

Writers are given a "DSC Style Manual" and their work is reviewed and monitored for up to six months to ensure that they are meeting our high standards.

All this training and monitoring is necessary because we can no longer assume that possession of a university degree automatically means that the university graduate has good writing skills and can think logically and clearly. In fact, a great number of well-educated individuals pepper their texts with words and phrases such as, "scenario, back-burner, head honcho, and bucking it up the line". One recent graduate stated in her résumé that "... (I) enjoy the creative challenge involved in the application of dialectical reasoning in any subject matter requiring a synthesis".

We try to train our writers to write clear, concise texts that are easily understandable. Superfluous wording, bureaucratic gobbledegook and the latest jargon are not acceptable. The basic idea is to get the message across in good, plain English. The text may not sound as important once we have stripped it down but the message will certainly be much clearer.

So, do not believe all those stories claiming that government letters and texts are all complex and incomprehensible. We are doing our best to communicate clearly and simply and, remember, if you receive a letter stating -

"It must be recognized that this is not a normal business transaction but rather a political item so far as the U.K. authorities are concerned, accordingly, whilst continued efforts will be made by all Canadian officials the likelihood (sic) of any successful completion in the foreseeable (sic) future is most unlikely."
-it won't be from Transport Canada!

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WRITING WORD PROCESSOR MANUALS FOR A LAY PUBLIC

Karin Montin

I am going to discuss some of the problems involved in writing easy-to-understand instructions for word processing aimed chiefly at secretaries and typists.

In particular, I will be looking at some ways of adapting vocabulary to the reader's experience and reading ability and conforming sentence structures to a few rules of thumb.

My experience has been as a writer of user training manuals for a large manufacturer of word processors.

Writing user documentation for word processing is technical writing, since it involves describing and explaining complex electronic functions. It can equally well be described, however, as nontechnical writing, since it is intended for nontechnicians.

WORD PROCESSING

A word processor is a specialized computer that can be most simply described as a fancy typewriter. It looks like a combination typewriter and television screen, although the typewriter is split into keyboard and printer. The keyboard has some extra keys which make it possible to do more than just type.

A word processor can do many things, but its primary function is to display what you have typed before you print it on paper. Since typing and printing are separate steps, it is possible to make any number of changes to the typed page before it is committed to paper. The second major function is to store a typed page on disk the way a tape recorder stores a song on tape, making it possible to play

back the typed page rather than retype it when you want to use it again.

In between typing and printing there is room for a lot of change to the page, and every type of change requires a description and explanation for the user. This, of course, is where technical writers come in.

THE ROLE OF THE USER DOCUMENTATION WRITER

The role of the writer of user documentation is to interpret technical information for the lay public. The written information that the user documentation writer receives comes from another type of technical writer, someone much closer to the technical aspects of the development of the hardware, or equipment, and software, or programmes to be documented.

The information provided by these writers is called technical specifications, or specs. Specs describe the way a machine or programme is supposed to work in its ideal form and are updated whenever changes are made. New versions of software are released periodically, too.

Writers must make sure that they are always working with the most recent software available, and that they have the paper documentation to accompany it.

So writers do more than just write. Often they are testers of new features and are expected to find things that don't work. This makes it more difficult to document the feature, but it is a good way to get to know the features inside out.

TARGET POPULATION

Before anyone can start writing a user manual, some research needs to be done to determine just who the manual is for. It is perhaps the writer's role to ask the proper questions but it may be someone else's job to find out the answers.

First of all, the design team had a certain target population in mind when they invented the machine or programme. In the case of word processors, they were certainly thinking of the people who are

used to using typewriters. In the case of other types of computers, or of certain types of programmes for word processors, another group may be targeted, management, for example. The designers also have an idea of what the system can and should be used for.

Next, the marketing team has an idea of who they want to buy the system. The two targets are not always identical.

Once you have determined a general target group, you must find out more specific information about the members of that group: age, education, and interests, for example. You also need to know the circumstances under which the manual will most likely be used: with or without a teacher or supervisor, in a busy office, on lunch hours, in a quiet place with no disturbance.

The readership of manuals is composed principally of secretaries and typists, with a small but growing number of professionals. Questionnaires sent out with manuals and returned by users show that the secretaries have a high school education, while a few also completed secretarial training, and a smaller number attended college or university.

Other surveys show that the average reading level of high school graduates is about grade 6. To me this implies a judgment probably based on formal schemes of measuring sentence structure and vocabulary. Since I do not make use of such schemes, I just think about books I read when I was in grade 6 and those I have read recently that are intended for that grade level.

Personal contact with people using the manuals has led me to the inevitable conclusion that they do not like to read. They therefore do not read any more than they deem absolutely necessary. This means that a great many of them skip anything that is not labelled practice, returning to read the background information only when something unexpected occurs. A formal Dutch study also showed the same thing [see Editorial Eye, April 1984].

The two main problems to consider in writing for an audience such as the one I have just described are their lack of reading skills and their small interest in reading.

Writers must remember that no matter how easy the prose is to understand, it does no good if the learner does not read it. A major difficulty is combining background information with practice in a way that allows the learner both to do the exercise and obtain a verifiable result, and to apply the skill generally on the job.

One theory of teaching is that first the general principles should be explained, then the learner should practice them. In my experience, this method does not elicit the best response from learners on their own. They prefer, as I have mentioned, to skip ahead to a part of the lesson that looks like a practice, where they are told to do steps 1, 2, and 3 to get a specified result. Often they do not read anything about the generalities unless something happens that bothers them.

This habit can lead to problems later in the lesson, as you can easily imagine. Frequently, in the next practice they are told to do something which requires the use of the skill they were supposed to have been taught in the last section, or, just as bad, requires the material result of the last practice.

When they need to use a skill after a lesson, learners who do not understand often do either exactly the same thing as in the exercise, to the letter, or don't do it at all. For example, if told in a practice to put a page numbering symbol on line 3 and centre it, many learners will forever centre page numbers on line 3 rather than put them in a location of their own choosing.

There are a few techniques to make the written material more appealing. Cartoons liven things up, diagrams often explain more than words, and lots of white space makes a page less intimidating. In short, the less writing there is, the better.

But this difficulty in presenting material is not the one I wish to address in detail. There are many theories about learning and the order in which to present new concepts to get the best results.

Instead, I would like to look at some ways of keeping prose as clear and simple as possible, using for raw material some examples of engineering jargon that need to be drastically cleaned up before

novices can have the faintest idea of what it is trying to say. My examples are drawn mostly from technical specifications describing a variety of functions, and manuals published to accompany word processors. A couple are from a manual for a microcomputer and a popular type of word processing software.

SENTENCE STRUCTURE

As I have mentioned, I do not make use of any codified methods of measuring sentence clarity. There are methods that count words per sentence, syllables per word, and so on, but they can be safely avoided, if common sense is used instead. Use your own, and especially, use that of the target population.

It seems to me that the best foundation for an instruction manual of any sort consists of sentences kept short and simple; this means a minimum of subordinate clauses, absolutely no formers or latters, and a lot of active verbs. Although I have just said I don't believe in counting words per sentence, I do think that aiming for sentences no longer than five words is a good idea, though certainly not to be followed fanatically. A colleague has suggested an even more severe rule: reread the text a few weeks later and cross out every second word!

I do believe in counting topics per page and pages per topic. I think it is best to confine the exposition of ideas to one idea per page and no more than two pages per idea. Even if this is impossible, as is often the case, it is essential to start a new page for each new idea. Above all, title each topic and subtopic clearly. This means that the wording of the title must indicate simply and concisely what the topic is, and the position of the title and even its typeface must draw it to the reader's attention.

VOCABULARY

One reason for not counting syllables is that many polysyllabic words, even of a technical nature, are easily understood by readers

because they are in common use. In the area of vocabulary, rule number one is to employ terms already familiar to users.

As time goes on, more and more computer terms are becoming part of everyday language. Just think of *input* and *bugs*, once exclusively computer jargon and now well established in general usage. More recently *video* has come into wider use than it enjoyed just a couple of years ago. All the same, think twice about any technical term.

Many words take on new meanings in a technical context. In word processing, for example, *recall*, *memorize*, *text*, and *program* take on specialized meanings. Other terms, such as *justification*, mean the same thing in another field, but are not in everyday use. A number of word processing terms are straight from data processing --*parameter*, *command*, *execute* and *current*, to list a few.

I think it is worthwhile attempting to replace computer terms with others perhaps more familiar to users, and in some cases more friendly. *Abort*, *kill*, *execute*, and *command*, for example, are rather hostile terms, not designed to put most people at ease. *Entering* is not a familiar activity to most secretaries, and *manual* means something you do by hand.

Writers can reduce confusion in the minds of readers by avoiding the use of unfamiliar terms or familiar terms with new meanings. When you consider that some people, when told to memorize a page, actually wonder whether they are supposed to stare at the screen until they know the page by heart, you will understand why I am emphasizing rules that seem quite elementary.

Another solution to the vocabulary problem is to define your terms the first time you use them and stick to them. Avoid synonyms like the plague. Here is an example of synonymy: *video*, *VDT*, *display monitor*, and *CRT* all mean the screen of a word processor or computer. The manual for a product should use one term for screen throughout. This rule applies to auxiliary manuals that may be acquired later.

A glossary in a central location is a helpful tool to the reader, but remember to indicate where it can be found. Remember to make the definition readable and comprehensible. And remember to define the terms used, not synonyms. One computer glossary I have seen defines *cold start*, but the term *cold boot* appears throughout the manual. *Bootstrap* or *boot* is included--it is defined as "To initialize a system from a 'power-off' condition. This is usually a small program that is run immediately upon power-up." This is an example of how not to write a glossary.

Some words can just be left out. For example, *automatic* is a word that is easy to overuse. Everything a word processor does is automatic, so it can often be omitted. *Current* is another word easily dispensed with. Since the current cursor position is simply the position of the cursor when you are looking at it, why bother specifying?

Now let's look at some examples of technical and not so technical writing.

The left hand column contains technical terms with an example of how they are used. The right hand column contains suggestions for rewriting.

abort, kill	cancel
-ABORT kill background job	-CANCEL stop background job

current	(omit)
This instruction displays the current amount of unused space on the disk unit.	This instruction displays the amount of space left on the diskette.

default	preset, standard (or omit)
The default margins are 10 and 80.	The margins are preset at 10 and 80.

enable, disable	turn on, turn off
The printer must be enabled before programming the system.	Turn on the printer before you program the system.

load a program	program the system (with a function)
Load the repagination diskette.	Program the system with the repagination diskette.

string	word, phrase, name
A name may be an alphabetic and/or numeric string between 1 and 10 characters in length, and with no embedded space characters in the string. The string must begin with an alphabetic character.	A name may be any combination of letters and numbers starting with a letter and containing no spaces. A name can be up to ten characters long.

SENTENCE STRUCTURE

The technical writing is on the left. The less technical rewritten version is to the right.

The FILE command allows access to the FILE command tree.	FILE commands give you access to the items stored in your filing application.
--	---

Once the FILE command tree is entered, commands such as COPY, DELETE and MOVE may be performed.	Once you start a FILE command sequence, you may use commands such as COPY, DELETE and MOVE.
---	---

The personal work area of any given user is called 'name' where 'name' is the user's id.	The name of your work area is the same as your user ID.
--	---

This instruction allows the user to configure the function's parameters.	With this instruction you can change the way the function works to suit your own needs. For example, you can change the format settings.
--	--

A list of groups is a string of groupnames, separated by commas.	To list the groups, use commas --not spaces--to separate the names.
--	---

Enter the real name of the user. This is the user's actual name. It may be any alphabetic or numeric string, and must be enclosed in " characters.	Type your real name in quotation marks.
--	---

A reminder is like an appointment but has fewer parameters.

A reminder is like an appointment, but includes only details concerning date and topic. An appointment includes details of place, time, and attendees as well.

Enter a command keyword selected from one of the following.

Select one of the following commands.

A keyword is selected by entering sufficient characters to uniquely identify one of the keywords. Following this, pressing the EXEC key will cause the choice to appear on the command line in its fully expanded form, and the next set of keywords will appear on the prompt line.

Select a command by typing enough letters to identify the word you want. Then press EXEC.

Reformat the word processing data to be used so that the left margin is at the left side of the page and the right margin is located at the position of the 3270 screen to be used (i.e. at column 80 or less).

Reformat the word processing texts you wish to use so that the left margin is at 1 and the right margin is at 80 or less.

Recognizable words can be built from the following set of characters:

--lowercase letters a-z
--uppercase letters A-Z
--lowercase accented characters
--uppercase accented characters
--digits 0-9
--apostrophes

The dictionary recognizes words made up of letters (uppercase or lowercase) or numbers. [Deal with apostrophes separately.]

The Glossary function allows you to enter previously memorized gloss character strings on the screen with minimum interruption of the typing process.

You can use the glossary function to recall words and phrases rather than type them more than once. First memorize the words or phrases (called glosses) in a special glossary format. Then use the recall glossary instruction to bring them to the screen as you need them.

A gloss content can cross a page boundary.

A gloss can continue from one page to the next.

The gloss content is written to the video screen starting from the beginning of the gloss name on the video screen and observing all the character entry rules. If there are any characters on the video screen, where the gloss content is to be written, they are overwritten, unless the video screen is in insert mode.

When you recall a gloss, it replaces the gloss name on the screen. The gloss replaces any other characters on the line, unless you are in insert mode.

"Beep" acoustic signal after depression of any key. Indicates a machine malfunction.

A beep when you press a key means that the typewriter is not working properly.

When a character is typed, it is visualized on the display and transferred to the memory.

The system displays and memorizes characters as you type.

CONCLUSION

Simple testing will tell you whether a sentence is doing its job. Just ask several people what they understand the sentence to mean. Start with colleagues, then ask the department secretary, then, when the sentence is in what you think is its final form, ask a few "real people"--people who match the description of the user you are trying to reach. They are the ones whose opinion really counts.

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CBT - WHAT IT IS AND WHERE YOU MIGHT FIND IT

Patricia Lawson

WHAT IS CBT?

CBT is when all learning occurs because of trainee-controlled interaction with a computer system. It is defined by the courseware (software used in an education application) run on a computer system. More than computer-aided instruction (CAI), where a computer augments traditional instructor-led seminars, it incorporates computer-managed instruction (CMI), a computerized method of keeping trainee records. Moreover, it provides individualized instruction where trainees absorb information and demonstrate competence at their own level and pace.

CBT IS COST AND LEARNING-EFFECTIVE

CBT decreases course duration up to 30% over traditional methods. CBT also reduces the involvement of expensive subject experts in classroom instruction. It spreads their consultation time over an unlimited number of training sessions. This means that class size is limited only by the number of terminals at which trainees can work. With CBT, the main cash outlay is the capital invested for the hardware.

Statistics indicate that as much, if not more, learning results with CBT. This derives from the uniform quality of content and format, and from trainees being able to proceed at their own pace and being required to master content.

Ideally each course is developed by educational experts. This ensures content and format that is consistent and solid, and promotes uniform results. Every trainee is exposed to the same content and format, although not at the same pace or in the same sequence.

A large factor of competence is attitude. CBT has been proven to increase trainee satisfaction. Trainees do more than read and respond. They exercise control over the tasks, the sequence, the