

Choosing a typeface for reading

Rob Waller *April 2011*

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We quite often find ourselves answering a question about information design that we've been asked before. Quite often these questions are prompted by the need for organisations to comply with the Equality Act.

Is sans serif type more legible than seriffed? Does the incidence of colour blindness mean we shouldn't use colour? We've heard that white space is a good thing, but why? Or, alternatively: our designer has left all this white space, but customers complain it is a waste of money.

So we are putting together some simple guides that summarise the advice we usually give. This one is about typefaces (fonts).

Some common seriffed typefaces are:

Calisto
Garamond
Georgia
Palatino
Times

Some common sans serif typefaces are:

Calibri
Frutiger
Gill Sans
Helvetica
Verdana

Seriffed type is sometimes called 'roman' type (although that term is also used to mean type that is upright not italic), and you may hear sans serif typefaces simply called 'sans'.

Seriffed Sans serif

The purpose of this guide

There are many typography textbooks and websites where typefaces are discussed in detail – this guide does not attempt to replace them, but is intended as an introduction for organisations who need to establish a standard or set a policy for typeface choice, and who would like that standard to be based on sound reasoning or evidence.

In this guide we discuss the choice of typeface for text that is designed for continuous reading. This is quite a different situation from, say, signage or packaging, where words are usually read in short glances and where the main goal is typically to attract attention, or differentiate from competitors. For continuous reading, the typeface must be comfortable to read for longer periods of time.

Serif vs sans serif type

Although there are many factors that distinguish typefaces from each other, the most obvious one is serifs – the small strokes on the ends of letters in some typefaces. Typefaces without serifs are known as 'sans serif' typefaces. The first question people usually ask us is about serifs: do they matter? do they make it easier or harder to read?

Research shows little difference in legibility

Unfortunately, research does not give us a clear answer to these questions. In fact it suggests that serifs do not actually matter for most common purposes – in particular, for reading continuous text such as you are reading now. Research can be found to support both sides of the debate, but any differences in performance are generally small enough to be overridden by other factors such as the size of type, the overall design of the document, and lighting conditions.

The most thorough review of the research literature on the legibility of seriffed and sans serif type is by Ole Lund¹. His 1999 PhD thesis concluded that the research is not only inconclusive, but it is mostly of too poor a quality to be relied upon.

What about people who have difficulty with reading?

Most advice about designing for people with **dyslexia** currently recommends the use of sans serif type, although this is mostly based

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¹ Ole Lund, *Knowledge construction in typography : the case of legibility research and the legibility of sans serif typefaces*. Ph D thesis, University of Reading 1999.

'Typeface' or 'font'?

Although these two terms used to mean different things, they are so often confused that they are now effectively the same. While 'typeface' described a design that was available in different sizes and styles, 'font' referred to a single size and style (that you might find in a single tray of metal type). So while Helvetica is a typeface, 10pt Helvetica Bold is a font.

learning

Above: FS Me, designed by Fontsmith on behalf of Mencap, 2008, and claimed by them as particularly suitable for people with learning disabilities.

Below: FS Albert from the same designer.

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on studies of personal preferences rather than performance. As a result it is hard to say to what extent people with dyslexia might be disadvantaged by typefaces they do not prefer, particularly as it is often noted that preferences vary widely between individuals – a few even prefer capital letters, and some prefer handwriting-style typefaces. For some it is more important to view the type on a coloured background (which varies among individuals – some prefer yellow, while others prefer blue or pink). The most important thing is to choose a typeface where the different letters are easy to tell apart. (See our section on 'confusing letters', below.)

Partially sighted people want good contrast between letter shape and background, and sans serifs often have a thicker stroke width, with less variation between thick and thin strokes. But some seriffed typefaces are also designed in this way. People in this group prefer larger type sizes, and we review this topic in another guide in this series (Technical paper X, Type size: interpreting the *Clear Print standard*)

The charity Mencap promotes a special typeface for people with a **learning disability**. They commissioned it as their corporate typeface, consulting this group of users as part of the design process, and they now promote it for others to use. Starting with a variety of seriffed, sans serif and handwriting typefaces, the designers arrived at a sans serif. They have published an interesting account of a very thorough design process², but no data that proves that this typeface, FS Me, is the only one that people with a learning disability might find acceptable.

We are not aware of published research on the typeface preferences of people with **poor functional literacy**, but anecdotal evidence from our own research panel suggests that, while they can read the same range of sizes as anyone else, they welcome larger type. They seem to find it less intimidating, perhaps because there is room for less content on each page.

Other key issues for typeface choice

There are more important things than serifs to consider when choosing a typeface, and we will consider three of them here. The first concerns the ease with which readers can tell different letters apart. The second is the preferences of readers, and the

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² *FS Me: the story*, unpublished report obtained from Mencap (mencap.org.uk), March 2010. Mencap do not overclaim for the typeface's powers if you take their statements simply as enthusiastic marketing, but we have been consulted about whether this typeface is necessary to comply with the Equality Act. We do not believe so.

associations that particular typefaces bring to your document. Lastly, we will look how the right choice of typefaces, or sets of typefaces, allows you to help readers by signalling the structure of information.

Confusing letters

Some dyslexia advisers recommend particular sans serif typefaces – especially those that reduce the possible confusion between the lower case ‘l’ and the capital ‘I’ (which are graphically distinct in seriffed typefaces). This is good advice for other readers too – particularly in situations where unfamiliar words may have to be read for the first time (for example in health information, or medicine labelling).

Here is one such hybrid typeface, Officina, compared with a more typical sans serif, Helvetica:

Illness	Illness
Officina	Helvetica

It’s important to note that not all sans serif typefaces are the same – they differ significantly in their treatment of certain letter shapes (notably, the lower case **g/g** and sometimes the **a/a**), and in the proportions of letters. For example, the designer of Helvetica took a systematic approach and aimed to standardise the width of most letters, and the treatment of features such as the bowl of the ‘p’ or ‘d’. In contrast, Gill Sans uses the relatively inconsistent proportions and shapes that you can find in a typical seriffed typeface. This is thought by some to reduce the potential confusion between letters.

meanderings	meanderings	meanderings
16pt (point) Gill Sans	16pt Helvetica	16pt Frutiger

Frutiger, the third typeface in this illustration, uses a different way of reducing the confusion between letters such as **a**, **c** and **g** – they are more open than in Helvetica (**acg**) so less likely to be confused.

How typeface relates to type size

Notice also from this sample that these three typefaces appear to be different sizes, although each is set at 16pt (type has its own measuring system – points, usually abbreviated to pt – that does not relate to millimetres or inches). This is because the point size of type refers to the distance from the top of its ascenders (the highest part of letters such as ‘h’ or ‘d’) to the lowest part of its descenders (the

lowest parts of letters such as ‘p’). As a result the main part of the letter in the middle (known as the ‘x-height’) can vary because the designer has chosen different proportions.

So you would have to make quite considerable size adjustments to make these three typefaces appear to have the same x-height.

meanderings **meanderings** **meanderings**
18pt Gill Sans 15.25pt Helvetica 16pt Frutiger

Attempts have been made to reform the way we describe the size of type, but it seems we are stuck with points, and varying x-heights. This means you need to be wary of guidelines that focus on point size without reference to a particular typeface. Check what x-height (in millimetres) they are recommending, and translate that into points in the typeface you have chosen. This is not easy to do visually – the best way is to set a line of text in any computer application that allows you to enlarge the type on screen, and measure against a ruler or scale.

What readers prefer

Because most text typefaces are about as legible as each other, designers can be free to choose a typeface for other reasons. Your choice could be dictated by the kind of text, and it is not a bad idea to start by looking at other documents that are similar in purpose to yours – they may represent what your readers will be expecting. For example, novels and newspapers are almost always printed in serifed typefaces, and people may find it strange if they are not. On the other hand, forms are more often in sans serif because sans typeface families tend to include more variations in weight (boldness), and look neater as single words or short phrases.

You can also choose a typeface to have a particular atmosphere or emotional appeal, or to be associated with a historical period – for example, for many people a serifed typeface looks more traditional and has more social status. And many organisations choose a typeface for their brand, to make sure all their documents work as a set – their choice often reflects the personality they want their brand to express.

THE TIMES

The times

Her Majesty

Her Majesty

Signalling the structure of documents

Complex structured text, such as user guides or reports, may use a mixture of serifed type for the main content and sans serif for the headings (it is almost never done the other way around). This gives the designer more tools to use in order to distinguish between different ‘voices’ in the text.

Left: this design uses both serifed and sans serif type, so the designer can use sans serif to signal the highlighted information.

Right: In the sans-only version, the designer has to use another way to highlight it – in this case a tinted panel.

Who can apply?

You’re eligible to buy a 16-25 Railcard if you’re between 16 and 25 years old. However, mature students who are over 26 and in full-time education can also apply.

If you’re between 16 and 25

You’ll need valid UK driving licence or passport to prove your age, and a passport-style photo.

If you’re over 26 and in full-time education

You will need proof that you’re studying full-time at a recognised school or college, attending for over 15 hours a week, at least 20 weeks a year.

You’ll need to show an ISIC card (International Student Identity Card), NUS card featuring the ISIC logo or complete and certify the ‘Mature students only’ section of the application form. This form needs to be certified by the establishment where you are studying.

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The question is almost never ‘which typeface shall we use’, but rather ‘what set of typefaces, weights, sizes and colours shall we use, and for what purpose’. Unfortunately typefaces are not sold like Lego, with all the parts you need to make the thing. In typography you have to assemble the parts for yourself, and work out what will fit with what.

How to find and choose a typeface

The major typeface suppliers have good websites, where you can get advice and compare possibilities, but there are dangers in choosing from short samples on websites.

If you see a document that works well, and you like the typefaces, you can learn a lot by trying to identify it. You can search on one the online font suppliers’ websites (see below) – and www.myfonts.com has a ‘WhatTheFont’ feature that tries to identify a typeface from

a scan you upload. It work reasonably well if you can give it a large enough sample to work from.

If you are a sizeable organisation used to employing specialist help, we recommend you work with an experienced typographer or graphic designer. They can guide you about the implications of each choice, and, most importantly, can demonstrate the typeface in use in real documents. Get them to explore different combinations of weights and sizes, in complex things such as forms and tables, as well as in brochures and posters. In other words, give your typeface choice a thorough road test before deciding.

Buying fonts

Some good distributor websites are:

- www.myfonts.com
- <http://www.type.co.uk>
- <http://www.fontshop.com>

These websites stock fonts from all the major suppliers. The last two are part of the same group – you will find good educational guidance at <http://www.fontshop.com/education/>.

Further reading



A good introduction to typefaces and how to use them:

Phil Baines & Andrew Haslam, *Type & typography*, second edition, London: Laurence King, 2005.

Choosing a typeface: a checklist

<p>Is there a good range of styles and weights?</p>	<p>✗ Too few?</p> <p>For most purposes a basic type family like this is fine, but for a corporate standard designed for many different kinds of document, it could be too restrictive. This sample shows News Gothic</p> <p>abcdefghijklm <i>abcdefghijklm</i> abcdefghijklm</p>	<p>✓ Enough to choose from</p> <p>Because digital typeface design software makes it easier to do, most recent typeface designs have a large number of variations available. They allow you choose the best variant for a particular task, but be careful not to use too many variants in the same document. This sample shows Myriad Pro.</p> <p>abcdefghijklm <i>abcdefghijklm</i> abcdefghijklm <i>abcdefghijklm</i> abcdefghijklm <i>abcdefghijklm</i> abcdefghijklm <i>abcdefghijklm</i> abcdefghijklm <i>abcdefghijklm</i> abcdefghijklm <i>abcdefghijklm</i> abcdefghijklm</p>
<p>Is there enough contrast between the weights?</p>	<p>✗ Too little</p> <p>Here the heading (Myriad Bold) does not stand out enough from the normal text (Myriad Regular). This is not because Myriad is a poor typeface – it is a matter of selecting the right combination from the many available weights.</p> <p>Semi-bold heading Regular text the quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.</p>	<p>✓ About right</p> <p>Where a type family contains as many weights as Myriad, it is a good rule to combine weights that are at least two gradations apart, as in these two samples:</p> <p>Bold heading Regular text the quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.</p> <p>Semibold heading Light text the quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.</p>
<p>Will it date quickly?</p>	<p>✗ Distinctive but dated</p> <p>Some typefaces are perfectly legible but look as if they are from another era. Although cool when introduced, they look dated after a while:</p> <p>This is a sample of Eras (1976) This is a Bookman (1975)</p>	<p>✓ Classic neutral designs</p> <p>Designs such as these are fairly neutral, or have stood the test of time, so will not date too much.</p> <p>Helvetica Frutiger Franklin Gothic</p>

<p>Is it still legible in small sizes?</p>	<p>✗ Narrow and cramped</p> <p>Although x-height determines the appearing size of type, this does not mean a typeface with a small x-height is less suitable for smaller sizes – you can simply make it larger to compensate. More important is the width of a typeface – condensed typefaces can be hard to read in small sizes:</p> <p><small>6pt Helvetica Condensed: The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.</small></p>	<p>✓ Wide</p> <p>This regular version of Helvetica is more legible.</p> <p><small>6pt Helvetica: The quick brown fox jumps over lazy dog. The quick brown fox jumps over the the lazy dog. The quick brown fox jumps over lazy dog. The quick brown fox jumps over the.</small></p> <p>Although inelegant, the typewriter face Courier has been shown to be very legible in small sizes, probably because it is wide, and the chunky serifs make the letters distinct from one another:</p> <p><small>5pt Courier: The quick brown fox jumps over 5pt lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.</small></p>
<p>Can you afford to risk any confusing characters?</p>	<p>✗ Too risky</p> <p>For most purposes it will rarely matter if the lower case l, the numeral 1 and the capital I look the same. But you should be concerned if data has to be read accurately on labels or from tables, or if you know there are many people with dyslexia among your readers.</p> <p>This typeface (Gill Sans) is particularly poor where numbers and letters are combined, although it is very legible for continuous reading.</p> <p>Dilute l l ml in ll of water</p> <p>A round ‘a’ is often thought to be easier for children because it is how they are taught to write. But it is easily confused with ‘o’ (this is Century Gothic):</p> <p>Only use compound 6a</p>	<p>✓ OK</p> <p>As a minimum requirement, it is important to make sure the numeral ‘1’ is distinct from the lower case ‘l’. This is Frutiger:</p> <p>Dilute 11ml in 1l of water Only use compound 6a</p> <p>This typeface (Officina) goes further, – note the different serifs at the foot of the 1 and l.</p> <p>Dilute 11ml in 1l of water Only use compound 6a</p>
<p>Do you need any special characters or symbols</p>	<p>? Basic characters only</p> <p>For most everyday documents in English, you will not mind being restricted to the roman alphabet, the basic set of characters, and the most common accents.</p> <p>abcdefghijklmnopqrstuvwxyz ABCD1234áàüéèëöø</p>	<p>✓ Widest possible range</p> <p>But if you sometimes need other alphabets (for example, Greek, or Cyrillic), or a wider range of accents, you will need to check your typeface has them.</p> <p>The fonts supplied with PCs come with a very wide range of characters</p> <p>Arial: αλμνξρστυφχψηθι ÁŒŔŇąđħĥĵκł'</p> <p>Georgia: αλμνξρστυφχψηθι ÁŒŔŇąđħĥĵκł'</p> <p>Times New Roman: αλμνξρστυφχψηθι ÁŒŔŇąđħĥĵκł'</p> <p>But some other typeface families are also fully supplied with accents and non-roman characters:</p> <p>Myriad Pro: αλμνξρστυφχψηθι ÁŒŔŇąđħĥĵκł'</p>

<p>Think about costs</p>	<p> You need to buy a license</p> <p>When you buy a typeface that is outside the range of standard typefaces supplied with computers, you get a license to use it on a limited number of computers. To use it across an organisation, you need a special site license. This is not necessarily prohibitively expensive, but for very large organisations it can be better value to commission a typeface designer to create or adapt a typeface specially for you.</p>	<p> Or use free fonts</p> <p>Computer operating systems (for example, Windows, or Mac OS X) come with a range of standard fonts. If you choose from this range you will not have to pay for a font license.</p> <p>It also means you can distribute documents in Word, and they should look the same on everyone's computer.</p> <p>These fonts include:</p> <ul style="list-style-type: none"> Arial Georgia Verdana Trebuchet Times New Roman <p>More recent operating systems, such as Windows 7, include a wider range, but you would need to be sure everyone's PC is up to date.</p>
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