The typewriter was born in the late 19th century; it died in the late 20th century. And yet its zombified remains continue to stalk classrooms across the globe.

In 1990, writer Robin Williams pointed out that *The Mac is Not a Typewriter*. Two years later, she noticed that *The PC is Not a Typewriter* either. Twenty years later, however, users of word processing programs continue to waste their own time, and the resources of the machines they are employing, by treating them as if they are obsolete mechanical devices. There are two reasons for this, the second of which is of particular importance for the field of CALL.

1. Software companies initially modelled their word processing software on the operations of typewriters, as these were the most widely used forms of text composition machine. The inertia this generated continues to influence the design of such software. (Coincidentally, the same principle applies to the design of a computer keyboard. It is by no means the best possible arrangement; it is simply the one that was most widely established by the use of typewriters).

2. Educators who were brought up with typewriters continue to inflict obsolete rules on their students. Indeed, a new generation of educators which has never used typewriters perpetuates the problem by recycling what it was taught. These educators have not questioned what they learned, and because they have not used typewriters, they are in less of a position to notice that what they are teaching is inefficient and obsolete.
The nature of the tool

The above assertions may seem a little extreme, so consider the following:

1. The typewriter is a mechanical device. It prints letters, one at a time, by striking an ink-soaked ribbon, or similar, held above paper, as a direct result of the individual action of the user.
2. Until late in its history, the typewriter assigned the same width to all the letters of the alphabet, all punctuation, and all spaces.
3. Until late in its history, the typewriter was unable to change the form, or size, of the letters it produced.

These are the essential characteristics of typewriters, and yet not one of them is also true of computers. Nor, it must be added, are they true of the other modes of text composition which have a longer history than the typewriter (the most successful being “writing” and “printing”).

This is important, because the characteristics of the tool determine the application of that tool. Many of the “rules of typing” still taught by educators – even CALL-savvy educators – have nothing in common with handwriting, movable type composition, or computers. For example:

The indenting of paragraphs has become a habit of text composition, though few people are aware that it arose from a simple error: the red pilcrow (¶) symbol, indicating a new paragraph, was added after the black printed text, and was occasionally omitted by mistake. The space thus left effectively performed the same function, and hence the troublesome insertion of the pilcrow was abandoned in favor of a large space. In printing, the size of the space (or “indent”, since it started to be used only at the beginning of a line) was generally determined by the line-spacing. An indent that was square in appearance was widely regarded as sufficient, although in the 19th century most spaces, indents included, increased significantly in width. Such a square indent would thus be as wide as the line was high (this is the case with The JALT CALL Journal, for example). If the line spacing were 5 mm, a 5 mm indent would be sufficient. Note, however, that even now millimeters are rarely used for measuring line spacing or type size. Instead the arcane and confusing system of “points” is retained. You can type points into spacing dialog boxes in Word, however, and it will convert them to millimeters (15pt is about 5 mm).

On the typewriter, which was a 19th century invention, 5 or 6 “spaces” were deemed appropriate for an indent. A “space” on a typewriter was the standard width; the same width as all of the other letters and symbols that could be produced. This is not true, however, of type composition, handwriting, or computers (in none of which is there actually such a thing as “a space,” meaning a single, specified width, though type composition comes close). The 19th-century nature of the typewriter also explains why the convention was to type two spaces after a period. Again, this is an arbitrary convention, especially pointless on a system (such as a computer) that is capable of adjusting space according to built-in rules of typesetting.

Returning to the indent, however, even on a typewriter the idea of typing 5 spaces rapidly became technologically obsolete. By the first decade of the 20th century, typewriters were being equipped with tabulators: the press of a button would move to a specified printing position. No need to hit the space bar a set number of times: simply set a tab stop at the appropriate location and press the tab key once to indent your paragraph. Tabs, of course,
are still a feature of word processing software. While they were a technological innovation a hundred years ago they should now also be used with discretion – and not for indents!

In fact, I would argue that from a pedagogic point of view, the need to stress paragraph indentation has disappeared. From both an aesthetic and technological point of view, a case can be made for indicating a new paragraph with a line space. The idea of dispensing with paragraph indents is not even a recent one: the *neue Typographie* championed by Jan Tschichold in Germany in the 1920s (see Tschichold, 1995), and subsequently spread around the world by designers from Switzerland, eliminated unnecessary characteristics such as indents. The easiest way to indicate a new paragraph on a modern computer is to simply press the Return key, having made sure that your style is set to add a little space after the paragraph. The use of preset styles, a key feature of computer text composition, will be examined later.

First, however, the third point raised earlier about typewriters is that they cannot vary the form or size of their letters. Again, this is not true of other forms of text composition, so there is no reason to limit the use of computers for obsolescent reasons. For example, the main reason for using underlining on a typewriter was to indicate a title, or emphasis. While the same did apply to handwritten texts, printed texts used italic or bold faces, or larger sizes, to indicate the same things. Underlining cuts through the descenders of letters (like this: ypqj) which is as ugly as it is unnecessary.

More pertinently, the appearance of text can be varied in order to signal structural features of a text such as titles, headings, quotations and captions. Subheadings can be formatted with a different font, or a bold or italic version of the text font. Though even this, I will argue in the next section, misses one of the most important characteristics of computer text composition.

So far the points raised may seem very minor, indeed trivial. But printed text is an aggregation of trivial marks. What seems trivial at an individual level quickly becomes significant in totality. The difference between pressing a space key five times or pressing a single tab key – or indeed pre-setting your paragraph style so that breaks, whether indents or spaces after, are set automatically – is trivial on a single occasion, but when added up over the course of all the typing you do in a year amounts to a significant waste of time. When you add to that the fact that submission to a journal of a text riddled with unnecessary spaces creates extra work for the production editor, you have a compelling argument for learning how to use a computer as a computer.

**Text structure**

It may seem like a tangential issue, but at this point it might be useful to consider the World Wide Web. One of the innovations of the Web was the use of the HTML markup language to code web pages. HTML derived, ultimately, from SGML, which was developed in the 60s with the goal of making certain structural elements of documents accessible to machines.

Although we seem to have already left the period in which an ability to code in HTML is important in web development, the characteristics of markup languages are worth noting, and should be considered by anyone educating students in the use of computers. HTML is a useful example here, constituting quite a narrow subset of document-coding possibilities. HTML demands that you pay attention to the function of a document’s format. This
is something that in everyday life is almost invisible, or taken for granted. When you look at a page, and you see a phrase at the top, in large bold type, with smaller, normal text beneath it, you immediately know that the larger text is the title, and the rest is the body text. It is a form of “visual grammar” that is largely unconscious; picked up when we learn to read. HTML, however, asks you to explicitly specify these functions. You type <title> at the beginning of your title, and </title> at the end, to indicate its function. What it looks like is of lesser importance, and is handled separately.

The same principles can be applied to the conventions of text production. HTML may be a product of the late 20th century, but the above principles go back many centuries. The incunabula of Anton Koberger, for example, may not feature codes such as <title> and <body> but they nevertheless make these functions clear through the use of carefully deployed consistency (for the same function) and contrast (between different functions). As readers, we unconsciously learn to decode such formats, and understand their structural significance; as writers, however, we often flounder without clear instruction. And the wealth of formatting options provided by word processing software (which, given its predominance, should perhaps be written Word® processing software) has done little to alleviate this state of affairs.

You can make your words bold, italic, change their font, their color, their alignment on the page... these and many other formatting options are rendered simple. Less simple is knowing why. What is the purpose of italic type, for example? And how do headings work?

From a pedagogic point of view, it is surely necessary to cut through the complexity of the formatting options, and clarify how and why certain functions of writing work.

**Recommendations**

Two reasons for the lingering influence of the typewriter were given earlier. One is that typewriter features continue to be highly visible in word processing program interfaces. Worse, even those features that are apparently computer-specific, such as the ability to switch font, size, form etc, are presented in a way which encourages the user to apply them unsystematically. The other reason is pedagogic: teachers continue to teach technologically-inappropriate rules and techniques, largely because they are themselves unaware of how technologically inappropriate they are. As Rheinfrank & Welker put it in 1994, teachers teach a “standard text document which is ... formatted according to guidelines established when typewriters were popular.” The situation has not changed much in the intervening 16 years.

The solution to these problems is a little-known feature of word processing programs that has been there for many years, having migrated from desktop publishing: styles. Styles are collections of formatting commands; if you like, mini-programs or apps. Applying a style, using a single click, will reformat the selected text according to a predetermined format set. The two most important kinds of style are paragraph-level styles and character-level styles. The former adjust whole paragraphs, and include specifications for font, indenting/spacing (of various kinds), language, and even fancy features such as lines, borders and shading. Character-level styles allow you to override the paragraph setting for specific words or groups of words in order to, for example, change a font. (Character style: Sans serif)
Styles are useful because they can be freely named. There are some advantages in retaining the names of the built-in Word styles (Normal, Heading 1, Heading 2 etc) if they work for you, but there is nothing stopping you adopting your own names. This can be helpful, because it enables you to specify the structure of your text. Block quotations can all be formatted the same way, with a single click, by specifying an appropriately indented (and reduced font-size?) paragraph format and assigning it to a style called “Block quotation”. Similarly, you can ensure that you are clear about levels of headings by assigning them names. One advantage of using heading styles in this way is that Word is set up to produce automatic tables of contents based on styles assignment.

Styles are also useful because they permanently label the text they are attached to. If correctly set up, therefore, they make subsequent format adjustments easy. If, for some reason, you wish to change the font used for one element of your text (say, the second-level heading), instead of having to select every instance and make the change manually, you merely redefine the style.

Markup languages such as HTML, mentioned earlier, demonstrate that this approach can be taken to extremes. For example, in printed text, italic type is used for a number of functions. Ordinarily, the function is inferred by the reader. As a result, writers are often hazy about their reasons for using it. If italic is applied in a text not by pressing the Italic button (or the Ctrl/Cmd + I keyboard shortcut or equivalent), but by choosing a style, its function can be clarified. You can have a character style called “Book title,” for example, and another called “Foreign word.” Both would format the text as italic, but the electronic document, at least, would preserve the functional distinction between them. As we increasingly shift to writing for electronic means of distribution, such distinctions will assume increasing importance.

It would be unreasonable to demand that language instructors familiarize themselves with all of the conventions of typography, especially given the contradictions and controversies that abound. Two steps, however, would go a long way.

**Minimize formatting**

Consistency and contrast are the essential tools of text formatting. Consistency to show that items of text have the same function (for example “body text”); and contrast to make clear that different items of text have different functions (for example “headings” compared to “body text”). To achieve this, it is preferable to use a minimum of actual formatting. The more you change, the more signals the reader has to interpret; the greater the chance of mistakes.

Furthermore, if you are providing a text to someone else for publishing, it is very likely that excess formatting will be obstructive rather than helpful. On this very journal it often proves quicker to resave submissions as text files, and then reformat from scratch, rather than wading through, stripping out formatting piecemeal. Both of these procedures, however, are unnecessary and time-consuming.

A simple rule, therefore, is to avoid piecemeal format changes. No tab characters, no spaces apart from those (single) between words and sentences, no boldface applied from the menu or “ribbon.” A stripped-down, spare text is a beautiful text. So long as you follow the second step:
Use styles

As already noted, styles enable you to maintain consistency for text with the same function. All of the body text paragraphs in your text should be formatted with the same style. Word provides you with a readymade palette of styles which can be used to achieve this. As mentioned earlier, you can rename or create your own styles for your own purposes, and this is good practice, though when submitting to another publication it may be best to stick to the Word styles.

Applying styles is very simple: a single click on the style palette will apply the style to the currently selected text (or, in the case of paragraph styles, the paragraph in which the cursor is currently located). The only real skill to be learned – and therefore taught – is how to redefine styles. If you want your text to be in 12 point Times New Roman, yet Word seems to be offering you 10.5 point Century,^2^ rather than selecting your text and choosing your font from the menu, modify the Normal (標準) style definition instead. It takes a couple of extra clicks – but it does ensure that sections of your text don’t mysteriously revert to Century a few edits later.

Modifying styles also allows you to set paragraph characteristics such as line spacing and even indents, if you want to use them. You can improve the spacing of your text by switching to left justified text, rather than the default full justification, which introduces irregular spacing between words. Changes to the style ensure consistency across a document in the simplest, most convenient way.

If you want to get more advanced, you can even modify templates, though Word has been making this increasingly difficult over the last few years. Probably easier is to get a set of styles working nicely in a document, and then just resave that document with a new name when you want to start a new one without having to redefine your styles all over again.

Conclusion

Formatting is an important part of writing, like it or not. Current pedagogic practice makes it unnecessarily difficult and time-consuming, without adding any procedural or aesthetic benefits. Writing teachers working in an environment where students are using computers would benefit, as well as benefitting their students, by stressing the importance of simplicity, and following the two steps outlined above. CALL researchers submitting papers to journals would also benefit – as well as benefitting the poor, overworked production editors – from applying a little simplicity and structure to their own documents.

Notes

1. The pilcrow is actually an important feature of Microsoft Word. Nowadays it appears at the end of a paragraph, rather than the beginning, and it won’t print, but if you toggle the view command, you can see it. It contains essential formatting information about the paragraph it is attached to – both the style and any other applied formatting – so you need to be careful to include it when copying and pasting, otherwise your formatting can go awry (though if you’re strict with your styles, the problem is less likely to arise).
2. An unfortunate feature of Word in Japan is that Century is the default “Latin” font. In fact, the Century font provided by Microsoft is a bastardization of Century Schoolbook.
Century: misplaced punctuation-hyphen; *no true italic*

Century Schoolbook: correct punctuation-hyphen; *true italic*

Figure 1. The problem with Century

The font has been redesigned to be used in the midst of *kanji* and *kana*, and its misplaced punctuation marks, as well as the absence of true italic or bold forms, make it unsuitable for use in English texts. Microsoft Japan omitted to inform users of this.

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**Author biodata**

**Paul Mason** teaches at Aichi Gakuin University. He has worked in the field of publishing for 27 years and currently handles the layout of *The JALT CALL Journal*.