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Office automation and the Teleglobe experience

Linda Crombie- Talhami

Manager, English Section, Linguistic Services, Teleglobe Canada, Montreal, Quebec, Canada

BACKGROUND

Translation in Canada

When speaking from the Canadian perspective, it is essential to understand the context of Canada's translation system.

First of all, Canada is officially a bilingual country, with French and English given equal importance in the government's federal laws and official documents. As you may be aware, the official working language of one of the ten provinces, Quebec, is French. The bulk of Canadian business firms have their head office in the two most populous provinces, Quebec and Ontario. This fact, coupled with the location of Ottawa, the nation's capital, has spawned an enormous number of translation services in Eastern Canada. The federal government alone employs approximately 900 translators and terminologists, most of whom are located in Ottawa and Montreal.

The development of the translating profession within the business community in Canada is a major factor accounting for translation's growth and change. Office automation (OA) is part and parcel of this change because translation and business are so closely tied together in the country. Indeed, close to 70 per cent of translators in Canada work within the framework of a company or organisation whereas only 30 per cent are freelancers. As far as I am aware, the situation is the opposite in Europe.

Translation at Teleglobe

Teleglobe employs twenty people - fourteen professionals plus clerical staff - in our Linguistic Services, divided into three sections comprising terminology, English translation and French translation. As an international tele-communications carrier and state-owned corporation, Teleglobe has language needs set by both law and circumstance. The bilingualism act obliges the company to provide all information destined to the public in two languages.

Within our corporation, productivity is closely linked with quality. In other words, translators are expected, as much as possible, to produce a second original, not merely an information translation.

Terminology in Canada and within Teleglobe

Because all information destined to the Canadian public must have its equivalent in the other official language, the importance of terminology, the use of databanks and computerisation cannot be minimised.

Most terminologists are employed by government in research and management of the large terminology banks - few private enterprises can afford the luxury of a terminologist. Only 90 of the 900 language specialists at the Secretary of State are terminologists.

Terminology at Teleglobe was set up for two reasons: first, to serve as a back-up for the translators who required specialised information and, second, to provide terminology services for the general staff by means of a telephone-answering service.

Linguistic Services is linked by computer terminal to both major terminology banks in Canada, i.e., the Secretary of State bank in Ottawa, with 1.5 million terms, and the Quebec Government Terminology Bank in Quebec City, which boasts 3 million terms. Any individual or corporation may gain access to the banks simply by purchasing or renting a terminal to communicate with the bank computer. The user is charged on an hourly basis for time used.

Strangely enough, Teleglobe is one of the only companies to use computers in routine work. The terminologists have been able to adapt the office automation system to their needs because the computer terminal is perfectly suited to performing their most tedious jobs, such as preliminary glossaries, index cards, worksheets, and repeating formats. According to the Terminology manager, the use of computer terminals has significantly increased productivity, particularly in the area of proofreading, by reducing the number of typing errors. Total time spent on several

projects has been halved due to the capabilities of the machine. Updating information is no longer a problem, backlogs are taken care of and, with the terminologists now sharing the computer terminals, workload has been shifted and absorbed by the professionals so that the clerical staff are free to perform other duties. Hence, through the publication of its dictionaries and glossaries, the Terminology Section has become a centre of support for terminologists, translators and writers as well as other professionals within the Corporation. In this particular area, computerisation has become a crucial factor in the effective management of terminology. Note the recent publication of the Bilingual dictionary for international telecommunications as well as our regular terminological bulletin, Termiglobe.

WORD PROCESSING AT TELEGLOBE - HISTORY
Phase 1 1977-1980 (operators only)

Over the past few years, Teleglobe Canada has seriously embarked on the use of office automation in response to the demand for information throughout the firm. This is particularly true for language services.

In the late 1970s the Corporation acquired a number of word processing machines, of which two were allotted to the Linguistic Services Division. In the transition period to the automated office, translators, terminologists and researchers at Teleglobe quickly became major users of the Office Information System within the Corporation.

At the outset, only two or three secretary-operators were given the opportunity to learn how to use the terminals. Translators, editors and terminologists were not allowed to use the electronic equipment. To do so would have meant trade union problems, because the operators' jobs were determined according to how much time was spent on the new equipment. This meant of course that the number of users per unit was very high, not always a viable alternative to manual methods considering lags and absences of the operators. Consequently, at the beginning of the word processing experience in our Division, it was realised that the machines were only being used as glorified typewriters. The computer-associated uses of the machines were at this time poorly understood, and few operators, other than those working in the word processing centre for multiple clients, had any good knowledge of advanced functions offered by the software. It should be kept in mind that to use the WP system properly, with all its capabilities, requires support from the manufacturer and from the main user group.

Without this aid, each work station is isolated and only the very basic functions are attempted.

Economic impact at this period

For the reasons previously stated, savings at this time were not considerable, although productivity of the operators began to improve as they became accustomed to the machines. However, the translators, terminologists and managers were still working with pencils and electric typewriters, so very little in their work methods or time management had changed.

Flexibility

The major difference noted by the sections during this early period was the improvement in the lot of operators, who now could correct and format many times over with no difficulty. This also led to better-quality translation since the reviser could make major changes in sentence structure or adapt texts without hesitation, knowing that the work involved in producing the clean copy had been simplified.

Since most systems in companies, as is the case with Teleglobe, do not have stand-alone equipment but are hooked up to the mainframe, reference information can be stored temporarily on the electronic system with no need for disks or hard copies. For long documents, this denotes a fair saving in paper. In other words, work was simply typed in the same way as before, with the advantage of correction ease, cleaner copy, printing capabilities and a lighter touch keyboard.

Phase 2 - 1980 to present (translators adopt OA)

Due to various cutbacks resulting from the economic situation, operators were not replaced for sick leave and annual vacation leave. Translators therefore had to use the terminals instead of the electric typewriters to avoid clerical bottlenecks. Soon another machine was purchased for the use of the professional staff to allow each section access to one terminal. We now have a total of seven workstations, four of which are personal computers hooked into the mainframe at Teleglobe. Eventually, the other advantages of the word processing system were brought to light so that now all of the translators, revisers, terminologists and managers have received training to varying degrees on our OA system.

ADVANTAGES - TIME SAVING, QUALITY, EFFICIENCY, MORALE

If we examine the flow chart (Appendix I) you will notice that the entire translation and revision procedure has been considerably simplified with the introduction of OA. Note particularly the loss of several steps involving hard copies changing hands. If speed dictates it, for short texts, the entire translation, revision, and correction procedure can be performed online, without a print-out, so that the only hard copy would be the final copy. This eliminates a full step in the typing process, since the typist no longer has to key in the first draft, only the corrections. For example, a good operator types approximately 1,000 words an hour on the word processor. Therefore, a text of 5,000 words would require five hours to complete, keeping the operator busy for most of the day on one text. Using the word processor cut this time to just about nil since translators would work directly on their draft and receive a print-out immediately.

Compared with the old office system, the advantages were tremendous in terms of efficiency and productivity. Our output time improved so much that some texts could be delivered in half the time after the introduction of OA systems and their use by the professional staff. This overall improvement did not stem from a greatly increased translator productivity (provided we are speaking about translators who previously typed directly on to electric typewriters) but from reduced handling time. Many more words could be handled with the same amount of personnel.

Besides the fact that simple mechanical steps were eliminated in the entire procedure, other more sophisticated embellishments of the word processing system were brought to light as the translators and editors became more accustomed to using the machinery. With word processing terminals came the possibility of interacting with the rest of the Corporation's computers. However, this did not take place overnight, as you may well imagine.

Before I go any further about the possibilities of new technology within the office environment, I would like to deal with some of the obstacles which surfaced because of the revolution in office life brought about by these machines.

OBSTACLES

1. Resistance to change

   As this is the first generation to witness these changes, there are many individuals, accustomed to working in other ways, who have had to adapt to this new technology, with varying degrees of success. At Teleglobe, this problem was solved by introducing the

equipment gradually and allowing the translators to see for themselves that they had an excellent tool for their needs.

2. Requirement for office machine skills
   A translator has to know how to type, must be prepared to learn how sophisticated machinery works, and understand part of the software used in the computer programs which make it possible to produce a text.

3. Enhanced support staff training
   Operators were required to learn the basic techniques of caring for magnetic data. Back-ups had to be kept to ensure that archived information was not lost - entire volumes of information can be lost through pressing a wrong key. Failure to understand these aspects of the office automation systems automatically causes setbacks.

4. Record-keeping problems
   From the clerical point of view, problems arose which had never been anticipated. For example, record-keeping of the magnetic disks became an all-important job. Proper care had to be taken of these diskettes in an office which was set up for the care of paper information. At the present time our record-keeping is in transition, with duplicate paper and magnetic disk systems keeping track of our information needs.

5. Incompatibility
   Initially, because budget expenses for office automation were not well co-ordinated, various directors bought systems helter-skelter. People failed to realise that in time many groups would benefit from having compatible equipment. For example, on the one hand our entire information management system relies on IBM technology since it was a direct offshoot of data processing needs required for the telecommunications operations as well as payroll and other financial applications. On the other hand, the Office Information System at Teleglobe relies on Wang. The two are not compatible, but the Corporation has been working towards compatibility with systems and it is now possible to emulate a 3278 IBM terminal with a Wang.

EFFICIENT LANGUAGE SERVICES THROUGH COMPUTERS (cases in point)

1. Handling of statistics (Managers)
   a. List processing e.g. Electronic Logbook

b. Spread sheet - tabulates monthly stats

2. Ease of editing (Translators)
   a. Automatic SEARCH and REPLACE function - cuts time and errors e.g. recurring phrases or titles
   b. Supercopy *e.g.* retrieve an old copy to do a similar new version

3. Term extraction and research (Terminologists)
   Terminological index cards - faster, printable, less proofreading

4. Creating and updating glossaries - rapid consultation
   Automatic alphabetisation - bilingual word lists as working documents

5. Link-up to other systems
   e.g. electronic mailbox for in-house messages
   access to other printers with different typefaces

6. Office to printshop via telephone
   e.g. in-house newspaper - proofreading problems are kept to a minimum, no hard copy necessary, fewer errors.

7. WP programming possibilities
   a. Repeating formats, e.g. letters, procedures (series of repeating names, titles, easily reproduced)
   b. Electronic stamp - identification of documents for retrieval on disks

CONCLUSION

To summarise, the three essential considerations of OA in a translation service are:

1. identifying both needs and applications
2. recognising the social issues involved
3. understanding the true role of office automation.

Identify applications and needs

In most corporations, keeping the organisational chart up to date requires a great deal of effort. Translators in particular spend much of their time hunting down titles and verifying their accuracy. Word processing has solved this problem at Teleglobe by keeping a reference document on

our system, to be consulted electronically by all concerned. It can be updated by Terminology, where the main diskette back-up copy is kept in a separate file for future changes.

Social issues

a. People must be involved.
b. Spin-off - increased interest on the job

Role of OA

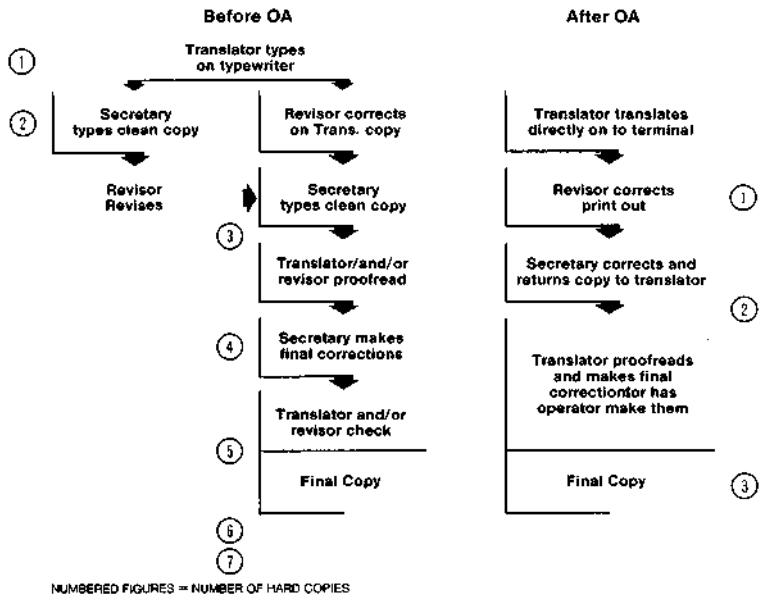
a. Not just handling information but making more effective use of it
b. Increased productivity
   - Quality
   - Quantity
   - Employee satisfaction
   - Client satisfaction

The office of the Eighties came to Teleglobe's translation department in much the same way as anywhere else, providing word processing to upgrade secretarial services. However, word processing quickly developed into office automation systems which became an essential tool to everyone handling information. So we witness the introduction of a whole new phase of professionalism in the translators' daily lives. Their jobs are now entwined with word processing requirements and computerisation. In future, this will be a pre-requisite for any career path, as it provides a broader basis of skills on which to develop other work potential such as management and administrative jobs.

AUTHOR

Linda Crombie-Talhami, Manager, English Translation
Language Services, Public Relations, Teleglobe Canada,
680 Sherbrooke Street West, Montreal, Canada

APPENDIX I. Flow chart



APPENDIX II.

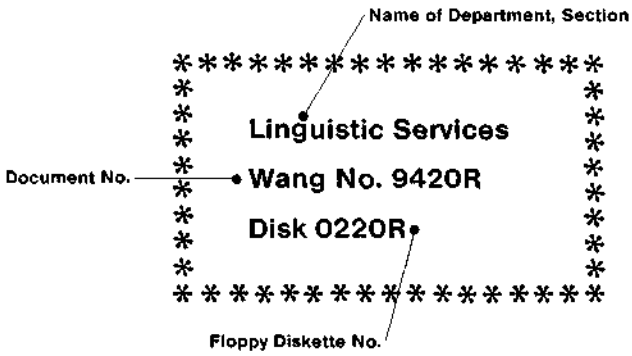
a. ADVANTAGES

i Time Saving
ii Efficiency - Productivity
iii Quality
iv Morale

b. OBSTACLES

i Resistance to Change
ii Office Machine Skills + Higher Level Support Staff Training
iii Record Keeping Problems
iv Incompatibility

APPENDIX III. Efficient language services through office automation

1. **HANDLING OF STATISTICS**
   - **a.List Processing**
   - **b.Spread Sheet**
2. **EASE OF EDITING-TRANSLATORS**
   - **a.Automatic Search and Replace Function**
   - **b.Supercopy**
3. **TERM EXTRACTION AND RESEARCH - TERMINOLOGISTS**
4. **CREATING AND UPDATING OF GLOSSARIES**
   - **a.Automatic Alphabetization**
   - **b.Index Generation**
5. **LINK UP TO OTHER SYSTEMS**
6. **OFFICE TO PRINTSHOP VIA TELEPHONE**
7. **WP PROGRAMMING POSSIBILITIES**
   - **a. Repeating Formats**
   - **b.Electronic Stamp**

APPENDIX IV. Computerised identification stamp