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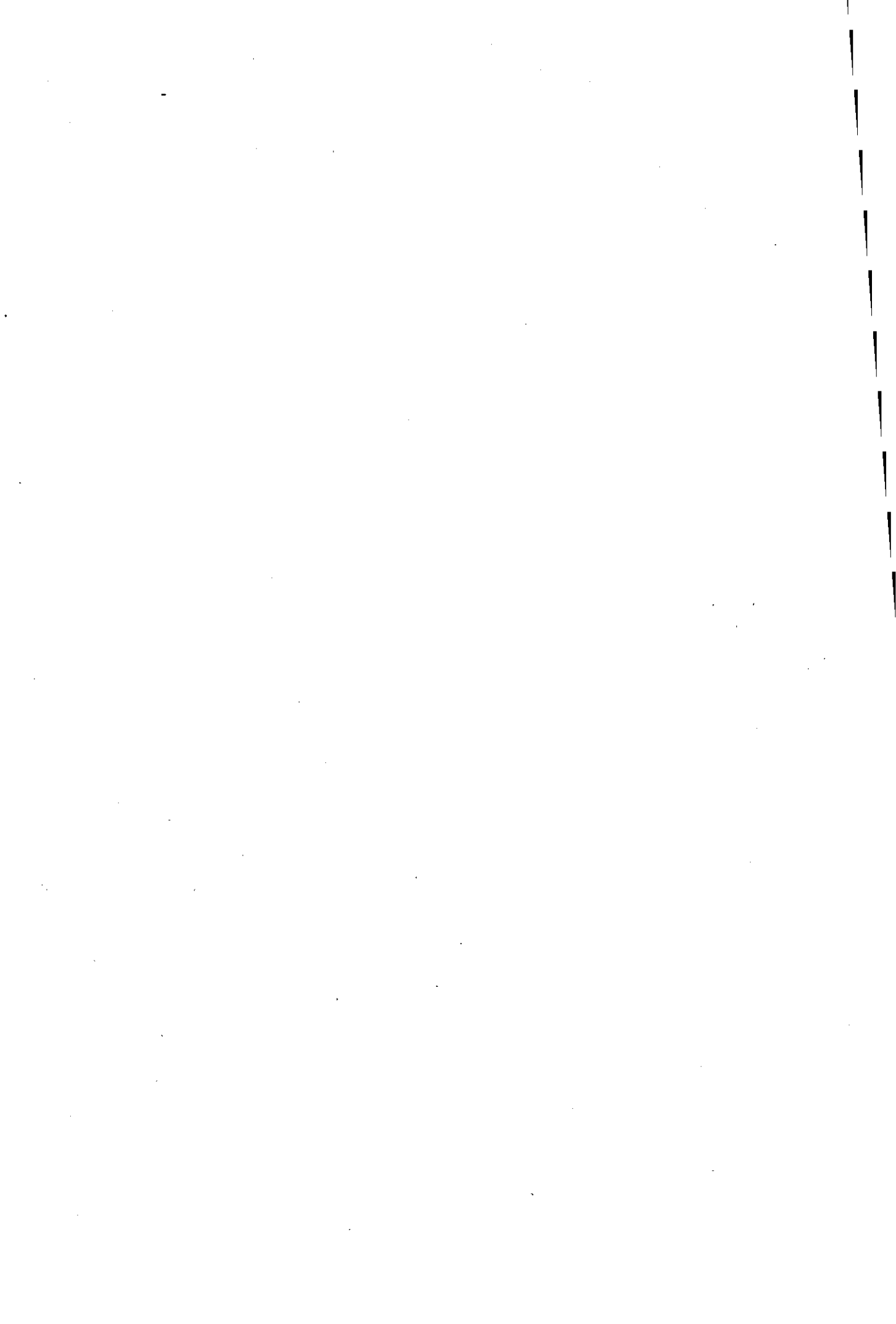
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**Studies in Technical and Social Influences on Information and
Library Management**

by

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CONTENTS

I. INTRODUCTION

- 1 Preamble
- 2 Managing Change
- 3 Technology and Legislation
- 4 Data Protection: A Case Study in the Convergence of Information Technology and Legislation
 - 4.1 The Evolution of Data Protection
 - 4.2 The Operation of Data Protection
 - 4.3 Preliminary Studies Based on the Proposed Legislation
 - 4.4 Studies Based on the Data Protection Act
 - 4.4.1 Studies Related to Specialised Audiences
 - 4.5 Issues Related to Formal Professional Organisations
 - 4.6 Training Issues
 - 4.7 Longer Term Study of Theory and Practice
 - 4.8 Data Protection Impact Study
- 5 Conclusion
- 6 References

II. LIST OF WORKS SUBMITTED

III. STATEMENT FROM THE LATE MR J C BEARD REGARDING THE EXTENT OF JOINT AUTHORSHIP

IV. CERTIFICATE OF ORIGINALITY

V. TEXTS OF WORKS SUBMITTED

Technical and Social Influences on Information and Library Management

I. INTRODUCTION

1. Preamble

The works in this submission explore a specific segment of information management and the way technology and social forces, including political and legal aspects, have impinged upon it. The specific area of data protection in theory and practice was chosen as an exemplar of the many and varied influences in this context which have to some extent, changed irrevocably the manager's world. Other examples such as computer misuse, information technology health and safety implications and electronic intellectual property issues might equally have been candidates for consideration since they all embody similar combinations of technological and socio-legal components. Data protection was, however, considered worthy of treatment as it is a relatively neglected area in terms of the attention it has claimed both from practitioners and researchers. Moreover, it does neatly represent the interesting juxtaposition of broadly technical and social factors that confront the manager.

The items which comprise this submission span over a decade of research activity. They collectively investigate, analyse, interpret, describe, and specify original ideas and strategies for the topic. In addition to placing the subject in context, original themes for understanding the situation and managing activity appear. A detailed exploration is also included of the impact of data protection in a specific sector and the information revealed is employed to give further perspective to the issue. Overall, the techniques employed cover a wide range from desk research through analysis of content to practical design and survey methods. Taken together the items provide the sound basis upon which a depth of understanding of the topic can be achieved and management strategies can be developed for the future. As such they contribute

substantially both to the body of scholarly research and professional knowledge in information and library science.

Among the features included in the research are the following:

- * analysis of the theoretical foundations of data protection
- * the 'deconstruction' of the topic into its component parts
- * examination of the evolution of the legislation
- * analysis and interpretation of the general scope and operation of the legislation
- * specific analysis and interpretation as it relates to information management
- * identification of critical factors in information management
- * development of management policies, strategies and operations
- * assessment of training needs and the design of appropriate training strategies and content
- * survey based sector impact analysis of data protection legislation
- * survey based evaluation of sector professional awareness
- * survey based identification of sector professional practices
- * survey based identification of sector professional attitudes
- * sectoral comparative study
- * extensive analysis of relevant literature from several related disciplines

2. Managing Change

Managers, in whatever context they find themselves live in a turbulent world. They are constantly concerned with change both within and outside their organisations. Both the inevitability of change and the difficulty, if not impossibility of predicting just where and how it will influence managers are themes which run through the management literature. The impact of scientific and technological developments, changes in social and political structures and forces, governmental and pan-governmental initiatives, together with competition and economic imperatives all operate on an international scale to create a dynamic backcloth to management

activity. The fundamental information-based or knowledge-based nature of what has evolved in this context is especially relevant in this study.

Peter F. Drucker in his appropriately titled, *Managing in a Time of Great Change* prescribes, for the information-based organisation, the following:

For managers, the dynamics of knowledge impose one clear imperative: every organization has to build the management of change into its very structure.⁽¹⁾

Similarly, John Harvey-Jones emphasises this fundamental aspect of the manager's task in his book, *Making it Happen*.

"Management in particular is not about the preservation of the status quo, it is about maintaining the highest rate of change that the organisation and the people within it can stand".⁽²⁾

He reinforces his view in his concluding chapter:

Without change nothing is possible. Not to change is a sure sign of imminent extinction. Remember the dinosaurs! Whether change is comfortable or not, it is inevitable. The forces of change are many.⁽³⁾

Tom Peters in his book, *Thriving on Chaos* stresses even more forcefully the necessity for managers and organisations not only to accept change but actively to seek it.

If the word "excellence" is to be applicable in the future, it requires wholesale redefinition. Perhaps: "Excellent firms don't believe in excellence - only in constant improvement and constant change." That is, excellent firms of tomorrow will cherish impermanence - and thrive on chaos.⁽⁴⁾

If illustration is needed, then the last decade has featured many important changes which have influenced people's capacity to manage affairs both globally and nationally. There have been profound political and economic changes in Eastern Europe leading to the disintegration of established political systems and new challenges and opportunities (and even wars!); initiatives towards creating a more integrated trading regime in the European Communities through a 'Single European Market' have, largely, been realised; many of the world's developed nations have suffered (and partially recovered from) economic setbacks which have led to drastic unemployment and a significant reduction in the resources available for investment in private and public sector developments.

Technological advance has continued apace, not least in the realm of electronics applied to information handling and telecommunications. For example, the optical disc has become commonplace, not only for digitally recording sound, but for storing vast quantities of information; and national and international digital transmission networks permitting the transfer of text and other information have become simpler and cheaper to use. In addition, the desktop computer has gained even more widespread application and had its computing power, in terms of speed and magnitude enhanced. The enabling software technology has simultaneously been developed to take advantage of this power and has in many cases rendered it easier to operate - graphical user interfaces and hypertext being notable examples. The fusion of some of these technologies to provide a relatively seamless and accessible means of global information exchange through the Internet has radically changed the culture of communication.

The manager's capacity to innovate and adapt has been increasingly tested in recent times because of the accelerating rate of innovation and change in society. The evolution of technology, the demands of the workplace, the pressures of the market place all continue to stimulate professionals to seek to know more, perform better and decide more wisely.

This requirement to understand, initiate and react to change is equally apparent for

managers of information and library services as for others. They may initiate change through the introduction of new services, working practices or information products; or they may react to change brought about by technical developments, and/or social factors including economic, political and legal trends.

3. Technology and Legislation

The importance of considering social issues in tandem with technological advance is neatly articulated by the challenging management thinker, Rosabeth Moss Kanter, in her book *The Change Masters*.

... our emerging world requires more social and organizational innovation. Indeed, it is by now a virtual truism that if technical innovation runs far ahead of complementary social and organizational innovation, its use in practice can be either dysfunctional or negligible.⁽⁵⁾

In a recent work⁽⁶⁾ the candidate briefly explored the tensions within society regarding information technology generally and more specifically the relationship between legislation and information technology. These tensions between technology and society are sometimes creative, sometimes destructive. The mechanisms for resolving these tensions include; dissemination of information and education about the technology or alternatively, and sometimes more negatively, regulating or legislating about and against it. What is clear is that issues emerge from managing information technology and related systems which require knowledge, skill and adaptability. The material in this submission charts an extensive and extended exploration of one such issue.

The library manager has continuously had to assimilate and adapt to new technological developments. Similarly the library manager has long had to manage operations within a legal framework. The convergence and indeed interlocking of

these two factors - when technology and legislation become inextricably bound together - has brought a new complexity to the situation and created even greater challenges for the hard pressed manager with little time or opportunity to become a technical and legal expert in a range of applications.

4. Data Protection: A Case Study in the Convergence of Information Technology and Legislation

In the practical managerial context a prime example of the fusion of the two components is data protection, in which data processing and law meet 'head on'. How this 'collision' was managed in the United Kingdom represents an important aspect in the evolution of data protection.

4.1 The Evolution of Data Protection

By the early 1980's it was evident that the pressure to create a data protection law was becoming irresistible. The perception that processing data about people by computer presented a serious threat to their privacy and lifestyles had been growing for some time, though there was little evidence to substantiate such anxieties. Notable landmarks in the development of the issue in the U.K. are the Report of the Younger Committee on Privacy⁽⁷⁾ which appeared in 1972, and the Report of the Lindop Committee on Data Protection⁽⁸⁾ which was published in 1978. On the international front, the emergence of a Convention from the Council of Europe⁽⁹⁾ on the issue, and the development of Guidelines⁽¹⁰⁾ by the Organisation for Economic Co-operation and Development (OECD) were two important factors which provided added impetus to the development of data protection legislation in this country and elsewhere. After a few 'false starts' with Private Members' Bills and a General Election which precipitated the abandonment of the Government's first attempt at legislating, a Data Protection Act⁽¹¹⁾ reached the statute Book in, of all years, 1984. (The Orwellian touch was not lost on some commentators!)

4.2 The Operation of Data Protection

The legislation was designed to fulfil two main objectives. Firstly, to provide a legal framework through which the integrity and privacy of personal information in computer systems could be assured and protected; and secondly to enable the United Kingdom, by having such legislation in place, to satisfy the Council of Europe Convention noted earlier and thereby preserve an appropriate trading status in transactions involving computer data. The importance of data protection on international trade was significant since nations with such legislation were thought to be reluctant to transfer personal data to those which had not. There was a notion of countries, in such circumstances, becoming 'data deserts' to which no self-respecting data processor would send information, or alternatively 'data havens' where illicit processing could be undertaken but to little point if it were needed elsewhere in the world.

Central to the data protection legislation was the specification of eight guiding principles governing activity involving personal information in computers. They required that personal data be: -

1. Obtained fairly and lawfully
2. Held only for one or more lawful purposes declared by the data user
3. Used or disclosed only in accordance with the data user's declaration
4. Adequate, relevant and not excessive for the declared purposes
5. Accurate and where necessary up-to-date
6. Not kept longer than necessary for the declared purposes
7. Made available to those about whom data related (data subjects) on request
8. Properly protected, through appropriate security, against loss or disclosure

Further components of the legislation created the regulatory structures and operational mechanisms to achieve effective data protection. The role of implementing the legislation was placed upon a specially created Data Protection Registrar. A major function of the Registrar would be to create a Register of data processing activity involving personal information. The Registrar would also exercise powers to

investigate, monitor, approve, regulate and direct the activities of data users. Anxieties about the concentration of so much power and responsibility in one Office were allayed by the creation of a Data Protection Tribunal as an appeal mechanism for data users.

Data users and computer bureaux were generally required to provide official notification of their operations with personal information and obliged to follow the Data Protection Principles. A few categories of data use were exempted from all, or a limited portion of the requirements of the legislation, either to facilitate information gathering to assist national security and crime prevention or, more commonly, in order to simplify its operation.

Individuals about whom information was being collected and used, and described as 'data subjects', were accorded certain rights. Data subjects were generally entitled both to establish whether data about them was held by anyone and to gain access to any that existed. Data subjects were also able to seek compensation in a court for damage caused by reason of the inaccuracy, or the loss or unauthorised destruction or disclosure of information about them. In some circumstances data subjects could get a court to direct that offending data be corrected or erased.

The timetable for implementing the legislation was spread over two years to allow both the regulatory mechanisms to be put in place, and to enable the data users and the wider community to assimilate and adapt to the new situation.

4.3 Preliminary Studies Based on the Proposed Legislation

During its progress in Parliament the proposed legislation ⁽¹²⁾ ⁽¹³⁾ was scrutinised by a range of interests including those representing the information and library profession. Representations were made (usually unsuccessfully) when measures proposed were regarded by interest groups as being unduly restrictive and/or unworkable. Early warning of the shape of the emerging legislation was also provided to managers and professionals who would soon have to work with an entirely new law. Items (O) (N) and (M) comprise a series of separate articles in which the

proposed legislation is described, analysed and commented upon in order to alert the information and library profession to the emerging situation.

Item (O) published in October 1983 provides a brief description of the legal framework proposed for data protection together with tentative comment on its likely operation. Item (N) which appeared in January 1984, in addition to providing a fuller outline of the legislative framework, analyses its implications for library and information management more deeply and provides an account of official professional initiatives undertaken to respond to the situation. The particular preoccupations of the library profession as expressed in the Library Association's representations to the authorities included: -

- a) The magnitude of the operations involved in terms of the entire registration exercise which threatened to overwhelm the Registrar's resources and the data using community's capacity to respond.
- b) The full implications for legislation which is not easily revised, of technological developments, known and predictable, on the whole area of data processing and use.
- c) The need to maintain an equitable balance between the interests of scholarship and the individual, especially when questions of retention, use and disclosure of personal data for archival, historical, statistical or research purposes were considered.
- d) The peculiar function and character of bibliographic information in catalogues and databases which contain personal authors' names, and as such fall under the ambit of the legislation, but which rarely if ever contain sensitive information.
- e) The complexity in terms of systems technology and administrative processes of transborder data flow and its consequent impact upon the protection and integrity of data, factual and bibliographic, used from overseas databases.

Item (M) aimed at a more specialised academic library management audience appeared in June 1984. It is in this group of publications that the original concept of a ninth pseudo-principle of data protection concerned with archiving data and 'embedded' in the draft legislation is first introduced and described.

The eight principles enumerated in a separate Schedule of the Data Protection Act give the appearance of making no allowance for retaining and preserving data once its immediate purpose is fulfilled. However, a final clause in the Section devoted to interpreting these principles embarks upon entirely new ground by permitting, with appropriate safeguards, data to be kept for historical, statistical or research purposes.

Use for historical, statistical or research purposes

Where personal data are held for historical, statistical or research purposes and not used in such a way that damage or distress is, or is likely to be, caused to any data subject -

- a) **the information contained in the data shall not be regarded for the purposes of the first principle as obtained unfairly by reason only that its use for any such purpose was not disclosed when it was obtained; and**
- b) **the data may, notwithstanding the sixth principle, be kept indefinitely.⁽¹⁴⁾**

The importance of this to the library and information community, and to scholars and archivists, amongst others, should not be underestimated. Without some mechanism to permit the legitimate retention and preservation of commonplace, but historically significant computerised personal information the raw material for future scholarship would simply be unavailable. This would be in sharp contrast with the situation pertaining with more 'traditionally' created primary material which has survived, or been preserved for posterity.

4.4 Studies Based on the Data Protection Act

With the appearance of the Data Protection Act in July 1984 there began an extensive programme of information, education and training throughout the country by a variety of agencies - official and independent - and individuals. Not least among the disseminators of appropriate information by printed material, workshops and seminars was the Office of the Data Protection Registrar. In addition, the library and information community played its part as will be seen later.

The Act involved itself with a technology which had hitherto hardly been touched by legal matters, save in the most general way. Moreover, computers had by now permeated deeply into a whole range of the country's administrative, commercial, scientific and technical life. There was therefore much to assimilate and to which to adjust; and many needing to do so. There was some recognition of this state of affairs from the authorities insofar as the implementation of the legislation was phased in over some time. Many questions were raised during this period. How would the Act work? How could day to day operation be affected? How were the mechanics of regulation to be achieved? What exactly was personal data? How was the individual whose information was being processed affected?

The need for information, interpretation, analysis and direction was widespread. Work on several of the items in this submission arose, in part out of such a situation. In addition to being based on thorough research into the general topic and analysis of the specific legislation they drew upon the author's earlier involvement, on behalf of the Library Association, in monitoring the passage of the legislation through Parliament and in contributing to draft policy documents and briefings to Government and Parliamentary Representatives on issues impinging on the information and library profession.

Item (L) is a detailed study of the entire topic, published soon after the appearance of the Data Protection Act.

Firstly, an analysis of terminology is undertaken and distinctions are drawn between

data protection and the related but different terms data privacy and data security. An original working definition of data protection is developed and specified as -

"...entailing the creation of a legal, social and technological framework, through which are achieved the objectives of ensuring that information in the form of records, data and results pertaining to individuals is obtained, transmitted, stored and used in such a way that it cannot be consulted, altered, applied, extracted or destroyed by unauthorised persons, or to the detriment of an individual's interests"

(item L p. 4)

The fundamental nature and philosophical basis of data protection are explored. Four major factors are identified as being critical to the emergence of data protection as an issue and a 'problem' which requires a solution. These comprise:

- a) Considerations of fundamental personal privacy
- b) Computer technology developments
- c) Telecommunications technology developments
- d) The impact of social forces

The notion of privacy is noted as being an elusive one which is hard to define and legislate for, but this notwithstanding the importance of a fundamental right to privacy is recognised internationally both in the United Nations Universal Declaration of Human Rights, and in the Council of Europe's European Convention for the Protection of Human Rights and Fundamental Freedoms. In the computer age it may therefore be regarded as a not unreasonable expectation for any individual that his or her privacy, however defined, should not be abused by data processing activity.

A brief overview of computer technology developments since the 1940's emphasises the spectacular gains achieved in computing power and general accessibility of data processing capabilities whether judged in terms of the size, complexity, reliability and cost of machines; sophistication, flexibility and ease of use of software; or versatility of applications. The conceptual 'shift' of the computer from a 'number crunching'

electronic calculator to an information processing tool is viewed as a most significant development. Computers enable personal information to be manipulated and managed as extensively as desired, or as society permits. Following this, the question is posed - "*... what's so special about computers?*" since personal information recording and use greatly pre-date the computer. Moreover, there was, and is a body of opinion that regards the regulation of the use of manually organised personal information as equally necessary. Two quotations are included to illustrate official thinking on this issue, which views the problems and anxieties posed by computers as being of a far more serious and complex nature. The first is from a Government White Paper on Computers and Privacy.

What is special about computers?

5. **None of the functions carried out by computers within an information system is different in kind from those which are, or could in practice be, carried out by traditional methods. But there are important differences in the way, and the speed at which, those functions can be performed by computer systems on the one hand, and by traditional systems on the other.**

6. **The speed of computers, their capacity to store, combine, retrieve and transfer data, their flexibility, and the low unit cost of the work which they can do have the following practical implications for privacy:**
 - (1) **they facilitate the maintenance of extensive record systems and the retention of data in those systems;**
 - (2) **they can make data easily and quickly accessible from many distant points;**
 - (3) **they make it possible for data to be transferred quickly from one information system to another;**

- (4) they make it possible for data to be combined in ways which might not otherwise be practicable;
- (5) because the data are stored, processed and often transmitted in a form which is not directly intelligible, few people may know what is in the records, or what is happening to them.⁽¹⁵⁾

The second is from an Explanatory Report accompanying the official text of the Council of Europe's Convention on data protection from the Foreign and Commonwealth Office.

Compared with manual files, automated files have a vastly superior storage capability and offer possibilities for a much wider variety of transactions, which they can perform at high speed.⁽¹⁶⁾

The role of another beneficiary of the 'microchip revolution', namely telecommunications technology is briefly considered. The technology embodies developments in electronics, satellites and components such as fibre optic cable. Progress in this area relies not only on technological advance, however, but in the willingness of nations to co-operate in the interchange and relaying of messages. The state of the art enables rapid and reliable global dissemination and exchange of information, and the linking of sophisticated systems to process that information.

The social forces relevant to the data protection issue, and their impact are summarised. Society's ambivalence about the benefits (or otherwise) brought about by technology - any technology - is discussed, and parallels are drawn between attitudes to computers and telecommunications and transport systems by way of illustration. Society's lack of accurate and complete knowledge about the technology involved has potential for nurturing or exacerbating suspicion and uncertainty about its dangers and misuse. Education and awareness-raising therefore, are viewed as important contributors together with regulation and legislation in allaying anxieties about the issue.

The uniting of these four factors are regarded as precipitating the emergence of data protection as a socio-technological issue. The situation is summarised as follows:-

"The root feelings about one's privacy, the power and scope of computers, the broad reach of communications technology, and the general scepticism and even suspicion engendered in people for a variety of reasons, coalesce to a degree where society has determined that some regulation of this area is a pre-requisite for any further development". (item L p.15)

The union of computer technology and worldwide telecommunications nurtures what is termed transborder data flow (T.D.F.) and naturally provides an international dimension to data protection, the implications of which are studied. There are the problems of ensuring adequate data protection when personal information is being exchanged between nations and ensuring that it does not go beyond the ambit of such protection. (Concepts such as 'data havens' and 'data deserts' have been described earlier). The Lindop Committee's conclusions after having studied the issue was noted in its Report.

It is now generally agreed that some regulation of international data traffic is necessary for three reasons. First, each country wishes to ensure that users cannot evade its own data protection rules by processing abroad personal information about its residents. Second, countries have political, economic and military reasons for wishing to protect their sensitive data against accidental or deliberate disclosure or destruction abroad. Third, and by contrast, it is in the interests of the international community to preserve the free flow of information against unilateral protectionist measures.⁽¹⁷⁾

Progress amongst international organisations in this sphere is summarised with reference to the activities of the Council of Europe, The Organisation for Co-operation and Development (OECD), The European Communities [later The European Union] - which until recently have made very slow progress with this problem, The United Nation's Centre for Transnational Corporations (UNCTC), and The Inter-

Governmental Bureau for Informatics (IBI) based in Rome.

A brief review of official interest and activity regarding data protection in the UK is undertaken. Key stages in the evolution of the topic are described in order. The sequence begins with the Younger Committee on Privacy, established in 1970, which studied the general issue of whether legislation was required to provide further protection against intrusions of privacy. Its work was confined to the private sector. A small Working Party on Computers established under its remit contributed to its study of modern technical developments. Its Report appeared in 1972.⁽¹⁸⁾ This is followed by a Home Office statement detailing the Government's full reactions to the Younger Committee's conclusions and recommendations, entitled Computers and Privacy.⁽¹⁹⁾ A companion report from the Home Office, Computers: Safeguards for Privacy⁽²⁰⁾ describes the amount, nature and provisions for safeguarding of computer processing of personal information in the public sector which had been specifically excluded from the Younger Committee's terms of reference. These two documents set the scene for the creation of data protection legislation and the establishment of the Lindop Committee on Data Protection in 1976 which follows in the commentary.

The Lindop Committee on Data Protection undertook the most extensive review of the issue - even to the extent of commissioning special studies. As a detailed commentary on the subject its Report,⁽²¹⁾ published in 1978, is of considerable value in its own right. Though not all its recommendations were encapsulated in subsequent legislation - ideas for mandatory and legally enforceable codes of working practice for industry sectors were modified to voluntary status, for example - they represented the foundation of what was to be later established in order to ensure adequate control over processing personal information.

After this is considered the 'White Paper' in which the Government's intentions regarding data protection legislation were specified in detail - Data Protection: The Government's Proposals for Legislation⁽²²⁾ which appeared in 1982. Its general approach reflected the legislation which finally emerged following the introduction of Bills in 1982,⁽²³⁾ and again in 1983⁽²⁴⁾ after a General Election had curtailed the progress of the first one. The Data Protection Act, which is by now an established

component of personal data processing management, having finally completed its progress through Parliament in 1984 and received the Royal Assent in July of that year, completes the sequence.

A lengthy review of the Data Protection Act is undertaken and its key features described and discussed. These include: the data protection principles; the roles of the Registrar, and Data Protection Tribunal, the data protection Register as a mechanism for monitoring activity, rights of data subjects, exemptions from, and exceptions to the full operation of the legislation, and data users' obligations.

The applicability of the Act to library and information service operations is fully analysed with reference to the types and functions of files and systems involved, and the nature of the personal information processed. This is followed by a review of the requirements and responsibilities imposed by the legislation on the library and information services manager including in-depth analyses of how the different categories of personal data used are treated for registration and within the data protection principles.

Following these extensive analyses, original ideas incorporating general managerial strategies to pursue and develop in order to manage data protection successfully are specified and examined in a series of 'twelve steps for management action'.

The response of the library and information profession to the issue is briefly summarised with reference to the activities of the Library Association and the Institute of Information Scientists. (The texts of documents issued by both bodies are reproduced in an Appendix). An article which examines these issues in more detail is described later, (item F).

Other Appendices include a bibliography and the text of the Data Protection Act.

Items (K) and (J) were prepared at the instigation of the Bibliographic and Information Technology and Standards Committee of the Library Association which sensed the need for description, analysis and commentary on the implications of the

legislation. Item (K) provides a brief analysis of the issue in question and answer form. Item (J) is a fuller more formal treatment which, in addition to summarising the data protection principles, discusses the data protection system of oversight and regulation, and details relevant library and information operations. Specified guidelines for working under the law encompass; institutional policy, major initiatives, and advice on routine procedures from the collection through storage, processing, utilisation and exploitation of personal information to its ultimate disposal. Both items were produced by the candidate, with the assistance of the late Mr John Beard, who was then County Librarian of Hampshire. (A statement of the extent of authorship from Mr Beard is reproduced in a later Section of this submission).

Item (I) is based on a paper given by invitation at the Annual Conference of the Scottish Library Association in 1985.

It begins with an analysis of some facets of personal privacy and computers. The findings of an attitude survey documented in the Report⁽²⁵⁾ of the Younger Committee on Privacy, in which over four-fifths of respondents regarded untrammelled access and use of personal data as an invasion of privacy which should be prohibited by law, are discussed, together with an example of how seemingly commonplace personal spending information can be used or misused (perhaps incorrectly by conjecture) to determine features of character, lifestyle and even morals.

The background, official activity and international dimensions to data protection legislation are described as are the detailed provisions and operation of the Data Protection Act. Implications for library operations are examined and developments such as electronic document delivery and more widespread use of expert systems are highlighted as areas which may present problems in future. The managerial response to the situation is discussed with the priorities being to secure registration of data use (to keep within the law), and to create an appropriate operational framework. By way of example, detailed treatment is given to the operational aspects of security and confidentiality of data. Considerations affecting the level of appropriate security are specified and a range of risk factors which have been originally developed are

enumerated.

Examples where confidentiality may be compromised include:

- *disclosing details of items borrowed, returned, reserved or requested by a library user;*
- *disclosing details of fines owing, or even paid by a library user;*
- *disclosing details of library user addresses, telephone numbers, etc.*

Methods by which confidentiality may be compromised include:

- *verbal disclosure directly to an unauthorised person or through being overheard by an unauthorised person;*
- *allowing unauthorised persons to view printouts and related material intentionally or unintentionally;*
- *allowing unauthorised persons to view VDU screens and related equipment (LED displays etc.) intentionally or unintentionally;*
- *in some instances sending 'open' (i.e., inadequately sealed) communications to people by post;*
- *discarding personal data no longer required, such as 'old' printouts, without observing adequate safeguards for its destruction.*

(item I p. 27)

A brief reminder of the profession's input to data protection developments is included and the paper concludes by stressing the need for maintaining an awareness of the importance of data protection.

4.4.1 Studies Related to Specialised Audiences

Item (H) arose as a result of an invitation from the Society of Indexers to contribute an item to their journal and it seeks to encompass the particular preoccupations of indexers in working with reference to named living individuals in its description of the legislation and analysis of its implications.

Item (G) is based on a paper presented by invitation at the United Kingdom Serials Group Annual Conference in 1986. It addresses itself to those concerned with the creation, management and exploitation of serials. The paper's objectives include; defining the nature of data protection, discussing the current and future relevance of the issue to serials librarians, describing the scope and operation of the legislation and exploring managerial issues

In examining the nature of data protection an original analysis of the fundamental anatomy of the subject as being composed of a complex including privacy, reliability and fair use of information is developed and documented for wider dissemination for the first time.

- **PRIVACY** - *where appropriate, entails the provision of adequate security measures and a due regard for confidentiality amongst those who handle information*
- **RELIABILITY** - *Pertains to the accuracy, up-to-dateness and indeed completeness (not lost or destroyed wholly or partially) of information.*
- **FAIR USE** - *Describes the attitudes, behaviour and motives of users of information. Included under this heading are; the method and fairness of its acquisition, the amount, duration and relevance of what is held, the purposes to which it is put including the context in which it is used, and the treatment of individuals with enquiries and complaints about information pertaining to themselves.*
(item G p.24)

The contemporary applications of computers to serials management are summarised and the instances where personal data may be involved are specified. A future influenced by: money (with severe financial constraints threatening serials collections), manpower (with rationalisation of staffing precipitating role changes and

greater pressure on staff), and microelectronics (through which new services for delivering information can develop) is anticipated as leading to a radical change for serials librarianship. Scenarios for communicating research information which may evolve from 'conventional' serials and involve more personalised data delivery and exchange - with concomitant personal data handling (and data protection) problems - are analysed in what now seems a quite far-sighted section.

One consequence foreseen is that professionals will need to become more user, and less collection oriented, and that the long term outlook demands adaptability to think in terms of information supply rather than serials supply. Within this context the substance of data protection legislation and management is described and analysed in detail in the remainder of the work.

4.5 Issues Related to Formal Professional Organisations

A preliminary account of much of the library and information community's response to the situation was placed on record in item (F) published following presentation at a Conference organised by ASLIB in March 1985. The library and information profession had emerged with some credit from its positive and constructive involvement in the data protection issue, past and present. The Library Association had contributed evidence to the Lindop Committee during its deliberations and had drawn on its findings to publish, with some foresight, a relevant code of practice ⁽²⁶⁾ in 1981. The introduction of draft data protection legislation by the Government had stimulated the creation of the Association's Working Party on Data Protection. A great deal of activity in terms of monitoring the Bill's progress through Parliament and in making appropriate representations, described earlier, about aspects which were considered to impinge on the profession's interests and activities had been undertaken.

Subsequent to the enactment of the legislation the Association had continued its work on three main fronts; disseminating general information about data protection, continuing the process of consultation and liaison with officialdom, and providing advice and referral on specific problems and queries to the profession.

Both the Institute of Information Scientists and ASLIB had also been active. The Institute had published a Statement ⁽²⁷⁾ in response to the draft legislation and had raised its members' awareness to the issue through its monthly Newsletter - *Inform*. Similarly, ASLIB had disseminated information to its members and had further created the appointment of Data Protection Officer within its Secretariat. Its organisation of the event - Data Protection: A Practical Conference for Information Managers - was further evidence of its commitment to ensuring that the profession was fully prepared on the issue.

4.6 Training Issues

Item (E) concentrates on the staff training requirements of managing under the legislation. Following an outline of the legislation and its implications, the theme of training is treated comprehensively.

The need for data protection training is examined and justified on the basis that good data protection practice relies heavily on optimal human performance as well as the integrity of technical systems. The design of appropriate training is discussed with reference to the importance of establishing a firm foundation of aims and objectives. A full enumeration of typical aims and objectives, refined from practical training activity performed by the candidate is presented.

Sources of training input are discussed with the various merits of in-house tutors and external specialists being examined. The timing of appropriate training is also examined and the conclusion reached that regular updating is a very necessary addition to introductory and induction programmes if awareness is to be maintained. Notes are included regarding the performance of training with reference to programme content and format, and mode of execution. Sources of advice in preparing suitable training are also specified.

Several appendices contain examples of the text of specimen training material for use in introductory exercises. These represent original development work undertaken by the candidate.

4.7 Longer Term Study of Theory and Practice

Item (D) published in 1992 is a detailed analysis of the legislation and its implications for management written in the light of developments in the operation and interpretation of the legislation over some time. The consequences of technical developments which may tax the capacity of the legislation, and the manager's ability to work within it, are also discussed.

It begins with an outline of the character of data protection and this is followed by a description of the scope and operation of the legislation in terms of its requirements and regulatory components and mechanisms. Special terms featured in the Act are defined and a detailed enumeration of exemptions and exceptions appears in an Appendix.

After specifying examples of personal data use within a library context, including those relating to internally collected and generated information (such as records of users and their interests) and those involving information acquired from external sources (such as centralised cataloguing records and electronic messaging systems) the broad managerial implications are discussed and analysed.

The difficulty of prescribing too generally about managing for data protection is noted because of the range of types, sizes and structures of organisations affected and the specific roles and responsibilities within them of any library manager. However, the point is made that responsibility for data protection permeates throughout an organisation, from governing body to each individual. Whether the library manager is recommending, directing or implementing data protection management some common features are identified and a detailed checklist of operational priorities and processes, based on observation and study, is appended. Key actions for the manager are specified, together with a range of factors contributing to an effective management regime under the headings of documentation, procedures, personnel and security.

In a further section some principal issues which have emerged as warranting

particular attention, either because of their general importance to good management practice, their complexity, or their criticality to data protection generally are analysed. They include: practices for fair obtaining of data; the registration process; practices for data subject access; and training. The first three are analysed in some depth. The last, having been the subject of an earlier separate study, is given more abbreviated treatment.

The fair obtaining of data is embodied in the first of the Data Protection Principles and can be regarded as a cornerstone of good management practice. The issue has received particular attention from the Registrar of Data Protection and the advice and direction emerging from his Office imply the need for a more exacting attitude on the part of data users. In particular, an over-generalised approach to testing for fairness is best avoided - each and every specific instance of obtaining data must be capable of withstanding rigorous scrutiny regarding fairness within its own context and in relation to the person from whom it is obtained. The issue is fully explored in this section and appropriate practices and attitudes recommended.

Central to the administration of the legislation and thus a major component of data protection management is the registration of personal data processing activity. Ensuring that activities for which they are responsible receive proper registration is something that library managers need to accord high priority. The nature of registration is briefly analysed and the emphasis on identifying the purposes for which data is processed as opposed to enumerating the files involved is noted. This concept was the cause of some confusion in the early stages of the implementation of the legislation and necessitated a rethink in minds more accustomed to files and processes than purposes.

A necessary preliminary to registration is knowing what activity is taking place within an organisation and therefore what has to be registered. A survey of personal data processing may be appropriate in all but the smallest operations and a sample survey form appears in an Appendix. The current mechanics of registration are described and discussed in detail [the procedure has subsequently changed]. The availability of standard codes, published by the Registrar of Data Protection, for simplifying the

specification of detail is noted and those for 'Standard Purposes' are listed in an Appendix. The importance of maintaining adequate records and copies of documentation, and verifying registration details is emphasised in order to minimise problems.

Data subject access, enshrined in the seventh Data Protection Principle, represents a significant development in the rights of individuals and their dealings with organisations insofar as they have a general right to establish whether data about them is being held, and if so, to examine it. The data user is required to respond appropriately and within a specified time-frame to requests from individuals. It is important therefore that the use of personal data is so managed that data subject access requests are dealt with properly with as little inconvenience, cost and disruption to operations as possible. This requires that adequate procedures and mechanisms are in place; and the entire topic is dealt with in three segments - handling the receipt of requests, processing or responding to requests, and dealing with queries and complaints. A checklist summarising the main points of the procedure is provided.

The adoption of a more pro-active attitude towards providing data subjects with information is described and its merits discussed. Regular routine free distribution of data to individuals, without impairing their statutory rights, though not appropriate for every organisation has advantages:

- *the data can be provided off-peak when processing load best allows and may avoid costly special runs and checks for a small number of requests*
- *it provides a means of checking for accuracy and up-to-dateness of data with the cooperation of the data subject and it reinforces confidence in the organisation's attitudes and methods towards personal data handling*
- *it can be used to test the system's capacity to respond and provide appropriate data, but without placing the operation under extreme pressure. (item D p.136)*

Adequate and timely training makes a significant contribution to good data protection practice. Its importance and justification is stated in the following way:-

Good data protection relies on people and the way they perform as much as it does on systems and equipment. Training, properly organised and executed, enhances human performance in this as in any other sphere of operation.
(item D p.136)

The main factors influencing the delivery and content of training are briefly discussed and reference is made to the fuller treatment of the topic in a separate publication (discussed earlier - Item E).

In a field characterised by rapid technical development and in which legislative control is still relatively novel, some 'taking stock' is appropriate. The Registrar of Data Protection undertook a major review and consultative exercise into the workings of the Data Protection Act in 1988 and the results were published in 1989⁽²⁸⁾. A brief summary of the findings and conclusions of the initiative are provided. In the light of experience, few are surprising.

- a) *concern about privacy and computers is widespread.*
- b) *the Data Protection Principles are generally satisfactory and work well in practice, though some changes in their interpretation may be desirable; they should apply to all data users regardless of exemptions.*
- c) *the conditions for and methods of registration are too complex - many users are unsure of whether they have to register or not, and have difficulty in specifying their activity accurately and completely; specified exemptions are not always clear; the registration form causes some confusion*
- d) *the process might be simplified by either:*
 - universal registration - where all data users might have to provide minimal details of activity, or:*
 - highly selective registration - where either i) only data users*

processing for a relatively limited range of specific purposes would have to register; or ii) only certain categories of organisations would have to register (libraries, information centres and educational institutions would very probably be included in any scheme for restricted registration)

- e) *data subject access has generally proved useful for individuals and not too burdensome for users and should continue*
- f) *a right for data subjects to seek information about a data user's activities - nature of use and purpose - should be introduced (under a scheme of universal registration this might, together with the existing access right, become the main mechanism through which any real monitoring of data could be accomplished)*

(item D p.138)

The final part of the chapter is devoted to an analysis of two specific areas of technical developments which raise particular data protection issues and which have grown in importance since the legislation was enacted. They serve to underline the complex and dynamic nature of the overall topic of data protection, subject as it is to rapid technical advance and changes in society's perception, awareness and preoccupations.

The first area to be examined is that of expert systems or knowledge based systems which have become increasingly sophisticated in their operation and widespread in use. Moreover, people have come to rely more and more on these systems for controlling operations and making decisions. That such systems may contain and process personal information may not be particularly remarkable, since such activity will generally be subject to regulation. However some cause for concern is identified.

It is when these systems encroach upon providing support for decisions about very sensitive issues relating to living persons that anxieties may understandably arise. (item D p.139)

The rules and inferences applied in a system are not subject to the data protection

scrutiny that personal information within a system receives. Yet some inaccurate and damaging conclusions can be drawn from too arbitrary an application of unreliable and insufficiently objective criteria on even accurate data. Drawing on the work⁽²⁹⁾ of the Working Party on Benefits and Risks of Knowledge Based Systems of the Council for Science and Society a hypothetical example which illustrates the problem is presented:

IF subject address is in postal district Brixton

AND subject age is less than 25

AND subject race is non-Caucasian

THEN subject credit rating is poor

(item D p.140)

The second area chosen is digital image coding and its application to processing images of people for identification and related purposes. The introduction of such technology and applications brings a new dimension (and a new series of problems - including making appropriate registration, ensuring accuracy and up-to-dateness of images and providing data subject access) to data protection management. It is significant that many libraries, including the British Library at Bloomsbury, now employ access control methods which require identity cards including photographs. In addition, since the item was written the notion of a national identity card, possibly incorporating a photograph, has been officially explored⁽³⁰⁾⁽³¹⁾ and the data protection issues and implications commented upon by the Registrar⁽³²⁾⁽³³⁾.

4.8 Data Protection Impact Study

A separate and important phase of investigation into data protection matters involved studying the impact of the legislation on the library and information community. This logically followed on from the detailed analysis and development of original management strategies and specifications described earlier.

Though the response of the library and information community as exemplified by the professional institutions had been summarised in an earlier item (Item F) it is

important to remember that the profession is composed of individuals with their own roles, responsibilities, preoccupations, attitudes and states of knowledge. Thus to acquire a reasonably true perspective of the way in which data protection impinges upon the profession it is advisable to go beyond the 'macrolevel' of professional institution responses to study and collate a sample of individuals' reactions and experiences. With this in mind in 1995 a questionnaire based survey of the impact of data protection on university library and information services and managers was undertaken. The investigation was supported by a small grant from the British Library Research and Development Department (BLRDD).

Item (C) represents the formal report of the investigation submitted to the BLRDD in 1996. It begins with a short introduction setting the context of the study and explaining its purpose as a 'taking stock' of the data protection situation some ten or so years after the enactment of the Data Protection Act.

The legal background is dealt with in a short section which outlines the evolution of the legislation and summarises its main points. Included are notes on definitions, the Principles of Data Protection, mechanisms and methods for implementing the legislation (including the Data Protection Registrar and the registration process), exemptions specified in the Act, and the phased nature of the introduction of the measures in the Act.

A similar short section discusses the general library and information services management context of the topic, both in the past and currently. The profession's activity in tracking the development of the legislation and responding to its measures is briefly described. The fairly extensive range of activity involving personal data processing undertaken in library and information services is outlined and the appropriate management responses which were necessary with the appearance of the Data Protection Act are noted.

- *identifying (or responding to a request to identify) relevant activity with personal data.*
- *registering relevant activity accurately and fully (or ensuring that someone*

else registered activity accurately and fully).

- developing and maintaining good practices and procedures regarding the treatment of personal data.

- developing and undertaking regular training in good practices and awareness regarding data protection.

- establishing mechanisms to deal with requests for data from individuals as efficiently as speedily as possible.

(item C p.13)

The current perspective identifies four key features of managing information technology which are relevant to ensuring that data protection is afforded adequate attention. They comprise: the increased range, power and versatility of IT and telecommunications; the enhanced sophistication and flexibility of software; the growth of information products and information delivery options; and the increasingly risk laden complexion of IT and the resultant computer security issues.

The methodology and approach to the data protection impact survey is next outlined. This was directed at university library and information services in the UK, and included component colleges of 'federal' universities. The main component of the study was a postal self-administered questionnaire survey undertaken in 1995. It also featured a small number of telephone 'follow-up' interviews which proved valuable.

The main body of the Report comprises the results of the survey, together with discussion on their implications. Of those to whom questionnaires were sent, 95, representing 62% of the total, returned them completed on time. The general picture to be drawn from the survey is not one that encourages one to be entirely filled with confidence about the practices and awareness of data protection by university library and information services managers.

The information gleaned from the survey and dealt with under several headings -

Who responded?

The nature of the responding sample

Penetration of IT into library operations
Data protection practices
Training and awareness
Help from the Office of the Data Protection Registrar
In-house guidelines and documentation
Opinions and attitudes (of respondents)
The effect on management
Balance and equity (in the legislation)
Prospects for improving the legislation
Comments and qualifications (from respondents)
Follow-up discussions.

Just over a half of the respondents were chief librarians and a tenth held job titles indicating a system management responsibility. The libraries from which replies were received varied in size and character and offered a good cross-section with about a third being 'new' universities and the remainder 'old' institutions. Over a quarter were now structured as 'converged' information services.

The nature and extent of IT utilisation was as might have been expected for this sector; with a heavy emphasis on OPAC, Acquisitions/Ordering and Circulation applications.

Data protection practices were investigated in some considerable detail. The nature of the responsibilities within institutions was explored. Significantly around two-thirds of respondents reported the existence of a specially designated officer for data protection within the institution.

The measures taken to comply with the Data Protection Act, especially registration, were investigated in relation to library and information management. Just under half of the libraries had registered up to five purposes for data use under the legislation; of the remainder a significant proportion [16] did not know what had, or had not been registered.

The confidentiality, or otherwise surrounding information about loans to individuals was specifically examined. The vast majority of respondents did not disclose this kind of information to 'third parties'. On close examination of those that did do so, there appeared to be some discrepancy regarding proper registration of the practice.

An aspect generally considered of some importance by legislators and commentators - data subject access - had not featured particularly prominently. Requests for data subject access known to respondents were significantly few. Only eleven institutions had received any requests at all in the last five years, and in most cases five or less had been received. Management practices such as levying a fee for access appeared not to influence the situation.

The survey sought to establish information regarding training activity together with an assessment of awareness levels as these aspects were felt to be an important factor in the whole management of the issue.

One of the keys to good data protection practice is ensuring that those involved in managing and handling personal data are fully aware of what is required and know the procedures necessary to accomplish it. (item C p.26)

Training practices were investigated. At almost half the institutions induction training for new personnel featured data protection awareness to some extent. Fewer institutions undertook recurrent or refresher sessions in the area. The majority [64] of respondents described their knowledge of the Act as adequate and 19 admitted to it being poor. When asked to assess the knowledge amongst their staff a similar number [61] assessed it as adequate but a larger number [29] assessed it as poor.

The study also sought evidence about what relevant specific items or types of sources managers had consulted in the previous five years. Three items scored relatively highly, namely: The Data Protection Act - [34], Data Protection Registrar's Guidelines - [39], and the Library Association Guidelines - [35]. One subject, namely: Articles on Computer Security, also scored a high number of responses - [35] thus demonstrating the increasing importance of this aspect of the management of data

protection. Regrettably 27 respondents did not indicate that they had consulted anything.

Seminars as a mechanism for raising awareness and training were also investigated. Only a small number - [24] had attended any either held internally or externally to the organisation.

The Data Protection Registrar as a source of help and advice is well publicised but only 14 respondents had contacted this source.

Surprisingly few institutions - [13] had developed in-house guidelines to ensure good data protection management and awareness. It was felt that there was scope for developing these as an effective awareness raising mechanism.

The survey finally sought to establish attitudes to various aspects of data protection from the managers. Most respondents felt that the Data Protection Act had made little real difference to the way that they managed. Comments from respondents were reproduced. They were grouped according to whether it had been felt that the Act had made managing: no different, harder, or easier.

Asked whether the Act's measures were balanced fairly between the interests of data users and data subjects, 42 regarded them as about equal, and 43 as favouring data subjects. These attitudes were not surprising. Regrettably, little interest was shown in offering suggestions for improving the legislation. Since the survey was taking place during the discussion surrounding the adoption of European Union data protection legislation and its potential for changing the UK legislation, it is doubly surprising that views on such a topical issue were not forthcoming.

Notwithstanding the responses described above, a selection of useful and revealing general comments were offered by some respondents. These helped to complete the picture of the impact of data protection legislation in the library and information community. No clear message emerged. A few appeared quite relaxed about the situation, content to let others take the initiative as the following examples show:

- *We obey instructions from Central Administration but in practice these are procedures we already had in place.*
 - *This may appear rather vague and woolly. We leave all such matters to the University Registrar.*
- (item C pp.41,42)

Some expressed a note of concern:

- *Risks are now greater with increased use of PCs to access and download information.*
 - *Proposals that affect "public domain data" such as authors in catalogues worry me.*
- (item C pp.41,42)

Others described the difficulty of affording adequate attention to the issue:

- *Need more time to investigate implications or have them told to me! I have enough trouble monitoring copyright legislation.*
 - *We have documented easily understood rules at this University - but ensuring that 80+ members of staff are aware of restrictions is difficult.*
- (item C p.42)

The results of the impact survey are summed up in a concluding section. Though data protection practices were found to be generally well organised and overall approaches were reassuring, some significant examples where shortcomings existed had been identified. Awareness and motivation were found to be generally no more than adequate and the issue did not preoccupy library managers greatly. Scope for increasing awareness of the subject and alerting managers to the potential for problems inherent in poor data protection practices was felt to be an issue which perhaps the professional associations should address.

Appended to the Report were tabulations of the complete data acquired through the survey, presented as numeric data and as histograms generated through MINITAB

software.

One of the ways that a profession advances is through the assimilation and application of new knowledge. It has always been important therefore that information from research, and in particular empirical research with new data, be disseminated as widely as possible. This impact study is no exception and a concerted effort was made to make the results and discussion accessible both to the research community, and library and information services managers who could influence practices and attitudes. Items (B) and (A) are based on the data from impact survey and are published in the professional journal literature to reach a wider (and diverse) audience.

Item (B) appeared in *Library Management* early in 1997. The article addresses itself more directly at the managerial audience and is designed not only to report the impact survey findings but stimulate a new level of interest, awareness and concern in professionals. Its introduction presents the situation thus:

A considerable amount of personal information is collected and used in information and library services including details about library users, suppliers, staff, authors and related contributors, and even supporters and patrons. Legislation prescribes methods for its care, organization and handling. But to what extent does the legislation really impinge on management and influence operations and methods; and how aware are managers of their obligations? How well looked after is personal data? Does anybody know? Does anyone care?" (item B p.42)

The legal context of data protection is briefly outlined and to add currency to the summary the implications contained in the European Union Directive.⁽³⁴⁾ on Data Protection are considered.

The results of the impact survey are discussed in detail and advantage is taken of a recently published National Computing Centre (NCC) Report⁽³⁵⁾ on computer security to make some comparisons. For example, 64% of impact survey respondents reported

the existence of a specially designated data protection officer compared with the NCC figure of 71%. Similarly, comparisons for training activity reported by the impact survey and the amount of 'user awareness' activity undertaken according to the NCC survey are made.

The sensitivity of loans information is again highlighted and the survey data presented. The scope for misuse of information is noted and the FBI 'Library Lending Project' which sought to track the library usage habits of foreign nationals in the USA is brought to attention.

Data subject access is discussed and the low take up again noted. Attention is drawn to the scepticism about the effectiveness of data subject access expressed by Duncan Campbell, the investigative journalist, and the documentation of his efforts to exercise his rights is noted.⁽³⁶⁾

In a section entitled *'The general situation and the ways forward'* the findings of the impact survey are summarised and the need for future action highlighted.

Overall, the picture that emerges from the impact survey indicates that the management of data protection in university libraries is no better than satisfactory, with several examples of shortcomings either in awareness or practice. Some instances have been identified where the legislation is clearly not being followed properly. What is to be done? The profession needs to take the issue far more seriously. Imperatives are better training, better systems and methods and better attitudes. These can and should be addressed through a programme of publicity and development of education and training mechanisms. (item B p.51)

The Code of Professional Conduct from the Library Association⁽³⁷⁾ is seen as one vehicle for improving awareness and accountability. Also regarded as worthy of consideration and adoption is the Code of Ethics and Professional Conduct of the Association for Computing Machinery.⁽³⁸⁾

The article concludes by viewing the future of data protection and sees it bound up, to a large extent, with the future of IT insofar as the risks to security and the mechanisms for assuring security and integrity are concerned. It is recognised that pressures on library managers create difficulties in ensuring that legislation is awarded the attention it deserves but the problems raised by not doing so can be severe.

Item (A) which appeared in the *Journal of Information Science* provides an extensive account of the impact survey and a discussion of results, together with a comparison with a related survey into the knowledge and practices of librarians and practitioners in the communications and mass media industry.⁽³⁹⁾ Following a brief outline of the legislative background and the library and information services context, the survey is described and discussed at length. The overall impression created by the results are summed up in a rather moderate tone as follows:

... understandably perhaps, data protection as an issue or a management practice seems not to preoccupy library managers over much. The topic does not appear to have created major problems for any respondents, nor has it stimulated the professional imagination unduly if the generality of responses is to be an indication. (item A p.52)

A warning is given, however, about too complacent an approach to the subject:

There is, however, a continuing need to retain the issue of data protection in the professional perception, not least because of its apparently very unspectacular character. A perennial risk, however small, of compromising data protection remains. And there is a chance of complacency exacerbating the risk. Awareness and good practice must therefore be nurtured and maintained through a variety of means. (item A p.52)

As noted earlier, an additional feature of the article is a comparative analysis. An opportunity is taken to contrast (where appropriate) the impact survey findings with those of a related earlier survey into those working in the mass media. Fewer media librarians know whether their organisation was registered {71% as against 99%} and

their knowledge of detail pertaining to registrations was also more limited.

Compared to the university librarians, fewer media librarians knew whether their organisation was registered under the Act, {71% as against 99%} and their knowledge of detail pertaining to registrations was also more limited. Over 90% of university librarians were able to state whether or not relevant activity had been registered, with almost two-thirds being able to specify, within a range, the number of purposes registered. In contrast, 43% of media librarians confirmed that they knew details of their institution's registration. These results may indicate that information of this kind is more available, or better disseminated in the one sector than the other.

In both surveys a similar proportion {media = 62%; university = 64%} reported the existence of a specially designated person responsible for data protection matters in their organisation. Evidence, however slight, that so many institutions generally recognise the importance of this role is welcome.

The media librarians survey sought information on the availability of guidelines in some detail in contrast with the simpler query made of university librarians. Around a half of the media respondents indicated that various guidelines existed, but quite a large proportion (around a third) answered 'don't know'. Answering a similar question only 14% of university librarians reported the existence of guidelines, with 84% answering in the negative, and one replying 'don't know'. Perhaps guidelines are felt to be far more necessary in what some may perceive as the more 'sensitive' information handling ambience of journalism.

Neither constituency appears to have had much demand for data subject access, thus confirming the general trend in this regard. Only 1 media librarian (of 21) and 8 university librarians (of 95) indicating receiving any access requests. A proportion answered 'don't know' (media = 38%; university = 15%) however. No media librarian reported charging a fee for data subject access, but over half responded 'don't know'. Some 16 of the 95 university librarians did so but with no apparent influence on the demand for access as discussed earlier. This may indicate the public sector propensity for income generation, or anxiety about the cost of meeting a request out

of public funds.

Regarding informing data subjects about the legislation, both groups had similar results with just under a quarter (media = 24%; university = 22%) reporting that they did so and those answering 'no' being 71%; and 78% respectively. These results present a disturbingly consistent picture in view of the need for transparency in collecting data noted earlier.

Since familiarity with the substance of the Data Protection Act is a significant factor in data protection management a comparison of the knowledge claimed by the two groups is of particular interest and the situation is described in detail in a table. The percentage of media librarians claiming 'very good' or 'good' knowledge is twice that found in the university librarians' survey. Conversely, a greater proportion of media librarians (almost double) admit to 'poor' knowledge. A large number of university librarians (67%) regard their knowledge as adequate. The assessment of one's knowledge is very subjective and may account for the variations in the pattern of responses.

Though the questions in the two surveys are framed differently it is possible to identify a common trend in the two groups' perception of the effect that data protection legislation has had on their work. Media librarians regarded the impact of the Act as either, 'minimal' (52%), or 'no change' (48%); whilst 74% of university librarians described it as having made 'no difference'. This reinforces the general belief that the whole issue has had little impact. The media survey, for instance, reflects that on the evidence:

"...the media as a whole has reached an accommodation with the *Data Protection Act*, and that it has done little to alter its working practices"⁽⁴⁰⁾

The same message might be construed from the survey of university library managers. A question to be pondered, however, is whether the whole community should be more mindful and aware of the issue! The wider dissemination of the

survey material seeks, amongst other things, to engender such a situation.

5. Conclusion

If society and the profession are to derive the maximum benefit - cultural, social, economic and technical - from information; and if they are to exploit the full potential of technology, and maintain values of integrity in achieving that end, then data protection as a component must be accorded adequate attention. Issues surrounding data protection such as those described by the items in this submission have to be addressed with vigour by the library and information service manager. The evidence to date that this is sufficiently so is, however, not convincing.

The underlying theme of this submission is the manager's role in recognising and responding to the issues that unify information technology, social issues, legislation, training and management. The candidate has, through his work over some years, sought systematically to explore such issues and disseminate his findings with accuracy, clarity and conviction to add to the body of professional knowledge, understanding and scholarship.

"Computing is not about computers any more. It is about living"

Nicholas Negroponte

Being Digital

Hodder and Stoughton, 1995

[Introduction p.6]

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