

Machine aids: a small user's reaction

Robert Clark

Freelance translator, Cambridge

Paper presented at the Aslib Technical Translation Group conference and exhibition, London, 20 November 1980

A technical survey of the kinds of equipment that may improve both the quality and quantity of a translator's work is followed by consideration of the new conceptions and attitudes imposed by such equipment. The importance of motivation and other psychological factors is discussed, and the need for greater attention by manufacturers to human factors is stressed. Finally, a plea is made for improved telecommunication facilities and media compatibility between systems of different makes.

MY REACTION TO word processors? All in good time. First I thought I would brighten your day with a cutting from *The Guardian*. (Overseas visitors may not have heard of the *Guardian's* reputation for classic misprints.) In the *Guardian* of 15 October 1980, page 15, an article by Hamish Macrae refers to the 'world processor'. This misprint will be seen by some as prophetic:...the *world* processor! A fascinating thought. But if we define a person's world as their life and work, and a processor as something which brings about changes, that misprint is not so far from the truth.

Telling someone you are a translator is a guaranteed conversation-stopper—except in the unlikely event that the other person is a translator as well; that guarantees *plenty* of conversation, especially if, like me, you believe that translating can be done quicker and better with the help of some of the electronic aids around today with two—or even ten—fingers and a typewriter, and the person you are talking to disagrees.

I am described as a 'small user'. I could hardly be smaller without disappearing altogether, since I operate as a freelance translator and have no employees. (My typists work on a casual basis.) But I could not produce the quantity (or, for that matter, the quality) of translation work that I do, without reliable, specially-adapted dictating machines and powerful, well-designed text processing equipment.

A quick personal outline for those who do not know me: I translate into English from Swedish and German (mainly) and Dutch and French (occasionally). The work normally has the central theme of 'technology'. It is mainly in the form of technical instruction manuals, brochures and catalogues for industrial plant, electronic equipment, and so on. Most of the work comes from Sweden and Germany, some from other countries; some comes from direct clients, some from agencies. They all have high standards, and expect the same of the freelancers who work for them. To keep my clients I have to produce work that meets their standards not only linguistically but also in its presentation. And I have to meet their delivery deadlines as well. Of course this can be done with a typewriter, but I maintain that it can be done far better

with a word processor. Even so, there are disadvantages, and because they are not so evident, I shall devote at least as much time to those as to the advantages.

I now have an annual output of well over half a million words, and today I plan to talk about the machine aids that have made this possible for me, and the techniques I use. Of course there are people who achieve such an output by conventional means, but I would certainly find it hard to do so, especially while maintaining a high standard. Translators are an individualistic breed, and I have found that personality counts for a great deal in translating. What is right for me may not be right for another translator.

The basis of my relatively high output is dictating. I am convinced that dictating is the most efficient way of translating. It is a technique that many translators find hard to acquire, but those who master it seldom abandon it. I fail to understand how anyone can be a successful full-time freelance without learning this technique.

The dictating equipment I use does away with the hand microphone which I used to find such a nuisance: I was for ever putting it down to use reference books and make notes, and then having to pick it up again before continuing. What I wanted was 'hands-free' dictating. When I first saw the machine I now use, what interested me about it was the desk-top microphone unit for use at meetings and so on. Although it had pushbuttons to control the machine, it also had a socket for a foot control. This was what I had been looking for for a long time. The final link was left to my ingenuity. I bought a set of headphones with a boom microphone—the sort used by aircraft pilots, air traffic controllers, telephone operators and so on—and slightly modified the dictating machine to accept it. The headphones also reduced the level of extraneous noise, making it easier to concentrate. The foot control covered all the functions of a hand control. This was my first specially-adapted machine aid, and I think its application in this form to translating is an innovation. I should be interested to know whether any other translator uses a 'hands-free' dictating method.

Broadly speaking dictating is twice as fast as typing the work yourself, especially if you are not a touch-typist. But the product is a tape, and this has to be typed. Typists cost money and good ones (who can tell when to put 'affect' and when to put 'effect', for instance) are difficult to find. Another problem with dictating is that once you have committed yourself it is difficult to make changes on the tape, and impossible to make additions, as they would erase subsequent dictation. These problems can be overcome with a word processor, if it is properly used.

Hardware

What kinds of word-processing machine aid might a freelance translator consider?

Automatic typewriters

These are basically a conventional electric typewriter connected to a memory and storage unit which stores the text on a medium such as a magnetic card. Corrections can then be made and the corrected page reprinted. As each magnetic card stores one page of text, handling and storage of the cards becomes a major task if translations of any size are being handled. Paper consumption is as high as with conventional typing, since each corrected page has to be printed twice. The printing speed, though

better than that of a fast typist, is relatively slow, and the machine cannot be used for other work while it is printing. I would not recommend a machine of this type for a translator.

Screen-based word processors

As their name implies, these machines have a screen which displays the text as it is typed, or as it is called up from the storage medium. They are of two main kinds: stand-alone machines and shared-logic machines. A stand-alone machine is completely self-contained, and is made up of keyboard, screen, processor, storage device, and printer. Shared logic systems have two or more work stations (ie screen and keyboard). A small user such as a freelance translator is likely to be interested mainly in stand-alone machines, though if throughput is consistently high there may be a case for having either a shared-logic system, or, in addition to the stand-alone machine, an input station (this is a word processor without a printer).

Stand-alone machines may not be so well suited for large organizations. For such applications there are likely to be benefits in having a shared-logic (shared-facility) system with a large amount of on-line storage. This is outside the scope of this paper.

The main advantages of working on a screen rather than on paper in a typewriter are:

- (a) Mistakes are easy to correct, and nothing ever has to be retyped. A common mistake in copy-typing is to jump from a word or phrase to the next occurrence of that word or phrase—perhaps several lines later. Of course this means retyping, but not on a word processor. The typist simply returns to the point where the passage was omitted, and types it in. The text on the screen opens up to make room for the addition. The speed and confidence of the typist are increased.
- (b) Another example: if the text is found to have been keyed in with the wrong margins, tab settings, pitch and so on, it is simply a matter of changing the relevant commands, and the text adjusts itself to the new layout. Similarly, an inexperienced operator who is unfamiliar with formatting (ie layout) instructions can be asked to type the text without them and they can be added later, perhaps during checking.
- (c) Repeated matter need only be typed once. Any piece of text, once typed and stored, can be re-used over and over again, not only at the time, but days, weeks, or even months later, and can of course be revised at will. For instance, consider a series of tables that recur on several pages, each with the same column headings and tab settings, but with different matter in the columns: on a typewriter each page would have to be typed as a separate entity, and if the work were interrupted and the typewriter were used for some other work in the meantime, the tabs might all have to be reset. With a good word processor, the complete table heading can be recalled as often as necessary, at any time, together with all the necessary tab settings.
- (d) A translator who deals with documents that follow a set pattern, such as data sheets, standards, specifications or annual reports, can translate the basic text (the text in which there are few or no changes from one document to the next) once only for repeated use, and need only translate the variable text.

- (e) Tabular and column work is easier, provided the operator is prepared to master the techniques.

It is easy to describe these features, but they cannot be fully appreciated until they have been experienced first-hand. It is important when watching demonstrations of word processing equipment to be both critical and imaginative. The demonstrator is not a translator, and though you may show examples of work, and the salesman may say, 'No problem, our machine can do that standing on its head,' it is not the specimen of finished work that counts in that situation, but the process by which the result is achieved. The salesman sees only the sheet of paper you show him, and visualizes it as a copy-typing task, but the unique aspect of typing for a translator is the existence of the source text, and the fact that the typist has to combine audio-typing with scanning the source text for layout and so on. This is unlike most word processing applications.

I am strongly in favour of a screen which shows as much as possible of a page at once. Salesmen whose machines show only half a page will tell you that tests have shown it is not necessary to see more at a time. I do not agree. It is useful to be able to display a good width as well, say landscape A4.

More than any other factor, it was the versatility of the screen that sold me the machine I use.

Most screen-based systems will allow you to work on to the screen while the printer is running, though there may be a few minutes' delay at the beginning of a long print job.

Deciding on a system

I do not intend to deal with the financial aspects of acquiring and operating a word processor in this paper. Translators and their circumstances differ so greatly that it would be inappropriate. Nor shall I be talking of percentage increases in output or savings in typing time. I do not think in those terms. My advice would be to talk to users and make up your mind on the practical aspects first. Ask yourself whether you could adapt to working with a machine of this kind; many people have an irrational aversion to even the simplest technological devices; your typist may be one of them. You need to be enthusiastic and highly motivated to make a success of it, because it takes time to master the techniques, and it can be very frustrating at times. Only start thinking about the economics when you are quite sure you (and your typist if you use one) could get on with a word processor.

Points to consider

- (1) *Do you type your own work or do you use one or more typists?*

A freelance translator considering word processing should look carefully at his current working methods and decide how and where a word processor would fit in. It will almost certainly lead to changes.

I know two established translators who cannot understand why I use a word processor. They dictate their work, and send it out to typists who work at home.

Their clients are prepared to accept typed work with handwritten corrections, and neither translator sees any reason to change the system. Many freelance translators use similar arrangements, and if you are one of these and you get a word processor you immediately face the following problems:

- your typist has to come to the machine;
- you can only use one typist at a time;
- you cannot use the machine (for glossary work or for checking, for example) while the typist is working.

You are likely to find yourself working on the machine when it is free, perhaps in the early morning, or at evenings and weekends. It is a matter of organization: if your output is 3000 words a day, your typist may take 4 hours to type this on the word processor, leaving you 4 hours of an 8-hour day to check and print the work. But to do this you need a good, committed typist, and the work must be straightforward. Complex layouts or tables disrupt this pattern. Even if you can persuade a typist to come to the machine instead of working at home, she will have to be trained, and it is far from certain she will take to it. In my experience, the rule seems to be: the more accustomed a typist is to a conventional typewriter, the less likely she is to adjust easily to a word processor.

(2) *What kind of work do you do?*

In theory anything that can be done on a typewriter can be done on a word processor, but I have yet to see a word processor that can cope well with formulas and equations, or even one that shows superscripts and subscripts properly on the screen.

(3) *What form of presentation do your customers want?*

Customers may indeed be 'prepared to accept typed work with handwritten corrections', but they might be delighted to accept work without a single correction, and to have the opportunity of getting a new printout without retyping if they wish either to alter the source text, so that the translation must be altered correspondingly, or to alter the translation, for reasons of their own. This must be a selling point, at least with customers who are aware of the possibilities of word processing. Most of my customers require a standard of presentation equal to or better than that produced within their company. It is a matter of professional pride with me to supply work to camera-copy standard at all times.

Operator adjustment

A word processor is not a typewriter, and ought never to be seen as one. It is a special kind of computer, a dedicated computer, in the jargon, and to use it successfully the operator must realize that he is not a typist but a programmer.

When you type on a typewriter a character appears on the paper whenever you hit a key. That operation is a single event—a mechanical operation, not a program. When you type text on a word processor you are keying in a program, a series of instructions for the printer. Like any program, these instructions can be checked, modified, copied, manipulated—in a word, processed—before they finally reach the printer, and subsequently, of course.

Because the word processor interprets its instructions literally, and is totally intolerant of human error or vagueness, the instructions you give it must be perfect. There is no room for error. On a typewriter you see your mistakes as soon as you make them; you can then correct the page or retype it. Not just typing errors, but layout mistakes as well. On a word processor some errors may not become apparent until you finally print out the work. One major cause of difficulty has to do with line spacing. Most screens show only single spacing in running text. Special commands are given to obtain one-and-a-half or double spacing, but the text may not show the different spacing on the screen, only on printout. It is surprising how frequently extra half line spaces are used in text. A related problem is that subscripts and superscripts may not appear as such on the screen, though again they can be obtained on the printer by entering special commands.

When you put a blank sheet in a typewriter you immediately make a decision: where is the paper to be positioned along the platen? This will affect where the margins will be set. On a word processor, there may be technical reasons for not positioning the paper towards the left, as one normally does in a typewriter. It may have to be in the middle. This may have to be allowed for when keying in any formatting commands. You have to think in terms of 10, 12 or 15 pitch—the number of characters per inch, and work out the margin and tab settings in terms of numbers, whereas on a typewriter one generally sets them mechanically by eye. It helps to visualize a page as a grid on which each character position is defined vertically by a line number and horizontally by a character position number.

To save a great deal of measurement and calculation, I have had transparent overlay grids drawn (a section of the 10-pitch one is reproduced on paper in Appendix 1) which can show the horizontal and vertical positions of any character on a page. This is particularly useful with translation work, since one often has to work to the layout of the original, leaving gaps for illustrations and so on.

All these instructions must be given to the machine via the keyboard in the form of command codes, and it is this that can give rise to operator adjustment problems. For some typists it involves too much thought, or rather, a new way of thinking. It is unsafe to assume that a good conventional typist will be a good word processor operator. Quite a different mentality is required.

You may wonder what can be so difficult about it. The difficulty lies not so much in the machine as in the common human aversion to the unfamiliar, the new, the different. People still struggle with the 24-hour clock, and it will be decades before metric weights and measures are fully accepted. Most of us still hanker secretly for good old pounds, shillings and pence: 'real money', we call it. The difficulty comes not in learning something completely new, but in having to unlearn a skill that has become part of you.

Translation techniques

When I translate, I adopt what I describe as the 'creative' approach. Many fellow-translators disagree with me when I describe translating as a form of creative writing, but I maintain that when I translate, I am creating a new piece of English, on the basis of the meaning conveyed to me by the source text. I am trying—as best I can—to

write what the author might have written if he had been English. Like all writers, I need to go over what I have written. This is not just a matter of 'polishing the style', though that certainly comes into it. There may be passages that were ambiguous in the original and that need to be edited in the light of new information; technical terms may need to be changed throughout the work, and so on.

My aim in purchasing the text processor was to progress from the 'dictate—type—check/edit—retype' pattern to the 'dictate—type (on machine)—check/edit (on screen)—print' pattern. See Appendixes 2 and 3.

Appendix 4 shows in detail how a freelance translator might work with a word processor. WP in the right margin indicates use of the word processor.

Glossaries

With a word processor it is an easy matter to compile lists of technical terms—glossaries—in two languages. To me this is one of the greatest benefits of the machine. Working for many different customers makes it difficult to keep their preferred terminology in one's head, and I make a practice of keeping glossaries for each client or, if the client is a translation agency, for each ultimate client.

I am often asked whether the machine will arrange word-lists like this in alphabetical order. It doesn't, and I do not need it to. The glossary is built up entry by entry as the work progresses, and entries are simply added at the correct alphabetical position. The advantage of doing this on a word processor is that when a new entry is added, the existing text opens up to admit it.

Usually the client receives a copy of the glossary with the work. This helps to keep terminology uniform throughout their publications. If I receive any more work from the same client, the glossary would be added to, and the updated version sent.

Problems and prospects

When I was deciding which machine to buy, almost all my clients with word processing systems thought I should buy the make of word processor they had bought. I would have had to buy three or four machines to satisfy them all! I decided to buy the one I liked best. But my clients and I find the incompatibility between different systems very annoying. Surely word processor sales would increase if all systems used a common standardized medium so that work done on one manufacturer's system could be processed on another's. It is almost always impossible to transfer the medium (usually a floppy disc) from a system of one make to a system of another make. The state of affairs is similar to that with video tapes, with several systems vying for market dominance. There ought to be some standardization in this field. The problem can be overcome by transmitting data from one machine to the other via telephone lines and modems, but even this is apparently not without its problems, and can be costly. Anyone who is enterprising enough to offer a disc conversion service could do very well.

The voice of users is not heard loudly enough in the word processing world, and it is time there was an organization to put pressure on manufacturers for greater standardization, not only of media formatting, but of terminology such as command code names. Some makers use delete, other erase, others rub out, and so on.

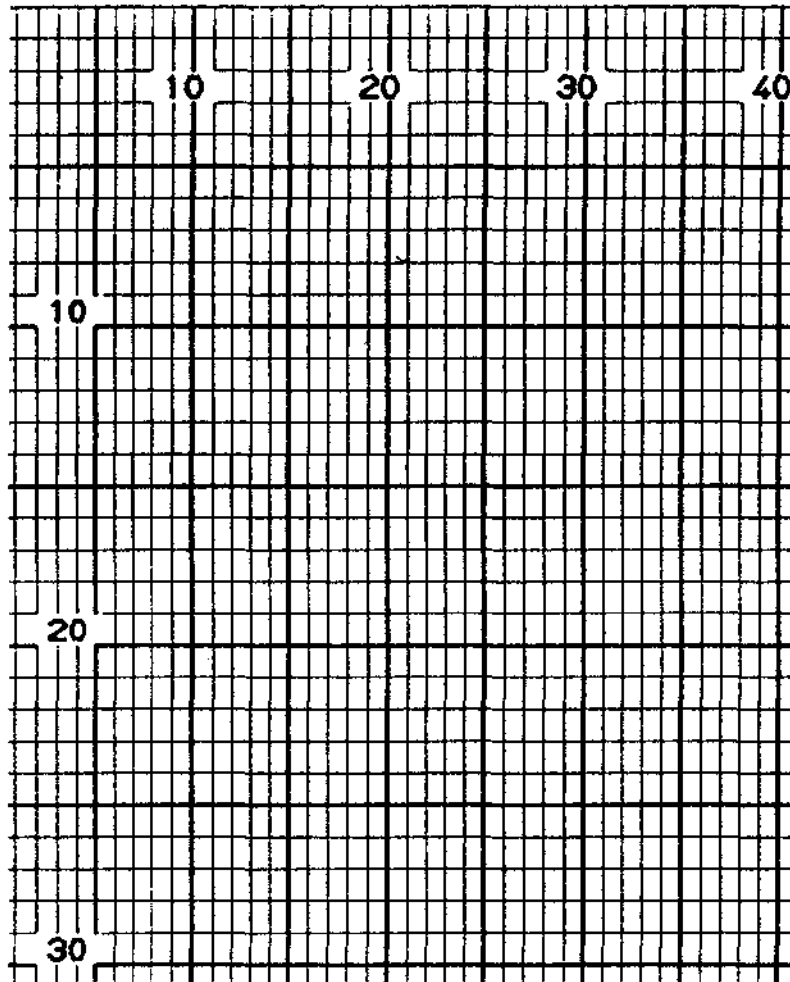
You wanted to hear my reaction to machine aids, especially word processors. I hope it has emerged from what I have said that my reaction is, in two words, 'terrific, but...'

As you can tell, I am very enthusiastic about word processing, but it seems to me that they are about where aircraft were in 1930. I doubt whether we shall have to wait fifty years for them to advance by the same degree as aircraft have!

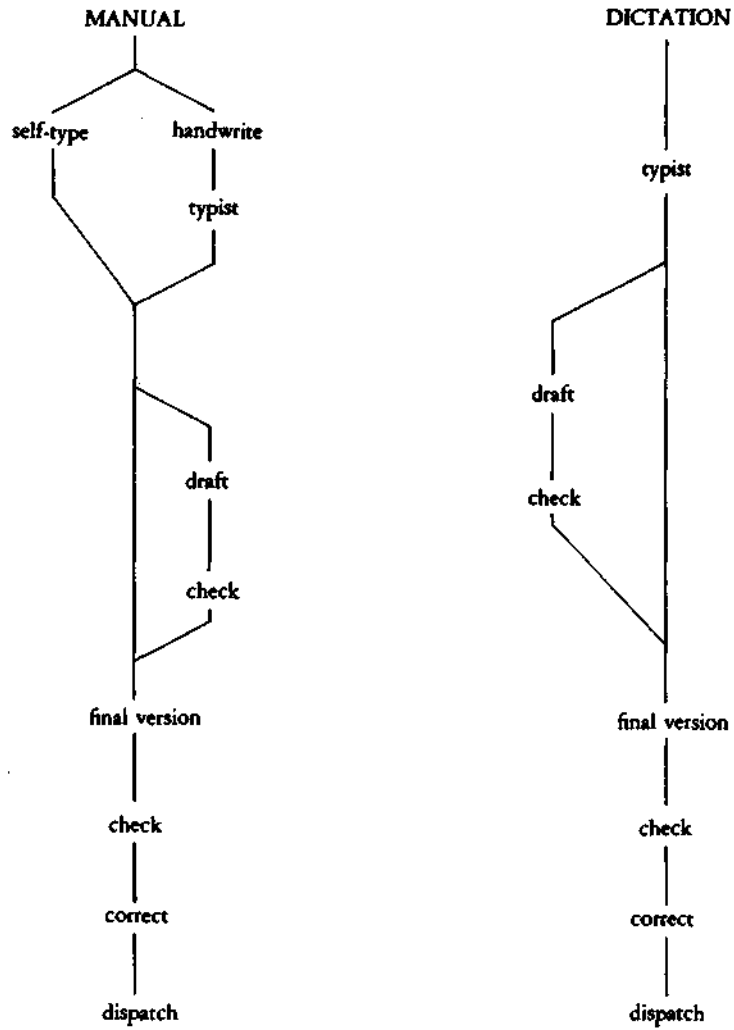
Designers of both hardware and software need to be more open to the psychological difficulties of working with such machines; they need to pay even more attention to human factors. Many word processors ask too much of the user's memory, and do not always show the text on the screen exactly as it will appear when printed. Users need more feedback from the screen to keep them informed. But users also need to adapt, and develop the flexibility of mind to cope with word processors. Future users—now at school—need to be taught a less rigid view of text as simply ink on paper. They are going to need to work with text on a screen—what I call 'liquid text.' It is only when you have worked day after day with a word processor for some time that your conventional concepts break down and you begin—little by little—to glimpse the possibilities.

I recently heard it said that word processors are to typewriters what telephones are to pigeons. I wonder whether the typewriter will survive as well as the pigeon has.

APPENDIX 1 *Section of 10-pitch layout grid (The actual grid is transparent)* © Robert Clark 1980

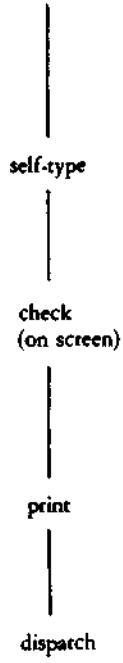


APPENDIX 2. *Translator work methods—pre-WP*

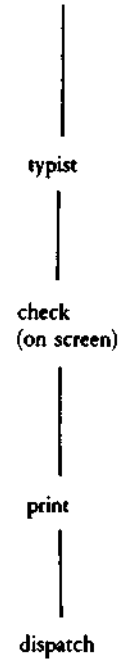


APPENDIX 3 *Translator work methods—with WP*

MANUAL



DICTATION



APPENDIX 4. *Freelance translator: work pattern*(1) *Source text received*(2) *Book in* (possibly count words)(3) *Start work*

3.1 Scan work

3.1.1 Decide on breakdown into sections, if job is large

3.1.2 Establish readership, style etc

3.1.3 Create basic glossary *or* call up existing glossary for related work

WP

(4) *Dictate*. While dictating:

4.1 Refer to glossary

WP

4.2 Add to glossary

WP

4.3 List items to be changed on editing (notepad)

(5) *Typing*

WP

The typist works directly on to the word processor screen from the tape, with the source text as a layout guide. The typist should check for ordinary typing errors.

NB: The text is not printed out at this stage. It is stored on a floppy disc.

(6) *Checking*

Concurrently:

6.1 Check for typographical and layout errors

WP

6.2 Make changes listed during dictation (see 4.3)

WP

6.2 Check text for clarity

WP

(7) *Printing*

At present, normally done by translator, but ought to be done by typist.

7.1 Scan completed printout, decide if any pages need alterations and reprinting—reprint.

(8) *Invoice* (WP) and despatch

(9) Await payment!