INFORMATION TECHNOLOGY LAW

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PREFACE

Our impetus to produce this book arose out of our undergraduate and postgraduate teaching in information technology law. Although the number of texts in the area is now increasing, on being asked by students to recommend a casebook we were unable to do so. We have also found that one of the difficulties with a relatively new subject is that materials are not always readily accessible to students. Our aim was to include a range of materials sufficient to aid and enhance the student's study of this topic. In addition, in such a developing area, we felt it helpful to include a substantial element of our own text, where the context required it.

The book is primarily aimed at undergraduate and postgraduate law students. Against that background, we hope that it will provide reassurance that a detailed knowledge of the technology is unnecessary to understand the legal issues. Where some rudimentary understanding is helpful, minimum technical explanations have been included. We think the book may also prove useful, and of interest, to computer scientists, who increasingly have to consider the wider implications of their discipline. They, of course, can skip the brief explanations of the technology!

We think that information technology provides exciting challenges and opportunities for the law and lawyers. We hope that we have communicated something of this to the reader.

We would particularly like to thank Michael Hirst for producing the chapter on evidence. His expertise in the area of evidence in general is well-established and the book has benefited from his contribution. We are also indebted to Jem Rowland for his advice on the more technical aspects of the text and to Michael Hirst, Reader in Law, University of Wales, Aberyswyth, for his contribution of Chapter 9.

Diane Rowland
Elizabeth Macdonald

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INTRODUCTION

The rapid development of information technology presents challenges for the law. Challenges which are not confined to any single one of the traditional legal categories but which arise in, for example, criminal law, intellectual property law, contract and tort. Even land law may not be untouched![1] Initially, these challenges manifested themselves at the micro, rather than the macro level, with questions such as the applicability of copyright protection for computer programs. More recently, with the accelerating growth of the Internet and the World Wide Web, some of these problems, such as privacy, have been exacerbated, and others, like the regulation of offensive material, have come to the fore. In effect, the questions posed for the law by the advancing technology are many and various but some idea of their scope can be gained by brief illustration:

- How does the law deal with computer hackers or those who introduce viruses?[2]
- Should a contract for the acquisition of software be categorised as one dealing with goods?[3]
- Similarly, should software be regarded as a product?[4]
- Can copyright subsist in a computer program? Would patent protection be more appropriate?[5]
- Does the widespread dissemination of text on networks herald the death of copyright?[6]
- Should the content of the material on the Internet be regulated and, if so, by whom?[7] What about freedom of information and expression?[8]
- How is the privacy of the individual to be protected amid the increasing capacity for storing, gathering and collating information?[9]

1 Through, for example, computerisation of the land registry raising the question of who could be liable if a defect in the software resulted in an inaccurate certificate. See *Min of Housing and Local Gov v Sharp* [1970] 2 QB 223 for consideration of a slightly different question (p 213).

2 See Chapter 8.

3 See Chapter 4.

4 See Chapter 5.

5 See Chapter 2.

6 For discussion of this question see, for example, Christopher Kervégant, 'Are copyright and droit d'auteur viable in the light of information technology?' (1996) 10 Int Review of Law, Computer and Technology 55.

7 See Chapter 8.

8 See Chapter 7.

9 See Chapter 7.

Concrete illustrations of these problems are regularly reported in the press. These cover a spectrum from the amusing and inconsequential to the highly significant. Recently in the news, was the 'points of view' problem, the *Shetland News* newspaper controversy and the millennium issue:

A hacker reportedly changed the message on the BBC 'Points of View' answer machine to the surprise of those attempting to leave legitimate comments for Ann Robinson.[10]

The Shetland News newspaper included on its World Wide Web site hypertext links to the Web pages of its rival, *The Shetland Times*. *The Shetland Times* took exception to this and claimed it was a breach of copyright. A Scottish court has, thus far, issued an interim interdict, pending full trial.[11]

Computers everywhere, from those in the home to those which are vital to commerce and industry, contain calendars. Commonly, these only refer to the last two digits of the year. Huge costs (and doubtless questions of liability) will be involved in attempting to prevent the chaos which would ensue if these machines register 00 as 1900 – a mere 100 years behind the times!

The point has already been made that the developments in information technology present challenges for many of the established categories of law. This leads to the question of whether information technology law should be regarded as a subject in its own right. Obviously, the initial reaction to attempt to deal with novel problems is to try to accommodate them within existing legal frameworks. This results in a fragmentary approach which may or may not be appropriate in the particular case. One of the important benefits of looking at the subject of information technology law as a whole is the opportunity to consider how apposite and coherent are piecemeal solutions which borrow from the different established legal areas. It may even lead to the recognition that there is a need for new legal concepts, transcending the traditional boundaries. The acknowledgment of information technology law as a subject worthy of study in its own right also produces a focus upon the issues which might not otherwise occur, with the risk that the particular problems generated by the scientific advances are otherwise merely regarded as footnotes to the established categories. Nonetheless, we have found it convenient to divide the discussion which follows in a way which largely reflects different established legal subjects and this also reflects the current state of the law. We have also found it useful to divide the book into two sections – the first of these concentrates on problems generated by the nature of computer software, whereas the second considers the impact of computer technology. However, the reader is invited to consider the aptness of the solutions arrived at and the desirability of a more integrated approach.

10 *Guardian* (1997) 31 March.

11 See, eg, *BNA's Electronic Information Policy and Law* (1996) Vol 1, p 723; *The Times* (1997) 21 January.

SECTION A

THE CHALLENGES OF COMPUTER SOFTWARE

PROTECTING AND EXPLOITING RIGHTS IN SOFTWARE – INTELLECTUAL PROPERTY RIGHTS

INTRODUCTION

Although it may be rather hackneyed to repeat the practical test of Petersen J in *University of London Press Ltd v University Tutorial Press Ltd*[1] that what is worth copying is *prima facie* worth protecting, the truth underlying this statement is demonstrated nowhere so strikingly as in the commercial exploitation of computer software. As the industry has developed there has been a trend towards general applications programs, rather than specific bespoke software, and a massive amount of research and development time and money is devoted to the creation of such new computer software. A further feature is the vulnerability of the medium to reproduction by individuals and the consequent threat of widespread copying and piracy. The commercial factors alone would suggest powerful reasons for protecting the intellectual property rights in such software, but when coupled with the ease of copying, make such protection imperative.

Despite these reasons and the fact that computers have now been in existence for almost half a century, protection of the intellectual property rights in computer programs has only really become an issue since the advent of microcomputers, a much more recent development. In the early stages of development of the industry, the problem was not particularly acute since computer systems were large, custom-built affairs. They were only used by large institutions, whether commercial, industrial or educational, and the public had no general access to them. In those cases where intellectual property rights might have been an issue, the software and programs written for them could be adequately protected by contract, supplemented by actions for breach of confidence. These methods may still provide a useful remedy in certain cases.[2] This situation changed dramatically as microprocessors and personal computers became commonplace; their use became widespread and was no longer confined to large institutions. At this point it was not possible to rely purely on contract and confidence to protect intellectual property rights in computer programs. As early as the beginning of the 1970s, the World Intellectual Property Organisation (WIPO) had begun to turn their attention to the issue, and, in 1978, produced model provisions for the

1 [1916] 2 Ch 601 at 610 *per* Petersen J.

2 The case of *Ibcos Computers Ltd v Barclays Mercantile Highland Finance Ltd* (1994) (discussed later at p 52), concerns an action for breach of confidence as well as an action for copyright infringement.

protection of intellectual property rights in computer software. The following extract summarises the desirability of legal protection for computer programs.

WIPO Model Provisions 1978 – Introduction Paragraph 6

Legal protection of computer software is desirable for the following reasons:

(a) *Investment and time required.* The investment in computer software is large: under a recent estimate based on the number of computers currently in use, and the past and expected increase in that number, together with estimates of the staff employed on programming activities and the cost of software, it is possible that a sum of the order of 13 billion US dollars is spent annually on the creation and maintenance of software systems. Although this must vary considerably, the time required for the planning and preparation of computer programs is long, often amounting to many man-months of total effort. The need for legal protection of computer programs should be seen not only in terms of the large-scale investment in computer software but also from the viewpoint of the small software enterprise or individual creator of software. The existence of strong legal protection would encourage the dissemination of their creations and enable such creators to avoid duplication of work. Without such dissemination, numerous programmers may spend considerable time and effort in order to accomplish, in parallel work, the same objective; although the programs created by them may be different, any one of those programs would probably fully accomplish the said objective. In any case, legal protection will encourage exploitation of software for purposes other than internal use.

(b) *Likely future developments.* Already, software is estimated to account for by far the greater part of the total cost of computer systems. The proportions of 70 per cent and 30 per cent representing the expenditure on software and hardware, respectively, would seem to be a reasonable estimate. In any case it can be expected that the software elements will, in the future, account for a substantial, if not a predominant, proportion of the expenditure and that the total expenditure on computer software will constantly increase. At present, the largest amount of expenditure on computer software seems to be devoted to the creation and maintenance of specific purpose user programs, not of general applicability; since such programs are not of direct interest to third parties, their misappropriation is relatively unlikely in view of the adaptation required. However, there is a trend towards the creation of computer programs that are of interest to more than one user or even of general and widespread utility and thus can help to save expenditures; such a trend towards standardised user software is likely to increase as computers become more accessible to the public and easier to operate and as the proportion of the cost of the hardware components in computer operations decreases. In the context of the increasing accessibility of computer software, reference should be made to two important developments: the creation of computer networks among nations aided by sophisticated telecommunications systems (a trend which highlights the need for *international* protection), and the move towards new programming techniques facilitating the use of computers by persons other than trained programmers.

(c) *Protection as an incentive to disclosure.* The importance of ensuring the ready accessibility of the important form of modern technology represented by computer software has been referred to on many occasions, particularly in the context of the needs of developing countries ... Although some computer programs would not be made publicly available in any event (for example, programs revealing a trade secret of an enterprise or those designed to complement computer hardware and transferred only with the corresponding computer), it is reasonable to suppose that many proprietors of the rights in other programs would at present rely primarily on secrecy either in order to exclude all others from using the software or to permit only selected persons to use it under a confidential disclosure contract. Where effective legal protection is available, the proprietors of rights could instead rely on that protection and disclose the software.

(d) *Protection as a basis for trade.* The lack of legal protection may be particularly harmful in the context of trade. Both the seller and the buyer of computer software are interested in legal protection because it increases the legal security of their relationship. A system of protection would also be of advantage to developing countries; such a system would encourage dissemination of software to those countries, not only because the publication of the software would not defeat protection but also the protection would eliminate the uncertainty of enforcing a confidential disclosure contract. Also, legal protection would enable dissemination on favourable terms in some cases; for example, the proprietor of the rights in computer software might be encouraged to license it in a developing country at an especially low royalty if he could be sure of being able to take action against users in other countries if his software were accidentally disclosed by the licensee in the developing country. Moreover, the greater disclosure in the advertisement of software which, it is hoped, will result from legal protection may help such countries to evaluate the alternatives on the international market.

(e) *Vulnerability of computer software.* Consideration should also be given to the vulnerability of some forms of computer software; for instance, a 'computer software package' consisting of a computer program and related descriptive and explanatory documentation, is expensive to prepare and easy to copy as soon as the prototype is available.

Although the WIPO document was prepared some 20 years ago and, therefore, has the status of a historical document as far as the computer industry is concerned, it shows that major problems were evident even at this early stage. The technology still had a long way to progress before it would be recognisable by present standards, but the trend towards standard application packages had been noted, together with the ease of copying and the global nature of the technology.

The purpose of the model provisions was to provide a framework which countries which were signatories to the agreement could use. Accepting that the legal protection of computer programs was desirable, the question that then had to be addressed was what was to be the most appropriate and