 point text paragraphs with gaps between that are 6 point or 8 point compared with those that are 7 point. Five paragraph gaps changed by 1 point give you half a vertical line space added or subtracted.

To do this use the **Ctrl + [** and **Ctrl +]** commands introduced above. If you have a 10 point gap that you want to increase to 11 point, place the cursor at the gap and, assuming you have not left any spaces on the line, click **Ctrl +]** and you will see the gap increase a fraction.

If you have five paragraph gaps and need to lose 8 point to get the final line lining up correctly, simply take 2 point off three of the gaps and 1 point off the other two. It is very quick to hold the Ctrl key down and click the correct square bracket key as many times as you need.

In the same way, if you are trying to fit visuals and text into a tight space, you sometimes want to shave a gap between paragraphs or after a picture. Using these shortcuts it is possible to arrange the vertical spacing on the column or page in all kinds of different ways so that the final layout is pleasing to the eye.

Paragraphs can look better if the space between them is less than one whole line, and headings look better with quite a bit less than a full gap after them.

Special features for interest

So far we have considered how to make a document look tidy, but that might make it boring. This final part seeks to add some variety to generate a desire to read.

Emphases

For those who are former typists in pre-computer days, capitals and underlining were about the only variations available on the typewriter. But they are not a good idea when you have different font sizes available to you and the options of bold and italic. Use capitals for headings sparingly and only for special impact in very short phrases. We have been taught to read lower-case and a whole paragraph in capitals is a turn-off.

You should rarely need to underline anything. Use italic and/or bold to create impact instead – the two combined can be effective. The easiest way to turn those features on or off is to use the shortcuts **Control** + **B** and **Control** + **I**.

Other forms of emphasis include the occasional use of colour if that is available to you or other features described below.

Case study

All the resource items on this website are prepared by a complete amateur (the writer) in Word. Articles like this one are set in European font (not a standard one – so you probably do not have it on your computer) with Georgia for the title at the start and part titles.

Double column sections are in 9 point type and single columns are in 10.5 point (with some bold 11 point right at the start). The text is left aligned with a 6 point gap between paragraphs, adjusted from time to time so that the two columns line up correctly at the bottom of each page. Sub-headings are in 12 or 13 point, main headings in 22 point.

Spaces after headings are usually 4 or 6 point but sometimes there are 2 point gaps between, for example, bullet points. The text is in black but the headers on each page are in a grey (and 7 point).

Red rules (lines) are used for the footer on each page and after part titles.

The writer was taught to touch-type so still uses two gaps after full stops. This is not how type-setting works and the practice is frowned on by some people. He still feels it makes for easier reading of sentences!

Boxes and rules

A page in a notice-sheet or newsletter looks more interesting if one or two of the items are in boxes. If you have a complex layout where you need to align blocks of text with each other, you may need to use text boxes. But otherwise it can be simpler to add a one-by-one table.

The advantage of a table is that you can move any of the borders and easily change border style and infill. So it can look effective to fill with a light grey (or a toned down colour if printing in colour) but keep it light or the text is difficult to read.

If you want to try something different, you can use a dark fill colour for the box and change the text colour to white. This gives what is known as a 'reversed out' effect (*Quiz 11*). It is best not to use too small a font size or too fine a font. Use it for small amounts of text, not whole page boxes! You can use the same technique for some headings, a bit like the tabloid press do from time to time.

You can also create interest with occasional horizontal 'rules' (lines) – but do not overdo this.

Visuals

Adding visuals changes a dull looking piece of text into something which can create interest. It is worth learning on Word how to format a picture, be it clipart (out of favour these days), original artwork or a photograph. Most photos you will find on the web are copyrighted so be very careful. Use a copyright-free website such as Unsplash for general photographs.

Be aware that the press, especially the tabloids, use photographs and visuals to cover a large proportion of the page. Note also that almost all the photographs will be of people, not objects.

Churches may not want or be able to follow this too closely but if you are preparing print for external distribution, photographs of people (with permission) is vital, although you need to take great care with photographs of children.

It is also possible to put a picture behind the text and, by adding to the brightness factor, shade it down so that you can both read the text and see the outline of the picture.

This is a major aspect of graphic design and probably needs to go into the intermediate stage if this is a beginner's article.

Indentation layout

It is worth knowing the value of different types of tab. In the following the times are on a decimal tab and the wording on a left tab.

    10.30 am.   Morning service and youth church
    6.00 pm.   Evening service

Text written on a centre tab can be fun for a very short burst, but is difficult to read if it then continues for more than two lines because the eye finds it hard to select the changing starting point for each new line.

It can be helpful to use numbered or bullet pointed lists from time to time. Most of us want to add a line gap between some of our numbered and bulleted points. Word tends to have problems if you press Enter twice. If you are having trouble, try **Ctrl 0** which inserts a space between each point and remembers this for the whole list.

Two useful shortcut keys are **Ctrl + M** which indents the whole paragraph you are in to the first tab, and **Ctrl + T** which indents the whole paragraph apart from the first line. The latter is useful if you want a number or a symbol on the margin and the rest of the paragraph indented. Type the item you want on the margin, press the tab key and then type the paragraph. If you do nothing more the second and subsequent lines return to the margin. If you press **Ctrl + T** anywhere, everything apart from the margin item lines up on the first tab.

To go back to normal settings at any point, press **Ctrl + Shift + T** (or M) and carry on as before.

Breaking a grid

Look at any piece of creative printing and you will find that there is a basic grid (with fixed margins, columns and layout design) which is then deliberately broken out of from time to time. A photo or picture will run outside into the margin or drop off the edge of the paper (known as bleeding when the picture goes right to the edge and effectively beyond – *Quiz 12*). A box will be tilted at an angle to get away from everything being at right angles and given a shadow behind it. A picture will run over and hide some section of headline text without confusing the reader. Two pictures will overlap to link them in people's minds.

Most of us will not be able to get away with professional tricks of these kinds, for example bleeding is usually achieved by trimming the paper down after printing. But it is possible to add interest to a document by following the general principle in a simple way. You can add a graphic that runs into the margin or over a small part of a large heading or place something at an angle. Do not overdo this, but a fixed grid and an occasional, deliberate breaking out from this creates interest.

Mistakes

There are typos and there are deliberate mistakes. So I could discuss tpyos and see if anyone noticed. Even to put in a very occasional upside-down text box in the notice-sheet creates interest. Once the idea has lost its novelty it has lost all its power.

This raises the issue of proof-reading (not only for typos but also for correct dates, names and other details). Many a Church Administrator sits in church on Sunday worrying about what errors have crept in to the notice-sheet this week. So proofing the copy is important because errors matter. Few people can proof their own typing. One advantage of web publishing is that corrections can quickly be made, so please send me a discreet email if you spot any errors in this piece and I will put them right, er, imediately!