
The Senate and the Computer Aided Transcription

by Ron Tremaine

Lord Balfour once said: "The only form of history which is really immortal is the contemporary record from which future historians draw their materials. Every generation will insist on rewriting the history of the past in its own fashion. But the original sources remain. They only remain; they only are perpetual."

Implicit in his remarks is the recognition that the historical record must be captured accurately and honestly. In the Senate, that has always been, and still is, the function and *raison d'être* of *Hansard*.

Towards the end of 1989 the Debates Branch of the Senate began a review of its infrastructure and technology. Breaking the branch out of its ancient mould and ushering it into the 1990s had become an imperative. Space was at a premium and printing costs were constantly rising. The cost of running the branch seemed unfettered.

How could we solve these many and diverse problems? The answer, when we found it, was simple—its implementation was formidable.

Up until 1990 all proceedings of the Senate, whether in the chamber or in committees, were produced by teams of parliamentary reporters and transcribers (formerly called amanuenses) working in conjunction with editors and text coordinators. The verbatim record taken in shorthand by the reporters was dictated to and typed by the transcribers. Of course, over the years manual typewriters had given way to electric typewriters and word processors, and then, latterly, to personal computers, but the system had remained the same. Copies of the unrevised transcript were sent to the senators (as "blues"), to the translators, to the editor and to the Press Gallery. The basic process had remained unchanged since *Hansard* had become an integral part of the service of the Senate in 1916.

The reformation and modernization of the Debates of the Senate began with the introduction of computer-aided transcription (CAT) in 1990.

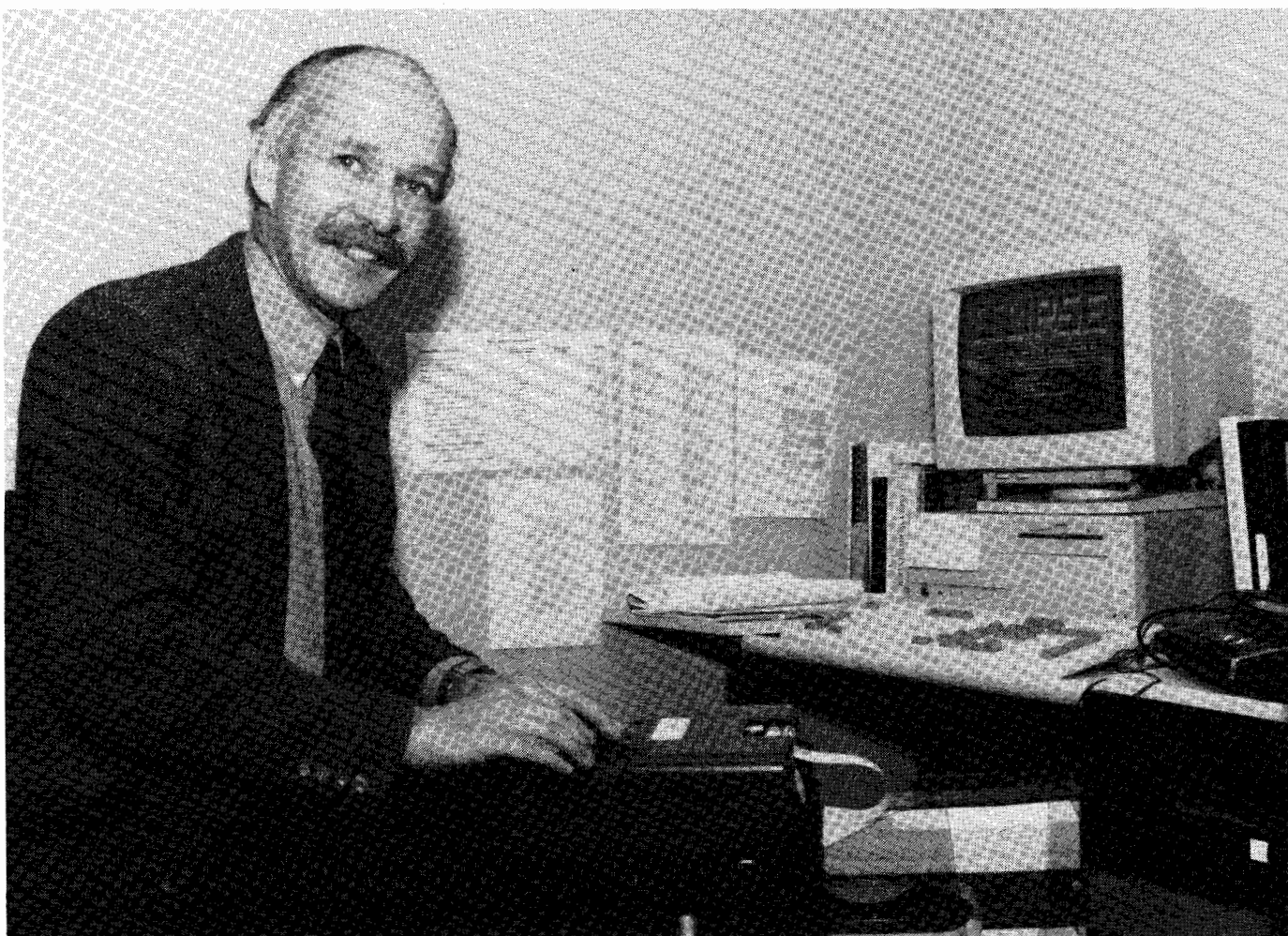
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Recommendations by staff and management were made to the Standing Senate Committee on Internal Economy, Budgets and Administration, or one of its subcommittees, with respect to the re-organization of the branch. We had three options that perhaps can best be described as something old, something borrowed and something new. "Something old" was the status quo; "something borrowed" was the system currently in use in most parliamentary jurisdictions, i.e. producing transcript from tape recordings; and "something new" was CAT.

Using computers in conjunction with electronically-wired shorthand machines, the reporters would produce the verbatim record on disk, which would then be instantly "translated" from machine shorthand into English or French by a computer software program. Welcome to the age of miracles!

When it had become evident that the traditional method was too costly because of the redundancies built into it—the duplication of effort at two levels with the consequent wage expenditures—the decision for change was inevitable. It was a tough decision, since it meant, at the very least, redeployment, retraining or severance for more than fifty per cent of our staff, not to mention the breakup of closely knit teams of reporters and transcribers who, incidentally, had just proven their mettle once again during the Senate filibuster on Bill C-62, the GST. Aside from the obvious economic and space-saving benefits, we could, by going with CAT, ensure that a high quality transcript was maintained while, in this age of computers, keeping other doors open for us in the future.

A brief description of computer-aided transcription may be appropriate here. Using CAT, the reporters record proceedings with a shorthand machine designed on the basis of a phonetic language. The machine



The author at his shorthand machine with his computer displaying the Eclipse software in the background

contains a computer which records the reporter's shorthand on to a floppy disk, which is then transferred to a personal computer, where the stored information is translated into either English or French by means of a computer dictionary. That dictionary is comprised of a matched set of the reporter's phonetic outlines and the corresponding words in either English or French.

At this point let me divide the story according to the experience of English CAT and that of French CAT.

English CAT

While the various options were being considered by Internal Economy, the management and staff were reviewing the various CAT software packages that were available. Domus, a local computer consulting firm already under contract to the Senate to install a new local area network was brought in to assess the various packages. Eclipse, a program produced and marketed by

Advantage Software of Florida, was considered the best program for our purposes. Because Advantage Software is a young company (owned and operated by a former vice-president of Stenograph, the largest and predominant firm in the business) certain precautions were taken against the possibility of the company's going out of business: The rights to the source codes of the program were negotiated along with the initial purchase of eight software packages.

In January 1991 we were down to six CAT reporters: Three had come to us from the House of Commons, where they had become redundant because of a change in policy there; two, including myself, were from our original staff; one was on contract. A court reporter from Florida, who worked with Advantage and was familiar with the Eclipse software, was hired to conduct a two-week training session. The various reporters' dictionaries, which had been compiled on other CAT

systems, were sent to Advantage Software for conversion to Eclipse. New computers (386 pcs with colour monitors) were set up, the Eclipse software was installed, and we were ready to start.

Training began on February 11. Our instructor, through a hook-up between his computer and an overhead projector, began to teach us the intricacies of Eclipse. Software packages such as Eclipse are developed mainly for the court reporting profession, which usually produces strictly verbatim transcripts. It soon became evident that certain features were inadequate to accommodate the editorial style of parliamentary reporting. For example, the movement of text—often referred to as “cutting and pasting”—a function rarely used in the production of verbatim records, had to be streamlined to meet our needs. Advantage Software was most accommodating in such matters. At the end of the training period I sent them a “wish list” of the features we would like to see in the software, and their programmer incorporated the changes.

After our two-week session with Eclipse, we trained on WordPerfect, which is the medium we use to prepare transcript for printing at the Queen’s Printer.

By the end of February we were ready to begin reporting both Senate and committee proceedings with CAT. The reporters, of course, were at varying degrees of development. To accommodate the transition the transcribers remained on standby in case the load became too heavy using the new procedure. By mid-June all of our English reporters had become fully integrated on the new system. CAT is no longer a dream of the future; it is alive and well in English Debates.

French CAT

Despite the fact that the reporters of French Debates faced a somewhat different and more daunting task in implementing CAT, the prognosis is excellent. The French CAT software, IBM-TASF, is made in France and is compatible with the Grandjean machine method of shorthand. Two of the reporters were penwriters and, consequently, had to make a complete transition—somewhat akin to asking a violinist to learn to play the piano: no easy task! The third reporter already used the Grandjean machine, but her system was not computer compatible. The penwriters began their training on the Grandjean in September 1990 and expect to complete it

by the end of 1991. Each weekend they journey to Montreal for instruction and speed building. They are, at the time of this writing, more than two thirds of the way through their development, a remarkable feat given that both of them are in their mid-40s.

The third reporter, meanwhile, began the process of becoming computer compatible, which involves purging conflicts that arise when a phonetic outline is used for more than one word. For example, “faire” and “vers” once had the same outline. One has been changed in order that both words may be recognized in the computer. TASF poses a further problem in that the reporter has to conform his or her writing style to the program’s dictionary. Eclipse, on the other hand, is “user friendly” because it accommodates the reporter’s idiosyncrasies in compiling the dictionary. The two reporters converting to Grandjean are, of course, learning a computer compatible style.

The Future

The future looks bright and exciting. The next step is something referred to in the industry as “real time”. Instead of carrying the shorthand machine back and forth, the reporter connects it directly to a hook-up on the computer; and as the reporter writes the words appear on the screen. The advantage of “real time” is that by dividing reporters into teams of two, with one reporter writing while the other is “scoping” on the computer, we can decrease production time.

Another bright spot for the future is using “real time” reporting to produce “closed captioning” on television. This is a matter of televising by means of a modem what is being said and it is of particular use to the hearing impaired. I learned this past summer that the United States Senate, as a result of legislation passed to provide closed captioning to the hearing impaired, has just added six CAT reporters to their staff. As our population ages the demand for this service will probably increase.

CAT is being used in other legislatures around the world. In the U.S. Congress, it is the sole medium for reporting proceedings. Britain and Australia are at various stages in the implementation process.

Interested legislators and staff are invited to visit the Debates Branch (or the “CAT house” as we fondly refer to it) and see our operation.