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TECHNICAL REPORT

COMPUTERS AND THE LAW: THE SENTENCING DATABASE SYSTEM OF THE LIST FOUNDATION

Jean-Paul Brodeur, Director
International Centre for Comparative Criminology
University of Montreal

June 1990

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Executive Summary

This report is divided into six chapters, including a chapter of introduction that will not be summarized here. Chapter 2 briefly reviews the development of the Sentencing Database System (SDS) Project and provides the context for the following analyses. Chapter 3 is a review of the relevant literature. Chapter 4 begins with a summary description of the SDS and its different files. It then presents the findings of our user survey, which is one of the main parts of this report. Chapter 5 provides a more elaborate description of the SDS; this description is made within the context of the issues raised by the users of the system. These two chapters are followed by a general conclusion that highlights the meaning of our major findings and that briefly discusses some tentative features of the future development of the SDS.

We shall now summarize the content of the chapters, beginning with **Chapter 2**. Reviewing the development of the SDS project allows us to draw three conclusions. First, the SDS was developed at the same time for different groups of clients and was not always not consistent in its marketing priorities. Judges, defense counsels and Crown attorneys subsequently appeared as prime targets. Second, the SDS is a tool that was fundamentally designed for the use of legal practitioners. It was not meant to address the needs of theoretical research on the criminal law and no efforts were made, until very recently, to market this product in academic fields (e.g. university faculties or departments, research centres). The kind of research that can be made using the SDS is basically supportive of sentencing decision-making. This conclusion is neither a criticism of the SDS nor does it assert that the SDS cannot be used for theoretical research. In certain cases, it can provide a good starting point. Our conclusion implies however that the SDS' usefulness for theoretical and/or scholarly research is limited, since it was not designed for these purposes. Finally, the phase during which the SDS was to be converted into a full-blown expert system was never carried out. Hence, we must accept the SDS architects ' own assessment that the SDS has no relation with being an expert system and that its artificial intelligence components are "modest in scale". Its relation with artificial intelligence as strictly understood is tenuous and rests entirely on the hypertext feature attributed to File 4 of the system.

This hypertext feature of the SDS is discussed thoroughly in **Chapter 3**, in the context of a review of the literature on sentencing disparity, sentencing guidelines and artificial intelligence and the law. The purpose of our review of the literature was not to produce a comprehensive summary of an overwhelming body of writings, but to use the current literature to raise relevant issues with regard to a descriptive assessment of the SDS. We come to the following conclusions.

First, our review of parts of the literature on sentencing disparity allowed us to compare the definition of disparity that underlies the conception of the SDS with current definitions. According to the architects of the SDS, disparity is defined as sentences that cannot be justified by any valid legal principle recognized by the courts. Although legitimate, this definition is in contrast with the prevailing literature in at least one important respect. In the literature on sentencing, sentencing disparity is strongly associated with inconsistency in sentencing. The definition of disparity quoted above results in divorcing sentencing disparity from sentencing inconsistency. Sentences imposed in similar cases and which are completely inconsistent with one another are not viewed as disparate, if they are grounded in valid legal principles. Since valid sentencing rationales may greatly differ, judges using different sentencing rationales may impose in similar cases sentences that are widely inconsistent but which cannot be said to be disparate, because they are legally

justified, albeit on the ground of diverging principles. This emphasis on the possibility of using sentencing principles to dissolve what finally appears as "surface disparity" explains in part why File 4 of the SDS, which is an electronic textbook on the law of sentencing, is at times described as forming the core of the project.

Second, we identified the Albany School tradition of descriptive voluntary guidelines as the one that appeared to be closest to the SDS, if it were to be used as sentencing guidelines to remedy sentencing disparity, understood in its current sense of not treating like cases alike. We also referred to evaluative studies of the impact of this type of guidelines, which found that it had almost no impact on sentencing practices. This result is not incompatible with Dr. Hogarth's latest position, as it is expressed in his **Revised Final Report to the Department of Justice** (February 1990). Dr. Hogarth is doubtful that the potential impact of the SDS on sentencing practices can possibly be empirically evaluated. In this section of Chapter 3, we also briefly discussed Professor Austin Lovegrove's review of the SDS and, while reserving our own judgment, we notice that Lovegrove's statement that databases such as the SDS were "hungry for cases" appeared to address a concern expressed by the users of the system.

Finally, after reviewing the relevant parts of the literature on artificial intelligence and the law, we come to the following conclusions :

- as previously noted, the SDS is not an expert system, according to the definition of this word in the artificial intelligence literature.

- although it allows for a certain degree of cross-reference through its "see also" prompts in File 4, the SDS cannot be said to be a hypertext and its cross-reference feature is closer to what is found in standard flattext textbooks than to hypertexts systems, which enjoy a level of sophistication that is foreign to the SDS.

- although we fully agree that the SDS can be described in the vernacular as an "intelligently structured database", this feature is not sufficient to warrant the assertion of any close link between artificial intelligence, as the word is used in computer science, and the SDS.

Chapter 4 is a presentation and a discussion of our survey of the users of the SDS (judges, Crown and defense counsel, law clerks, librarians and other support staff). Our findings are discussed thoroughly in the concluding chapter of the report and it is impossible to summarize the results of this discussion. However, it is possible to identify common threads in the results of our survey. By common threads, we mean answers and comments that were made by more than half of the total number of our respondents (N = 40).

A. **Frequency of use** : the system is used occasionnally and, comparatively speaking, in few cases. A typical user will consult the SDS on average at most twice a month.

B. **Usage and assessment of files** : File 1 and File 2 appear to be used much more frequently that the other files and they are also thought by the users to be the more useful files. There is no great difference between File 1 and File 2, either in terms of frequency of usage or usefulness.

C. **Patterns of research** : there are no discernable patterns of research. Information is retrieved on the basis of expediency.

D. **Offender characteristics** : they are usually left unspecified. The offender factor that is thought to be the most useful is prior indictable offences. There is a consensus that the characteristics should not be dropped and that no other offender factor should be added.

E. **Type of use** : the system is used selectively, except by the British Columbia Court of Appeal, which until recently directed the law clerks to use it in every sentencing appeal. This policy has been reviewed and the Court of Appeal will also use the system on a selective basis. Generally speaking, the system is used for the more serious and unusual offences (e.g. the system is not used when there is only a remote possibility that a custodial sentence will be imposed by the court).

F. **Completeness** : with very few exceptions, our respondents contest that the SDS is a complete research tool. They also doubt that any database could ever become a complete and exhaustive instrument.

G. **Purposes** : the system is used to get more comprehensive information on a case. Very few users see in it an instrument to remedy sentencing disparity, which is not recognized as a significant problem.

H. **Support** : with only three exceptions, the SDS is strongly supported by our respondents. However, this support is based more on the idea of having a good computer database than on the system itself in its existing components. Therefore, it does not translate into actual use, which is said to be under reasonable expectations.

Although they may not have been voiced by more than half of our respondents, there are requests for enhancements of the system that should be taken into account :

- **the technical arrangements** and, particularly, the communication software were criticized by a significant number of users.
- there is a strong demand for a **key word** research facility.
- there is also a strong demand for a way to cite the cases of File 1 according to the legal tradition of citation (Presently, the users are only provided with a Court registry number).

Chapter 5 is a description of the 5 files of the system, which is made in the context of the results of our user survey. It attempts to integrate the comments and answers of the users of the system. These comments are supplemented by our own analyses. Our descriptions go into the details of the content and structure of the different component files of the system and are consequently difficult to summarize for a reader that is not familiar with the SDS. We shall restrict ourselves in this summary to a statement of some general and important points.

In this chapter we draw a distinction between research in depth and lateral research. When researching the system in depth, the user specifies an offence and moves through the different files of the system (from File 1 to File 5). When doing lateral searches, a user stays within the same file - e.g. File 1 - but attempts to compare sentences imposed for similar offences, such as different kinds of assaults, or to compare sentences imposed for the same offence, but with different offender or offence characteristics, such as the various types of drugs. The SDS was developed under the assumption that users were more likely - or that is was, according to a theory of sentencing , more important - to perform searches in depth rather than lateral research across offences. In consequence, it is very easy to move from one file of the system to another, but it is quite tedious to move from one offence, with its specifications, to another or to the same offence, but with other

specifications. In the latter cases, the user must start a new case and go through the 12 or so necessary steps to obtain data, if he or she wants to consult File 1, 2 or 3. There is a fast track to access File 4; unfortunately, this file is consulted rarely in comparison to File 1 and File 2. Hence many users complain that there is too much structure in the system and that they have to repeat the same string of operations to compare sentences. The architects of the SDS apparently assumed that users would follow a research pattern which they tried to anticipate. So far, this assumption has proven to be incorrect.

Another general point is the unbalance in the number of cases contained in the SDS. The SDS collects cases that fall under 129 offences, selected from six statutes. According to our calculations, there are 70,860 cases contained in the SDS.

- three offences - theft under $1,000, impaired driving (S.253 a and b of CCC) and possession of narcotics - account for nearly half of the cases (49.5%) contained in the database. There are 18 offences in File 1 for which there are more than 1,000 cases. These 18 offences account for 54,022 of the 68,748 cases of File 1, that is 78.5% of all the cases in that file.

- we also identified all offences for which there are less than 20 cases in the SDS. There are 48 offences for which there are less than 20 cases. These 48 offences represent 37% of the 129 offences in the SDS. However, these 48 offences account for only 375 of the cases in File 1, that is, 0.54%

- there are 11 offences in File 1 for which there is either 1 or no case at all. The number of instances where there are no cases in File 1 increases very significantly if the user specifies the type of substance involved in the drug offences (NCA and FDA).

In sum, 14% of the offences account for 78.5% of all the cases in File 1 and a further 37% of the offences do not even account for 1% (0.54%) of the cases. This unbalance is even more pronounced in File 2, where there are no cases for 40 of the 129 offences. It must be recognized, in all fairness, that the SDS only reflects the situation of sentencing in British Columbia and that it cannot give information on cases that were never brought to court in that province, during the period of time covered by the SDS. There is, however, a problem that will have to be solved. It is the problem of updating the SDS. There does not seem to be any point in loading into the system ever more cases of possession of narcotics, impaired driving and theft under $1,000. This procedure can only increase the present imbalance.

Finally, we also discuss the offender characteristics. We focus on the prior indictable offences and make the point that just mentioning whether or not a group of offenders have a prior record of indictable offences , without specifying whether this record is heavy, recent or relevant to the cases for which sentences were imposed may be as misleading as it is helpful.

As we said before, these are only some of the more general points which are made in Chapter 5, which is a fairly detailed review of the system and its components. **Chapter 6** brings together the main conclusions of our research and offer some suggestions for the future. Both conclusions and suggestions are stated in the most condensed way. We shall not attempt to summarize this chapter, which is in itself a summary. It is rather short and can be read as a complement to this executive summary.

CHAPTER 1

INTRODUCTION

In this introduction, we will (1) present and discuss our terms of reference; (2) state the work we have done; (3) identify the persons who have participated in this evaluation and (4) give an outline of the structure of this report.

1.1 Presentation and Discussion of our Terms of Reference

Our terms of reference are stated in Appendix "D" of our contract with the Department of Justice. We shall quote them in full :

> The Contractor shall carry out the work outlined below and complete the contract by September 15, 1989;
>
> 1.1 Identify and clarify the indicators of the evaluation; these will include : amount of usage of the system; breakdown of usage by offence, number of judges participating and so on.
>
> 1.2 Liaise with officers of the Research Section, Research and Development Directorate, Department of Justice.

1.3 Co-ordinate gathering the data, and liaise with officers of the Computers and the Law Project in British Columbia;

1.4 Make the necessary on-site to gather the data and conduct any surveys deemed necessary;

1.5 Submit a draft final Report by August 1, 1989;

1.6 Submit a final Report accomodating any revisions suggested by research officers of the Department of Justice, Canada.

It was felt by Dr. Hogarth and by officers of the Department of Justice that section 1.1 of the terms of reference was not precise enough. This section was redrafted by Mr. John Fleischman, who was in charge of this project for the Department of Justice. In redrafting this section, Mr. Fleischman consulted with Dr. Hogarth and me. This expanded version of section 1.1 of the terms of reference is contained in Appendix "A" of this report.

Comments.

Sections 1.2-1.4 of the terms of reference were fully respected. We liaised with officers of the Department of Justice, with Dr. Hogarth and, as we will make clear in the work statement, we made all the necessary on-sites to gather the data and conduct a users' survey. Section 1.5 was amended twice, at our own request. The date for the submission of the draft final report is now June 29, 1990. The fact that the deadline for submitting a draft of the final report had to be postponed twice is indicative of difficulties for which we were not responsible.

It is only at the end of September 1989 that services provided by the Sentencing Database System (SDS) were made available to the private bar province-wide on a dial basis through CBAnet and that all judges in B.C. gained access to the SDS through Datapac (see Dr. Hogarth's **Revised Final Report to the Department of Justice, February, 1990**, p.16; we shall henceforth use the acronym RFR to refer to this report). This was actually two months after we should have submitted our draft of the final report, according to our original terms of reference.

As it was acknowledged by Dr. Hogarth in his progress reports to the Department of Justice, the SDS did not meet with immediate acceptance and use of the system was spotty, particularly by the Provincial Court judges, who do most of the sentencing in B.C., (see progress report for the Department of Justice, April 5 1989, p.3). Furthermore the monitoring system of the SDS' use did not perform as initially expected and was eventually discontinued. The only monitoring being done at present consists in recording how much time a user spends with the SDS and which files a person is using.

These developments had a direct effect on the possibility of fulfilling some aspects of our terms of reference :

A. The monitoring of usage does not allow us to break it down by offence, as is indicated in section 1.1 of the terms of reference.

B. Present monitoring is much too limited to permit any thorough analysis of search patterns, as requested in section III.3 of the expanded terms of reference.

C. It was also impossible to conduct group interviews, as requested in section III.2 of the expanded terms of reference. The users were scattered all over the province and were relatively few. Furthermore, the identity of users dialing into the system through CBAnet is confidential.

D. Finally, the Department of Justice decided that it did not want a technical assessment of the data base. Consequently, section II.B of the expanded terms of reference was dropped.

The preceding comments do not mean that we will not address any of the issues listed above. These issues will be addressed to the extent it was possible to research them, given the limitations that we had to face.

1.2 Work Statement

We went on site five times :

- 24-26 September, 1988
- 17-22 December, 1988
- 16-23 September, 1989
- 17-24 February, 1990
- 23-29 May, 1990

These visits were devoted to working with the system, gathering documentary material and, primarily, to conducting interviews with users and key informants. Fifty-four persons were contacted for interviews. Of these, 42 were interviewed on the basis of a questionnaire that we developed and which is submitted in Appendix "B" of this report. Twelve persons declined to be interviewed because they were not familiar enough with the SDS to answer our questions. We succeeded in interviewing judges (all levels of court), Crown Attorneys, defence lawyers, judges' clerks and support personnel such as court librarians. Needless to say, we had several discussions with Dr. Hogarth, who was very cooperative and made our task easier in several respects.For the last visit on site - 23-29 1990 -, we took advantage of meetings that we had to attend in B.C. to do some final interviews and gather material, without charging travelling costs to the Department of Justice.

The data was analyzed in Montreal. The review of the literature was also done in Montreal, where there are several research groups involved in research on computers and the law.

These groups have documentation centres that are well stocked with the latest publications in this field. The final report was written in Montreal.

1.3 Researchers Involved in this Project

It was contemplated at the beginning of this project to seek assistance from two sources. First, a computer expert would assist us by performing the technical assessment of the SDS. Second, an eminent legal scholar would be asked to assess file 4 of the SDS, which is basically an electronic legal treatise on sentencing.

After consultation with officers of the Department of Justice, it was decided that a technical assessment of the SDS was not required at the present time and that the assessment of the different files would be performed by the Contractor, relying upon his survey of the users. Hence this evaluation was wholly performed by the Contractor. To facilitate our work in B.C., we hired Ms Amy Alexander, a graduate student in criminology at Simon Fraser University, as a research assistant. Ms Alexander and I were the only persons involved in this research project.

1.4 Outline of this Report

The structure of this report is very similar to the outline that was submitted to the Department of Justice on June 19 1989. We have changed the initial structure of the outline in two minor ways. First, there will be no technical assessment of the SDS (section 4.1 of the outline will accordingly be dropped). Second, we will change the order of the chapters.

This final report is divided into five chapters (six chapters, if one includes this introduction). The next chapter will briefly review the development of the SDS project and will provide the context for the following analyses. Chapter three is a review of the relevant literature. We decided to present a review of the literature after having described the evolution of the SDS project. We believe that this procedure makes it much easier to decide what is relevant to the SDS project in the vast literature on sentencing and information systems. Chapters two and three will be brief, as they are only meant to provide background for the rest of the report.

Chapter four begins with a summary description of the SDS and its different files. It then presents the findings of our user survey, which is one of the main parts of this report. Chapter five will provide a more elaborate description of the SDS; this description will be made in the context of the issues raised by the users of the system. These two chapters will be followed by a general conclusion that will highlight the meaning of our major findings and that will also discuss some tentative features of the future development of the SDS.

CHAPTER 2

THE EVOLUTION OF THE SDS PROJECT

The SDS project has evolved in many significant ways. As we shall see in chapter 5, the different components of the system - the five files - underwent numerous changes. These changes were made in relation (1) to the volume of data, which kept increasing; (2) to the structure of certain files, which were completely reorganized and greatly ameliorated (e.g. file 3); (3) to the enhancement of certain features of the system and (4) to the regular updating of the files.

There were also very basic changes in the scope of the project, which officially began in January 1986 and which evolved from an experimental project using computers to provide a variety of legal services in B.C. to the creation of a foundation - The Legal Information Systems & Technologies Foundation (the LIST Foundation). The List Foundation is marketing its products nation-wide and is involved in several legal fields, such as the criminal law and trade law. It is not our purpose in this section to present a detailed chronicle of the evolution of this project. We shall restrict ourselves to a brief presentation of changes which are directly relevant to this evaluation, which only concerns one part of the LIST Foundation's activities.

2.I The SDS' Potential Clientele

The SDS project began in 1986 under the name Sentencing Data Base Study and originally functioned within the Centre for the Study of Computers and the Law at UBC. The Centre's projects were initially described in a booklet entitled "Centre for the Study of Computers and Law" and also in an 1985 article published by professor Robert T. Franson in ***Canadian Computer Law Reporter*** (Vol. 3, Issue 2, December 1985, pp. 31-39). These papers were circulated within the Department of Justice by Dr. Hogarth.

In both the article (p.33) and in the booklet (pp. ii and 13), it is quite clear that the sentencing data base was to assist judges in their sentencing of offenders and in overcoming the problem of disparity. As was said in the booklet, "the work will build upon a project begun by Professor Anthony Doob of the University of Toronto" (p. I3). Although Dr. Hogarth was to spell out the differences between the SDS project and the Doob study in a note for the project's Users Committee, both projects were initially intended for sentencing judges.

However, judges soon stopped being the only targets of the project and in a 1987 document entitled "Computers and the Law, or Sentencing Database Study, Proposal for Federal Funding", it is stated that the SDS is "to serve judges and lawyers in British Columbia" (p.2).

This broadening of the potential clientele is important for two reasons :

A. Although the SDS seemed from early on to be intended both for judges and lawyers, it has tended to shift its emphasis to one or the other of these potential clients. According to Dr. Hogarth's RFR (February 1990, p. 16), List's first priority was to secure utilization by judges. When we conducted interviews in Vancouver in September 1989, lawyers appeared to be primary target. When we last were in Vancouver - May 23-30 1990- we contacted Dr. Hogarth to get the latest update on the system. We learned the following: the judges of the B.C. Court of Appeal are no longer using the system in every sentencing appeal, as a matter of policy; they will now use the system on a selective basis for the cases for which it can provide useful information. Use of the system by Provincial Court judges may be increasing but only slowly (the monitoring system described in Dr. Hogarth's RFR of February 1990 is no longer in operation, making it difficult now to assess the amount of use). According to Dr. Hogarth, the response of lawyers in private practice has not been as good as anticipated, due to a certain number of difficulties in getting access to the system through CBAnet. The LIST foundation is now targeting the Crown prosecutors and is hoping that there will be a policy directing the B.C. Crown Attorneys to use the system in preparing for their cases. Finally, university departments and faculties and the research community are now seen as potential clients and will receive publicity from LIST.

B. This shifting of priorities with regard to clientele has deeper implications than just marketing the system. De Mulder, Van Noortwijk and Kerkmeester (1989: 212-213) who were among the pioneers in the use of artificial intelligence in the legal field often made the point that "in an advice system it has to be clear to whom the advice is directed i.e., whether the recipient of the advice is a judge, public prosecutor, defending counsel or other interested party". In this quote, "advice

system" refers to an information system featuring artificial intelligence technology (the advice system developed by this team at Erasmus University in the Netherlands is called JURICAS). The conclusion which follows from of the work of the Erasmus University research group is that the more information technology relies on artificial intelligence, the more it must be intended for specific users. This conclusion is echoed in many publications (e.g. Susskind, 1987). Being intended for judges, Crown counsels , defence lawyers and other interested parties, the SDS does not subscribe to the specification requirement.

2.2 The Purposes of the Project

In the documentation produced by the SDS project and by the LIST Foundation, a distinction is made between the purposes and the objectives of the project. We shall first deal with the purposes of the project.

One of the earlier and most complete statements on the purposes of the project is to be found in the Proposal for Federal Funding (PFF), to which we referred earlier.The PFF begins by stating that "regardless of purpose, it is fundamental to justice that "like cases be treated in a similar way". Equality of consideration is a worthy goal - it demands that that similarly situated cases be treated in a similar way"(p.4). On the basis of this statement, the PFF then proceeds to identify its two main purposes :

> **The purposes of the project are many but most of them fall within one or two categories. The first is to bring before a sentencing judge relevant information in terms (of) the sentencing practices of fellow judges in cases possessing similar characteristics, Court of Appeal judgments which lay down general principles and specific factors that should guide the decision-making process, settled procedural law and local resources available to offenders. (p.4)**
>
> **The second purpose is to enhance the ability of lawyers to make effective sentencing submissions. (p. 4)**

It is not surprising that the SDS has two basic purposes, which have been reiterated from 1986 until today (in a letter sent to Ms Susan Matasi on February 6, 1986, Dr. Hogarth formulates the purposes of the SDS in exactly the same way as in the quotes given above). These two purposes correspond to the dual clientele projected for the SDS. In the same way that giving one group of clients priority over the other tended to fluctuate, the priority given to one of the two purposes alos varied during the development of the project.

There is no incompatibility between these two purposes. However, their full achievement requires different kinds of operations. The reduction of sentencing disparity implies that the information provided to judges be used as a voluntary guidelines for the determination of the appropriate sentence. This relationship between a sentencing database and voluntary sentencing guidelines is explicitly aknowledged by the documents sent by Dr. Hogarth to Ms. Matasi with his February 6th 1986 letter. The first document, entitled Computers and the Law, provides the following description of the Sentencing Database for the Judiciary:

> **SENTENCING DATABASE FOR THE JUDICIARY. To assist judges in determining fair and appropriate sentences for offenders, the Faculty of Law plans to establish a database of information on Provincial Court sentences. This will enable judges to discover the range of sentences normally given for cases similar to the one they are considering and to use this information as a GUIDELINE when making a judgement. The development of this database will help judges to ensure that comparable sentences are awarded in similar cases.** (we have emphasized the word guideline).

This use of a sentencing database as a voluntary sentencing guideline is perfectly legitimate. However, it has an important implication. By definition, sentencing disparity only occurs when there is sentencing. Hence, sentencing disparity is bound to be more frequent where sentencing decisions are more frequently made. **It follows that if one's purpose is to use a database to promote sentencing consistency, one will have to load the database with data relating to the highest volume offences, for these are the offences for which sentences are most frequently handed down.** This is a minimum requirement, from which one can move to lower volume offences.

However, if a Crown counsel or a defence lawyer uses a databank strictly for the purposes of accessing information that will enhance his ability to make an effective sentencing submission, it is by no means sure that they will only want to find the range of sentences for the most frequent offences. We can hypothesize that practicing lawyers will want to use a databank precisely when information about a case is limited with regard to ordinary sources and their experience in court. In other words, they will demand that information about the most unusual cases be contained in the database. These cases are unfortunately the less frequent ones. Hence there may be relatively conflicting strategies for building a sentencing database, depending upon whether it is to be used as a set of voluntary guidelines for the judiciary or as a source of missing knowledge for practicing lawyers.

This conflict can be easily resolved if there are unlimited resources for developing the database, which allow for all cases to be loaded into the database, regardless of their frequency. In practice, however, resources are limited and the builders of a database are forced to apply one strategy more than the other. We shall see that the architects of the SDS chose to gather as much data as they could about very high volume offences and had to disregard the more esoteric part of sentencing. This choice drew a significant amount of criticism from practicing lawyers.

2.3 The Objectives of the Project

The Law and Computers Project of the Faculty of Law at UBC - otherwise also referred to as the UBC-IBM Project - may have begun modestly but it quickly grew into a much more ambitious venture into the field of artificial intelligence and the law. However, the scope of the project had to be reduced in view of unforeseen difficulties. This projected exercise in artificial intelligence and its subsequent curtailment must be described, albeit briefly, because it had a direct bearing on the definition of our own terms of reference.

In a paper entitled ***Artificial Intelligence and Law*** (AIL), the full scope of the UBC-IBM project is presented. The project is said to have proceeded on two distinct lines : expert system and intelligently structured databases (p.2). The work proposed for the years 1987 and 1988 consists of four subprojects : (1) Refining the Intelligently Structured

Database; (2) Expert Systems Methodologies; (3) Computer Modelling and (4) Building a Linked System. Although members of the Law Faculty at UBC are still active in investigating expert systems in law and have presented a paper at the **Second International Conference on Artificial Intelligence and Law** held in Vancouver in June 1989, it does not appear that subprojects (2)-(4) are in any way near completion. The only part of the initial project which has given birth to a tool that can be presently used through CBAnet is subproject 1, which produced the SDS.

It is of crucial importance to remember that subproject 1 was to be realized in two phases. The first of these phases - building a prototype for accessing legal information through computer technology and doing the preliminary testing of this prototype - was said to be complete. Phase two of subproject 1, which was to be the object of further applications for funding in 1988, consisted of three different phases :

1. A technical evaluation of the prototype : in addition to updating the system, this procedure would add a key word search facility to the SDS prototype. File 4, which lies at the core of the project, was to be enhanced in several ways (inclusion of "see also prompts, the addition of "contra decisions" and a fast track access to this file, independent of menus).

2. An evaluation of the impact of the SDS on sentencing practice. The evaluation strategy had two components. The quantitative components basically involved a comparison of pre- and post-project sentencing patterns, which crucially rested on the possibility to monitor closely how the SDS was used and with what kind of result. The qualitative component involved collecting information from users, either through the mailing of questionnaires, personal interviews with key informants and workshops.

3. The development of new methodologies in artificial intelligence. In this regard, the document AIL asserts that the initial SDS prototype contains a number of artificial intelligence components but it recognizes that "they are modest in scale and do not approach a full-blown expert system" (p.9). The document then outlines the following plan:

It is our plan to test the potential of a far more intrusive AI component sitting on top of our existing intelligently structured structured database.
A significant feature of our plan is that the intelligence to be built into the system will not be that of a single expert recognized in the field, rather it will be empirically derived from the results of the quantitative evaluation described above. The strategy comprises three stages. The first two involve traditional methods by which lawyers, legal academics and judges resolve ambiguity and conflicting cases. The third part is novel in that it does not depend upon a theory of action or on rules, and is not dependent upon "good reasons" (AIL, p. 9)

This description of the content of AIL is of paramount importance is several respects.

First, our own terms of reference were drawn from the Proposal for Funding submitted to the Department of Justice on February 15, 1988 by the Faculty of Law of UBC. This proposal was eventually accepted and an outside evaluator - myself - was chosen to do the evaluation that was a part of the proposal. This evaluation is described on pp. 6-8 of the February proposal and this description is essentially inspired by Phase 2 of subproject 1, as it is layed out in AIL. The evaluation described in the February proposal also has a quantitative, qualitative and a technical component. The quantitative component is almost identical with its counterpart in AIL, several sentences being verbatim quotes from AIL. One of the few differences is that the February Proposal seems to be more conscious of the difficulties involved in carrying out Phase 2 of the SDS project (instead of using the future tense, the proposal is written in the conditional). The qualitative component is also quite similar to what was envisaged in AIL, with the exception that mailing questionnaires no longer seems a promising strategy "to unpack the attitudes and feelings which are at stake" (February Proposal , p.7). Finally, the technical part of the evaluation is only mentioned in the February Proposal, no reference being made to the adjunct of a key word search facility.

The true significance of our reading of AIL lies in the fact that it puts the evaluative part of the February 15, 1988 Proposal in its proper context. As it can easily be surmised from reading the quote from AIL given above, the evaluation of the SDS - particularly in its

quantitative component - is not a mere assessment of the usefulness of the SDS. It is a **research project in its own right**, which is to provide the empirical basis permitting the SDS to be really ushered into the realm of artificial intelligence. The stakes in the evaluation initially projected by the persons responsible for the SDS were rather high, for it acted as a condition for the SDS to become a full-blown artificial intelligence system.

Unfortunately, the greater part of this evaluation strategy could not be pursued. As we remarked in our May 1989 Progress report, the initial strategy - and most particularly its quantitative component - was premised upon two crucial assumptions, namely, that the SDS was going to be used enough to have an impact on judicial and legal practice and that the monitoring system installed would be sophisticated enough to allow for the realization of a complex research design. Both of these assumptions eventually appeared to be unwarranted, the system meeting with great reluctance on the part of the Provincial Court judges, who do mosty of the sentencing, and the monitoring system finally in place providing almost no information on the research patterns of the SDS' users.

The Revised Final Report (RFR) of Dr. Hogarth finally acknowledges that the impact of the SDS on sentencing practice cannot yet be measured. This situation is unlikely to be remedied, even if the SDS was used more systematically in bigger urban provincial courts. Dr. Hogarth's present view on the impact of the SDS on sentencing practices, disparity and similar issues is that :

> **...It will be very difficult to measure empirically the impact of this system on those questions, as the introduction of this system cannot be isolated from other factors which are in play (RFR,p.28)**

The quantitative component of the evaluation outlined in AIL is not the only one that was not carried through. In its original design, the technical evaluation was to result in the addition of a key word research facility; it was also to include "see also " prompts, "contra" decisions, and a fast track access to file 4. The most crucial part of this programme - as we shall see in the user survey - is the addition of a key word research facility. This facility is still lacking. "See also" prompts are now a feature of file 4, which can also be accessed through a fast track by-passing the menus. However, no "contra" decisions have yet been added to this file.

The addition of "see also" prompts represents for the LIST Foundation the presence of a "hypertext" feature in file 4. We will examine this question in our next chapter.

2.4 Conclusions

This discussion of some of the changes that have occurred during the development of the SDS was not undertaken for the sake of comprehensiveness. All of the issues that we have discussed were raised by the users and we will address them again in chapter 4. It is important to realize that these issues are not gratuitously raised by the users , but that they stem from the project's evolution.

Moreover, the preceding discussion puts already us in a position to draw at least two significant conclusions for this evaluation.

A. We have seen that the SDS was a tool to be used by different members of the legal communities, namely judges and their clerks, Crown counsels and defence attorneys. The RFR describes a two-phased marketing strategy, the first phase having targeted the judiciary and the second one being directed at the private bar (it is actually much more time-consuming to get an ID and a password to use the SDS through CBAnet, if a person is not a member of the Canadian Bar). **As we have previously seen, the marketing strategy outlined in the RFR has recently changed, Crown Attorneys now becoming a priority target.** Furthermore, there is another group of persons that may have had an interest in an intelligently structured database. This group is composed of all members of the academic and research community who perform research on the criminal law. This group is far from comprising only persons holding a law degree. We raised this issue with professor Hogarth during our stay in B.C. in February 1990 and he concurred with our conclusion :

> (i) **The SDS is a tool that was fundamentally designed for the use of legal practitioners. It was not meant to address the needs of theoretical research on the criminal law and no efforts were made to market this product in academic fields (e.g. contacting university departments or research groups). The kind of research that can be made using the**

SDS is basically supportive of decision-making (either determining a sentence or making a legal submission). This conclusion is neither a criticism of the SDS nor does it assert that the SDS cannot be used for theoretical research. In certain cases it can provice a good starting point. Our conclusion, however, implies that the SDS' usefulness for theoretical or scholarly research is limited.

As previously mentioned, we learned during our latest visit in Vancouver in May that the academic and research community are also going to be targeted by the LIST Foundation. It is difficult to assess with any degree of precision what the response of this community will be, as the SDS was not originally developed to meet the needs of researchers.

(ii) **We have quoted an assertion made in AIL that the artificial intelligence components of the SDS prototype were "modest in scale" and did "not approach a full-blown expert system". Since the phase of the SDS project that was to transform the database into an expert system was not carried out, we must be satisfied with the SDS people's own assessment that the SDS is not an expert system and that its artificial intelligence components are inconsiderable. There can be no denying that the SDS is an "intelligently structured database". This only amounts to a recognition of the obvious fact that the SDS is competently structured. Its relation with artificial intelligence strictly understood, however, is distant and rests entirely on the "hypertext features" attributed to file 4 of the system. We shall discuss those features in the next chapter.**

There were two conferences on law, artificial intelligence and computer technology held in Vancouver in 1989. The **Second International Conference on Law, Artificial Intelligence and Law** was held in Vancouver on June 13-16, 1989, and was sponsored by the UBC Faculty of Law, with support from IBM Canada. The Canadian Institute for the Administration of Justice organized a conference on **Technology,Law and the Courts** on August 24-25, 1989, also in Vancouver. The proceedings of both conferences are published and do not contain any reference to the SDS. If the SDS had a close link with the artificial

intelligence applied in the field of law, it would have seemed natural to present a paper on this database at one or both of these conferences.

Furthermore, the various internal documents produced by Dr. Hogarth and his colleagues do provide us with a definition of an intelligently structured database, which goes beyond the level of simple intuition. An intelligently structured database should be menu driven, fully indexed, allowing for key word searches, and incorporating a decision tree model. The SDS now possesses only the first of these features, which is a minimal requirement for developing computer software and is not per se sufficient to qualify a database as an embodiment of artificial intelligence.

The LIST Foundation has very recently issued a publicity sheet listing the latest enhancements made to the SDS. Hence it is announced that the user will be able to perform key word searches, according to some of the principles of Boolean logic (this is a general feature of key word searches). According to Dr. Hogarth, whom we contacted to inquire about these enhancements, the key word search enhancement will concern Files 2,3, and 4 of the system and is currently being developed . It is not yet operational and still requires approximately three weeks of work, according to Dr. Hogarth. It should then be implemented by the end of June 1990.

As the key word search feature is not yet integrated in the SDS, we cannot assess its usefulness. However, if this enhancement is finally made - the development of a key word search feature has been regularly announced since the inception of the project -, it would not affect in any way our general conclusion on the relationship between the SDS and artificial intelligence. Quite a few databases, like Quicklaw, allow for Boolean (key word) searches and make no claim to be expert systems or hypertexts.

CHAPTER 3

A REVIEW OF THE LITERATURE

The SDS is a sentencing database which embodies artificial intelligence features and one of its main purposes is to serve as voluntary sentencing guidelines in order to remedy sentencing disparity. This straightforward characterization of the SDS can be used to give an idea of the scope of a review of the literature that would try to be as comprehensive as possible and to cover all the fields of thought incorporating a major feature of the SDS project. Even if we restrict ourselves to fields of research having a direct connection with the SDS, we should at least survey :

- the general literature on sentencing and its fundamental concepts (e.g. disparity and consistency in sentencing)

- the research on sentencing guidelines and on their use by the judiciary

- the general literature on computers and the law

- more specific research on artificial intelligence and the law

A thorough review of the literature in any one of these fields much exceeds the boundaries of this report. Instead of reviewing the literature for its own sake, we will focus exclusively on limited aspects of published research that are directly relevant to our terms of reference. We shall briefly discuss sentencing disparity, sentencing guidelines and artificial intelligence and the law (expert systems and hypertexts) in the light of current literature. In every case, we shall compare what references can be found in the literature to features of the SDS and the theory supporting its development.

3.1 Definitions of Sentencing Disparity

Forst (1983) stressed the difficulty of defining disparity. There is not even agreement on the fundamental issue of whether disparity is an attribute of a sentence ("a disparate sentence") or a relationship between numerous sentences. Even if we disagree of this question, there seems to be a general consensus that characterizes sentencing disparity as something that occurs when like cases are not treated alike. We also seem to agree on the fact that the opposite of sentencing disparity is sentencing consistency. Finally,

according to surveys conducted by the Canadian Sentencing Commission, both judges and lawyers seem to believe that the main cause of disparity lies in the differing personal attitudes and approaches taken by judges toward sentencing (see Canada, Department of Justice, 1988; Canadian Sentencing Commission, 1986). Hogarth (1971) was very influential in generating this consensus on the cause of disparity.

There was an experiment on sentencing, conducted in Canada under the supervision of a judge, that strirred a certain amount of controversy; it claimed to go "beyond the black box" model used by Hogarth(l971) to predict variation in sentencing on the basis of variation in the facts of a case (Hogarth concluded that this model does not work; see Hogarth, 1971: 350). This experiment consisted of submitting the same fictitious cases to judges and asking them to justify the sentence that they would impose (Palys, 1982; Palys and Divorski, 1984). This experiment - which was often repeated - showed that there was a great deal of disparity between the sentences handed down during these exercises. More importantly, it argued that the main source of this disparity was that judges were following competing sentencing goals (e.g. deterrence, incapacitation, rehabilitation). This experiment was influential in convincing a significant portion of the legal and research community that a consistent statement of the purpose and principles of sentencing would go a long way toward solving the problem of disparity.

The conclusions drawn by Palys and Divorski, and by many others, - the assertion that conflicting sentencing goals begot sentencing disparity becoming a commonplace of sentencing theory; (see for example, Branthingham, Beavon and Brantingham, 1982) - were perfectly compatible with the perspective developed by Hogarth (1971). However, Dr. Hogarth seemed to undergo a change of mind and to question his previous conclusions when he became responsible for the SDS project. This was a promising development, which allowed the sentencing community to look forward to challenging research by Dr. Hogarth.

Although Dr. Hogarth (and his colleagues) appeared to continue believing that disparity occurred when similarly situated cases were not treated in a similar way (see Proposal for Federal Funding,December 12, 1986, p. 4), Dr. Hogarth proposed a definition of sentencing which departs significantly from the prevailing view. In AIL a "genuinely

disparate sentence" is defined as a sentence which is **not being supported by any valid principle recognized by courts (AIL,p. 11)**

This conception of sentencing disparity, to which Dr. Hogarth referred on numerous occasions during our discussions, has very significant consequences. In the December 1986 Proposal for Federal Funding, one finds this interesting statement. In describing the potential effects of the SDS, Dr. Hogarth writes :

> **The hoped for result will be a more rational basis and justification for sentences which may appear disparate on the surface but become defensible in light of legally relevant factors brought to the attention of the judge (p.5)**

An important shift in the meaning of disparity occurs in that sentence : a disparate sentence is no more a sentence which is inconsistent with other sentences imposed in similar circumstances; a disparate sentence is a sentence which cannot be legally justified (or is legally undefendable). One could easily use Dr. Hogarth's redefinition of disparity to argue that sentencing inconsistency is a phenomenon that is entirely different from sentencing disparity; it could also be claimed that these two notions are mistakenly associated in the sentencing literature and that they ought to be divorced from each other. The importance of this shift can be shown by the following considerations.

First, legal reasoning is not an exact science and is not as a compelling as a mathematical demonstration. Dissenting opinions, either at the level of the courts of Appeal or at the level of the Supreme Court of Canada, stand as proof of this fact. A Supreme Court minority opinion would certainly qualify as being legally defensible, yet it is not consistent with the majority opinion. The point that we are making here is that the legal notions of justification and of consistency do not in any way coincide. Legal opinions about one case may vary to the point of being mutually incompatible and yet all of them may also be justified and defensible.

This is precisely what was brought up in the work of Palys (1982) and Palys and Divorski (1984). Depending on which rationale they used, judges would impose vastly different sentences in the one case that was submitted to them. Their sentences were both

justified, albeit by a different rationale, and totally inconsistent. The facts making up a case are weighted according to the sentencing rationale that is used by a judge; if two judges use a different rationale, they will accordingly give a different significance to the facts of the case. For example, the youth of an offender may be interpreted as a mitigating factor by a judge sentencing according to a rationale of rehabilitation; it will appear as an aggravating circumstances for a judge applying a model of selective incapacitation; even two judges using a rehabilitation rationale may reason very differently, one judge giving a community sanction to an offender because of his youth, and another one believing that the youth of the offender justify the imposition of a brief sentence in jail, to give him the "short, sharp shock" that will prevent future recidivism.

The purpose of this discussion is not to engage in a debate with Dr. Hogarth about the nature of disparity. His definition of a disparate sentence is certainly defensible, even if it actually results in defining sentencing disparity out of existence. More to the point of this evaluation, it can be seen why Dr. Hogarth believes that File 4 of the SDS, which is an electronic textbook on all legal aspects of sentencing, lies "at the core of this Project" (AIL,p.8). If a disparate sentence is a sentence that cannot be supported by any valid principle recognized by the courts, it becomes of paramount importance to provide the legal community, and judges, in particular, with the widest array of sentencing principles that have been recognized as valid by the courts.

This being said, it is also important to mention that a systematic effort by judges to justify their sentences may not produce sentencing consistency, because widely divergent sentences can be justified by applying principles which are both valid and recognized by the courts but which entail different consequences for sentencing. Sentencing inconsistency will not so much be remedied as dispelled as a surface phenomenon which is not seen to be a problem, once it is properly understood.

3.2 Sentencing Guidelines

As we have mentioned earlier, the sentencing database for the judiciary was described in the literature produced by Dr. Hogarth and his colleagues as an instrument that could be used as a set of sentencing guidelines. As the project evolved after 1987,

the word guideline did not frequently occur in its description, judges and lawyers not being generally favorable to the development of sentencing guidelines.

Nevertheless, Lovegrove (1989: 41-46) discusses the SDS and considers it a type of sentencing guideline. Assuming that the SDS can be used as a set of guidelines, we will briefly identify and discuss the perspective in the literature on sentencing guidelines that is closest to the approach taken by Dr. Hogarth and his colleagues. Afterwards, we will review what Lovegrove (1989) says about the SDS. According to our research, Lovegrove's is at the present time the only book that discusses the SDS at some length.

3.2.1 Sentencing Information Considered as Voluntary Guidelines

We make no claim as to whether the creators of the SDS were actually influenced by a school of thought known today as "the Albany School." This school of thought on sentencing guidelines was greatly inspired by the work of professor Leslie Wilkins (see Wilkins, Kress, Gottfredson, Calpin and Gelman (1978), Wilkins (1981); see also Gottfredson, Wilkins and Hoffman (1978), Gottfredson and Gottfredson (1980), Kress, Calpin,Gelman and Bellows (1979) and Kress (1980);). Whether or not the development of the SDS was influenced by this group of researchers, it makes no doubt that this is the perspective which suits the SDS the more closely.

Although the format of the guidance offered by the SDS differs markedly from the grids produced by the Albany School, the SDS shares numerous things with the latter:

A. ***A common diagnosis of the source of disparity*** : The Albany School argued that one of the main sources of disparity was judicial isolation. Judges handed down their sentences without having any systematic information on the sentencing practices of their colleagues. In this context, where judges had to invent their practice without any clue as to what other judges were doing in similar cases, sentencing disparity was bound to occur. This theory exerted a very deep influence. For example, it was upheld by the Canadian Sentencing Commission. It also influenced Professor Doob in the development of his own database project (Doob, 1987). It is frequently expressed in SDS documentation (e.g.the December 1986 Proposal for Federal Funding, p. 4). One of the reasons why this theory was so influential is that it did not antagonize judges, the source of the disparity being inherent the

structure in which they had to operate. As we shall see this diagnosis is at complete odds with what judges and lawyers themselves believe to be the source of disparity.

B. ***A common remedy*** : the nature of the remedy followed immediately from the diagnosis. If disparity resulted from a lack of information on sentencing practices, it would be remedied by building information systems that would describe the general trends in sentencing and, in particular, would specify the sentencing range for all or a selection of offences. This numerical information was set up in different formats (histograms as in File 1 of the SDS, sentencing grids in U.S. jurisdictions, figures showing the distribution of sentences as in the second part of the SDS File 1 or as in the database developed by Professor Doob).

C. ***A shared belief*** : this belief was that judges would be motivated to access the information provided to them and that they would generally put their sentencing practice in line with the trends described by the database. Hence sentencing guidelines of this first generation were descriptive of practice and their application by judges was strictly made on a voluntary basis. Second generation guidelines would later be prescriptive with regard to sentencing practice and presumptive with regard to their application.

D. ***A common absence*** : descriptive guidelines do not attempt to change the substance of sentencing practice by proposing new ranges; they only aim at making it more uniform with regard to the trends which have been described. Since descriptive guidelines do not propose revised tariffs, they are in no need of an explicit sentencing rationale that would justify the proposed changes. Hence another shared feature of these types of guidelines is that they do not rely on a sentencing rationale. Admittedly, one can never be totally neutral in developing a database and some bias in favor of a particular perspective might be inferred from the choice of case factors considered relevant. Nevertheless, this bias is never made explicit by the formulation of a detailed sentencing rationale (e.g. a declaration of the purpose and principles of sentencing). With regard to the SDS, its File 4 - the electronic textbook on sentencing - may have all the elements needed to formulate a sentencing rationale. It is not ***per se*** a consistent sentencing rationale since it aims to be comprehensive and to present all goals and principles of sentencing. In other words numerous sentencing rationales could be derived from File 4 of the SDS, as from any textbook.

It must be said, however, that this attempt to identify the sentencing guideline theory that is germane to the SDS only concerns part of this system - basically, it is only relevant for the files providing numerical information, that is, files 1 and 2. Within this limitation, it appears to us that characterizing these two files as descriptive voluntary guidelines is not inaccurate.

Descriptive voluntary guidelines were implemented in the U.S. during the early eighties. Their impact has been negatively assessed (Galegher and Carroll, 1983; Tonry, 1987 and 1988). Professor Doob's system - the Sentencing Aids Project - also belongs to the category of descriptive guidelines. Doob and Park (1987) started to raise questions about the usefulness of the Sentencing Aids system; in his final report to the Department of Justice, Professor Doob acknowledged that there has been a "slow "closing out" of the project" in all 5 provinces where it was pursued, except in Saskatchewan, where the Chief Justice and a judge from the Court of Appeal wished to keep the project going (pp. 1 and 4). He expressed his disappointment about this turn of events and about the apparent lack of interest on the part of sentencing judges in being guided by information about what other judges are doing.

Dr. Hogarth's project is different from Dr. Doob's in several respects, one of them being that it is not exclusively addressed to judges. Hence it is premature to predict whether it is going to be used by a large number of legal practitioners. However, on the basis of past evaluations of efforts to use information systems as voluntary descriptive guidelines to assist judges, we should be cautious in making projections about its impact on sentencing practices. We shall see in the next chapter if these reservations are supported by our survey of the judges using the SDS.

It is interesting to note in this regard what were the results of national surveys on the reasons for disparity, that were undertaken by the **Canadian Sentencing Commission**. According to a national survey of Canadian judges, 69% of the respondents identified "different personal attitudes and/or approaches of judges to sentencing" as being one of the main reasons for disparity. In contrast, only 18% of the judges surveyed believed that a lack of information about sentencing practices was to be faulted (Canada, Department of Justice, 1988:7). This diagnosis is strongly supported by another survey, in which defense

and Crown attorneys were the respondents. More than 90% of these respondents saw in "different personal attitudes and/or approaches of judges to sentencing" a main reason for sentencing disparity, whereas only 13% of the sample were of the opinion that the lack of information available to judges about sentencing practices played an important part in accounting for the existence of sentencing disparity (Canadian Sentencing Commission, 1986:28-29, unpublished report). According to these findings, the twin assumptions that a lack of information about sentencing practices is the main cause of sentencing disparity and that providing this information to judges in the form of voluntary sentencing guidelines will remedy this problem were seriously misguided.

3.2.2 The comments of Professor Austin Lovegrove

Professor Austin Lovegrove recently published a book on sentencing policy and guidelines, in which he discusses Dr. Hogarth's project at some length. Even if Lovegrove's comments are based on early papers by Dr. Hogarth (a paper presented in 1986 at a conference on the role of courts in society held in Jerusalem and a 1986 unpublished manuscript entitled "Sentencing data base study : Demonstration package"), they are worth a brief mention.

Although Lovegrove (1989:41) recognizes that Dr. Hogarth's project was "very much in the developmental stage" at the time that he undertook his study, he devotes a fair number of pages to discussing its features. Lovegrove(1989: 22) asserts that "the proposals of Hogarth...deserve close attention and should not be forgotten", thus acknowledging the significance of Dr. Hogart's work.

Dr. Hogarth's work is classified by Lovegrove under the same heading as Wilkin's and Doob's, that is, empirically based descriptive guidelines. Lovegrove discusses the SDS as thoroughly as he could, given the limited amount of information on the system that was available to him. Lovegrove's appraisal of descriptive guidelines is generally critical. It follows that his appraisal of the SDS, which is viewed as descriptive guidelines, is also critical. Not all the criticism is justified and we shall only mention two lines of criticism, because they coincide with comments that were made by some of the respondents in our user survey.

The SDS distinguishes between an offence and three offender factors (sex, age, prior indictable convictions). The user selects an offence and specifies the offender factors; he/she then asks for the range of sentences imposed for the selected offence, with the offender factors as specified. Since there are many possible combinations between offences and offender factors, it may well happen that very few cases or even none at all will correspond to a particular selection by the system's user (e.g. there may be no cases where an elderly female was sentenced for forging a passport).

The situation is further compplicated if a user selects an offence from the ***Narcotics Control Act*** or from the ***Food and Drug Act***. In the case of these offences, the SDS offers the option of specifying the type of substance involved in the offence, among 12 possible choices. The number of possible combinations between these offence factors and the offender factors becomes very high and the possibility that no case will correspond to the user's specifications increases significantly. When Lovegrove was writing his book, the SDS was structured differently from the way it is now (there were four offender factors and no option to specify the type of substance in the case of drug offences). But still, he identified the problem correctly when he summarized his criticism by saying :

> **The point is that Hogarth's scheme has a thirst for cases. In a small jurisdiction like Victoria, Australia, where there are not large numbers of cases in the various offense categories, this is its fatal flaw (Lovegrove,1989:43)**

One could not speak of a fatal flaw in B.C.. Nevertheless the fact that there are many combinations to which no cases correspond or too few cases to offer meaningful guidance has proven to be a frustrating problem for the users that we interviewed.

A second line of criticism is that in presenting numerical data on the sentences determined by the judges, the database does not indicate what weight was given to factors selected by the user (either offender or offence factors). It is assumed that the factor played some part, without further specification (Lovegrove, 1989: 44). This criticism was also formulated by some of our respondents.

We shall return to these issues in the next chapter.

3.3 Artificial Intelligence and the Law

Following Loevinger's (1949) pioneering work in jurimetrics, there was a large increase in empirical research on judicial decision-making (e.g., Kort, 1966 and 1968; Lawlor, 1963 and 1968). As legal scholars grew more familiar with such disciplines as computer science and deontic logic, the relationships between artificial intelligence and the law began to be the object of systematic investigation. What Susskind (1989) called first generation expert systems in law were developed. Susskind (1987) and Gardner (1987) review the different features of expert systems in law which are now in use.

Artificial intelligence and the law is now is an extremely vast field of study and there are important international conferences on this subject every year. The **Third International Conference on Logic, Computer Science, Law and Expert Systems** was held in Florence in 1989. Its pre-proceedings are published in two volumes (Martino, 1989). The first of these volumes has 901 pages and the second 956. This example is one indication of the magnitude of the field.

According to Morrison (1989: 33), who presented a paper at **The Second International Conference on Artificial Intelligence and Law** (1989) in Vancouver, there are four categories of rule-based software, namely, document assembly, expert system, personal information managers (PIM) and hypertext. Document assembly and PIM are not relevant for an assessment of the SDS. To a certain extent, expert system is pertinent, since it was at some time envisaged to make the SDS into an expert system; hypertext is even more relevant, because the LIST Foundation presents the SDS as having hypertext features. We shall briefly discuss expert systems and hypertexts.

3.3.1 Expert Systems

As previously mentioned, there were early plans to transform the SDS into an expert system (AIL:). This transformation was to depend on a quantitative analysis of the research patterns of the SDS' users. Since this analysis was never carried out, the SDS never evolved into an expert system. For the sake of comprehensiveness, it might be interesting to state briefly why the SDS is not an expert system.

There are many definitions of an expert system in law. We shall quote the definition presented by Morrison (1989:33) at the Vancouver conference on artificial intelligence and law.

> **EXPERT SYSTEMS. An expert system shell has a knowledge base, an inference engine and interfaces for obtaining specific information. For example, an expert system that determines whether Subchapter S ' treatment is appropriate has in it rules that allow it to change aspects of the conclusion depending on the number of stockholders. An expert system, compared to a document assembling program, has an inference engine, justification, the ability to deal with uncertainty but less ability to manipulate text. (Morrison, 1989:33)**

As the example used indicates, this definition refers to what Susskind and Capper (1989:601) called a first generation expert system in law. One of the characteristics of such systems is that they are designed only to solve one particular class of problems. According to Susskind and Capper, second generation expert systems exist only at the experimental level : in addition to being rule-based, they will include non-rule standards, such as principles, policy and purpose; these non-rule standards will define more precisely the significance of the conclusion reached by using the rule-based reasoning process of the expert system (the conclusions reached by the expert system are being seen as conditional on such things as principles,policy and purposes). Second generation expert systems will be able to achieve all that first generation systems are doing at present and more. Hence, as a necessary component, they will integrate a rule-base expert system of the first generation.

It is quite easy to see why the SDS cannot be said to be an expert system: it is not rule-based and lacks what Morrison calls an "inference engine". In other words, the SDS provides information, but it does not provide a reasoned answer to a specific sentencing problem. Furthermore, the SDS does not deal with a clearly defined class of problems, as do first generation expert systems. At least in theory, it purports to be a comprehensive database and to cover the whole field of sentencing. It cannot qualify as a second generation expert system, since these are much more sophisticated than first

generation systems, which are nevertheless a necessary component of second generation expert systems.

3.3.2 Hypertexts

The term "hypertext" was coined by T.H. Nelson, who defined it in the following way:

> **a combination of natural language text with the computer's capacity for interactive branching, or dynamic display... of a nonlinear text... which cannot be printed conveniently on a conventional page. (Nelson, 1967)**

Conklin (1987) gives a fairly comprehensive presentation of the origin and developments of hypertexts systems. Agosti, Gradenigo and Mattiello (1989) give a state of the art discussion of the use of hypertexts in law. Hypertext is also defined by Morrison (1989). We shall use these and other sources.

The key word in Nelson's definition is "nonlinear text" : a hypertext is a "database method" (Conklin, 1987:33) that allows you to go from one place in a "hyperdocument" to another, without having to read sequentially the whole document. Furthermore, the "links" between the different "nodes" in the hyperdocument are established on a conceptual basis. The main idea is simple enough and is well expressed by Conklin (1987: 33):

> **Traditional flat texts bind us to writing and reading paragraphs in a mostly linear succession. There are tricks for signalling branching in the flow of thought when necessary : parenthetical comments, footnotes, intersectional references (such as "see Chapter 4"), bibliographic references, and sidebars; all these allow the author to say "here is a related thought, in case you are interested." There are also many rhetorical devices for indicating that ideas belong together as a set but are presented in linear sequence. But these are rough tools at best, and do not provide the degree of precision or the speed and convenience of access that we would like.(Conklin, 1987: 33)**

Having thus presented the basic idea, Conklin presents the two main features of hypertext, that is, the capacity to establish computer supported links between the nodes of the hypertext, which express a single concept or idea.

> **...some applications demonstrate that the "node-ness" of hypertext is also very powerful. Particularly when the hypertext is used as a thinking, writing, or design tool, a natural correspondence can emerge between the objects in the world and the nodes in the hypertext database. By taking advantage of this object-oriented aspect, a hypertext user can build flexible networks which model his problem (solution). In this application the links are less important that the nodes. The links form the "glue" that holds the nodes together but the emphasis is on the content of the nodes....Hypertext is a database method providing a novel way of directly accessing data ".(Conklin, 1987 :33, emphasis in text)**

In the November 1989 Sentencing Database System User's Guide for Provincial Judges that was submitted as Appendix C of the RFR to the Department of Justice, it is written that :

> **As we mentioned previously, File 4 contains a hypertext feature which allows you to rapidly move throughout the text. The "(See also:...)" references allow you quickly (to) move to other parts of the textbook which contain information relevant to the current topic being searched. (RFR, Appendix C, p. 33).**

This "see also" feature corresponds to what is described by Conklin in the first quotation given above as "tricks for signalling branching in the flow of thoughts" in traditional flattexts. These devices are also characterized by Conklin as "rough tools at best". Actually, the "see also" prompts in File 4 of the SDS do not go beyond what is found in ordinary linear textbooks. They do have a relationship to a basic idea that underlies hypertext, in a way that a canoe can be said to be related to a hydroplane. Both can float. However, only the latter can also fly.

In order to make this point in the quickest way, we present Table 1 (abstracted from Conklin, 1987), Figure I (abstracted from Agosti et al., 1989), and Figure 2 and 3 (abstracted from Conklin, 1987).

A. Table 1 presents the main findings of a survey of 18 hypertexts undertaken by Conklin (1987). This survey shows how elaborate the hypertext technology has become : the 18 hypertext systems are compared on the basis of their possession of 12 different features. Furthermore, all these features are described on the basis of their relationship with "nodes" and "links".

B. The idea of a link is intuitively clear enough. The idea of a node , however, requires some explanation. We have previously said that a node expressed a concept that could be linked to another concept in a hypertext system, according to a theoretical or semantic ratio. Agosti et al. (1989) distinguish between two kinds of nodes, that is, text nodes, which are able to hold a fragment of text in the hypertext database, and topic nodes that can contain the semantic description of a concept in the hyperconcept database. In order to build the links and nodes of the system, several semantic relationships are used, namely, scope, equivalence, hierarchical and associative relationships. Of particular importance are the hierarchical relationships, which form the first features of the hypertext systems described in Table 1. Figure 1 represents in graphic form the two components of a hypertext system - hypertext database and hyperconconcept database. It is important to note that the same document or part of a document can belong to different document clusters.

C. Finally, one the most interesting feature of hypertext is a graphical browser. As Figure 2 shows, the browser displays on the computer screen different parts of the hypertext network, thus allowing the user to plot his/her way into the system and explore relations between the topic nodes in an innovative way. Figure 3 also depicts a hypertext network through which the user may browse. Although some of the earlier hypertext

TABLE 1 : Hypertext systems and their features
Source: Conklin (1987 : 21)

Hypertext systems and their features.

Hypertext Systems	Hierarchy	Graph-based	Link Types	Attri-butes	Paths	Ver-sions	Proced-ural Attach-ment	Keyword or String Search	Text Editor	Con-current Multi-users	Pictures or Graphics	Graphical Browser
Boxer	Yes	Yes	Fixed[1]	No[1]	No	No	Yes	Yes	Emacs	No	Yes	Yes
CREF	Yes	Yes	Yes	No	No	By link	No	Yes	Zmacs	No	Yes	No
Emacs INFO	Yes	No	No	No	No	No	No	Yes	Emacs	No	No	No
IBIS	Yes	Yes	Yes	No	No	By link	No	No	A basic text editor	Yes	No	No
Intermedia	Yes	Yes	Yes	Yes	No[2]	No	No[2]	Yes	Custom	Yes	Yes	Yes
IOMS	Multiple	Yes	Fixed	No	No[1]	Yes	Yes	Yes	Text/ graph. WYSIWYG	Yes	Yes	No
Neptune	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Smalltalk-80 editor	Yes	Yes	Yes
NLS/Augment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Custom	Yes	Yes	No
NoteCards	Multiple	Yes	Yes	Nodes	No	No	Yes	Yes	Interlisp	Yes	Yes	Yes
Outline Processors	Yes	No	No	No	No	No	No	Yes	Various	No	No	No
PaneText	Unix file sys	Yes	No	No	No	No	No	Unix/ grep	SunView text ed.	Yes	Yes	Yes
Symbolics Documen. Examiner	Yes	Yes	No	No	Yes	No	No	Yes	None	No	No	No
SUPERVIEW	Yes	No	No	No	No	No	No	No	line ed./ Unix	No	No	No
Textnet	Multiple	Yes	Yes	Yes	Yes	No	No	Keyword	Any	No	No	No
Hyperties	No	Yes	No	No	No	No	No	No[2]	A basic text editor	No	Yes	No
WE	Yes	Yes	No	Fixed	No[2]	No[2]	No[2]	No	Smalltalk-80 editor	No[2]	Yes	Yes
Xanadu	No	Yes	Yes	Yes	Yes	Yes	No	No	Any	No	Yes	No
ZOG	Yes	No	No	No	No	No	Yes	Full text	Spec. Pur.	Yes	No	No

[1] Can be user programmed.
[2] Planned for next version.

In this table, each column represents one possible feature or ability that a hypertext system can provide. The negative or affirmative entries in the table indicate whether the corresponding hypertext system meets the standard criteria for a specified feature. These criteria are listed below.

Hierarchy: Is there specific support for hierarchical structures?
Graph-based: Does the system support nonhierarchical (cross-reference) links?
Link types: Can links have types?
Attributes: Can user-designated attribute/value pairs be associated with nodes or links?
Paths: Can many links be strung together into a single persistent object?
Versions: Can nodes or links have more than a single version?
Procedural attachment: Can arbitrary executable procedures be attached to events (such as mousing) at nodes or links?
String search: Can the hyperdocument be searched for strings (including keywords)?
Text editor: What editor is used to create and modify the contents of nodes?
Concurrent multiusers: Can several users edit the hyperdocument at the same time?
Pictures or graphics: Is some form of pictorial or graphical information supported in addition to text?
Graphics browser: Is there a browser which graphically presents the nodes and links in the hyperdocument?

FIGURE 1 : Relationships between the Hyperconcept Database and the Hypertext Database

Source : Agosti, Gradenigo, Mattiello (1989: 19)

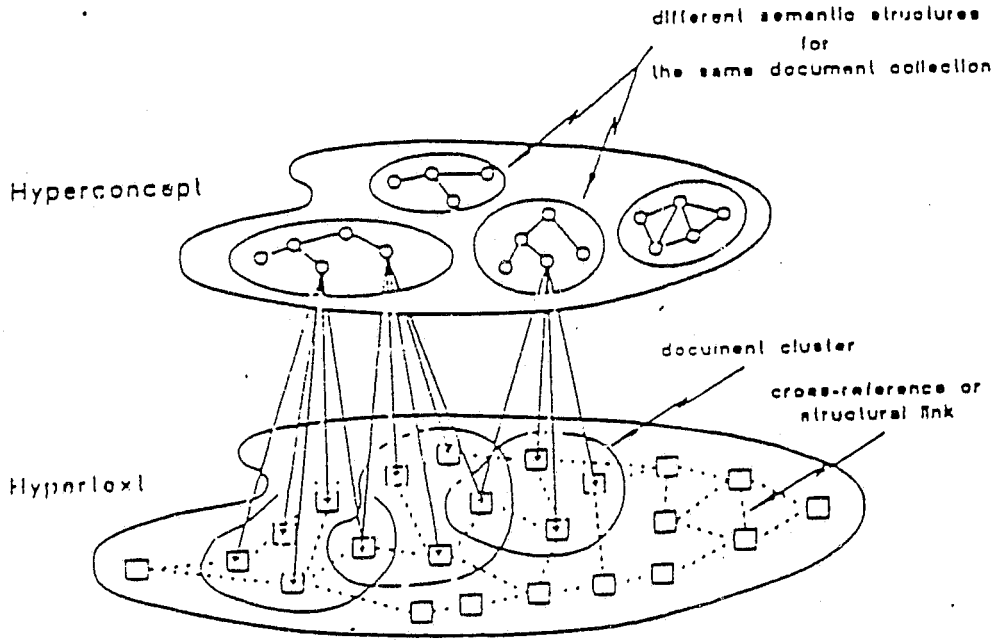
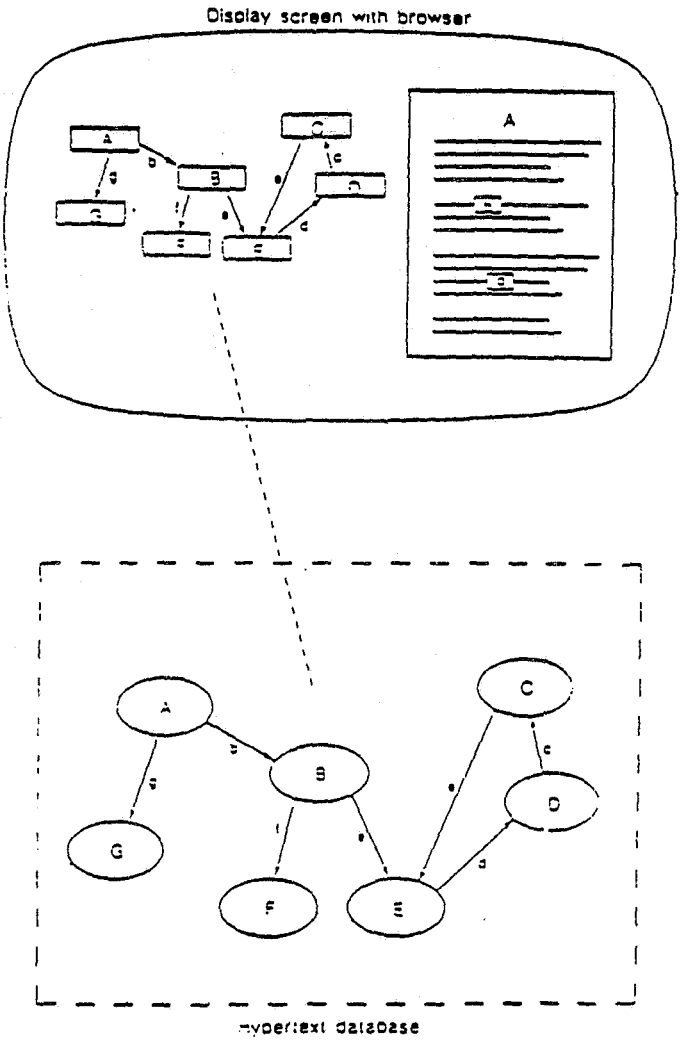


FIGURE 2 : Display screen with Browser

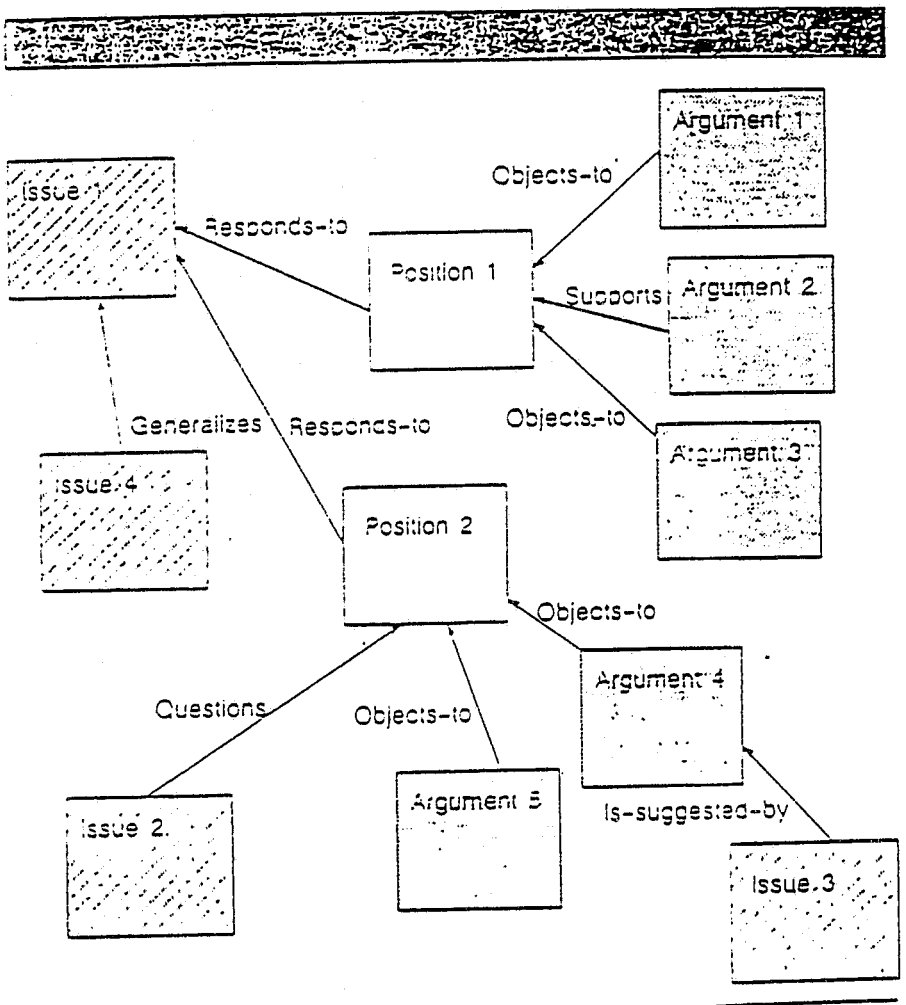
Source : Conklin (1987 :19)



The screen at the top illustrates how a hypertext browser provides a direct two-dimensional graphic view of the underlying database. In this illustration, the node "A" has been selected for full display of its contents. Notice that in the browser view you can tell not only which nodes are linked to A but also how the subnetwork fits into the larger hyperdocument. (Of course, hyperdocuments of any size cannot be shown all at once in a browser—only portions can be displayed.)

FIGURE 3 : the topology of an Ibis-type hypertext network

Source : Conklin (1987: 25)



A segment of a possible IBIS-style discussion showing the topology of the IBIS network. Each node contains information on the type of the node, the time and date of creation, the author, a short phrase describing the content, a longer body of text with the text of the comment, a list of keywords, and a list of the incoming and outgoing links.

systems did not feature a graphic browser (e.g. the IBIS - type hypertext system did not have a graphic browser in 1987), this feature is now a general trait of the most recent hypertexts.

Needless to say, although the "see also" prompts of File 4 of the SDS are ways to link together some parts of File 4 to other parts, they can be said to be a hypertext feature only in the most general sense of the word. In any case, the structure of the SDS itself does approximate the complexity and sophistication found in hypertext systems. Hence, it would be incorrect to refer to the SDS as a hypertext system and the LIST Foundation is justified in not making this claim, as such.

3.4 Summary and Conclusions

As we said at the beginning, the purpose of this review of the literature was not to produce a comprehensive summary of an overwhelming body of writings, but to use the current literature to raise relevant issues with regard to an assessment of the SDS. We came to the following conclusions.

A. ***Sentencing disparity***. Our review of parts of the literature on sentencing disparity allowed us to compare the definition of disparity that underlies the conception of the SDS.

- Dr. Hogarth defines disparity as sentences that cannot be justified by any valid legal principle recognized by the courts. Although legitimate, this definition is in contrast with the prevailing literature in at least one important respect. In the literature on sentencing, sentencing disparity is strongly associated with inconsistency in sentencing. Dr. Hogarth's definition of disparity results in divorcing this notion from sentencing inconsistency. Sentences imposed in similar cases and which are completely inconsistent with one another are not disparate, if they are grounded in valid legal principles. Since sentencing rationales may widely differ, judges using different sentencing rationales may impose in similar cases sentences that are widely inconsistent but which cannot be said to be disparate, because they are legally justified, although on the grounds of diverging principles. This emphasis on the possibility of using sentencing principles to dissolve what finally appears as "surface disparity" explains why File 4 of the SDS is at times described as forming the core of the project.

B. ***Sentencing guidelines.*** We identified the Albany School tradition of descriptive voluntary guidelines as the one that appeared to be the closest to the SDS, if it were to be used as sentencing guidelines to remedy sentencing disparity (understood in its current sense of not treating like cases alike). We also referred to an evaluative study of the impact of this type of guidelines , which found that it had almost no impact on sentencing practices. This result is not incompatible with Dr. Hogarth's latest position in the RFR. Dr. Hogarth is doubtful that the potential impact of the SDS on sentencing practices can be empirically evaluated.

We also briefly discussed Austin Lovegrove's review of the SDS and, while reserving our own judgment, we notice that Lovegrove's statement that databases such as the SDS were "hungry for cases" appeared to address a concern expressed by the users of the system. We shall return to this topic.

C. ***Artificial Intelligence in the law.*** After reviewing the relevant parts of the literature on this subject, we come to the following conclusions :

- the SDS is not an expert system, according to the definition of the word in the artificial intelligence literature.

- although it allows for a certain degree of cross-reference through its "see also.." prompts in File 4, the SDS cannot be said to be a hypertext and its cross-reference feature is closer to what is found in standard flattext textbooks than to hypertext systems, which enjoy a level of sophistication that is foreign to the SDS.

- although we agree that the SDS can be described in the vernacular as an "intelligently structured database", this feature is not sufficient to warrant the assertion of any close link between artificial intelligence, as the word in used is computer science, and the SDS.

We shall return to most of these issues in the remaining chapters of this report.

CHAPTER 4

A USER SURVEY OF THE SDS

The order in which we would write the next two chapters presented a problem. The assessment that we made of the SDS is determined to a significant extent by our survey of its users and integrates most of their comments. Hence, if we present our assessment in this chapter and the results of the user survey in the next chapter, we will be forced to constantly anticipate the results of the user survey. Furthermore the chapter on the user survey will seem somewhat repetitious. On the other hand, if we present the results of the user survey in this chapter, the reader who is unfamiliar with the SDS may find it difficult to understand the user's comments, because they refer in some detail to different components of the database.

We have decided to resolve the issue by presenting the results of the user survey in this chapter. However, to enable the reader to better understand the users' comments, we will quote in full Dr. Hogarth's own description of the SDS in his revised final report (RFR) to the Department of Justice. The RFR contains a brief description of the content of each file of the system and it should be sufficient to allow the reader to follow our discussion of the users' comments and appraisal. In chapter 5, we will present our final description of the system's files and will include in this description the assessment of the users and our own evaluation.

4.1 A Brief Description of the SDS

As we have just said, this description is presented to facilitate the reader's understanding of our findings in the user survey. We shall quote Dr. Hogarth's own description in the RFR of February 1990.

FILE 1

File 1 contains approximately 70,000 dispositions collected from Provincial,County and Supreme Court Registries throughout the Province of British Columbia since Junuary 1984. It is updated semi-annually. It provides statistical information in the range of trial sentences for particular offenses and offenders and allows the user display information in the form of either graphs or tables of dispositions, or one-line summaries of individual cases. It incorporates 129 offenses, from the following statutes :

1. **The criminal Code of Canada (revised with new section numbers as of January 1989)**

2. The Narcotics Control Act 1989
3. The Food and Drug Act
4. The Custom Act
5. The Unemployment Insurance Act
6. The Income Tax Act.

The user is able to specify the search criteria in terms of the offence, the age and sex of the offender and the existence or otherwise of an indictable criminal record. File 1 data is collected from the following Court Registries:

Victoria,Namaimo, Vancouver Provincial, Vancouver Supreme and County, North Vancouver, Richmond, Burnaby, Matsqui, Cloverdale, Chilliwack, Kamloops, Kelowna, Castlegar, Trail, Prince George and Terrace. These seventeen locations handle over ninety percent of all criminal sentencing in the Province of British Columbia. The data is collected by law students who use portable personal computers to enter data from court registries, using a template with fixed fields. A second student reviews the work and verifies the entries. The data is then uploaded from PC's to the mainframe computer and put into a test SDS format. At that stage, the computer program does "reasonable checks" to determine whether there are any obvious typographical or other errors. A final verification is made by the Legal Associate and/or the Project Director, who visually reviews all new data. Finally, that data is migrated from test SDS to the production system.

FILE 2

File two contains concise summaries of over 1600 British Columbia Court of Appeal sentencing decisions since January 1977. It contains all reported and unreported decisions of the B.C. Court of Appeal since that date. It is updated weekly. This data is displayed in a similar way to data in File 1. The user is able to examine a range particular offenses and offenders possessing particular characteristics, and may look at individual dispositions with particular ranges. We now have full text support for all summaries contained within this file, but this feature has not yet been incorporated into the production system. All judgements of the Court of Appeal are received in Word Perfect, greatly reducing the cost of routine data maintenance.

The procedure of data entry and verification is as follows: first, a student collects all new judgments emanating from the Court of Appeal. That student indexes the cases and prepares a first draft summary. The summary is reviewed by the Legal Associate and edited. All new cases are uploaded into test SDS on a weekly basis. A final verification is made by the Project Director and the text is migrated to the production system. There are over 8,000 cases in this file.

FILE 3

This file contains cases in full text where aggravating or mitigating factors had a significant impact on the sentences imposed. The aggravating and mitigating factors included in this file were recognized by the British Columbia Court of Appeal in cases brought before the court since January 1982. The information in this database is updated monthly.

The data entry and verification process with respect to this file is as follows : the student selects all cases in which aggravating or mitigating factors were mentioned by a judge. The aggravating and mitigating factors are then highlighted and software is employed to place the highlighted portion of the judgment at the front of the judgment. A second student reviews the work of the first and a final verification by the Legal Associate takes place. The data is then uploaded onto the main frame (test SDS) and receives a final check by the Project Director. After final verification, it is migrated to the production system.

FILE 4

This file is an electronic textbook on the law of sentencing. It contains over 1200 propositions on sentencing law, each supported by references to leading cases and authorities from across Canada. These cases are available in full text. A hypertext feature lets the user move rapidly throughout the textbook.

The original text is written by the Project Director. Monthly updates are prepared as follows: A student reads all new Supreme Court Reports, Canadian Criminal Cases and Criminal Reports. He or she selects all cases from across Canada. bearing on any of the categories in the textbook. A draft proposition is prepared. It is reviewed and edited by the Legal Associate. The material is then submitted to the Project Director for final review. Once approved, the student enters the data and prepares it for up-loading to the main frame. New propositions and new cases are then uploaded into test SDS. A final verification takes place and the data is moved to the production system.

FILE 5

File 5 contains a directory of British Columbia Correctional Institutions and Offender Counselling programs, organized on a regional basis. It is updated annually. The original directory was prepared with the assistance of more than twenty agencies involved in the corrections field in the province. They were asked, following a pre-set format, to provide basic information with respect to each resource under their eagis. When this information is returned to project headquarters, a student checks for format and typographical errors and enters the data. The second student proofreads the document prior to uploading to test SDS. The final check takes place at the test SDS test stage and the file is moved to the production system.

Updates take place annually. Each agency is given the most recent version of their resource description and asked to amend it as appropriate. Probation officers in each region are asked to add any new resources or programs available in their rtegion to their knowledge.

4.2 Methodology

Before presenting the results of our user survey, we shall say a few words about the methodology that was used.

4.2.1 Interviews

All the participants in this survey were personally interviewed by us, whenever they were willing to be interviewed.The interviews were conducted on the basis of a questionnaire asking 38 questions (broken down in sub-questions). This questionnaire was adapted to the different kinds of respondents, namely judges, defence and Crown counsels, as well as a support personnel such as judges' clerks. We first proceeded to conduct a number of semi-structured interviews and then we constructed our questionnaires (a copy of the questionnaires is included in Appendix B). For reasons discussed below, a certain amount of values are missing in our results, our respondents being unable to give a specific answer to some of the questions and/or giving a general answer that would apply to several questions addressing different aspects of the same topic. Hence, in general, we will not present our findings in the form of numerical tables, which would appear artificial with regard to the data that we were able to collect. We have classified the information we collected into four categories; we will state what the main results are with regard to each category and will analyze these results. These four categories are :

Individual information on the respondents, their previous involvement with the SDS and their knowledge of the system (question 1-16 of the questionnaire)

Frequency of use of the SDS (questions 6,17,21,25,26,27,34 and 35).

Patterns of research and the use of the different files (questions 19,20,22,23,24 and 29).

User comments and appraisal (questions 18,28, 30,31,32,33,36,37 and 38)

4.2.2 Sampling

It is important to stress that our sample was not chosen randomly. Basically, we tried to interview all persons that had used the SDS sufficiently to be able to give us feed-back on the system. In order to identify these persons we relied on names, provided by Dr. Hogarth, that were on the list of all the members of a pilot test group (the Beta test group, mostly composed of lawyers) and on the results of monitoring the use of the system

(monitoring was very irregular). Hence, for example, using a print-out on the use of the SDS (total usage for the month of January 1990), we interviewed all judges that had used the system for more than 40 minutes (6 out of a total 21 judges of the Provincial court). Based upon these sources, our assistant would make the initial contact and we interviewed all those who were willing to be interviewed - the only reason why a person refused to be interviewed was a lack of familiarity with the system.

In trying to build a sample of users, we met with serious obstacles:

- we could not interview users who had access to SDS through CBAnet, because their identity was confidential (there was actually only one person that would have really been interesting to interview : CBANET 17, who performed 59 searches in January and was on line for 440.9 minutes (this user identity code could have been used by several persons). Most other users did not use the system for more than 30 minutes, during the month of January, for which we have reliable data.

- the users most familiar with the system belonged to support personnel : law clerks and, particularly, librarians . We found out that persons that appeared to use the SDS significantly, according to the monitoring system, were using it through someone else (a secretary, a law clerk, a legal officer for judges etc.)

- finally, 12 persons that we contacted, and who appeared to have used the system significantly, declined to be interviewed, claiming that they merely had tried to familiarize themselves with the system and were not planning to use it anymore.

These obstacles did not prevent us from interviewing 42 informants, out the 54 that were initially contacted to request an interview. It was resolved in the case of two interviews that the information collected was based on insufficient knowledge of the system and that it would not be used in the final analysis; both respondents agreed to this proposal by the researcher. This brings down the number of interviews to 40.

Although they declined to be interviewed, 7 persons did provide us with one piece of relevant information : although they were selected as members of a pilot test group, they did not use the system enough to become familiar with it and provide us with comments.

We shall now present the information collected through interviews with the users of the system, in the following order : interviews with judges, defence lawyers, Crown Attorneys, support personnel (law clerks and librarians), all users (common trends). This analysis will be followed by a brief comparison between the use of the SDS as it is revealed by monitoring the system.

4.3 Interviews with Judges

Before presenting the results of the judges' survey, there is one fact that must be discussed, however briefly, because its importance is overwhelming. According to our calculations, there are 68,748 cases in File 1 of the SDS (trial court decisions). **Three offences account for nearly half of these cases :**

Theft under 1,000 (s. 334 (b), C.C.C.) :16,671 cases

Impaired driving (s. 253(a) and (b), C.C.C.) : 8,632 cases

Possession of Narcotic (s. 3, N.C.A.) : 8,769 cases

Sum total: 34,072

It is difficult to overstate the significance of this fact : sentencing at the trial court level is a very high volume practice. It is high volume in terms of number, which implies that very little time is allotted to the sentencing hearing (between 5 and 15 minutes in the vast majority of cases) ; it is also high volume in terms of the kinds of offences for which a sentence is imposed, a great number of offenders being sentenced for a limited number of offences, which hold no mystery for judges, Crown and defence lawyers. These features of sentencing imply that judges or counsels will not resort to a sentencing database in the current dispatch of their cases, either because they have no time to do it or because they believe they are familiar enough with the cases to dispense with consulting a database. This general context of sentencing not only affects judges, but all those who are practicing law at the sentencing level. The reader should have this context in mind in order to put the user survey in the proper perspective.

4.3.1 Judges : Individual Characteristics, Previous Involvement with the SDS, Knowledge of the System

We interviewed 11 judges. Eight judges belonged to the Provincial court (Dawson Creek, Duncan, Nanaimo, Richmond, Surrey, Vancouver and William's Lake); one judge belonged to the B.C. Court of Appeal, one to the Supreme Court and one to the County Court. All these judges had been practicing law for more than 20 years and , on average, had 13 years of experience on the bench. No judge, except one, had practiced criminal law exclusively as a lawyer. The Provincial court judges devoted on average 30% of their professional time to sentencing, whereas the three others devoted less than 10 %. Generally speaking, 6 judges said that they believed they were using the system more than the other judges, while the remaining 5 judges could not answer this question; all judges interviewed believed that use of the system by their colleagues was infrequent.

Previous involvement of this group with the SDS can be briefly summarized : three judges were at one time part of the project's steering committee and only one was a member of the beta pilot test group.

The judges' computer literacy and knowledge of the system varied significantly and was related to their knowledge of the system. Five judges had been using a personal computer before being hooked to the SDS; the same judges used other databases , such as Quicklaw, and they were the judges who were the most familiar with the system. All of these judges were trial court judges. The higher court judges did not use the system themselves and were not familiar with all of its files. When he was interviewed, there is one trial court judge who had stopped using the system, because he was not satisfied with it.

All judges that used the system themselves received training from the SDS staff; this training was limited in time - less than one hour - but adequate, since the system is very user friendly. Except in two locations (at the time of the interview), all respondents used a terminal connected to the main frame (in the two afore-mentioned locations, there was a "stand alone" computer, that was not regularly updated). Excepting the three judges

who were members of the project's steering committee, no judge was familiar with how the system was developed.

Two other persons were also interviewed regarding the use of the system by judges. Hence, 13 respondents in all were interviewed on the use of the SDS by judges. One of these persons is the secretary of the Admistrative Judge, in a court located on the island of Vancouver; the other one is the Legal Officer of the Chief Judge of the B.C. Provincial Court, who gives advice to trial judges and also searches the SDS for the judges. This respondent has been practicing law for 12 years, is computer literate and has a good knowledge of the system. She was not involved with the development of the SDS and was not a member of any test group. She was interviewed and we shall consider her answers as though they were those of a judge (our sample therefore is increased by one and numbers 12 persons). The Administrative Judge's secretary could give us information on the frequency of use in this location. Her answers will be summarized in the section dealing with the frequency of use.

Without anticipating results, which will be discussed more thoroughly, there is one conclusion that we can already draw. **The judges that tend to use the system more frequently and who are the most familiar with it are located outside Vancouver.** This is not only true of our own limited sample (the 6 judges who are most familiar with the system are trial court judges sitting outside Vancouver) but it also follows from the SDS monitoring system. According to this system there is only one judge from Vancouver (out of 21 B.C. judges listed in the January computer print-out) who uses the SDS with any degree of frequency.

4.3.2 Frequency of Use

In the previous section, we saw that 6 judges - plus the Legal Officer -believed that they were using the system more than their colleagues. These 7 respondents did not believe that the system was used frequently by their colleagues. We will now try to be more specific on the use of the system by the members of our sample.

Six judges said that they used the SDS occasionally, 4 were using it infrequently and 2 were almost never using it. With regard to the number of sentencing cases on which

they had to decide, 10 judges said that they consulted the SDS in few cases and two said that they consulted it in almost no cases. In terms of periods of time, the judges' answers were the following: 4 used the system once a week, 3 used it once a month and 2 did not use it (one judge used the system very irregularly, another one used it less than once a month and a last one used it only through his clerk - although this judge received the information from his clerk, he seldom used it). Finally, judges researched one case at a time, spending on average 15-30 minutes on each case.

It is interesting to compare some of our respondents' answers with the actual time that they spent with the SDS. The monitoring system of the SDS provides us with the precise amount of time spent by 5 of our respondents in searching the database during the month of January 1990 (our interviews took place in February 1990). We shall compare these figures with the answers given in our questionnaires :

TABLE 1 : Time Monitoring and Questionnaires

Monitoring time	General Frequency Assessment	Cases	Periodicity
Judge 1 : 46 min.	Occasional	Few	Once a month
Judge 2 :323 min.	Occasional	Few	Irregular
Judge 3 :108 min.	Occasional	Few	Once a week
Judge 4 :129 min.	Occasional	Few	Once a week
Judge 5 : 83 min.	Not frequent	Few	Once a month

Although he spent 323 min. on line with the SDS, Judge 2 answers that he uses it occasionally : he explained to us that at first he spent several hours getting an overview of the system and that afterward he used it only occasionally (irregularly). Except for the fact that Judge 1 uses the term "occasionally" in a different sense than the other judges, this comparison between the results of the monitoring system and the answers given during the interviews shows that they are not inconsistent.

Other aspects of frequency were also explored. Four of the 6 judges that used the system more frequently said that they also used the printing facility almost every time they used the system (the 2 other judges would also have used it, but it was not working properly). It is interesting to note that several judges used the system for purposes other than sentencing : 5 judges mentioned that they used it for educational purposes (e.g. becoming more knowledgeable about sentencing, preparing for a lecture). Three judges said that they had referred to the system in open court but none said they applied pressure on counsels to use it.

Finally, we will briefly summarize the information provided by the secretary of the administrative judge in a court location on the Island of Vancouver. This informant was interviewed in February 1990. In spite of technical difficulties - the printer was not connected, it was difficult to get access to the system - she said that judges were using it occasionally and that there was a growing interest in the system. She mentioned that the Administrative Judge showed considerable interest in the system. She may be right, although the monitoring of the system's users does not really confirm what she told us. During the month on January 1990, the Administrative Judge used the SDS for approximately one half hour (32.1 minutes) and no other judge from this location has used it for at least 30 minutes. This may change as the technical difficulties are finally resolved.

4.3.3 Use of the Different SDS Files and Patterns of Research

Our respondents were unanimous in saying that not all files were used with the same frequency. When asked to rank the files with regard to the frequency of their use or with regard to their potential usefulness, our respondents were also in agreement : File 2 and File 1 - in that order - were said to be the most frequently used and the most useful (File 2 was only marginally ahead in the ranking). File 3 was a distant third. File 4 and file 5 were almost never used . However, all judges agreed that File 4 and File 5 were potentially useful, although there was little occasion to use them.

The judge who was most critical of the SDS praised File 4. Files 4 and 5 are perceived to be different from the other files. In particular, File 4 is considered more theoretical and speculative.

There was also broad agreement on the fact that the SDS was only consulted for particular types of cases. Except for two respondents who were not using the system anymore, all other stated that they used the system for cases that were either unusual or serious. No one would consider using the SDS for cases relating to impaired driving, or other high volume offences.

Although the majority of our respondents were of the opinion that no other factors should be added to the present ones (age, sex, prior indictable offences) and that none of these factors should be dropped, they generally left these factors unspecified. Only one of the 6 most frequent users of the SDS specified factors on a regular basis. The reason for leaving factors unspecified was to get a broader range of cases. One respondent suggested to drop all factors , except prior indictable offences.

Finally, only one judge indicated that he followed a definite search pattern: he searched Files 1, 2 and 3 , in that order. All other respondents indicated that they conducted their searches on the basis of expediency (e.g., finding the position of the B.C. court of Appeal with regard to a particular type of offence).

4.3.4 Assessments

This section is more complex to write because many of the questions asking for an appraisal were open-ended questions. There were numerous individual comments and many of these comments are disparate. However, if we add these comments from judges to those that were made by other respondents, such as lawyers, we can identify a certain number of trends and common concerns. At the end of this chapter, we will try to draw a complete picture. For the time being, we will focus on a number of issues that were generally addressed by the judges that we interviewed.

A. **The issue of disparity**. Only two of our respondents considered the SDS be mainly a useful tool against sentencing disparity. It would seem that judges are using the SDS for information purposes more than anything else (e.g., getting the range of custodial sentences, getting a quick start on a search etc.). The great majority of the judges we interviewed did not consider sentencing disparity to be a significant problem in B.C.. Their

main concern was to preserve the individualization of sentencing and they agreed on the fact that most sentencing variation was warranted.

There is another interesting point which emerged from our interviews. At least half the judges that we interviewed considered that it really was incumbent upon the defence and Crown counsels to provide them with all the information relevant to a case in hand. A frequent comment was that there was a risk that the SDS might be an improper substitute for advocacy - competing submissions made in open court by the defence and the prosecution - and that a judge searching a database "was doing the job of the lawyers".

B. ***The issue of completeness***. One important feature attributed to the SDS by the LIST Foundation is that by itself it should provide all the information required by a judge (or a lawyer) to make his/her decision. Two judges among our respondents admitted that the SDS may eventually become an exhaustive source of information. All other respondents believed that no single database could claim to be complete. Their position was not a criticism of the SDS but of the idea that it was possible to rely on only one database.

C. ***The issue of support***. With the exception of one respondent, every person that we interviewed supported the SDS. Even if they were using the SDS infrequently and agreed that this was also the case with their colleagues, they believed that with time use by sentencing judges would increase.

D. ***Weaknesses***. There was only one weakness that was mentioned by at least 6 respondents : they believed that logging into the system was too slow and that too often it did not succeed. Other weaknesses were that there was not enough information on unusual offences and that further sub-categorization of offences would be desirable (mentioned three times).It was also said that the system did not give the actual weight given by judges to the factors (e.g., the prior criminal record) in their deliberation (mentioned twice). The issue of using the SDS to draw profiles on individual judges appeared still alive, but not a major concern (mentioned twice).

E. ***Strengths***. There was general agreement that the capacity to print graphs, summaries of cases and full texts was very useful. The capacity to print full texts instead of

summaries in searching File 2 will be a welcome enhancement, since its desirability was mentioned by several judges. The graphs of dispositions in File 1 were praised by three respondents; other respondents suggested that File 2 information on custodial sentences and that File 1 information of the amount of fines be given a graph format. Many comments referred indirectly to the system's capacity to provide a quick overview of a large volume of information.

Interestingly enough, there was no agreement on whether the SDS saved time or money. Half of our respondents could not address this issue; the other half was clearly split in its answers on this question. These answers must be interpreted in light of the remarks that we have made on the particular context of sentencing, where there is almost no time to make a detailed submission in court.

4.4 Interviews with Defense Counsels

We will begin by reminding the reader of what we have said at the beginning of the previous section concerning the fact that defense lawyers were allowed little time at the sentencing hearing. Actually, several of our respondents complained that in all but a few cases they never got to citing jurisprudence. Presenting the facts of the case and a brief argument on behalf of their client was basically all they had time to do. It is in this context that their comments have to be understood. Generally speaking, defense counsels knew the SDS better than judges and were more critical of it.

4.4.1 Defense Counsels : Individual Characteristics, Previous Involvement with the SDS and Knowledge of the System

Our sample of defense counsels numbers 15 persons. Fourteen of these are actually defense counsels; one lawyer is a member of a consulting firm that was involved with the SDS and knows the system well, although he does not use it to practice criminal law. The name of all these respondents appeared on a list of persons to be interviewed that was submitted to us by the LIST Foundation.

Among the lawyers of this group who practiced criminal law (14) , 2 were in private practice and did not perform any Legal Aid work, whereas one respondent did only Legal

Aid work. Seven respondents had their own clients and also accepted cases from Legal Aid. Two counsels were involved both in defense and prosecution and, finally, two other respondents had their own clients, accepted cases from Legal Aid and were also involved with prosecution. Legal Aid work accounts for at least half of the criminal law practice of our respondents.

Only two of our respondents devoted all their practice to the criminal law, most of them also practicing civil law to various degrees (from 90 to 10% of their practice). On average, our respondents devoted 55% of their professional time to,the practice of criminal law. The professional experience of our respondents also varied greatly, between 15 years of legal experience to less than one year. The average was 7 years of experience.

Ten respondents out of 15 were part of the Beta pilot test group and they were aware of this fact. Two persons were also involved in the development of the SDS, one as a legal student who had performed work for Dr. Hogarth and the other one as an adviser for the project. Among the Beta testers, 7 asked to be included in the group and 3 were asked by Dr. Hogarth (2 out of these last 3 were selected because of their critical attitude toward the SDS, during a demonstration of the system). Of the five respondents who were not members of the Beta test group, 4 asked to be connected to the SDS and one joined the users , after having been invited to do so. Ten counsels were the only users in their firm, the rest sharing their use of the database with their partners. When we did our interviews -in September 1989, the persons included in our sample had been using the SDS for 6 months, on average; 10 respondents were still using it and 4 had stopped, not being satisfied with the system. Finally, as we already remarked, one lawyer never used the system for practicing criminal law.

All the persons that we interviewed were connected to the main frame through a modem. Thirteen of them were using a PC before and 10 of these used other databases, such as Quicklaw. Generally speaking the level of computer literacy was significantly higher than that of the judges that we interviewed. Only 2 of our respondents said that they were not familiar with all the files in the system; the remaining 13 had used all files of the SDS. Four defense counsels had also some knowledge of how the system was developed.

With 2 exceptions, all the defense counsels that we interviewed were practicing in Vancouver (the 2 others practiced in Victoria). There is no meaningful correlation to be asserted between the individual characteristics of this group of respondents - e.g. a relationship between the proportion of their time devoted to the practice of criminal law and their assessment of the SDS or between their professional experience and their opinion of the SDS.

There was more agreement among the lawyers in their comments on the system than there was among the judges. Only one respondent was totally negative in his opinion. It must be said that this person was recruited precisely because he was highly critical of the use of computer databases in the practice of law. Apparently, he did not change his opinion after using the SDS.

4.4.2 Frequency of Use

We can be more systematic in exposing the results with regard to the lawyers than with regard to the judges. As we saw, 13 counsels used the system themselves and could answer questions on frequency with a relative degree of precision. We will list in Table 2 the answers given to three questions dealing with frequency of use, that is 17, 21a and 21c. N is equal to 14 respondents with regard to frequency, since the lawyer working for a consulting firm does not practice criminal law.

TABLE 2 : Frequency of Use

General Assessment	Cases	Periodicity
Very frequently: 1 resp.	All cases: 2 resp.	More than once a week : 2 resp.
Frequently : 2 resp.	Most cases:1 resp.	Once a week: 3 resp.
Occasionally : 4 resp.	Some cases:5 resp.	Once every 2 weeks: 2 resp.
Not Frequently : 6 resp.	Few cases :6 resp.	Once a month:4 resp.
Almost never : 1 resp.	No cases :0 resp.	Less than once a month: 3 resp.
SUM TOTAL : 14 resp.	14 resp.	14 resp.

It must be stressed that the five options in these three questions are not equivalent (i.e., using the system in all cases does not entail that one uses it very frequently or more than once a week). However there is a fair degree of correspondance between the meaning given to these different categories by our respondents (e.g., see line 4 of TABLE 2).

With one exception, all the respondents researched one case at a time. They generally spent less time than judges researching a case; on average, lawyers spent less than 15 minutes researching a case.

The answers were divided regarding use of the printing facility of the SDS : 6 respondents said they used it frequently, 3 used it occasionally and 4 used it infrequently (in the case of two respondents , the printing facility did not work). Although 6 respondents used the database only for purposes of sentencing, others used it to give advice to clients on the possible sentence that the court might impose them, and at least three respondents said that they used it for self-education.

We also asked whether there was any pressure by the courts to use the SDS and all but one respondent said that there was none. However, when we asked whether they believed that the judges were using it, 5 respondents said that there were rumors to the effect that judges were using the SDS and that these rumors were influential in getting them to apply for a line connecting them to the SDS. In other words, if more judges use the system, more defense counsels might consider using it.

4.4.3 Use of the Different SDS Files and Patterns of Research

All our respondents agreed on two things. First, not all the files were equally used. Second, they did not use any recognizable search patterns and simply retrieved the information that was felt to be useful for the case at hand : in the great majority of cases that information was either the graphs in File 1 or the appellate judgments in File 2.

According to a scoring system that we will describe later when we shall present a table summarizing the ranking of the 5 SDS files by all our respondents, the defense

counsels ranked the SDS files, with regard to frequency of use and potential usefulness, in the following way. Files 1 and 2 received the highest score, File 1 being very slightly ahead of File 2; File 4 was a distant third, winning approximately one quarter of the points attributed to File 1 or 2. File 3 and File 5 were almost not used or found to be useful. The majority of those who answered question 29a - whether files 4 and 5 are diffrent from the others - said that they were not (7 vs. 4)

Eleven defense counsels used the system for particular cases, whereas 3 others used it more systematically (e.g., for all indictable offences). The respondents that used the system for particular cases applied the criterion of the seriousness of the offence (defined in terms of the likelyhood that the offender would be imposed custody) or the criterion of the unusual character of the offence. Six respondents mostly applied the first criterion and 4 mostly applied the second (one used both).

The majority of our respondents (10) did not generally specify the factors (sex, age or prior convictions for indictable offences); the rest of our sample did (5 respondents). The factor that was specified the most often was the prior convictions. Ten respondents did not want any of the existing factors to be dropped ; also, 10 respondents did not believe that any new factor should be added to the system (these two groups of respondents were not composed of the same individuals). Three defense counsels wanted to drop the factors of sex and age and three respondents also suggested to add new factors (offence specific factors such as the amount of drug and offender specific factors such as the weight of the criminal record).

4.4.4. Assessments

Perhaps due to the fact that a significant part of our sample belonged to a pilot test group, their opinions about the SDS were more precise and more critical than those of the judges. There was also more recurrence on the issues that were mentioned. For the sake of uniformity, we will follow the same order of presentation as in the corresponding section on the judge survey.

A. ***Purposes***. The issue of sentencing disparity does not appear to be of concern for defense counsels and was briefly mentioned by only one respondent. There was a

significant degree of agreement on the purpose for which the SDS was used : it was to get information on rather unusual cases, in order to prepare a better submission (mentioned by 9 respondents). Other purposes that were mentioned several times were saving time, giving advice to a client and, interestingly, double-guessing the judge (mentioned three times). Only one respondent said that he used the system to find unreported decisions. Since this was a test group and that lawyers did not pay for the service, they sometimes used the system out of curiosity.

B. ***Completeness.*** The opinion of the defense counsels is the same as the judges on the issue of whether one can rely on this system alone for all sentencing information needs. All but one respondent said that they could not. No respondent found fault with the SDS for this. It is the claim to be exhaustive and complete that cannot be sustained.

C. ***Support.*** General support for the system was expressed by several respondents (6 lawyers expressly mentioned that they supported the idea). Another indication of support for the system, albeit an indirect one, is that only one of our respondents said that judges should not be encouraged to use the SDS in order to determine their sentence (8 lawyers responded favorably to the idea that judges should use the SDS and 6 had no definite answer). Despite these expressions of support, there was a tendency to stress that there was a significant distance between idea and reality and between expectations and fulfillment. Question 28b asks whether the purposes for which one used the SDS had varied over time. Four respondents could not clearly answer this question and 5 said that their purpose(s) had not evolved. However, 5 defense counsels interpreted this question as requesting a value judgment and said that they had been progressively disappointed by the system. This disenchantment is also reflected in the answers to question 28c - does the SDS adequately serve your present purposes ? Six respondents answered that it did and 6 that it did not (2 could not give a definite answer). Asked whether they would keep on using the system when they would have to pay for it, 7 respondents said that they would, 4 that they would not and 4 that they did not know. When we asked those respondents who used Quicklaw to compare it to the SDS, no one said that it was more useful and the majority said that it was less useful (the main reason for this lies in the fact that the SDS has no key word search facility yet).

D. *Weaknesses and possible enhancements*

As can be expected, there were numerous comments on this issue. First, there seemed to be a significant degree of frustration with the technical side of the operation. Nine respondents said that their connection with the SDS was not satisfactory, 2 were rather satisfied and only 3 were satisfied (question 18). This frustration was variously expressed : difficulties logging in and logging out, criticism of the communication software (IBM FT Term), speed of the system etc.

There were three other lines of criticism that were taken by at least half the respondents :

- the system has too much structure: in order to get the information that you want in the SDS, the user has to make numerous specifications (which file, which code of penal legislation, which section of this code, three specifications with regard to factors and one other specification with regard to the part of the file that he/she wants to search). If the user wants to compare the sentences given for two closely related offences (e.g., theft under or over $1,000, break and enter in dwelling or non-dwelling), he/she cannot do it unless starting a new case and going once more through all the menus and making all the specifications (only File 4 has a fast track access). This impossibility to move from one offence to another, without repeating the whole procedure of specification, was seen as a significant weakness. This alleged weakness is actually the underside of a major strength of the system : it is extremely user friendly.

- this second line of criticism is directly related to the preceding one : it is the lack of a key word search facility, which is precisely the way to move quickly through a knowledge base. As we have previously seen, the LIST Foundation intends to remedy the present situation

- finally, many users (9) complained that the individual cases in File 1 were only identified by a court registry number. Hence, if the user wanted to cite a trial case, he would have to go to the court's files.

Although it was not voiced by at least 7 of the practicing defense counsels, there was also a critical comment that was made by several respondents (6): there were not enough instances of some of the more unusual offences in the database.

The major enhancements that were suggested by our respondents corresponds directly to the shortcomings that they have identified. Hence, they insist on :

- better technical arrangements
- a key word search facility
- access to trial court decisions (or at least a way to be able to cite the case).

There were also numerous suggestions that were made and which are interesting. We shall enumerate them, because they may be helpful to the LIST Foundation :

- to increase the speed of updating Files 1 to 4
- to make sure that the relevant case citation is always given in File 4. Apparently this is not always the case (mentioned by 2 respondents)
- to develop a relevant Supreme Court file (mentioned several times in connection with the issue of comprehensiveness).
- to sub-categorize some offences which, like robbery or sexual assault, range over a wide variety of cases
- to add other legislations (e.g., Fisheries - mentioned several times)
- to make a directory of B.C. Legal services, analogous to File 5

We must stress that these suggestions were not meant by their authors as criticism of the SDS nor are they meant in this way by us. They should be considered as potentially useful "user comments".

E. ***Strengths***

Since there is little else to say about the strengths of a system other than to enumerate them - one cannot make a proposal to remedy a strength -, our respondents were more vocal on the weaknesses of the system than on its strengths. Nevertheless they were quick to recognize that the SDS indeed had features that were very strong.

First of all, not all respondents were unsatisfied with the technical arrangements. One respondent praised the system for being easy to access. The staff of the LIST Foundation was found to be helpful and ready to solve any problems confronting the user. Most of all, it was repeatedly said that the SDS is very user friendly. Actually, one needs very little training - a brief demonstration is usually sufficient - to be able to use the system.

The defense counsels are in agreement with the judges in pointing out that the system's main strength is its capacity to display a high volume of information in one graph. The graphs of File 1 are a feature which deeply impresses the users.

There were other strengths that were mentioned by one or 2 users. As we did with with the weaknesses, we shall briefly list these comments :

- although the concept of a fully comprehensive database was rejected, two users mentioned that the SDS was quite comprehensive, when compared to other databases.

- the general organization of the database was praised by 2 respondents. They said that it was in fact structured intelligently.

- File 4 was far less used than Files 1 and 2. Nevertheless it was used more than File 3 and 5 and one respondent said that it was a strong feature of the SDS.

- there was one other comment that we found relevant and interesting : one user said that he could use the database outside office hours. Actually, the SDS could prove to be a useful tool for someone who likes to work at home at odd hours.

Finally, the defense counsels were as divided as were the judges on whether the SDS was time and money saving. Four respondents believed that the SDS saved a lot of time, while 5 believed that it did not really (6 respondents had no opinion on this question). Four respondents said that the SDS saved a lot (2) or some (2) money, whereas 5 answered this question in the negative (the rest of the respondents were undecided).

4.5 Interviews with Crown Attorneys

Interviewing Crown attorneys was more difficult than it was with the other groups of respondents. Several persons listed as members of the Beta pilot test group were contacted by telephone and declined to meet us because they had not used the SDS enough to be reasonably familiar with its operation. We eventually learned that there were very few PCs that were available for the Crown Attorneys. For example there was only one terminal linking the office of the Regional Crown Counsels Criminal Appeals to the SDS. Expectedly, few counsels used it.

We eventually succeeded in interviewing 2 Regional Crown Counsels, one Federal Prosecutor and one Director of Library services at the B.C. Ministry of the Attorney general, who performed searches for Crown Counsels. We interviewed all the Crown Counsels who used an Identity number on the print-out giving the results of the monitoring of the Beta test group. The information that we collected from these respondents is very different, although they all have one thing in common: **their use of the system was very infrequent.** Furthermore, they were not familiar enough with the system to answer all our questions. Basically, they had one or two major comments to make. In these circumstances, it would be artificial to force the answers of these respondents into one mold. We will discuss each case separately and present the major points made by the respondents.

4.5.1. Respondent A

We will begin with the Director of Library Services at the B.C. Ministry of the Attorney General. Respondent A (RA) is a librarian for all services of the Ministry of the Attorney General. She devotes approximately one third of her time to the criminal law - in relation to prosecution - and it is within her functions at the Ministry that she performed computer searches for Crown Counsels. She was a member of the Beta test group and she requested to be included in the group. At the time of our interview, she had been connected to the SDS for a little less than one year. She used a terminal connected to the main frame and was using a PC before being connected to the SDS. She also used other databases, such as CanLaw, Quicklaw etc. She was not personally involved with the

development of the SDS and is not familiar with how the system was developed. However, she is reasonably familiar with the content of the SDS.

RA believes that the technical arrangements are satisfactory. However, in her general comments she mentioned that she was not happy with the printing facility, that she would rather not have to use the present communication software and that she did not look forward to getting access to the system through CBAnet.

Ra uses the SDS herself. She uses the system occasionally and, comparatively speaking, in few cases. Still, she said that she used it once a week and that each search took between 5 and 10 minutes. She basically used it for one kind of case, sexual assault. She uses File 1 and, occasionally, File 3. She does not follow any definite pattern of research as she is requested to perform a search in a hurry. Typically, the Crown Counsels will ask for a File 1 graph to get the sentencing range. RA first tries to specify the offender characteristics, but leaves them unspecified, if she does not get enough cases.

RA wanted to be connected to the SDS, because she believed that it would be a useful tool for the Crown Counsels. She was still of this opinion when we interviewed her. The strength of the system lies in the Graphs of File 1 and also in the specific information to be found in File 3.

RA believed that there were three weaknesses in the SDS and that they could be remedied. She did not believe that the SDS was a complete research tool, particularly because there was no possibility of doing key word searches. She also wished to be able to cite the cases of File 1 - instead of just referring to them by a court registry number - and also to get access to full text, when it is available.

There is one comment of RA that deserves to be mentioned. Ra believes that there will be an increase in the system's use. However, she also noticed that the Crown Counsels were reluctant to automation and were resisting using a computer by themselves. As we shall immediately see, this remark is echoed by one Crown prosecutor.

4.5.2 Respondent B

Our second respondent (RB) was a Regional Crown Counsel-Criminal Appeals (he is not anymore). He is the respondent who has used the SDS most, according to the monitoring of its use. RB practiced law for 10 years and was a Crown Counsel for 8 years. He was part of the Beta Test group, having been asked by Dr. Hogarth to join the group. He was connected to the SDS main frame for approximately 10 months. He was not involved in the development of the SDS and was not aware of how it was developed. RD received a morning's training on how to use the SDS; he is reasonably familiar with the SDS. However, he admits that his secretary is more familiar than he, as she performed most of the searches. Although he was using a PC before being hooked to the SDS, RB does not use any other databases.

RB describes the technical arrangements as reasonably satisfactory. RB - or his secretary - used the system in few cases (once a month). RB describes his use as occasional. Not all these searches were performed for him; his secretary also performed searches for other Crown Counsels. Several cases would be researched at the same time. The printing facility was regularly used, when searches were conducted. RB did not use the SDS for other purposes than sentencing; he never referred to it in open court and never heard any judge referring to it. He did not feel any pressure from the bench to use it.

RD did not use all the Files of the SDS. It would seem that he mostly used File 2 and the graphs of File 1 (RB did not have a clear recollection of the different files). The other files were described as being of incidental interest. The SDS was used to get a more comprehensive view of the available information on particular cases. RB could not specify for which kind of cases he used the SDS, although he remembered it was for particular cases. He did not follow any search pattern and only retrieved the File 2 or File 1 information that he needed.

RB initially used the system to see unreported decisions and to get more comprehensive information on a case. Asked whether the SDS adequately served these purposes, he gave a qualified answer. He said that colleagues who were experts in certains fields of the criminal law, such as sex offences, told him that some important cases were missing from the SDS. Hence, he did not think the SDS was a comprehensive

research tool. Otherwise, he was satisfied with the system and found the ranges of custodial sentences particularly helpful. He believed that it saved some time, but no money.

Generally speaking, RB strongly supported the SDS. He believed that the SDS was a useful tool for the Crown Counsels and that it ought to be used more by them. Apart from the problem about comprehensiveness, RB described what he thought to be one weakness of the system : the user was locked into a research process that was too linear and which compelled you to repeat the same string of operations.

There was one comment by RB, which is consonant with what the previous respondent said. He believed that use of the SDS by the Crown Counsels was very slow at first, because there were too few PCs in the government's offices. This situation was presently changing for the better. However, he still believed that it would be preferable if the SDS was used by the support staff rather than by the Crown Counsels themselves. They had little time to do it and were not sufficiently computer literate.

Finally, this respondent thought that the LIST Foundation should have a more aggressive marketing strategy and approach general managers in the Ministry of the Attorney General rather than individual attorneys.

4.5.3 Respondent C

The third respondent is a federal prosecutor and works at all levels of the courts. However, this respondent does very little sentencing and was mostly involved in cases of conspiracy and extradition with regard to drug offences. He has been practicing law for 7 years.

He was part of the Beta test group and asked to be included in the group, after having learned about the SDS' existence. He was not involved with the development of the SDS. He has been connected to the SDS for eight months and was not using it when he was interviewed. He used a PC before being connected to the SDS. He claims to be familiar with all the files of the SDS.

This respondent is one of three who were totally negative toward the SDS. The respondent, claiming that he had no proper training from the SDS staff, started to use the system with a colleague, who did not find what he was looking for. During the course of this research, our respondent learned what the content of the SDS was and decided that it did not suit his own purposes. Hence, he stopped using it (actually, he never really used it to any significant degree). All his answers to our questions were negative (e.g., all the files are useless, the offender characteristics are pointless etc.). Nevertheless, this respondent believed that the SDS could be modified to meet his purposes. In describing these changes, he made some points that could be considered by the LIST Foundation. He basically made three points:

- The first point is the most general. He believes that the SDS is uselessly filled with large quantities of cases that no lawyer would research. He cited the examples of posession of narcotics and impaired driving.
- The two other points refer to his particular needs. RC would like the SDS to cover federal statutes and "esoteric" cases, because those cases are precisely the ones for which more information is needed. He referred to statutes such as ***Transportation of Dangerous Goods, Migratory Birds and Fisheries***. Clearly, these would be helpful to a federal prosecutor.

- Lastly, RC made suggestions in the field of drug enforcement. He particularly insisted that the type and amount of the drug are factors that a user could specify. It is interesting to note that in the months following our interview, the SDS was enhanced with the type of drug factors. Later, we shall address the issue of trying to specify the amount of drugs involved in a particular case.

Even though they come from a respondent who assessed the SDS solely with regard to his own particular needs as a federal prosecutor, these remarks should not be ignored.

4.5.4 Respondent D

Respondent D (RD) is a Regional Crown Counsels - Criminal Appeals. He has been practicing law for 10 years devoting his time equally between civil law and criminal

prosecution. He was part of the Beta Test group. He wanted to be involved with the test group, because his predecessor played a part in the development of the SDS. He did not. This respondent was not only using a PC before joining the Beta test group, but he said he has been interested in computers for 13 years. He uses the other legal databases. RD is familiar with all the system's files.

RD uses the sytem mostly when he is at home, during evenings. He started by using the system frequently - relatively speaking - but does not use it as frequently now. RD uses the system approximately twice a month. Working at the level of the Court of Appeal, he does not have a high volume of cases. He has never quoted the system in open Court, believing that it is not - nor should it be considered to be - an authority on law. It is just a quick way to get at the cases. According to RD, there is no pressure from the Bench to use the system.

RD uses only two Files : File 2 and File 4. File 2 is directly relevant to his work; File 4 is also useful at the High Court level. This respondent does not follow specific patterns of search, using it as a quick way to get at cases. The SDS is used on a basis of convenience, when the other resources are not available (e.g., at night). He does not specify any case factors, since there are too few cases in the database.

This user is also rather critical of the SDS. However, his comments reveal real knowledge of the system . On the technical side, RD believes that the communication software - FT-Term - does not work well and that the system is too slow, using a modem of 1200 bauds. He believes that a search in a library is faster than the SDS. However, one can use the SDS when the libraries are closed.

For RD, the system's strengths are its availability when other sources are unavailable, its quick access to appellate cases and File 4, for which RD expresses very high praise. Not surprisingly, perhaps, he thinks that File 4 would be even better in book form.

As we said, RD is critical of the SDS. He said with regret, that he would not recommend that the government invest in getting him and his colleagues connected to the SDS. His ground for this negative recommendation is that File 2 is not updated to include

the most recent appellate cases, that there are only summaries of Court of Appeal cases and that these summaries are incomplete. We interviewed this respondent in September 1989. We learned that the LIST Foundation is going to incorporate full text support in File 2 and that File 2 is, in theory, updated weekly. These enhancements may answer part of RD's criticism.

RD also expressed other criticisms. He is one of the very few users to dislike File 1 and, in particular, the graphs (RD believes, with D.A. Thomas, that sentencing guidance should come from the courts of appeal and not from any other source proposing statistical guidance). There is another critique, however that is less reflective of professional bias. RD believes that the structure of the SDS is too linear and that one should be able to compare the sentences for similar offences - e.g., the different kinds of assault, embezzlement and other white-collar offences - without having to repeat the sequence of steps required to select an offence. This criticism could be answered by providing a key word search facility. The LIST Foundation is planning such a facility.

4.5.5 Common Themes

The information collected with regard to these respondents is more striking in its diversity than its uniformity. Relatively common threads are that :

- there are cases which are missing from the database.This issue could be of concern if it implied that the initial data collection and the updating process were not systematic enough in the case of File 2.

- the SDS is one tool among many, to be used by support staff or when other resources are unavailable.

The respondents were equally divided on the key question of future use, two of them taking a position unfavorable to the SDS and two other believing that the SDS is an idea that will gain growing acceptance among the Crown Counsels.

4.6. Interviews with Law Clerks and Librarians

We interviewed 6 law clerks and two librarians. Three of the legal clerks worked at the level of the B.C. Court of Appeal and three others worked at the level of the Supreme and/or the County courts. One librarian worked at the judges' library at the Law Courts building in Vancouver and was also the editor of ***B.C. Recent Decisions***, from which the summaries of appellate judgments in File were initially taken. The other librarian worked for legal aid. The size of our sample, then is 8 interviews.

The law clerks and librarians share one important thing in common : they performed searches for other persons, mostly judges. Among our total sample they probably are the users who have spent the most time researching the SDS. For more than one year every sentencing appeal led to a search of the SDS by a legal clerk. Hence these respondents are experienced. However, they did not choose to use the SDS and were neither committed to the system nor prejudiced against it.

In presenting their views, we shall follow the same order that was used in the sections of this chapter devoted to the opinions of the judges and of the defense attorneys.

4.6.1 Law Clerks and Librarians : Individual Characteristics, Previous Involvement with the SDS and Knowledge of the System

As we previously said, 3 clerks worked at the level of the Court of Appeal and 3 at the level of the Supreme and/or the County courts. All clerks had between 6 months and one year of experience. The proportion of their time devoted to sentencing was relatively small. The Supreme and the County courts are little involved in sentencing and there is not a high volume of sentencing appeals. The librarians occasionally performed searches for judges and, in the case of the legal aid librarian, for defense counsels. All these users were connected to the main frame through a terminal and a modem. Six of the respondents had used a PC before being connected to the SDS and 5 of them also used other databases. Two respondents had no previous experience with a PC.

None of these respondents were members of the Beta test group. However, 2 of them were involved with the development of the SDS. As mentioned before, the summaries of court of appeal judgments initially used in File 2 were written by one of the librarians.

She was in this way connected with the projet for three years. As a student, one of the clerks did some proof-reading for the SDS project.

These users received approximately one half hour of training from the LIST Foundation staff or from other law clerks who knew how to operate the system. Since the LIST Foundation has its offices in the Law Courts building, the clerks could rely on the help of the foundation's staff, if they had difficulties in operating the system.Seven respondents said that they were familiar with the whole system; one had only used Files 1 and 2 and was consequently not familiar with the rest of the system. Three respondents also had some knowledge on how the system was developed.

4.6.2 Law Clerks and Librarians : Frequency of Use

One respondent said that she used the system frequently; 4 used it occasionally and 3 did not use it frequently. As previously said, the B.C. Court of Appeal was following a policy of using the SDS in all sentencing appeals. Hence three of the law clerks said they were using the SDS in all sentencing cases. One respondent used it in some cases and the 4 others said that they used it in few cases.

These general assessments can be translated into a precise number of cases for the Court of Appeal, because the chief clerk kept statistics on the sentencing appeals. On average, there were 18 sentencing appeals researched each month.The figure was much lower for the Supreme Court and the County Court: there was at most 2 searches per month. On average, it can be said that our 8 respondents used the system once a week. However, as we already saw, there is a significant difference in the frequency of use: some respondents use it more than once a week and some others barely use it once a month. Except for one respondent, all the others research one case at a time. These users spend between 15-30 minutes on each search. All the respondents, except one, use the printing facility frequently.

The law clerks never used the system for any purpose other than sentencing. One librarian used it for personal education. Three respondents mentioned having heard once that the SDS was referred to in open court. The others were not aware of any reference to the SDS in open court. Asked to assess whether the judges were using the information

that they were providing them, our respondents were divided: two said that the judges were using it (particularly at the Court of Appeal level) and 4 admitted that they did not know. All agreed that the SDS was not used by the Provincial Court judges. All also agreed that the there was no pressure put on counsels by the courts to use the system.

4.6.3 Law Clerks and Librarians : Use of the Different SDS Files and Patterns of Research

These respondents, like all the others, do not use all the system's files equally. There is an interesting difference between their ranking of frequency of use and usefulness. With regard to frequency of use, File 2 comes first, being mentioned by 7 respondents; it is followed followed by File 1, which is mentioned by 4 users. File 3 and File 5 come very far behind, each being mentioned by only one user. File 4 was not used by any respondents in this sample.

The ranking of usefulness is somewhat different. File 2 still comes first but is followed more closely by File 1; Files 3 and 5 are a distant third and File 4 is mentioned three times (it receives no mention with regard to actual use). This discrepancy is not surprising, because our respondents are directed by others in their use of the system, whereas they give their personal opinion in assessing the files' usefulness.

Six respondents follow no pattern of research and just retrieve the needed information (appellate jurisprudence and File 1 ranges). Two respondents said that they followed a pattern, which they described as starting with File 1 and going to File 2. Needless to say, this is a minimal pattern.

Since there is a policy of the Court of Appeal to use the SDS in every sentencing appeal, the three Court of Appeal clerks said that they did not use the SDS for particular cases. The other users did, however, use it for particular cases, these cases being selected on the basis of their seriousness and their unusualness. On the whole, these respondents tended to use the offender characteristics. Three of them said that they did not use the factors; 5 respondents specified them, when there was an appropriate number of cases with regard to the offence being researched. The factor that was found to be the

most relevant is the previous record of indictable offences. No one wanted any new factor to be added; 3 suggested that sex be dropped as an offender characteristic.

4.6.4 Law Clerks and Librarians : Assessments

We shall cover the same issues that we discussed in relation to defense lawyers.

A. *Purpose*

This issue takes a different meaning with regard to these respondents. As was stressed before, these respondents did not use the system for their own purposes. We actually asked them whether they did use it for their own purposes or if they exclusively performed searches on demand. With only one exception, they used it only when asked to perform a search. Hence their basic purpose in using the system was really to satisfy someone else's information needs.

We asked our respondents what was the purpose of the judges and lawyers for whom they worked in using the system. Admittedly, their answers were hypothetical but they deserve to be quoted. The clerks working at the level of the Court of Appeal said the Court used the system to ensure consistency in its decisions. At the lower level, the system was used to avoid a potential reversal by the Court of Appeal. The third goal that was generally mentioned was the basic purpose of getting more information on a case.

We also asked our respondents whether the purposes that they mentioned had evolved over time. Three respondents could not answer this question; 3 more answered in the negative; 2 respondents said that judges and lawyers were slightly frustrated by the SDS, as they discovered that it was not the complete research system they initially believed it was.

It was finally mentioned by 2 law clerks that judges relied on defense and prosecution counsels to provide all the facts relevant to the case. To this extent, they were less inclined to use the system.

B. *Completeness*

Seven respondents did not believe that the SDS was a complete research tool. One thought that it could potentially become one. The respondents who did not believe that the SDS was a complete research tool did not believe that it could ever become one, because the idea of a complete legal database is in itself problematic.

C. ***Support***

With one exception, all respondents in this sample supported the SDS. No one rejected the system; the person who had reservations was critical of the SDS but was not negative about it. One of the most enthusiatic supporters of the SDS was among this group.

We asked the law clerks whether they would use the system in their future practice. Except for one person, no one had yet made up his/her mind to practice criminal law. Hence they could not really answer this question. The respondent who planned to practice criminal law said that she would use the SDS.

D. ***Weaknesses and enhancements***

There was criticism of the technical arrangements in this group as well. Two respondents said that it was difficult to log into the system. The slowness of the system was also an issue for two other respondents.

With regard to content three issues emerged. Six respondents wished that a way could be found to allow the users to cite the cases in File 1. As we have often said, because this issue keeps reappearing, the cases in File 1 are only identified by a court registry number. Second, 4 respondents complained that there was too much linear structure in the system. This issue was also brought up by members of the other groups, who suggested that the user be able to move more freely from one offence to another. Finally, 2 respondents raised the issue of handling cases with multiple charges and/or several counts of the same offence.

There were other criticisms that were voiced by individual users. Among these, there was one interesting remark, although it was made by only one respondent. This respondent said that the user could not know whether a sentence in File 1 had been appealed and suggested that connections be established between File 1 and File 2.

E. *Strenghts*

The one strength that was mentioned most often - by 3 respondents - was that the system was very user friendly and that it was very easy to learn how to operate it. Other strengths that were mentioned by individual users are :

-the user gets quick access to a high volume of information
-it provides a good starting point for legal research.
-it is well organized
-it is up to date
-the graphs of File 1 are very useful
-the summaries of File 2 are useful
-File 3 provides good and precise information
-File 4 is a stimulating file

Finally, there was unanimous agreement that the SDS both saved some time and some money.

F. *Future Use*

A word should be said on future use by the law clerks. As said, before, it was the policy of the Court of Appeal to use the SDS in all sentencing appeals. The support given by the Court of Appeal reflected itself in the statistics on the use of the SDS. As noted in Dr. Hogarth's RFR (p.16), use of the system by the Court of Appeal amounted to approximately 700 minutes per month. Actually, according to the monitoring of use from September 1989 to the 1st of February 1990, the use of the SDS by law clerks at all levels accounted for a significant proportion of all use. According to one computer print-out giving the results of the monitoring of use, the total use of the SDS from September 1989 to the end of January 1990 amounted to 111 connect hours. Use by the law clerks accounted for more than half of this total, nat is, 61 connect hours. According to another LIST calculation, total use for the same period amounted to 8207.7 minutes connected to the SDS. Use of the system by the law clerks totalled 3716, that is 45% of all usage.

During our last visit to Vancouver - May 1990 - , we learned from Dr. Hogarth that tha Court of Appeal had changed its policy of using the SDS in all sentencing appeals. The SDS will be used on a selective basis. This change in the policy by the Court of Appeal may significantly affect the total amount of time connected to the SDS, since the use of the system by the law clerks accounts for close to half of all connected time. It is to be hoped that the decrease will not be too substantial.

4.7 General Findings

We will now present tables which express some findings concerning the whole sample of persons that we interviewed.

4.7.I Frequency of Use and Ranking of Usefulness

Question 19b of our questionnaire was asked in relation to the actual use of the system by a respondent. Question 29b asked the respondent to rank the different files with regard to their usefulness. In other words, question 19b related to actual use, whereas question 29b required an evaluation of the files.

We will now present in a more systematic way than previously the answers to these questions. For both questions , we used a simple scoring system. For question 19b (actual use), the file that was said to be used the most received 3 points, 2 points were given to the file that came in second place and one point to the file taking third place. The same system was used with regard to question 29b, that is 3 points for the file given the highest ranking, 2 points for second place and one point for third place. With regard to both questions, no respondent mentioned more than 3 files (only two files were usually mentioned). When a respondent said that two files were equally used or that he/she wanted to give them the same rating, both were given 3 points (this situation seldom happened). Tables 3 and 4 will present the results with regard to the four groups of respondents. Tables 5 and 6 will take the form of histograms presenting the results for the whole sample.

For tables 3 and 4, we use two numbers to indicate the score given to a file.The first number refers to the actual score, as it was computed for the respondents answers.

TABLE 3 : FREQUENCY OF USAGE FOR DISTINCT GROUPS - Q. 19b

FILE 1

Groups	Scores
Judges	20/39
Defense Counsels	24/45
Crown Attorneys	5/12
Support Staff	12/24

FILE 2

Groups	Scores
Judges	19/39
Defense counsels	22/45
Crown Attorneys	6/12
Support Staff	17/24

FILE 3

Groups	Scores
Judges	3/39
Defense Counsels	3/45
Crown Attorneys	2/12
Support Staff	2/24

FILE 4

Groups	Scores
Judges	5/39
Defense Counsels	6/45
Crown Attorneys	2/12
Support Staff	0/24

FILE 5

Groups	Scores
Judges	no points
Defense Counsels	3
Crown Attorneys	no points
Support Staff	no points

TABLE 4 : RANKING OF USEFULNESS OF FILES- Q. 29b

FILE 1

Groups	Scores
Judges	24/39
Defense Counsels	20/45
Crown Attorneys	5/12
Support Staff	12/24

FILE 2

Groups	Scores
Judges	15/39
Defense Counsels	17/45
Crown Attorneys	6/12
Support Staff	16/24

FILE 3

Groups	Scores
Judges	5/39
Defense Counsels	3/45
Crown Attorneys	2/12
Support Staff	4/24

FILE 4

Groups	Scores
Judges	3/39
Defense Counsels	6/45
Crown Attorneys	2/12
Support Staff	3/24

FILE 5

Groups	Scores
Judges	no points
Defense Counsels	3/45
Crown Attorneys	no points
Support Staff	4/24

Tables 5 and 6 presents the same results for all groups in the form of histograms.

TABLE 5 : FREQUENCY OF USAGE - All RESPONDENTS - 19b

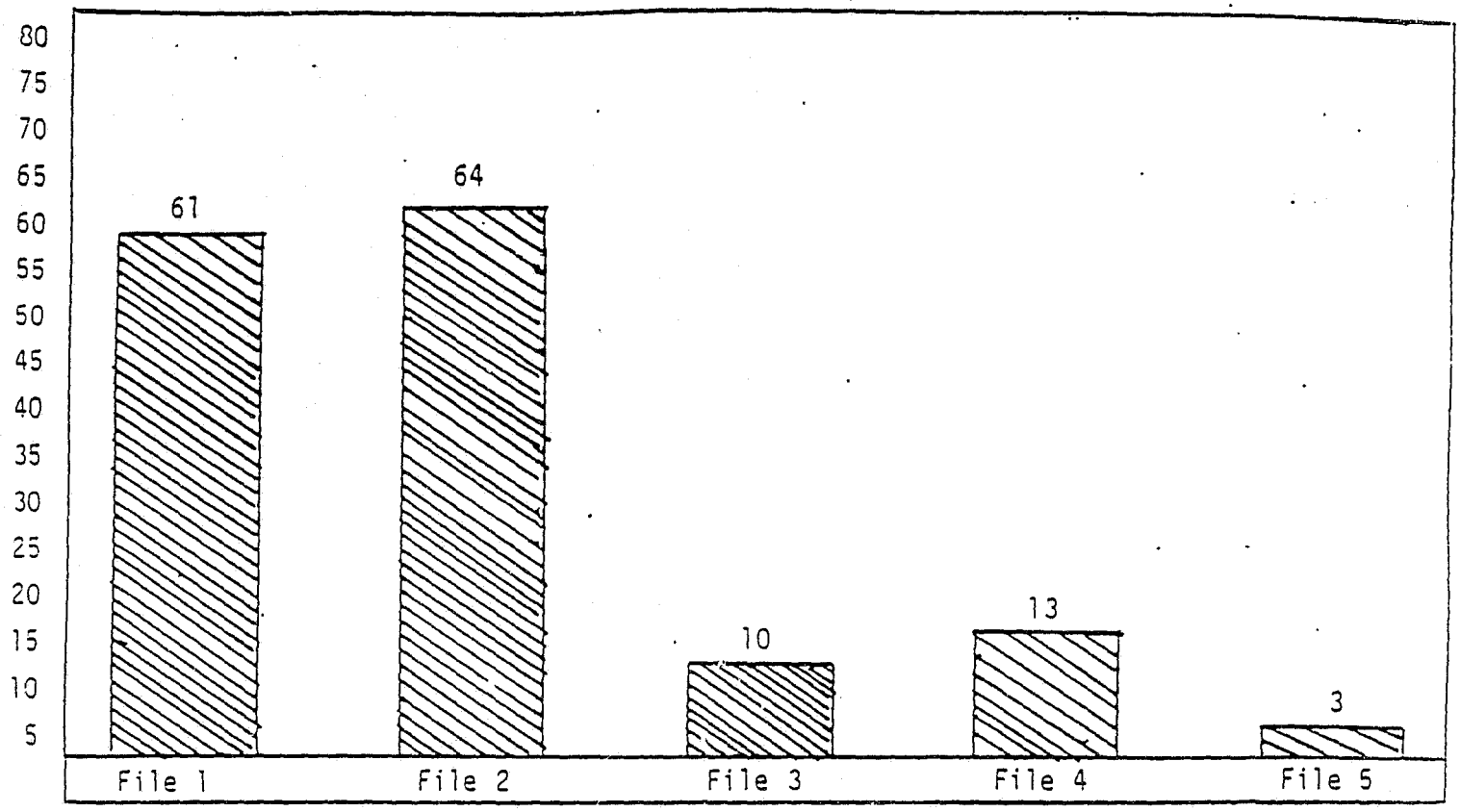
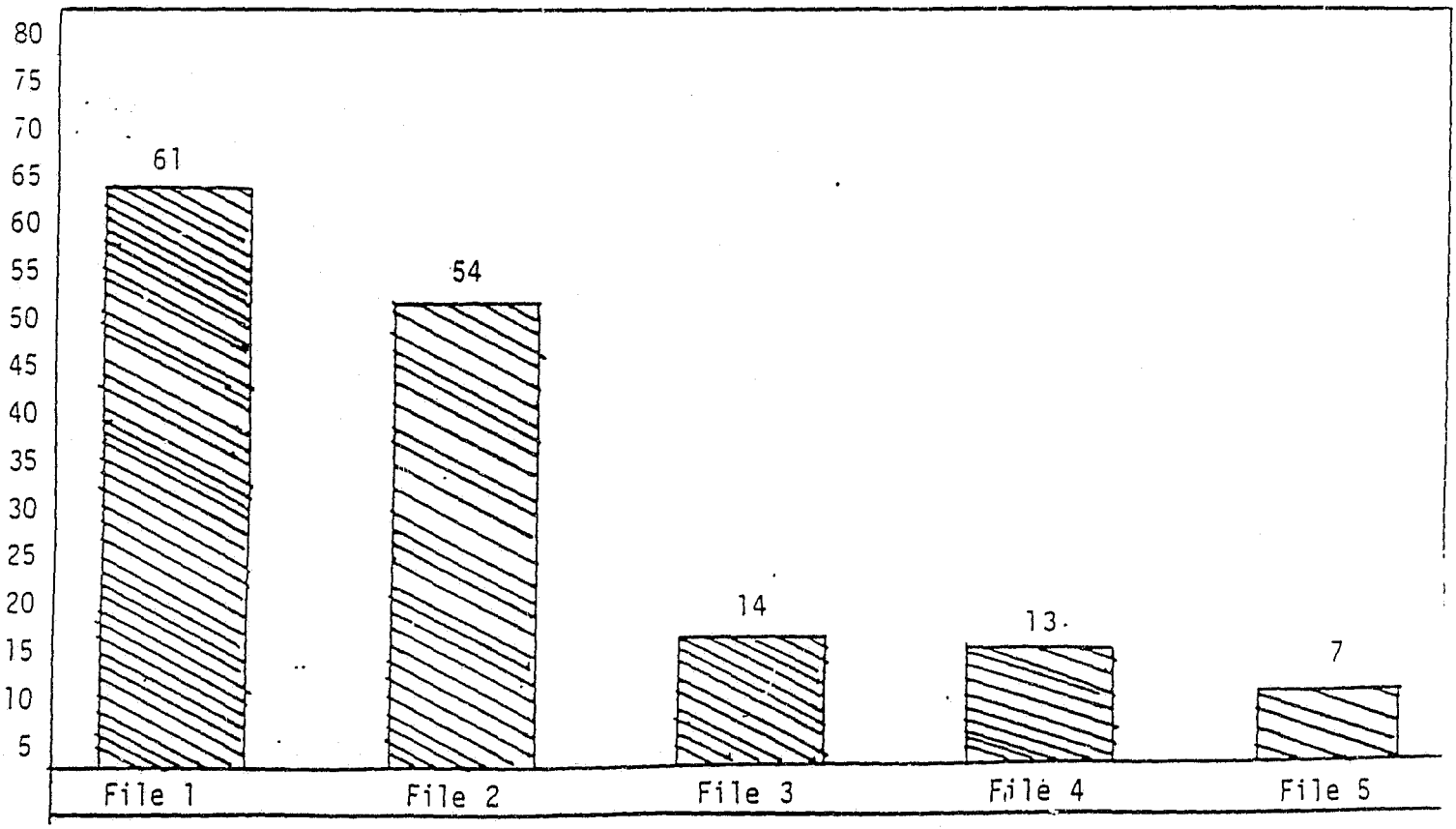


TABLE 6 : RANKING OF USEFULNESS - ALL RESPONDENTS - 29b



The second number indicates the maximum possible score (the number of respondents in a group multiplied by 3). This was seen necessary as there are large differences in the number of members in each groups (13 Judges, - 11 Judges and two persons from the support staff -, 15 Defense Counsels, 4 Crown Attorneys and 8 legal clerks/librarians). The truly significant indicator is the proportion between the actual and maximum score. The sum of the scores in Tables 3 and 4 do not coincide, as the respondents gave different answers to question 19b and 29b.

4.7.2 A Brief Comparison with the SDS Monitoring

As we previously said, the SDS has monitored the usage of the system from September 1989 to February 1st 1990. There is onother print-out that covers monthly SDS usage from September 1989 to the end of February 1990. This monitoring presents the following information: the user's ID, the number of calls for a period of time, the connect time (in hours or minutes) and the number of accesses to a particular file. We have compared the number of accesses to a file - as computed by the system's monitoring and our own results. There are differences.

According to Table 5, the ranking of the files in terms of frequency is as follows : **File 2, File 1, File 4, File 3 and File 5.** According to Table 6, the ranking of the Files in terms of usefulness is as follows : **File 1, File 2, File 3, File 4 and File 5.**

Our ranking with regard to **usefulness** is the same as the ranking on the basis of the number of accesses that was produced by the SDS, namely : **File 1, File 2, File 3, File 4 and File 5. . However,** it is different with regard to actual use (File 2, 1, 4, 3, 5). Furthermore, there are other significant differences.

- According to Tables 5 and 6, File 1 and File 2 are very clearly ahead of the others. Far behind are File 3 and File 4, which are about equal, both with regard to frequency of usage and usefulness.File 5 comes in last place.

- According to SDS monitoring, File 1 is the most frequently used file and it is considerably ahead of File 2 (1,082 v. 783 accesses, from September 1989 to the end of January or February 1990 - the print-outs give conflicting information with

regard to the time-frame). File 3's usage is much higher than in our survey, according to SDS monitoring (390 accesses to File 3 as compared to 783 accesses to File 2 ; according to our own results File 2 is used 4 to 5 times more often than File 2).

There are many ways to account for these discrepancies. The real significance of "access to a file" is not clear. For example, according to the LIST print-out that we used to select our sample of judges, one judge accessed File 1 seven times and File 4 seven times- 14 accesses in all. Yet this judge was connected to the system for only thirty minutes; in theory each "access" must have lasted some 2 minutes. That is much too short, according to our extensive experience with the SDS (it is very difficult to perform a search in less than 5 minutes). There are many anomalies like this one. For example, there are 63 accesses listed to one User ID (MARINA KAN), that was connected for only 10.5 minutes. Clearly something went wrong with the monitoring in such cases

We interviewed all the Provincial Court judges that had used the SDS for more than 40 minutes. According to the LIST print-out, the Provincial Court judges requested 31 accesses to File 3 , as compared to 39 to File 2 (with regard to access, Files 2 and 3 are nearly equal). The judges that we interviewed accounted for 28 of these 31 accesses to File 3, as listed in the LIST print-out. Yet, after double-checking our questionnaires, we found that their ranking of File 2 - both in terms of frequency and usefulness - was very significantly higher than for File 3.

Finally, it should be mentioned that the SDS monitoring records all usage (e.g. the use of the SDS by the LIST Foundation itself, to give demonstrations). Our sample was strictly limited to the groups that we identified. The fact that we interviewed law clerks may possibly have underlined the importance of File 2.

On the whole, these differences should not be exaggerated. After all, our ranking in terms of usefulness produced the same ordering of the files as the SDS monitoring.

4.7.3 Users'Comments

We always finished an interview with an open question asking the user for any comment that he/she would like to add. Many comments were made and they cover a

broad range of issues. Some of these comments reiterate points that a user made earlier during an interview, some comments were original. We have broken down this material into a list of comments. After each comment we will indicate who made it and how many time it was made

- general support for a system that is however seen as distant from sentencing reality.(5 judges, 3 defense counsels)
- judges don't use the system frequently (5 judges)
- resistance against the system can be explained by a lack of computer literacy/ this resistance is breaking down (4 judges, one Crown Attorney)
- the system is more helpful for lawyers than judges (4 judges,1 law clerk)
- the system is used for unusual cases (4 judges, 1 clerk)
- respondents would not pay for the service (4 Defense Counsels, one Crown Attorney
- there is no time to use the system (4 judges)
- there is a great need for individualized sentencing (4 judges)
- the system could be used to draw profiles on individual judges (3 judges)
- the judges depend on the submissions by counsels to be given the relevant information (3 judges)
- the judges know the tariff for most of the offences (3 judges)
- the SDS has little impact on sentencing (1 judge , 2 law clerks)
- only 20 defense lawyers in B.C. earn their living in criminal practice (1 judge, 2 law clerks)
- support for the system as a remedy against disparity (1 judge, 1 defense counsel)
- File 4 should be available in bookform (1 judge, 1 Crown Attorney)
- the sentencing hearing is too short to make using the SDS worthwhile (1 judge,1 defense lawyer)
- there is a gap between expectations about the SDS and delivery of services (2 defense counsels)
- multiple charges are not adequately recorded (2 law clerks)
- it could lead to mechanized sentencing (2 defense Counsels)
- the LIST Foundation should have done a harder sell (1 judge, 1 Crown attorney)
- the SDS is essentially a good starting point (1 judge, 1 law clerk)
- the only reason to use it is to avoid being reversed on appeal (2 judges)
- the system is not used as much as it should be (1 defense counsel)

- there should be a feasibility study for building expert systems (1 defense counsels)
- File 1 is misconceived (there is not enough sub-categorization)
- no Crown attorneys use the system (1 Crown attorney)
- CBAnet and FT-Term not adequate (1 Crown attorney)
- the backing for the SDS comes from the High Courts (one judge)
- there are offences in the SDS that do not belong in a database (1 Crown attorney)
- it should be easier to move across offences (1 Crown attorney)
- it should be possible to start with an unusual sentence and find the offence for which it was imposed (1 Crown attorney)
- some judges have an aversion to the SDS (1 law clerk)
- the summaries of File 2 are not supervised anymore by judges (1 librarian)
- the system might lead to laziness (1 judge)
- the system has an impact on sentencing (1 law clerk)
- all the Court of Appeal judges get SDS data, but few use it (one law clerk)
- the SDS has great potential for the future (1 law clerk)
- the judges are divided on the value of the SDS (1 law clerk)

As was probably obvious to the reader, these remarks were listed in an order of declining frequency.

4.8 Conclusions

Although we shall devote the last chapter of this report to a discussion of our main conclusions, we would like to state very briefly some common threads in our results. By common threads, we mean answers or comments that were made by more than half the total number of respondents.

A. ***Frequency of use*** : the system is used occasionally and, comparatively speaking, in few cases. A typical user will consult SDS on average at most twice a month.

B. ***Usage and assessment of files*** : File 1 and 2 appear to be used much more frequently than the others and they are also thought by the users to be the more useful. There is no great difference between File 1 and 2, either in terms of frequency of usage or usefulness.

C. ***Patterns of research*** : there are no discernable patterns of search. Information is retrieved on the basis of expediency.

D. ***Offender Characteristics*** : they are usually left unspecified. The offender factor that is thought to be the most useful is prior indictable offences. There is a consensus that the characteristics should not be dropped and that no other offender factor should be added.

E. ***Type of Use*** : the system is used selectively - except by Court of Appeal law clerks. It is used for the more serious - possibility of incarceration - and unusual offences.

F. ***Completeness***: with very few exceptions, our respondents contest that the SDS is a complete research tool. They also doubt that any database could ever become a complete instrument.

G. ***Purposes*** : the system is used to get more comprehensive information on a case. Very few users see in it an instrument to remedy sentencing disparity, which is not recognized as a significant problem.

H. ***Support*** : with only 3 exceptions, the SDS is supported by the respondents. However, this support is based more on the idea of having a good computer database than on the system itself in its existing components, and therefore, it does not translate itself into actual use.

Although they may not have been voiced by more than half the respondents, there are requests for enhancements that should be taken into accounts :

- **the technical arrangements,** and particularly the communication software, were criticized by a significant number of users.
- there is a strong demand for a **key word** search facility
- there is an equally strong demand for a way to cite the cases of File 1 according to the legal tradition of citation.

We will have occasion to revisit some of these issues in the next chapter, which integrates the user survey in a new description of the SDS. The major findings of the user survey will also be discussed in the final chapter of this report, where we shall formulate our major conclusions.

CHAPTER 5

A DESCRIPTION OF THE SENTENCING DATABASE SYSTEM

This description of the SDS will integrate the findings of the user survey with our own analysis of the main features of the SDS.

It was initially planned that there would be a technical assessment of the SDS. We were advised by the Department of Justice that such an assessment would be undertaken by computer experts within the Department. In light of the many user critiques of the technical features of the SDS, **we would recommend that a thorough technical assessment be made of the SDS, before making any decision to use it for government purposes.** It may be that the users' critiques are justified. It may also be that they stem from a lack of familiarity with databases. There is always a certain amount of tediousness in the process of logging into a database. We have been using the SDS from Montreal and had great difficulty logging in at first. However, after finding the right software - in our case Bitcom - and solving the problem of emulation, we were able to get fairly easy access to the SDS. A thorough assessment of the technical features of the SDS would provide a more definite appraisal of whether the difficulties referred to by the users are real. One thing is altogether clear. Since the user only needs a 1200 bauds modem to get connected to the SDS, the SDS operates rather slowly. When paying for the service, this relative slowness can be seen as a real drawback.

The structure of this chapter is simple: we begin by discussing a general feature of the system and then review the 5 files of the system. Our description being made in the context of the results of our user survey, we shall focus more on File 1 and File 2, which are the files more often used and which generated the most feed-back from the users. Our general conclusions will be presented in the final chapter of this report.

Before beginning, it is important to remind the reader that the SDS is updated regularly and that novel features are added to it. Hence it is possible that aspects of our description may not correspond to the latest changes made to the system. We are confident, however, that any discrepancy will be of marginal significance and that our description is adequate with regard to the essential features of the system. One last remark : we do not aim to present an exhaustive description of the SDS, as one is provided by the SDS User's Guide and the reports of Dr. Hogarth. We shall focus only relevant features for this report.

5.1 The Structure of the SDS

The SDS is an intelligently structured database and is based on an assumption about the nature of a legal search. In order to make this assumption explicit, we will use a concrete example.

The SDS, as we know, is divided into five files :

1. File 1 - Range of Trial Sentences

2. File 2 - Appellate Decisions

3. File 3 - Aggravating and Mitigating Factors

4. File 4 - The Law on Sentencing

5. File 5 - Offender Resources

Let us now imagine that a user wants to search a case, which is a drug offence. Defining a step as pressing at least one key of a PC keyboard, here is the sequence of steps that the user must follow (we assume that the user has researched another case and now wants to search a drug case):

1. The user strarts a new case (option six on the main menu)
2. The user selects the right code of legislation, among six possible options. In this case the user selects the Narcotic Control Act (NCA)
3. The user selects a particular offence (e.g. S. 3, Possession of Narcotic)
4. The user selects a type of substance, among 12 options (e.g. Heroin/opium). The user can leave the substance unspecified, but specifying the nature of the substance is crucial , according to our user survey. The SDS did not always distinguish between the different substances but finally added this feature at the request of users or potential users.
5. The user presses a key confirming that this is the right offence

6. The user specifies (or leaves unspecified) the age factor
7. The user specifies (or leaves unspecified) the sex factor
8. The user specifies the prior indictable offences factor
9. The user presses a key to confirm that the selected options with regard to the factors are the right ones.
10. The user now chooses the system's file that he wants to research
11. The user selects the desired feature of a file (e.g. File 1 offers a choice between graphs and a breakdown of the duration of the custodial sentences.
12. Upon selecting the breakdown of custodial sentences, the user can go to the individual sentences (identified by a court registry number)

After going through this procedure, the user can research all the system's files, particularly Files 1, 2 and 3. All the user has to do is to press a function key (F2), which returns him/her to the main menu, and then select another file. The user does not have to go through all the sequences that we previously described. The system will automatically research the new file selected for the offence that has been previously described (in our example, that would be Possession of Heroin/Opium, with the factors of age, sex and prior indictable convictions). In other words, the system makes it easy to move through its files for a particular offence.

Here, however, is what the user **cannot** do. The user cannot change any of his offence specifications without starting a new case and going through the 12 steps that we have described. For example, after looking at the sentence for possession of heroin/opium, the user may want to compare the sentences for possession of another substance, say morphine or cocaine/crack (the user might also wish to compare sentences for different age categories). If the user wants to do this, he/she must go through the whole sequence of specifications. This sequence can be even longer than the one that we have described, if the user has chosen an offence in the Criminal Code and wants to compare the sentences for different factor specifications.There are only 5 NCA offences in the sytem, but there are 112 CCC offences, which are printed on 6 different screens. The user will have to move through all or most of these different screens, if he/she wants to research an offence with a high section number (e.g. s. 740, Failure to Comply with a Probation Order, which is a very frequent offence (2259 cases in the SDS).

For the purpose of making our point, we can draw a distinction between research in depth and what we shall call lateral research. When researching in depth, the user specifies an offence and moves through the different files of the system. When doing lateral research, a user stays within the same file e.g., File 1 - but attempts to compare sentences imposed for similar offences (different kinds of assaults) or for the same offence with different factor specifications (an NCA or FDA offence, with different substance specifications). **The SDS was developed under the assumption that users were more likely - or that it was more important - to perform searches in depth than lateral research.** It is very easy to move from one file to the other but rather tedious to move from one offence, with its specifications, to another one or to the same offence with other specifications.

To the extent that it predicted the user's behaviour, this assumption is contradicted by a user survey. The users do not perform researches in depth - Files 3, 4 and 5 are seldom used. Furthermore, the numerous comments that we have received regarding the fact that there is too much structure in the SDS, and that the user must needlessly perform the same operations, lead us to believe that the SDS would be much improved if it facilitated more what we have called lateral research. In other words, it should be as easy to move across offences and case specifications as it is to progress through the different files of the system.

5.2 File 1

We will first provide a general description of this file and afterwards discuss what we believe to be the main issues, partly on the basis of our user survey.

5.2.1 General Description: Purpose, Content and Development of the File

According to the current descriptions of this file by the LIST Foundation, it contains between 65,000 and 70,000 trial decisions that were collected from the Provincial, County and Supreme courts of British Columbia, both within and outside the Lower Mainland (the first figure is given in the current User's Guide and the second in the February 1990 RFR of Dr. Hogarth). Its purpose is to provide numerical information on the different kinds of

disposition imposed by the judges and on the quantum of custodial sentences and of fines. These sentences were imposed on persons found guilty of a variety of offences, selected from among six statutes :

1. The Criminal Code of Canada : 112 offences
2. The Narcotic Control Act : 5 offences
3. The Food and Drug Act : 5 offences
4. The Customs Act : 2 offences
5. The Unemployment Insurance Act : 2 offences
6. the Income Tax Act : 3 offences

In all, the SDS incorporates 129 offences.

This file provides three kinds of information to the user:

A. The number of times a discharge, a suspended sentence (with or without probation), a fine or a custodial sentence was imposed for the offence and case factors selected by the user (generally, 3 offender characteristics - age, sex, prior indictable convictions - and, for NCA and FDA offences, the nature of the substance involved in the case). This information is provided in two different formats. First, graphs or histograms display all the relevant information on one screen. The user can also learn through tables the exact number of times a particular kind of disposition (e.g., a fine or a custodial sentence) was imposed. These tables differentiate between absolute and conditional discharge and give the precise figures for each.

B. The number of times a custodial term of a particular duration was imposed for the offence and case factors specified. The length of the terms of imprisonment is broken down into nine categories, which range from sentences of less than one month to sentences of over 15 years.

C. Factual information on individual dispositions (Court level,case registry number, judge (identified by a number), Court location, plea, sentence date, quantum of sentence (imprisonment and fine), type of sentence (consecutive or concurrent).

The number of cases contained in File 1 has evolved very significantly. The data base started with 3,000 cases in 1986. By September 1986, it had grown to 12,000 cases; in April 1887, 26,000 cases were loaded on the host computer and 50,000 were waiting to be processed; in October 1987, the database had grown to 80,000 cases and at the beginning of 1989, it numbered 120,000 cases (according to a progress report from LIST for the period April 1, 1988 to December 31, 1988). As we previously said, the database now contains between 65,000 to 70,000 cases. It is not altogether clear why it was deemed necessary to decrease by almost half the number of cases in the SDS (it went down from 120,000 in 1989 to 65-70,000 today). The cases collected range over a five-year period (1984-1989). However, the figures that the user gets from the SDS are aggregated numbers ranging over the whole five-year period. In other words, the data is not broken down according to the year in which the sentence was imposed (this information is only given with regard to the date of individual cases; it is not present in the graphs or the tables of file one).

5.2.2 A Brief Quantitative Analysis of File 1

We have conducted a detailed analysis of the content of file 1 and 2, checking how many cases where contained in the file for each of the 129 offences; with regard to the NCA and FDA offences, we specified the substance involved (13 options, that is 12 substances and the option of leaving the substance unspecified) and checked the number of cases. Table 1 presents the results of this search:

TABLE 1

	Trial Courts	B.C. Court of Appeal	Totals
CCC	56,523	1,726	58,249
NCA	11,347	371	11,718
FDA	520	14	534
CUSTOM	4	0	4
UIC	202	0	202
INC. T	152	1	153
TOTALS	68,748	2,112	70,860

According to our survey of the content of File 1:

A. The description of File 1 provided by LIST is strictly accurate, according to Table 1. However, what our analysis really shows is that File 1 (and as we shall see, File 2) suffers from a great imbalance. We already saw that 3 offences (theft under $1,000, impaired driving, encompassing both S. 253a and b, and possession of narcotic) accounted for nearly half (49.5%) of the cases in File 1. There are 18 offences for which there are more than 1,000 cases in the SDS. These 18 offences account for 54,022 of the 68,748 cases in File 1, that is, 78.5% of all the cases in that file.

B. We also identified all offences for which there are less than 20 cases in the SDS. There are 48 offences for which there are less than 20 cases. These 48 offences represent 37% of the 129 offences contained in the SDS. However they account for only 375 of the cases in File 1, that is, 0.54%.

C. There are 11 offences in File 1 for which there is either 1 or no cases. The number of instances where there are no cases in File 1 increases significantly if the type of substance involved is specified for drug offences NCA and FDA.

In sum, 14% of the offences account for 78.5% of all the cases in File 1 and 37% of the offences only account for a further 0.54%. There are also a small number of offences for which there are no cases, this number increasing with regard to the drug offences. This situation is probably the source of the criticism that the SDS does not contain a significant sample of the most unusual offences: there are too many cases for which the ranges are already known by the legal practitioners and not enough of those on which information is needed. It also tends to confirm Lovegrove's diagnosis that a system such as the SDS is "hungry for cases" and that this may cause problems in smaller jurisdictions where some offences are never committed or put on trial. It must be recognized, in all fairness, that the SDS only reflects the situation of sentencing in British Columbia and that it cannot give information on cases that never occurred in the province. We shall have to return to this issue.

However, there is a question that we may now raise. The offences for which there are more that 1,000 cases are the following :

S.129 -	Failure to Assist Peace Officer	: 1016 cases
S.145(2) -	Failure to Appear/Undertaking of recognizance	: 2065 cases
S.213 -	Prostitution...	: 1160
S.253(a) -	Impaired Operation of M.V.	: 2788
S.253(b) -	Operation of M.V. over .08	: 5844
S.254(5) -	Refusal to Provide breath/blood sample	: 1304
S.265 -	Common Assault	: 1903
S.334(a) -	Theft over 1,000	: 2107
S.334(b) -	Theft under 1,000	:16671
S.342 -	Theft/Forgery/unlawful use or possession of credit card	: 1270
S.343 -	Robbery	: 1072
S.355(a) -	Poss. of Stolen Prop. over 1000	: 1068
S.355(b) -	Poss. of Stolen Prop. under 1000	: 1180
S.430(4) -	Mischief to Prop. over 1000	: 1176
S.740 -	Failure to comply with Probation Order	: 2259
S.3 (NCA) -	Possession of Narcotic	: 8769
S.4(1) (NCA) -	Traffic Narcotic	: 1248
S.$(2) (NCA) -	Poss. for the Purpose of Trafficking - Narcotic	: 1122

We have found in our user survey that users usually did not consult the SDS for offences relating to impaired driving (S. 253 (a) and (b); s. 254 (5)). Yet, there are 9936 of these cases in the SDS. We have also found that the users were selective in their use of the SDS and would go to the database for offences that were either unusual or serious in the sense that they carried a high propability of incarceration. Offences such as Theft under 1,000 or Possession of Narcotic do not fit this description. Yet there are 16,671 cases of the former and 8769 of the latter.

It is questionable whether the LIST Foundation should continue to increase the volume of cases in most of the previously listed offences (with the possible exception of robbery) without sub-categorizing the offences in order to provide more significant information. The rationale for having 16,671 cases of theft under 1,000 ist not immediately clear. It might also be a good idea to break down the data according to year.

5.2.3 The Quality of the Data

The Progress Report for the period April 1, 1988 to December 31, 1989 acknowledges that there were serious problems with regard to the reliability of the data collected. Since there was little or no quality control being exercized over the data which found its way into the B.C. Provincial Court Case Processing System, over 35,000 cases from the provincial courts had to be checked against R.C.M.P. and F.P.S. records. Dr. Hogarth and his colleagues made a number of suggestions to the Ministry of the Attorney General on how to solve the problems concerning the reliability of the provincial court data and these were incorporated into the planning process for a re-write of the Provincial Court Case Processing System. Dr. Hogarth concludes his progress report on File 1 with these words :

> **While File 1 data is now in reasonable shape, it is clear that the effort required in data verification makes maintaining that file using present methodologies not cost effective in an ongoing production environment. In the long run the new Provincial Court Case Processing System should overcome most of the problems we experienced in building this file.(Progress report, for April/December 1988, p. 4)**

Assessing the reliability of the data contained in the SDS is a major undertaking and it falls outside our mandate. We shall make only a few remarks on this subject.

When we used the SDS , we found that there were sentences that were either illegal or wrongly coded. Most of these cases concern S.5 of the NCA - Import/Export Narcotic - which carried a minimum penalty of 7 years, prior to the Supreme Court ruling in R. v Smith, on June 25th 1987 (e.g. case 851267, sentence date 18 Nov. 1985, 3 years of imprisonment for an S.5 (NCA) conviction). Furthermore, one of the users that we interviewed worked for the SDS project and expressed some doubt about the reliability of

the data. We also noticed that the number of cases in the SDS went down from 120,000 to the present 70,000, which is a very significant decrease that might be related to quality control of the data. Finally, there is the thorny problem created by the frequent occurrences where the judge must rule at the same hearing in the case of an offender charged with multiple offences and/or multiple counts of one offence. Since the judge if guided in these cases by the principle of totality, it may be that the sentences imposed in these cases are different from the sentences imposed when an offender is charged with only one offence. The failure to distinguish between sentencing for multiple charges and/or counts and sentencing for one offence may result in the production of a distorted picture of the severity of the sentences. The builders of the database seem to be aware of this problem: in File 2, quantitative information on the type of sentences imposed by the B.C. Court of Appeal is accompanied by a note stating that cases with multiple charges may count more than once.

On the whole, we have no reason to believe that the extensive checking of the provincial court data against R.C.M.P./F.P.S. files was not sufficient to make the data in File 1 reliable enough for the purposes of File 1. Still, two questions remain. We know from previous experience with the F.P.S. that an offender is not identified as having a prior criminal history, unless he/she has been convicted **twice** of an offence (both convictions are then entered in his/her file). We do not know what the B.C. Provincial Court policy is with regard to the classification of an offender as having a prior criminal record. If this policy was different from that of the R.C.M.P./F.P.S., then an adjustment would have been needed in cross-checking provincial court data against the F.P.S.

Our second question concerns the quote given above from one of Dr. Hogarth's progress reports. He says that "in the long run, the new Provincial Court Case Processing System **should** overcome most of the problems" experienced in building File 1. There is some question whether the re-writing of this program does in fact overcome the problems that were identified by the builders of File 1.

5.2.4 Updating File 1

File 1 is updated semi-annually. In the RFR of February 1990, Dr. Hogarth describes the process of data collection (p. 6). It would seem from this description that

data is collected from 16 locations handling 90% of the sentencing and that the students do not collect data on a selective basis (all new data is collected).

In view of our quantitative analysis of the content of the SDS, it may be desirable for the LIST Foundation to have an explicit policy for the updating of File 1. There does not seem to be any point in just adding new instances of offences for which there are already thousands of cases in the SDS. On the other hand, finding new instances of the offences for which there are less than 20 cases in the SDS would enhance the quality of the database. Finally, the one line summaries of the individual cases (there are up to 250 of these summaries for each offence) should refer only to the most recent cases.

The suggestions that we made are not as important as finding a way to remedy the imbalance in the volume of cases in the SDS. Just increasing the volume of cases indiscriminately will only increase the imbalance.

Finally, the updating of File 1 should provide an occasion to verify whether the re-writing of the Provincial Court Case Processing System solves the problems of quality control of the data that were identified in the latter part of 1988.

5.2.5 Structure and Format of the Information

File 1 provides three kinds of information : graphs that display the kind of sentences that were imposed (discharge, suspended sentence with or without probation, fine and imprisonment), tables that sub-categorize the custodial sentences with regard to their duration (9 categories) and, finally, one line summaries of individual cases.

A. ***The graphs***

The information displayed in the graphs is unique in its compactness, this feature being praised by almost all the users. This level of compactness is achieved through an extreme degree of aggregation of the statistics. Basically, the main information that is given by the graphs is what statisticians call the mode of a distribution, namely the category which numbers the most cases. This is what is immediately grasped by looking at the File 1 graphs. The user can also read off the approximate number of times a particular kind of

sentence was imposed. There is no further sub-categorization (e.g., the year, the court location, percentiles etc.).

It seem to us that the SDS will not be able to avoid being explicit with regard to the time issue : either the statistics will be disaggregated with regard to the year in which the sentence was imposed or the SDS will have to set a limit to the number of years for which sentencing information is displayed (e.g., a five-year period that drops the bottom year after the second semi-annual update. For example, the 1990 version of the SDS would contain sentencing information for the period 1984-89; the 1991 would cover the period 1985-1990 and so on).

There is another problem that could be easily solved. When an offence has a very high volume of cases - e.g., *Theft under $1000*, the pictorial device used to build the graphs (an "X") represents a great number of cases (120 cases per X in the graph for *Theft under $1000*). For our example of Theft under $1000, this means that any kind of sentence that was imposed less than 120 times will not be represented in the graph. The tables showing the imprisonment ranges for *Theft under $1000* actually show that imprisonment from 1 year to under two years was imposed in 24 cases, that imprisonment from 2 years to under 5 years was also imposed in 4 cases and that there is one case of imprisonment over 5 years. These cases are important, because they are the most unusual and the user may want to consult them. This situation could be explained to the user through a brief disclaimer accompanying the graphs and directing him/her to go to the imprisonment ranges for any values missing on the graphs.

B. ***The imprisonment ranges***

The imprisonment ranges were found so useful by the users that some have asked that ranges be built for the amount of fines.

C. ***The individual summaries of cases***

Although we are unsure of the feasibility of this suggestion, we must refer to the wish expressed by many users that the trial cases be identified in such a way that they could be cited. The users may be inconsistent in making this suggestion. Most of the

defense and Crown counsels that we interviewed stress the fact that they usually do not have the time to cite any jurisprudence at a sentencing hearing, yet they insist on being able to cite the trial decisions contained in File 1.

5.2.6 The Offender Characteristics

Initially, there were four offender characteristics that could be specified by a user: sex, age, marital status and prior conviction(s) for indictable offences. These factors were selected because they were part of the information provided by the court records. Marital status has now been dropped and only three remain.

There are several issues that can be raised in relation to the offender factors. First, there is a difference between sex and age, on the one hand, and prior indictable convictions, on the other. There can be no doubt that the prior criminal history of an offender can be used to justify a sentencing decision. However, it is not clear that age, and particularly sex, can be used as grounds for sentencing decisions without violating S.15(1) of the **Canadian Charter of Rights and Freedoms** (Equality Rights). The question, again, is not whether these factors can be used to describe sentencing practice, as they undoubtebly can, but whether they provide a legitimate ground for aggravating or mitigating a sentence. The acuteness of this problem is reflected in the fact that in many U.S. jurisdictions, it is forbidden to use sex to justify a sentencing decision.

A second issue that relates to these descriptive factors - age and sex - is that it is very difficult to ascertain what weight they were actually given by the judge in determining his/her sentence. There are 4 age categories in the SDS : under 21, 21 to 29, 30 to 59 and 60 and over. Is it reasonable to assume that it really made a difference for a sentencing judge whether the offender was 28 years old or 35 ? An indirect answer to this question is suggested by the content of File 3 of the SDS. File 3 identifies a series of aggravating and mitigating circumstances for different categories of offences and offenders : none of the age categories used in the offender characteristics is to be found among these circumstances. Furthermore, being a male or a female is not as such listed among the aggravating or mitigating factors. Age and sex may be helpful descriptors for the Provincial Court records. However, their relevancy for sentencing is more problematic. The users of

the system appeared to share this opinion to a certain extent : age and sex were the factors mentioned by the users who wanted some offender factors to be dropped.

There was general agreement among the users about the relevancy of prior indictable convictions. Actually, the prior criminal history of an offender always appears on top of the list of relevant sentencing factors in the many surveys conducted by sentencing commissions on that subject (the other factor always mentioned is the seriousness of the offence). Hence previous indictable convictions is an important factor and its presence in the SDS needs no justification. However, the simple mention of the existence of a previous criminal record with regard to indictable convictions may ultimately be as misleading as it is informative. In File 3, the aggravating and mitigating circumstances, the criminal record is never mentioned without a descriptive attribute, such as **long, recent, escalating**. Several questions need to be answered in order to get an approximate idea of the weight given to the criminal record in the determination of the sentence :

- was the criminal record recent or is it a matter of one previous indictable conviction followed by a long period during which the offender was law-abiding ?

- was it a heavy criminal record or not ?

- what was the degree of relevancy of the criminal record to the case at hand (e.g., is it composed of offences similar to the one for which an offender is being sentenced ?)

Answering these questions is important. For instance, according to S. 255.(1) of the CCC, a previous conviction is a legal determinant for the sentence to be imposed in the case of impaired driving (imprisonment is mandatory for a second offence, whether it is a summary offence or prosecuted by indictment). When a SDS user selects the offender factor relating to his/her previous indictable convictions, this user is not informed by the system whether the prior record contains driving offences (in any case the system does not list previous summary convictions). In the case of driving offences, knowing the nature of the prior convictions is crucial for understanding the sentence imposed by the court.

We could raise numerous other questions with regard to prior indictable convictions. This exercise is unnecessary, since all these questions basically raise the same issue, which is the desirability of having more specific information with regard to the previous indictable convictions.

As we previously saw, the factors do not seem to be used systematically (or even often) by the respondents in our survey. This situation is due at least in part to the fact that the SDS explicitly warns the user that specifying one or several of the factors will reduce the number of cases on which he/she will be given information. Actually, since the number of women convicted of certain offences - e.g., robbery - is quite low, specifying the sex as female will either dramatically reduce the number of cases or will result in the fact that no case will be found in the database.

5.2.? The Drug Type Specifications

The SDS was greatly enhanced when it was made possible for the user to specify the type of substance involved in a drug offence. The user can now choose between 12 types of drug or leave this feature unspecified. This is a welcome improvement. Most users who have commented on this feature said that it was necessary for drug offences. Three users familiar with drug cases said that it was also important to specify the amount of drug. Although we may agree in theory with this suggestion, we are doubtful about its feasibility, because the range of quantities would be much too broad. A great quantity of cannabis is expressed in tons. In contrast, a pound of heroin is already a significant quantity. The SDS would have to use different units of weight for the different drugs, with the resulting multiplication of cells, most of which would be empty of cases.

5.3 File 2

We will now describe File 2. Needless to say, parts of our discussion of File 1 are also relevant for File 2. In particular, our discussion of the offender factor is as relevant for File 2 as for File 1 and will therefore not be repeated.

File 2 contains reported and unreported sentencing decisions from the B.C. Court of Appeal. These decisions range from 1977 to the present date. In his RFR of February

1990, Dr. Hogarth states that this file contains 1600 sentencing decisions, whereas the user's guide refers to over 1700 decisions. According to our calculations, in February 1990, there were 2112 cases in File 2.

Although there are no graphs in File 2, the information that it contains is similar to File 1 :

- the user is first presented with tables giving quantitative information on the kinds of sentences imposed by the Court of Appeal for an offence with specified or unspecified offender characteristics.

- the user can afterwards go to the summaries of the individual cases.

- there are also tables which offer a breakdown of the custodial sentences into 9 categories, according to their lengths. The number of times a custodial sentence or that a sentence of particular duration was imposed is given.

- The user can also consult the summaries of the individual cases.

In a near future, the user will not only be able to access case summaries; he/she will also be provided access to the full text of the judgment (which the user can also print).

We shall now discuss similar the same issues that we raised with regard to File 1. Our discussion will not be as detailed. Basically, the users seem satisfied with File 2 and there do not seem to be many problems. The file is well-conceived and useful.

5.3.1 A Brief Quantitative Analysis

There is one finding stemming from our quantitative analysis that should be discussed. The database contains 129 offences from six different statutes. For 40 of these offences, there are no appellate cases. There no appellate cases with regard to the *Customs Act*, the *U.I.C. Act* and only one with regard to the *Income Tax Act*. Altogether there are 75 offences for which there are 5 cases or less. One consequence of this dearth of cases is that the user should generally avoid specifying the offender characteristics,

because it greatly increases the probability that he/she will not find any cases. The user should also be very cautious in specifying the type of substance with regard to the drug offences (NCA and FDA), as most of the cells in the system are empty for these specifications.

The relatively high number of empty cells in this file is no fault of the system, because it simply reflects that there are no appelate decisions in these cases. Nevertheless, it is proving very frustrating for the users and it gives credence to Lovegrove's criticism that the system is hungry for cases, because of its basic design. Lovegrove's remedy of filling the blanks with fictitious cases submitted to judges in sentencing exercises offers little hope, as it would result in a hybrid database (not to mention the practical difficulties of Lovegrove's solution). A more realistic solution would be to look for significant appellate cases outside of British Columbia and load them into the system.

5.3.2 The Quality of the Data

In one of his progress reports, Dr. Hogarth mentions that problems were met when an attempt was made to load the Court of Appeal summaries into the SDS electronically. It was eventually found that it was more cost effective to enter the data from hard copy.

There does seems to be no serious problems with regard to the quality of the data in File 2. Still, there are some questions that ought to be resolved:

A. ***Completeness***. In documents produced by the LIST Foundation, it was either stated or implied that **all** reported and unreported decisions from the B.C. Court of Appeal from 1977 until 1989 were in File 2. In the latest report, it is said that File 2 "contains all reported and unreported decisions of the B.C. Court of Appeal" since January 1977 (p.6). Several users told us that rulings which they believed to be important - e.g., with regard to sexual offences - were not included in File 2. However, they could not give us a precise citation. We believe that the matter of completeness should be unambiguously cleared up and that the user should feel confident that File 2 contains all the appellate decisions from 1977 until today.

B. ***Homogeneity.*** The summaries for the judgments were initially written by a librarian, who worked under the supervision of the judges from the Court of Appeal (these summaries were published in **B.C. Recent Decisions**). Now, they are first written by a law student and reviewed by the Legal Associate and the Project Director of the LIST Foundation. There may be a difference in accuracy and style between the initial summaries and the more recent one.

It may be answered that this question is academic, because the users will be given access to the full text in the near future. This answer, however, raises a further question. There is no doubt that the LIST Foundation is oriented toward providing access to full text as much as possible. In theory, we can only applaud this orientation. Nevertheless, it may be found that is orientation is not cost effective. It must be remembered that the users are paying when they are on line. Reading a long judgment - e.g., R. v. Wilmott - may be found to be costly, and all the more so since reading PC screens is not the best nor the fastest way of reading extended texts. Printing the case is not the answer, since it is also time-consuming and costly. The future will show whether this issue will become a real one.

5.3.3 Updating File 2

This file is now updated weekly, which is surely adequate for its purpose. The volume of cases in this file being much smaller than File 1, the problems arising in the case of File 1 do not arise with regard to File 2. We have no particular comment to make with regard to this issue and will only refer the reader to what we already said with regard to standardizing the writing of summaries.

5.3.4 The Structure and Format of the Information

With the exception of the graphs, the structure and format of the information is similar to File 1. Several users suggested, as we have seen, that File 2 should also have graphs. This suggestion would be impractical with regard to the offences that have very few cases. The LIST Foundation might decide to format into graphs the offences that have a determined number of cases (e.g., more than 100). File 2 should also benefit from any

relevant enhancements made to File 1 (e.g., subcategorizing the offences, breaking down the numbers by year etc.).

There is one final point that we will raise with regard to File 2. We saw that there were no cases related to the *Customs Act*, the *UIC Act* and only one case relating to the *Income Tax Act*. As we shall immediately see, the situation is very similar with regard to File 3, which is also based on appellate judgments. Since several users suggested that other statutes be incorporated in the SDS, the LIST Foundation could consider replacing these three statutes by others, for which there are more cases (these statutes could simply be added to the present list).

This being said, we must repeat that File 2 is in good shape and is considered useful by our respondents.

5.4 File 3

Although it is not used frequently, at the present time, File 3 is one of the most potentially useful. However, it seems a difficult file to develop. Since we became associated with this project, File 3 has been constantly restructured and apparently still is (we worked with File 3 in June 1990 and found it markedly different from what it was at the end of February of the same year. File 3, like File 4 and 5, does not give numerical information. Hence,we will not discuss it in the same terms as we did with Files 1 and 2. We will provide a description of the file and will afterwards raise two issues.

File 3 contains cases where it is believed that particular aggravating or mitigating circumstances had had a significant impact on the sentences imposed. The list of circumstances was compiled from cases reported in the ***British Columbia Decisions - Criminal Sentencing Series***, since January 1982. Most decisions were made by the B.C. Court of Appeal; the file also contains sentences imposed by the Supreme and County courts.

The structure of File 3 is rather complex. First, different sets of aggravating and mitigating circumstances were put together in relation to various *categories of offences*. In

other words, these sets of factors do not uniquely refer to individual offences but to groups of offences. We identified the following categories :

Driving Offences (CCC)
Offences Against Persons - Non Sexual
Sex Offences and Public Morals
Weapon Offences
Offences Against Property - Violent
Offences Against Property - Non Violent
Offences Against Public Order, Law and Justice
Disorderly Houses, Gaming and Betting
Drug Offences (NCA/FDA)
Customs Offences
Unemployment Insurance Commission Offences
Income Tax Offences

Afterward, a list of at least 50 aggravating circumstances and 50 mitigating circumstances was drawned. This list is composed of a common core of factors, which are attributed to almost all categories of offences (excepting UIC, Customs and Income Tax) and several other factors which are more uniquely related to a group of offences. The list of aggravating core factors would be, for example, the following :

Breach of Trust
Emotional Damage to Victims and/or their Families
Unrepentant
Grievous Nature of Offence
On Bail, Parole,Mandatory Supervision or Probation
Planned and Premeditated
Replication of This or Similar Offences
Weapon Used
Accused Treated Leniently by the Courts in the Past
Accused denies that Conduct is Unacceptable
Accused Ignored Previous Police Warnings
Long Record

Prevalence in Community
Poor Prognosis for Rehabilitation
Major Role in Offence

This list of 15 factors does not appear ***in extenso*** in relation to every group of offences, but a large selection of them is usually present. In addition to these common factors, there are other factors that are more specific to a particular category of offences. For example, the category of **Sex Offences and Public Morals** also has these aggravating circumstances :

Terrified Victim
Child Victim (under 13)
Teenage Victim (13-18)
Dangerous mental illness

This list is not comprehensive.

The set of mitigating circumstances is similarly composed of common and more specific factors. Some factors, such as Alcohol and/or Drug Dependency appear both in the list of aggravating and mitigating factors. Generally speaking, the main groups of offences are paired with a set of 20 to 30 aggravating and mitigating factors. There are less then 10 factors in each set - aggravating and mitigating - for the Driving Offences, the Offences Against Public Order, Law and Justice, the Offences relating to Disorderly Houses, Gaming and Betting and UIC Offences. There are no factors at all for Customs or Income Tax.

The information is presented to the user in the following way. Upon the selection of an offence, the user is given a list of aggravating or mitigating circumstances, depending on his/her choices. There are 4 factors per screen and case information is provided in 2 columns. In the first column, there is a number indicating how many cases there are with regard both to a particular factor and the offence that was selected; in the second column, the user finds the number of cases where a particular factor was significant but where the offence is different from the one specified (although it belongs to the same category). The factors are always the same within one category of offence, but the order in which they are given changes. The factors for which there are the most cases appear first. For certain

recent or unusual offences, there are no corresponding factors. The factors are listed in the same order for all offences for which there are no cases specific to the offence selected by the user (cases are only mentioned in the second column).

After looking at one screen, the user can access the individual cases, which are given in full text. At the beginning of the text, there are relevant quotes where the aggravating or mitigating factor is mentioned, for quick reference. The user can press a function key to save the cases that he/she wishes to print at a later stage.

We believe that a lot of work went into restructuring File 3 and it is disappointing that it is not used more. We believe that the main reason why this file is not used more has to do with the fact that it is time consuming to research it. We will try to show this by raising 2 issues.

5.4.I Unnecessary Structure

We mentioned that numerous users complained that there was too much structure in the SDS. File 3 is a good illustration of this point. Once the user has selected an offence, he must go through the steps of specifying the offender characteristics and, in the case of drug offences, the type of drugs. **The problem here is that whatever the user does makes absolutely no difference.** Whether the user specifies anything or leaves everything unspecified, he/she will get the same list of aggravating or mitigating circumstances and in the same order. Hence the user is asked to perform operations which are completely unnecessary. There ought to be a way to by-pass these specifications and get directly into the file, after selecting an offence.

5.4.2 Interpretations

Compared to File 1 and 2, there is a much scope for interpretation in building File 3. This fact can be illustrated in several ways. For example, the offence of prostitution/impede traffic (S.213 CCC) was categorized under Disorderly Houses, Gaming and Betting instead of under Sex Offences and Public Morals. In the category of Offences Against Property - Non Violent , we find the aggravating factor "Weapon used", which clearly belongs with violent offences.

One last example. The following quote is given as an example of the aggravating factor "Grievous Nature of Offence" :

> **"...The case is clearly one of unusual circumstances, and the conduct of this appellant was so despicable and so highly reprehensible that the additional term of ineligibility which was imposed was fully justified..." (R.v. Morning (Paul William)**

It is debatable whether the judge is not referring here more to the offender than to the offence. A reading of the judgment reveals that what the trial judge found "despicable" was the fact that the offender, accused of second-degree murder, had attempted to plant evidence to incriminate an innocent man. Hence he was not really referring to the offence, but to behaviour which had occurred after its commission.

Admittedly, this is a moot point and so are our other remarks. The real issue, however, is not whether the previous interpretations were right or wrong. The point is that a user researching File 3 will soon realize that interpretations were often made and that he/she will tend to go to the full text in order to be sure that the interpretation was correct. Unfortunately, this process of verification is time-consuming and costly.

These remarks are not meant as criticisms but as hypotheses to explain why a file which is well-built and potentially useful is not used more. There is no way to escape the problem of interpretation in developing a file such as File 3. Nor can one avoid the side-effect of this semantic discretion, which is that it makes the user unsure and at times suspicious.

5.5 File 4

File 4 is an electronic treatise on the legal aspects of sentencing, which contains more than 1200 propositions on sentencing law. It is the only one of its kind in Canada. Basically, File 4 has four components or features :

- A remarkably detailed table of content, which is in itself a condensed version of the whole file, in addition to being a useful tool.

- Propositions on sentencing law. These propositions take the form of sentences or of short paragraphs which summarize the content of leading cases and other authorities on the law of sentencing. For example the general aim of sentencing is stated in the following way :

  The general aim of sentencing is the protection of individuals, institutions and values in Canadian society. Sentencing courts see deterrence, reformation and retribution as the means of achieving this aim. (File 5, Section A.1)

- As we just said, the propositions are supported by jurisprudence and legal doctrine. The supporting cases are available to the user in full text. The proposition quoted above is supported by the well-known case R. v. Wilmott.

- There is finally the hypertext feature which we discussed in our review of the literature. This feature consists of "see also" prompts which direct the reader to other parts of the file. Moving through the file is easy and can be achieved quickly by pressing three keys.

There are two characteristics that make File 4 different from all the others . First, it is a national file that refers to jurisprudence originating from all Canadian provinces. The other files do not reach outside the province of British Columbia. Secondly, it is a more personal file than all the others, in the sense that the issue of authorship is much more meaningful in the case of File 4 (although the file is updated by students, Dr. Hogarth can legitimately claim to be its author). It is conceivable that that two persons - or two teams of persons - would have produced an almost identical File 2, even if they had worked separately. The task of collecting all B.C. Court of Appeal judgments since 1977 and of producing statistics on the sentences imposed by this Court can be similarly performed by two persons or teams of persons, provided that they devote equal energy to it. However, it is completely unlikely that two authors separately writing a treatise on the law of sentencing would produce the same book. Hence, the information in File 4 is more highly personalized than in the other files (File 3 also shares this feature to a certain extent).

5.5.1 Issues Related to File 4

We do not intend to assess File 4. The assessment would amount to a book review and would be as highly personal as File 4 itself. We only wish to make three points which have more to do with form than content.

A. ***The issue of interpretation***

Raising this issue is just another way to reiterate the point that we made with regard to authorship and the personal character of File 4. There is much more room for interpretation in building File 4 than there was in developing file 3. We have already seen that there was an issue of personal interpretation with regard to File 3. The same point applies even more to File 4.

This point can be easily illustrated. Let us imagine that the case that we quoted above - R. v. Wilmott - were submitted to a panel of sentencing experts. They would be asked to summarize this judgment in one paragraph (the judgment is 11 pages long on a computer print-out, single-spaced). They would all agree on the major point that the general aim of sentencing is the protection of society. However, the precise wording of their summary would differ quite significantly. It is again completely unlikely that they would all produce the summary that we have quoted above (it refers to "the protection of individuals, institutions and values in Canadian society").

If summarizing a judgment into a major proposition of law involves a certain amount of personal interpretation, it becomes obvious that building a structure which is as complex as the structure of File 4 involves the expression of one's personal theory of sentencing. Clearly, there is nothing wrong in this, as long as it is realized that the potential for controversy is greater in File 4 than elsewhere.

B. ***The hypertext feature***

Section A.8 of File 4, entitled "Rehabilitation", refers the user to section A.6.10 of the same file (entitled "Treatment) **and vice-versa**. In other words, there is also a "See

also" prompt in section A.6.10 of File 4 and it refers the reader to section A.8. This is quite normal, since the ideas of rehabilitation and treatment are closely related.

Section B.3.2, entitled "Pending Charges", refers the reader to section E.7.5 of File 4 ("Evidence: Outstanding Charges") **but not vice-versa.** In other words, there is no "See also" prompt linking section E.7.5 back to section B.3.2. This is somewhat surprising, since the ideas of pending and outstanding charges are as closely related as rehabilitation and treatment.

The point that we want to make here is that the hypertext feature of File 4 should be reviewed and enhanced. We have given only one example of a missing loop. In our work we have found numerous examples of ideas that were incompletely linked (e.g., section B.3.1 and B.2.3). A systematic check that relationships between closely related ideas be established in both directions should be easy to make.

C. ***An Index of cited cases***

Generally speaking, textbooks on the law of sentencing have an index of all cases that were cited. For example, Ruby (1980), Nadin-Davis (1982), Thomas (1973) and Ashworth (1981) all have an index of the cases that they cite. The SDS' electronic textbook does not have such an index. We believe that this would be a useful enhancement of this file.

D. ***Pagination***

The cases that the user can print have no page indication. This raises no problem when the user is only printing one page. However, it can become a hindrance if the user wants to print a case that has several pages. After tearing the different sheets of the print-out of a case, the user must paginate the case himself/herself. Since the LIST Foundation is geared toward providing full text access to the users, paginating the cases may also be a useful enhancement in the future. This remark does not only apply to File 4 but to the other files which are supported by cases in full text.

One final comment on File 4. Although it is used much less than Files 1 and 2, File 4 is generally praised by the users. Several of them have expressed the wish that the textbook be in book form. This format would not provide the text of the supporting cases, but it might provide more visibility to the LIST Foundation and act as an efficient advertisement for its computer services.

5.6 File 5

File 5 is aptly described in Dr. Hogarth's Revised Final Report (RFR). It is a directory of British Columbia Correctional Institutions and Offender Counselling programs organized on a regional Basis. As we saw in the previous chapter, it is almost not used and we believe that this is a pity. File 5 rests on a very sound idea, which is that sentencing should not occur in a vacuum and should take into consideration the resources available for imposing a just and fitting sentence.

We have little comment to make on File 5. The SDS users supported the concept of File 5 but had very little to say about the file because they did not use it. We believe that it is very well organized.

In the RFR, Dr Hogarth says that File 5 will be updated semi-annually (p. 4). In its description of this file (p.7), the RFR states that File 5 is updated annually. This ambiguity should be removed in future references to File 5. This is admittedly a very minor point.

The real issue about File 5 is whether it should not indicate whether the offender resources are over-burdened. This would imply a monitoring of the offender resources that would be both complex and costly. Since there is no guarantee that this would result in more use of File 5, it is not presently advisable for the LIST Foundation to embark upon such a venture.

5.7 Note

As previously mentioned, we shall reserve our conclusions for the final chapter of this report.

CHAPTER 6

CONCLUSIONS AND FUTURE DEVELOPMENTS

This chapter is not a summary of the report and should not be read as such. It is basically an attempt to bring together the main findings of our research and to present a perspective on the future. Hence it is essential to read the whole report in order to know what the results of our research on the SDS really are.

We will present our conclusions in the following order. First, we discuss the content of the SDS; second, we review our previous findings on the use of the system; finally, we present tentative conclusions on potential use.

6.1 The Content of the System

Before we begin our discussion, let us remind the reader that with very few exceptions - three rather negative respondents - , there generally is support for the SDS in British Columbia. Not only did we interview at some length 40 respondents, but we also talked informally about the system with many others persons and they were positive about the SDS. However, it was always difficult to sort out whether they were reacting to the SDS itself, as it presently exist, or to the general concept of a database with all its potential for the future. We were struck by the fact that few of our respondents could hold a detailed discussion of the different features of the SDS. Hence their comments were more often general than precise.

It is also important to say that the SDS team has met its principal goal, which was to deliver and test a working prototype. We would agree with Dr. Hogarth when he says that the SDS team went further and that a fully functional production system has been built and that its services are now available.

We shall now provide more detailed conclusions.

6.1.1 Strenghts of the System: General Findings

A. ***Availability***

There is one great strenght of the system, which was noticed by only two users, but which we believe to be very important. The data contained in the SDS is available at any

time and from any place in Canada and, more particularly, in British Columbia. We believe that there may be more potential for the SDS **outside** large cities, like Vancouver, where there are many resources for legal research. In more remote places, resources are much more scarce and the SDS could easily claim to be the most comprehensive resource available. The advantages of being connected to the SDS will be even greater when access to full text will be systematically provided.

B. ***User friendliness***

There is a consensus on the fact that the SDS is very user friendly. One does not really need any training to operate the system, the user's manual being very explicit. Some of the users that we interviewed had had no training and could use the system. A training session of approximately 30 minutes is the best introduction to the SDS.

C. ***Volume and format of information***

There are more than 70,000 cases in the SDS. All judgments from the B.C. Court of Appeal are also loaded into the database. With regard to the sheer volume of information, the SDS is unique.

This information is also formatted to allow the user to grasp rapidly what are the main sentencing trends with regard to an offence. The graphs in File 1 are praised by almost every person that we have interviewed. The breakdown of the custodial offences into different categories, according to the lenght of the sentence, is also useful.

D. ***Structure***

The structure of the SDS is sound. The 5 files do represent a sequence of steps that someone researching a case may logically follow.

E. ***File 4***

Although it is not used systematically, File 4 is a distinguishing feature of the SDS and one of its major assets. There is nothing anomalous in the fact that File 4 is not used

more often. It is a theoritical work, which is relevant only for difficult cases and, more particularly, for sentencing appeals.

F. ***Printing and access to full text***

This is a feature of the SDS which will be enhanced. Although it will provide users with a valuable service, there may be problems with this feature. First, it seems that the only communication software that permits to print the full text of cases is FT-Term. However, there was a fair amount of criticism of FT-Term. Hence, it may be that one useful feature is dependent upon a less desirable one. Second, it is debatable whether printing judgments will be cost effective for the user (the present cost is $90.00 for an hour). Printing an appellate judgment may easily take 15 minutes.

G. ***Updating***

This is potentially a great strenght. A few users complained that the SDS was not updated as quickly or as regularly as they wished. We believe that this is a problem that the LIST Foundation has to a large extent already remedied. It is a necessary condition for the success of the SDS. If it is not continuously updated - File 2 is the crucial file in this case -, people will stop using it.

H. ***Initiating a legal search***

There may be at the present time no better way to start researching a case in British Columbia, that to use the SDS. One is rapidly provided with a great deal of information, that can be used as the basis for further research.

6.1.2 Possible enhancements

Before discussing some of the enhancements proposed by the users and by the researcher, we want to raise four general points.

A. ***Speed and access***

Many users complained about the difficulty of logging in or out of the system. Although this difficulty is perhaps no greater with the SDS that with other databases, there is definitely scope for improvement. It is also desirable to increase the speed of the system. We agree with the users that find it too slow. For example, researching the database to display a graph may take as much as 3/4 minutes for the high volume offences, during which the user stares at a blank screen.

B. ***Moving across offences***

The SDS is designed as a sequence of steps from one file to the others. It is however fastidious to compare offences, because the user has to start an entirely new case and go through the whole process of selecting an offence (statute, section of the statute, offender characteristics). We believe that there should be an easier way to move, laterally so to speak, across the offences.

C. ***Imbalance***

There are over 16,000 cases of theft under $1,000 and no case of Arson-Personal Property (S.433(2), CCC). As we noticed, three offences account for 49.5% of the cases in File 1. We believe that the LIST Foundation should not only remedy this imbalance but that it should develop a much more explicit updating policy. One cannot keep piling up cases of possession of narcotics, impaired driving and theft under $1,000 indiscriminately.

D. ***Offenders characteristics***

There are numerous problems with the offender characteristics and we refer the reader to Chapter 5 of this report for a full discussion. In this conclusion, we only want to stress that there should be an attempt to subcategorize the previous indictable offences characteristic. At present, the system only specifies whether or not the offender has a previous record or not. This specification is so minimal that it can generate misleading sentencing information.

E. ***Enhancements proposed by users***

Some of the main enhancements proposed by the users coincide in part or completely with the general remarks that we have made above. The main suggestions made by the users are :

- to upgrade the speed of the system and to facilitate the process of logging in and out

- to ease the constraints imposed by the structure of the system (being locked into an offence)

- to add graphs similar to File 1 into File 2 (at least where the number of the cases justifies it)

- to add new statutes to the database

- to fill the blanks with regard to unusual cases.

- to introduce more subcategorization with regard to the offfences

- to provide a key word search facility (suggested numerous times)

- to identify the individual cases of File 1 in order to allow for citation

Some of these sugestions are easier made than followed. It is difficult to fill in the blanks when there are simply no cases. The LIST Foundation might consider to look for cases outside of British Columbia.

F. **Enhancements proposed by researcher**

We believe that the user's suggestions are good ones. The only reservation that we have toward these suggestions is their actual feasibility. In giving our own suggestions, we shall proceed in identifying the file to which our suggestion refers.

File 1 :
- to introduce basic distinctions with regard to the year in which sentences were imposed
- to introduce elementary statistical analysis (percentiles, median etc)
- to introduce some subcategorization (e.g. Theft over $1000 could be broken into several categories)
- to breakdown the amount of fines in different categories and produce tables.

File 2 :
- same suggestions as above
- to review the summaries and make sure that they are homogeneous in style, format etc.

File 3 :
- to review the file and make sure that the excerpts from the judgments really exemplify the aggravating or mitigating factors that they are supposed to illustrate
- to complete the file (there are offences for which no factors are provided)
- to review the classifications of the offences , with a view of making sure that the offences are in the right categories

File 4
- to provide an index of cited cases and statutes and the means to use it
- to review the connections established by the "see also" prompts and make sure that the network of references works in both directions.

We also have one general suggestion : there should be attempts to establish explicit connections between the content of the different files (e.g. which cases were appealed). Presently they run parallel to each other and were developed from different bases (e.g. File 2 and 3 rests on B.C. appellate judgments. However they were not developed from the same law digests. This may be due to the fact that the LIST Foundation wanted to include some County and Supreme Court rulings in File 3).

G. **Enhancements considered by the LIST Foundation**

The LIST Foundation is supposed to add a key word search facility to the system. Access to full text will also be provided in File 2. These developments will be welcomed by the users.

6.2 Use of the System

Since we have already presented our conclusions at the end of Chapter 4, we shall be brief. We refer the reader to the end of chapter 4 for a summary of our findings.

6.2.1 Present Use of the System

A. ***Underuse***

Even if we assume that the system is cost efficient for the LIST Foundation - we did not investigate this question - , it would be difficult to argue that it is used as much as it should and as much as it was anticipated. The LIST Foundation is considering to offer its services to legal counsels outside CBAnet. This is an indication that it is not satisfied with the present level of use through CBAnet. The LIST Foundation also admits that use is slow to pick up with Provincial Court Judges. Based on previous monitoring, we could hypothesize that some 30 judges may presently be using it, somewhat irregularly. Finally, it is preoccupying that the Court of Appeal has modified its policy to use the SDS in every sentencing appeal.

B. Purposes

The SDS was created for two purposes: to reduce disparity and to assist counsels in the preparation of their sentencing submissions. With regard to the second goal, it was anticipated that counsels would conduct complete searches according to a particular research pattern.

The SDS is not used in the way in which it was anticipated. None of the judges that we have interviewed - even at the level of the Court of Appeal - mentioned that

he/she relied on the system to avoid sentencing disparity. No doubt, the decision of the Court of Appeal to use the SDS in every sentencing appeal was related to a concern with sentencing consistency. Nevertheless, we will reiterate a point that was made before: there is almost no admission on the part of legal practitioners (judges or counsels) that sentencing disparity is a significant problem in British Columbia.

Users of the SDS - all groups - do not follow a research pattern. The system is viewed as an information retrieval tool and it is used in this way: the user tries to get the kind of information that he/she wants in the most direct and rapid fashion (graphs in File 1 and the opinion of the Court of Appeal).

Finally, the system **is not considered to be a complete research instrument** and it is unlikely that it can become one.

C. ***Savings in time and money***

There was one finding that did surprise us to a certain extent. There was no agreement on the fact that the SDS saved time or money. The users were divided on this point and the trend was to say that it did not really saved time or money. We believe that this fact must be understood in the context of the empirical reality of sentencing. If most sentencing hearings last less that 15 minutes, one can see that spending 30 minutes with the SDS to prepare for a case does not appear as time or money saving.

6.2.2 Options to Increase the Use of the System

Devising these options is really the business of the LIST Foundation and not our own. We will offer two suggestions.

Several users mentioned that more persons would be using the system, if its marketing had been more aggressive. Apparently, it was not really agressive. On the whole, it was probably not a good idea to recruit persons who had an aversion for databases and sentencing guidelines of any sort, into the test groups. These persons gave negative publicity to the SDS. The LIST Foundation is supposed to conduct a campaign to convince Crown attorneys that they should use the SDS more.

We are convinced that it is problematic for the SDS to pursue simultaneously several objectives and to target too many groups. Reducing disparity implies the development of a database with a high volume of cases for the most frequent offences. It also implies subcategorization of these offences and sophisticate offender characteristics. Assisting counsels in their submission implies that an attempt be made to find unusual cases, for which they might consult the database. Without completely renouncing to pursue the goal of reducing sentencing disparity, we would suggest that the SDS invest most of its effort in becoming a comprehensive information retrieval system. This suggestion would also imply that artificial intelligence would not be a priority for the SDS

6.3 Potential Use

It is quite possible that the SDS is an idea whose time will come when the legal profession is less reluctant to use computers. In any case , this is the general feeling among the persons that we interviewed

Excepting File 4, which could be a book, we believe that it will take time and effort to transform the SDS into a valid for theoretical research. Presently, it performs the function of being a useful starting point for a search undertaken by a legal practitioner. However, because the robustness of the data contained in the database has never been thoroughly assessed and because it has no capacity to generate statistical information and analyses, the SDS would not be of great help to the Canadian Center for Justice Statistics or other agencies similar to this one. Nevertheless, the SDS has the potential of becoming a full-fledged research intrument.

We interviewed only one federal prosecutor , who was very negative about the system. We cannot infer on this tiny basis that the SDS would not be helpful for federal Prosecutors. However, if federal prosecutors were targeted as potential users, the SDS would have to incorporate additional federal statutes.

Finally we want to declare that the proposals that we made in this chapter shoud be understood as no more than suggestions. We hope that they will be useful in time to the LIST Foundation.

We wish to thank all the persons who gave us some of their time to be interviewed and interrupted their heavy schedule. We also want to thank the staff of the LIST Foundation and most particularly Dr. Hogarth for their help, availability and for having made our task easier.

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APPENDIX A

SW1. The Contractor shall carry out the work outlined below and complete the contract by September 15, 1989;

1.1 Identify and clarify the indicators of the evaluation; these will include: amount of usage of the system; breakdown of usage by offence, number of judges participating and so on;

1.2 Liaise with officers of the Research Section, Research and Development Directorate, Department of Justice;

1.3 Co-ordinate gathering the data, and liaise with officers of the Computers and the Law Project in British Columbia;

1.4 Make the necessary on-site to gather the data and conduct any surveys deemed necessary;

1.5 Submit a draft final report by August 1, 1989;

1.6 Submit a final report accomodating any revisions sugggested by research officers of the Department of Justice, Canada.

TERMS OF REFERENCE

EVALUATION OF THE UNIVERSITY OF BRITISH COLUMBIA SENTENCE DATA BASE SYSTEM

The report shall include the following sections and examine the following issues:

I. BACKGROUND:

- document the history of this project
- review relevant literature especially with respect to other similar projects

II. A) THE DATA BASE: (Content)

This section will provide:

a) a detailed description of the content of the five files in the system

b)* an assessment of the files including a description of how the data was obtained and verified

The following data issues should be discussed with respect to the data.

a) accuracy, recency, timeliness
b) comprehensiveness
c) scientific validity
d) capacity of the system for updating

*The assessment of the sentencing theory data base will be carried out by a lawyer agreeable to the evaluator and the data base project director.

B)** THE DATA BASE (Technical)

This section will examine the following issues with respect to the system.

a)* a conceptual features - structure, presentation of the data
b) compatibility to other systems
c) servicing issues - back up, security, confidentiality of data
d) cost issues (cost of equipment, user fees, ability of the system to carry itself)
e) capacity of the system for other uses, e.g. research

**The evaluator shall examine and assess existing evaluations, assessments and other relevant documents and advise the Department as to whether, and what type of, additional information is required to complete this section.

III. USER SURVEY

This section shall use both qualitative and quantitative material. Interviews will be designed to assess all relevant comments about the implementation and usage of the system. They will include:

1) Key informant interviews - all members of the various committees which have overseen the project.

2) Group interviews will be held with a sample of judges and lawyers - in those areas in which the system is installed.

   Small structured questionnaires which will be developed to conduct the above interviews. They should be developed in consultation with the data base project director.

3) An analysis of patterns of usage as provided in project monitoring material number of users, which files are used, how often they are used, in what sequence, etc.

   A analysis of available user comment sheets will be carried out.

APPENDIX B

INTERVIEWS WITH COUNSELS: DEFENCE AND PROSECUTION

A. PERSONNAL INFORMATION

1. Name:

2. Address:

3. User's identity:

4. Legal practice:
   - 4a: For how long has the subject practiced law?
   - 4b: Does he both practice criminal and civil law (other)? Yes No
   - 4c: Proportion of time devoted to criminal law.
   - 4d: The subject practices criminal law:

	- Defence (pr)	- Prosecution - Mostly (lib.)	Legal aid
Proportion		- 100% - 100% (no sent.)	

5. Is the subject part of the Beta test group? Yes No

   If yes, was he told that the/she was part of a test group? Yes No

6. Is the subject the only user of the SDB in his/her firm? Yes No
   - 6a: If yes, who are others?

B. INVOLVEMENT WITH THE SBD

7. Was the subject personally involved in the development of the SDB (Steering Committee, etc.)? Yes No

   7a: If yes, in what capacity?

8. How did the subject come to participate to the Beta group:

   - 8a: Of his/her own initiative? Yes No
   - 8b: Was asked to participate (by whom)?

9. For how long was the subject connected in any official way with the SDB?

   6 months
   8 months
   10 months

10. Is the subject at the present time still using the SDB? Yes No

11. Technical arrangements:
    Stand alone
    Terminal connected to main frame

C. KNOWLEDGE OF THE SYSTEM

12. Was the subject using a PC , before. being hooked to the SDB ? Yes
No

13. Was the subject using any other information retrieval system (e.g. Quicklaw or some equivalent)? Yes
No

14. How was the SDB presented to him/her ?

14a very general presentation

14b a detailed presentation (meeting with ths SDB staff)

14c training by the SDB staff

14d literature explaining the development of the SDB

15. Is the subject familiar with the whole system (all the files) or is he or she only using part of the system ?

16. Is the subject familiar with how the system was developed (the extent of the data base etc.)

D. FREQUENCY OF USE

17. Is the subject using the system him/herself ?

17a : him/herself

17b : clerk
17c : articling student
17d : other
17e : general assessment of frequency of use

- Very frequent_____ not frequent _____
- frequent_____ almost never _____
- occasional_____

18. Technical arrangements :

- is the connection with the SDB satisfactory yes
rather
no

- any problems (which)

- any lasting problems (which)

19. Files :

19 a : Were all files equally used : yes/no

19b if no, which files were used more frequently (hierarchy)

19c. Why ?

20. Search Patterns

20a : Does the subject, when using several files for one case, follow a definite patter or does he/she operates differently in relation to each case ?

20b : If there is a pattern, what is it?

21. Translations of frequency :

21a : Is the system used in : all cases_____
most cases_____
some cases_____
few cases _____

21b : How does this translate in terms of actual number of cases:

how many cases a week (on average) :

21c: How does this translete in terms of time:

- one case is researched at a time _____
- several cases are researched at a time _____
- average time spent on a search _____
- any lenghty searches _____

22. Types of Cases

22a Is the SDB used for particular types of cases ? yes
no

22b if yes, - cases selected on the basis of seriousness

- cases selected on basis of type of offence (property vs persons, sexual assault vs. robbery)

23. Factors

23a : Are factors selected of left unspecified.

23b : If specified , which factors are more often specified ?

24. : should any factors be dropped _____

be added _____

25. Retrieval

25a : Is the system used to print either judgments of summaries of judgments :

frequent_____
occasional_____
unfrequent_____

26. Uses outside of sentencing

Is the system used for other purposes than sentencing :

- preparing for a trial
- in plea negociations
- other

27. Use in Court

Is the SDB ever mentioned in open court in order to secure or to justify an issue in a case (using the SDB as a kind of authority) ?

E ASSESSMENT

28 . Purposes

28a : For what purposes did you originally wanted to use the system

28b : Did these purposes evolve in time, as you got to know the system better

28c : does it serves adequately your present purposes ?

29. Files

29a. Are all files perceived to perform the same function (to provide information) ?

If not what are the different function.

29b. Ranking of files in terms of usefulness

29c Would the ranking change if enhancements were made to particuler files ?

29d File 4 and five 5 provide information that is not numerical. How do you assess the usefulness of these file :

File 4 : (scale of 5 , 5 being the highest rating, :

File 5 : (scale of 5 , 5 being the highest rating) :

30 Strengths and weaknesses

Strengths : technical

content

Weaknesses: technical

content

31. Enhancements

technical

content

32.Does it save time: a lot
some
nor real

Does it save money: a lot
some
not real

33. Completeness :

33a : is it a one - stop information system (does one gets from the SDB all that one needs to prepare for a case or determine a sentence) ?

If not :

33b : is the SDB to be faulted for this ?

is the reason rather that no data-bank can pretend to be eomplete and exhaustive (one always looks somewhere else to see if anything ha been missed)

F. SENTENCING ISSUES

34.: are judges using it ?

35.: any pressure from the bench for counsels to use it ?

36.: should it play a part in the judge's determination of his sentence (should the use of the data-bank by judges be encouraged ?)

G. GENERAL ASSESSMENT AND COMMENTS

37.: Will the subject keep on using the SDB with a significant degree of frequency

38.: other comments

Interviews with Judges : Protocol

A. PERSONAL INFORMATION

1. Name :

2. Address:

3. User's identity :

4. Legal practice :

- 4a. For how long has the subject been practicing law ?
- 4b. In which field initially ?
- 4c. For how long has the subject been a judge ?
- 4d. At what court level (presently) ?
- 4e. Proportion of time the subject devotes to sentencing.

5. Was the subject part of the Beta Test Group ?

If yes, was he told that he/she was part of a test group

6. Among his/her colleagues, is the subject using the SDB more
   6a Generally speaking is use of the system frequent at his/her level of Court ? equal / less than others

B. INVOLVEMENT WITH THE SDB

7. Was the subject personally involved in the development of the SDB (steering Committee e

yes
no

7a : if Yes, in what capacity

8. How did the subject come to participate to the Beta group:

a - of his/her own initiative:

b - was asked to participate (by whom) :

OR , if subject not member of Beta Group

- in what capacity is the subject using the system ?
- how did the subject become involved : his/her own initiative :
  was asked to :

9. For how long was the subject connected in any official way with the SDB

10. Is the project at the present time still using the SDB Yes
No

11. Technical arrangements : Stand alone
Terminal connected to main frame.

C. KNOWLEDGE OF THE SYSTEM

12. Was the subject using a PC , before being hooked to the SDB ? Yes / No

13. Was the subject using any other information retrieval system (e.g. Quicklaw or some equivalent)? Yes / No

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content

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technical

content

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some
not really

Does it save money: a lot
some
not reall