

Computerising the Legal System: the Botswana Experience

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Introduction

The purpose of this Paper is to describe the experience of the Botswana Government in its efforts to computerize the legislative drafting process, the 1987 Revised Laws of Botswana and the Botswana Law Reports. Computers were first installed in the Attorney General's Chambers sometime in 1989 for use by the Drafting Division in order to facilitate the drafting process. Bills and other legislative material were keyed directly into the computers and then copied onto diskettes which were then forwarded to the Government Printer for printing and publishing. This has not only speeded up the legislative process within Chambers in that, inter alia, time previously lost typing and re-typing documents and proof-reading them has been substantially reduced, but has also paved the way for more efficient use to be made of the computers.

Goals and objectives of the project

Since the first computers were installed in Chambers, several more have been installed and other Divisions within Chambers are also putting them to use - the General Division for the storage of legal opinions and Agreements entered into between the Government and third parties, the Lands Division and the Deeds Registry for preparing and storing information relating to the allocation of State Land.

It quickly became apparent that there existed greater scope for the use of our computers in the day to day work of the Department. Within the General Division, for example, it is difficult to access data relating to Conventions and Treaties in order to determine, inter alia, what Conventions and Treaties Botswana is party to, or when Botswana became party thereto. One has to laboriously leaf through piles of papers in order to obtain such information. On the other hand, if a computerized Treaty Register were established, it would be possible to access vital information at the stroke of a few keys.

But it is really within the Drafting Division that the most difficulties are encountered, and in which computerization on a broader scale is most urgently required. The Division is responsible not only for the drafting of legislation, but also for the revision of the Laws of Botswana as well as the production of the Botswana Law Reports. The last Law Revision exercise we had was completed in 1988 and culminated in the 1987 edition of the Laws of Botswana. It was done at great cost to the Government by a company outside Botswana. Similarly, the 1983, 84, 85 and 86 volumes of the Botswana Law Reports were printed out of the country, also at

great cost. The Laws of Botswana do not form part of our data base and, with another Law Revision looming, it would be so much better, not to mention so much less expensive, if they were. That way our draftsmen would be able to manipulate them as necessary to ensure that they were up to date at any given time, and, on a day to day basis, counsel and other persons who need to make constant reference to the Laws would have easy access to them. Besides, the 1987 Revised Edition of the Laws of Botswana, made up of bound volumes, has become too cumbersome to work with. Computerizing them would result in the on-going process being cheaper, easier, speedier and more efficient. Likewise, legal research would be much faster.

In so far as the Law Reports are concerned, the difficulty faced by the Drafting Division is that judgments are sent from the High Court in typewritten manuscripts which we must then edit in Chambers. The exercise is therefore laborious and time consuming. Also, the entries for the indices of the law reports are made and kept on 5"x 8" cards. The cards are susceptible to loss and there is no back up to the system. Because of manpower constraints, it has not been possible for us to produce the Law Reports as speedily as we should and there is therefore a backlog of typewritten judgments still to be edited.

Finally, the Government Printer, until recently, encountered difficulties with the drafts created in Chambers because they reached that Department in a format which the Printer found it difficult to deal with. For one thing, we in Chambers used Wordperfect 5.0 and the Government Printer 5.1. It therefore meant that the Government Printer had to convert the material from wordperfect 5.0 to 5.1. Secondly, we also used different fonts - the Government Printer used Times Roman 12 pt while we used Courier 12 pt. The side notes were also a problem and had to be re-set when the documents reached the Government Printer. All this of course meant that time was wasted reformatting documents and often, during the process, errors were introduced into the document, which entailed proof reading a document more than once.

It was against this background that sometime last year, a decision was made, in Chambers, to improve upon the system already in place.

In the short term, we envisaged, in Chambers, the expansion of our data base to include the Revised Laws of Botswana and the Law Reports. Our computer network would be linked to a network at the High Court in Lobatse to facilitate the easy flow of data between us, and it

would also be linked to the network at the Government Printer for the same reason. In the long term, we envisaged expanding our data base to include modules on areas such as litigation, conveyancing and corporate law. Our network would then be linked to other networks such as the network at the Police Headquarters and that at the Ministry of Local Government, Lands and Housing to enable other users to gain access to information which they required of us. The High Court in Francistown would also be linked to the network.

But computerization along the lines envisaged raises a number of crucial questions -

1. the goals and objectives to be achieved by such a project
2. on what scale the project should be embarked upon
3. the costs involved and whether they justify embarking on such a project; and
4. our technical ability to manage the project.

A short Paper was prepared by Chambers and circulated to the Government Printer, the High Court and the Government Computer Bureau. Their response was positive and we commenced consultations with them in order to determine what could be done to improve the system. It became apparent during the course of those consultations, that there were very real and worthy advantages to be gained by computerizing on a wider or broader scale.

The Computer Bureau, during the course of these consultations, revealed that the Government had approved a computerization project to link all Government Ministries and Departments in order, inter alia, to make access to information easier and to create greater efficiency within the Civil Service. However, the Bureau did not think that our project was inconsistent with the greater Government one - the Bureau would just have to work out how to fit it into the greater one. The Motor Vehicle Insurance Fund was also consulted because it supplied and installed the wordprocessors presently used in Chambers pursuant to an Agreement entered between itself and Chambers. The Fund has also, under the said Agreement, maintained the wordprocessors from time to time.

A Working Group comprising representatives from the said institutions was established towards the end of last year. Its terms of reference, are, inter alia, to formulate and execute an orderly implementation plan of the project, to identify the users and requirements of the computer network, to determine the volumes of work, and to identify the technical personnel whose responsibility it will be to maintain and support the system.

The Group realizes that the project is a complex one whose scope and significance should not be underestimated, and that it is vital, if the project is to succeed, that a careful needs assessment analysis be undertaken.

The project being as complex and ambitious as it is, must also be implemented in stages, each stage being implemented after users have mastered the necessary techniques associated with it. This is to ensure that we do not bite off more than we can chew.

Costs

Cost is also an important consideration. We cannot afford to make expensive false starts and believe that we must begin modestly. The costs of the project envisaged fall under these broad headings - hardware, software, training and maintenance.

We already have several computers and laser printers in Chambers, as well as a file server. (13 Epson PCs with Samsung screens, 3 HP Laser Jet III printers, 1 HP Laser Jet IIIP, and 1 Kyocera F 2200, and a Wang PC 380/33c file server). The Government Printer has recently acquired new more sophisticated equipment, while the High Court in Lobatse possesses some 5 Olivetti Wordprocessors. Technology is constantly evolving and we realize that if we are to carry out our various tasks efficiently and successfully under the project, it will be necessary to replace obsolete equipment or enhance what we already have in place. It is difficult to come up with any estimates until the Bureau has done a detailed study, but we are comforted by indications on the market that the cost of computers is going down rather than up. It is also difficult to estimate what the cost of software for the project will be. Estimates will be made when the Bureau's detailed study is carried out, but, again, indications are that the cost of software is on a downward trend.

A significant factor here for us is the conversion of the magnetic tapes containing the Laws of Botswana. The Laws were printed by a British company using the Miles 33 system and will have to be converted into a format which we can use. The process has in fact begun and is estimated to cost some £15 000.00 sterling.

Training will be an on-going process to ensure that users are able to use the computers correctly at every stage of the project. It is again difficult to say, at this point, exactly what cost will be incurred on training.

Our technical ability to manage the project

This is yet another question of crucial importance. We must have an efficient technical support system in place if the project is to succeed. If we encounter too many mechanical, transmission or other technical problems, it could create a significant stumbling block. The Computer Bureau is confident that it will be able to handle many aspects of the project on its own, but concedes that it will have to seek the assistance of others to handle other aspects. A South African company, IPEX Systems, which has for some time supplied the Government Printer with its equipment, trained its staff and provided technical back up support has, in fact, been in

formally approached by the Working Group and has participated in some of the Group's meetings.

Implementing the project

The Bureau was given the task of carrying out a preliminary study and reporting its findings to the Group. Experts from the Bureau visited the High Court in Lobatse, the Attorney General's Chambers and the Government Printer in order to determine, inter alia, what the needs of each were in terms of hardware and software, whether the equipment in place was adequate to permit the implementation of the project, and what the training needs of each were.

The study was carried out earlier this year and, in August, the Bureau circulated its Report on that study. Members of the Working Group are studying the Report and, as soon as it is approved, the Bureau will embark on a detailed study and produce a Statement of User Requirements. This will be followed by a Project Memorandum for formal approval of the project by the Ministry of Finance. Only then can the necessary funds be released. We are optimistic that the Ministry will approve, given the Government plan to computerize the entire Civil Service, and also given the very real advantages to be gained by implementing the project.

As pointed out earlier, we believe that the project should be tackled in stages, and the Bureau, in its recommendations in the Report of the preliminary study, reiterates that. The first phase is to deal with the immediate needs of the Drafting Division as already outlined, and the second or secondary phase will deal with the broader aspect of the project.

In order to get the first phase of the project off the ground to enable us to achieve our goals, it was agreed as follows by the Working Group -

Chambers

1. The question of which wordprocessing software should be used by Chambers depends very much on what is most compatible with the system in place at the Government Printer. There was a suggestion that Micro Soft Word be used but it was finally decided to retain wordperfect as the loss in productivity would far outweigh the conversion overheads of wordperfect at the Government Printer.
2. Since wordperfect files will be transported to the Government Printer's Apple Macintoshes for layout and typesetting, the files would have to be properly formatted.
3. IPEX Systems would also endeavour to find the best way of computerizing the card index system used in connection with the law reports.
4. Staff in the Drafting Division will have to be trained in the correct use of wordperfect.

The High Court

1. As already indicated, the High Court has several Olivetti wordprocessors. These will have to be replaced with computers which are compatible with those in place in both Chambers and the Government Printer. At least six computers will be required to get the initial phase of the project off the ground. Since judgments of the High Court in Francistown are also reported by Chambers, the question of equipping it with computers will have to be examined.
2. All those who will be using the computers in the High Court will have to be trained in the correct use of wordperfect.
3. As soon as the computers are in place, all judgments will cease to be typewritten. Instead they will be keyed directly into the computers, copied onto diskettes and copies of the diskettes passed on to Chambers.

It has also been agreed that modems should be put in place to facilitate access to data between the three institutions.

The Government Printer

1. Staff in the Government Printer will be trained in the correct use of the new equipment recently installed.
2. The Government Printer will obtain a cartridge holding one chapter of the Laws of Botswana from Eastern Press, the UK company which printed the Laws of Botswana, in order to test it on their system.
3. In order to eliminate the backlog of law reports, the Government Printer will assist Chambers by dedicating two typists to key in the judgments from the original typewritten manuscripts with the handwritten editorial notes effected by Chambers.

The secondary phase of the project and how it is to be implemented will be examined by the Bureau in its detailed study.

Progress made

The Government Printer and Chambers are particularly impatient to see the actual implementation of the project get under way but we do realize that being Government Departments, there are procedures to be followed before projects can be implemented.

However, given the difficulties experienced by Chambers and the Government Printer, it was felt and agreed, by the Group, that priority be given to some aspects which form part of the initial stage of the project and that we should, even though the project has not been formally approved, do what we can, in the meantime, with the resources that exist in each of our budgets, to alleviate some of those difficulties.

Thus, in July of this year, staff in both Chambers and the High Court were trained in the correct use of word-perfect by IPEX Systems. In Chambers the training proved particularly useful to professional staff who were not as competent as the secretarial staff.

The only problem is that with respect to the High Court in Lobatse, it had been hoped that computers would have been installed sometime before July ended. However, the computers are now expected to be installed in October and, in the meantime, the knowledge gained is not being put to use.

Last month, IPEX Systems also installed macros in Chambers and these have resolved the difficulties which we were experiencing with formatting our Bills and other legislative material. After an initial uncertain start, those using them in the Drafting Division of Chambers have mastered them and have confirmed that their use is making the drafting process easier, faster and more efficient.

For its part, the Government Printer is very pleased that the font, side notes and text of documents are now in a format which has made his task easier.

The Bureau has applied for lines from the Botswana Telecommunications Corporation to facilitate the putting in place of the modems referred to earlier.

Conclusion

There is still much work to be done to make our project a reality, but we are confident that with determination, careful planning, prudent management of financial resources and the assistance of those who have more expertise than we when we falter, we shall succeed.

Botswana is mindful of the recommendation made at the Senior Officials of Commonwealth Law Ministries held in Singapore in April last year for the establishment of a Commonwealth Legal Computerization Committee. We welcome this development and hope that it is established soon. Once established, we hope that the Committee will assist us should we require such assistance.