PARLIAMENT OF VICTORIA

LAW REFORM COMMITTEE

TECHNOLOGY & THE LAW

REPORT

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CHAIRMAN'S FOREWORD

Victor Perton, MP
Chairman

On behalf of the Law Reform Committee of Victoria I would like to welcome you to an adventure that we have been engaged in. It's been an adventure because we have been able to look to the newest technologies and share other people's dreams and creations. We have had the opportunity to examine the way that globalism is altering the way we live and work. The Committee has been able to look to the long-term future of the justice system and of government. The adventure is one for the whole community. As the author, Bryce Courtney, said in Melbourne, last year: 'Dare your genius to walk the wild unknown way'.

The Committee has met with people who have adopted new technologies and practices to become genuine citizens of the world. I believe the impact of the new technologies will drive the lives and careers of most Australians in unimagined ways. Our economy and society will be transformed by the changes wrought by the global information industry. Your children and grandchildren will be doing jobs not even in existence yet and using equipment not even imagined. Communications technology including videoconferencing, the World Wide Web and email is redefining our lives, as geographical and political barriers become increasingly irrelevant to the people of the world in their work, in their family life and in their interaction with friends. I believe communities of interest will develop in which the best in the world will

flower like never before and the average will reach new heights never dreamed of before.

Even good news can have its dark side. The Committee has met and observed people who see the changes as threatening their existing power and who have tried to obstruct change that could not only benefit their own organisation or institution but provide a benefit to the whole of society.

Having examined best practice uses of technology in a variety of settings around Australia and across the world, the Committee's vision is for technology to empower the citizen by providing access to the law and inexpensive means to resolve disputes with other citizens and government. We believe behavioural change combined with new technologies can empower the Australian legal practitioner, the Australian judge, and the government policymaker to enable them to be the best in the World. What you will read in this report is the vision of a seamless interface between the citizen, the Government, the courts and the legal practitioner.

In undertaking this work, the Committee has been honoured to have people around the world collaborating with us so that, although the report makes recommendations for the Victorian legal system, it deals with the common issues and challenges of our global society. During the course of this Inquiry, the Committee has had direct contact with over 780 people around the world who have each contributed to this report. People have generously offered their ideas, vision and research which has enriched this report. Corporations like IBM and Telstra gave us access to their research laboratories. In Melbourne, people like John Rimmer, Chris Priestley, Peter Searle, Greg Searle, Jeff Sussman, Sue Drakeford, Damien Broderick, Randall Straw, Bridget Bainbridge and Peter Harmsworth provided us with support and inspiration. Interstate, Adrian McCullagh, Elisabeth Broderick, Peter Coroneos, Graham Greenleaf, Brian Fitzgerald, Philip Argy, Heather Ruddock and Tony Sutherland enthused and encouraged us. International leaders like Karl Wigg, Professor Frederic Lederer, Don Tapscott and Professor Richard Susskind aided us in looking beyond Victoria to identify common issues and solutions in relation to technology and justice. Many people assisted us to look beyond the existing law and legal system to find the tools for the next generation of judges and other lawmakers.

On behalf of the Committee, I would like to thank Padma Raman, the principal researcher and writer on this Inquiry for her intelligence, diligence and good humour. She interpreted my dreams of empowerment of people through technology and knowledge yet ensured that the document is a practical and pragmatic guide for the immediate path ahead in Victoria. I thank Douglas Trapnell for drafting two

chapters of this report, Angelica Vergara for her tireless and dedicated administrative support and Jenny Baker and Grania Connors for their assistance with proofreading.

Lastly I would like to thank all the Members of the Committee. In the concluding minutes of the 1995 US film *City Hall*, the two protagonists of the story have a confrontation. The Al Pacino character, John Pappas (the popular Mayor of New York) says:

> Okay, Pappy. Think of it as colours. There's black and there's white, and in between there's mostly grey. That's us. Now grey is a tough colour. Because it's not as simple as black and white. And for the media—certainly not as interesting. But—it's who we are.

One thing is certain—the challenges for legislators are more complex than ever. The answers and the issues are not clear and in many cases hard to identify. In a 1998 speech, Baroness Thatcher said:

> if you are trying to legislate for information technology, it is many years some will say light years ahead of the capacity of law makers to comprehend and then address the problems.

This may be true of many jurisdictions but not true of Victoria and certainly not true of the other Members of the Committee. The Parliamentarians of Victoria have taken to laptops, email, the web and the legislative issues of the networked world with alacrity. The Members of this Committee have shown great insight and grappled with difficult concepts and challenges. I believe the consensus arrived at by four Liberals, four Labor and one National Member of Parliament in producing this report is a guide to the new collaborations open to us in the new century.

I hope you enjoy this report.

I commend the report to Parliament.

FUNCTIONS OF THE COMMITTEE

PARLIAMENTARY COMMITTEES ACT 1968

4E. The functions of the Law Reform Committee are—

(a) to inquire into, consider and report to the Parliament where required or permitted so to do by or under this Act, on any proposal, matter or thing concerned with legal, constitutional or Parliamentary reform or with the administration of justice but excluding any proposal, matter or thing concerned with the joint standing orders of the Parliament or the standing orders of a House of the Parliament or the rules of practice of a House of the Parliament;

(b) to examine, report and make recommendations to the Parliament in respect of any proposal or matter relating to law reform in Victoria where required so to do by or under this Act, in accordance with the terms of reference under which the proposal or matter is referred to the Committee.

TERMS OF REFERENCE

Under the powers found in Section 4F (1) (a) (ii) and Section 4F (3) of **the Parliamentary Committees Act 1968** the Governor in Council refers the following matters to the Law Reform Committee—

The Committee is requested to report on the opportunities available in the use of new technologies to streamline the administration of courts and tribunals and to improve access to courts and tribunals by members of the public.

The Committee, in undertaking this review, should have regard to a number of projects which are currently underway in Government Departments and the Courts:

- the proposed Electronic Commerce Framework Bill;
- audio and video linking;
- the Pathfinder Project [an integrated criminal justice system];
- the Civil Justice Review Project; and
- the Data Improvement Project.

The Committee is requested to consider the impact of these reforms in so far as they affect courts and tribunals and to take a wider view of the opportunities that technology could present. In particular, the Committee is requested to examine:

- access to information about courts, tribunals, judgements, status of cases, etc. via electronic means;
- the future of videolinking and technologies beyond videolinking;
- improvements to and application of court reporting services.

The Committee is requested to make its final report to Parliament by the first day of the 1998 Spring Parliamentary Sittings.

Dated 23 September 1997

Responsible Minister: Jan Wade
Attorney-General

Victoria Government Gazette, G 38, 25 Sept. 1997, p. 2713.
Amended by *Victoria Government Gazette*, G 34, 27 Aug. 1998, p. 2322.

Overcoming the Cultural Barriers

Recommendation 1

The Committee recommends that an entity be formed to coordinate and implement a centralised approach to the introduction and development of new technologies on a whole of government basis. Such an entity should establish broad policy directions and strategic planning for the whole of government on IT issues and should require government departments and agencies to publicly report on the implementation of new technologies and Electronic Service Delivery.

Recommendation 2

The Victorian Government should amalgamate the administration and registry functions of all courts and tribunals and establish by statute a unified Courts and Tribunals Administration Authority.

Recommendation 3

The Courts and Tribunals Administration Authority should be overseen by a State Courts and Tribunals Administration Council comprising:

(a) The Chief Justice of the Supreme Court or his/her nominee;

(b) The Chief Judge of the County Court or his/her nominee;

(c) The Chief Magistrate or his/her nominee;

(d) The President of the Victorian Civil and Administrative Tribunal or their nominee;

(e) A representative of the private sector with modern management skills;

(f) A representative of the private sector with information technology skills; and

(g) An academic with expertise in alternative dispute resolution.

Recommendation 4

Although the judicial members of the State Courts and Tribunals Administration Council would be statutory office holders and not subject to the Public Service Management and Employment Act 1998*, the Authority itself would be a public authority under the* Act.

Recommendation 5

The State Courts and Tribunals Administration Authority should be headed by a State Courts and Tribunals Administrator appointed by the Governor in Council, who would serve as a 'department head' under the Public Service Management and Employment Act 1998*. The States Courts and Tribunals Administrator should be an independent office-holder subject only to the direction of the State Courts and Tribunals Administration Council.*

Recommendation 6

The statutory charter for the Courts and Tribunals Administration Authority should include the implementation of whole of government policy directions in relation to IT for the justice system. In doing so, the Authority should:

1. *Establish ways in which information technology can support the strategic policy directions and develop an overall IT strategy across the justice system including its interaction with the whole of government;*

2. *Facilitate the integration of criminal and civil justice systems in Victoria;*

3. *Consult widely with relevant public and private sector organisations, the judiciary, the legal profession and the public in the formation of policy and the use of information technology;*

4. *Consider the future prospects for the development of information and communications technologies and consider their potential for innovation in the support of the justice system; and*

5. *Facilitate the delivery of accessible and online justice to the community and in particular assess and evaluate existing guides to the law and encourage, facilitate and fund the online publication of suitable guides to the law.*

Recommendation 7

The Committee recommends that the Department of Justice be given a mandate to deliver the best possible integrated justice IT systems

Recommendation 8

That comprehensive and continuous training be offered to judges and administrators of courts on the use of new technologies.

Recommendation9

Recognising the importance to the delivery of accessible justice of the uptake of new technologies by courts and tribunals, additional targeted funding should be available for the implementation of new technologies. Such funding should not be dependent upon budgetary reductions in other areas.

The Need for a National Information Clearinghouse

Recommendation 10

The Victorian Government should establish an information clearinghouse on law and technology (with rights to commercialise its research) to support courts, tribunals and the profession in their use of technology and to improve efficiency. It should be modelled on the National Centre for State Courts and the Federal Judicial Centre in the United States of America.

Recommendation 11

The law and technology clearinghouse should collaborate nationally and internationally to determine best practice uses of technology in the justice system and identify a range of technologies that would be most advantageous for the Australian legal system.

Knowledge Management's Relevance to the Justice System

Recommendation 12

The Victorian Government should develop a knowledge management policy across the whole of Government to harness the knowledge of employees and the community and develop a culture of sharing information.

Federal Government Directions

Recommendation 13

The Victorian Government should develop protocols for justice information technology systems adopting world's best practice and should encourage other Australian Governments to adopt these protocols with a view to achieving compatibility and interaction between the various state and federal systems.

Committee's Vision

Recommendation 14

The Victorian Government should ensure greater integration of information technology systems and knowledge management between the Department of Justice and other departments. To this end, the Victorian Government intranet should be extended to all departments and agencies to facilitate the integration of information databases across Government and be supported by data warehousing and data mining tools.

Recommendation 15

The Victorian Government should utilise integrated information databases to determine where resources need to be allocated in an effort to reduce crime and deliver criminal and civil justice services more efficiently and effectively and to indicate where improvements to service delivery are required.

Recommendation 16

The Department of Justice should prioritise the use of information technology in its internal operations with the aim of providing leadership by example.

Recommendation 17

As a matter of priority and in line with its electronic service delivery commitments, the Department of Justice should provide its employees with training and access to the Internet and intranets, the development of online services and integrate all its systems so as to enable greater communication across the Department.

Recommendation 18

The Department of Justice should coordinate the development of a 'Legal Channel' connected to Maxi, which should be accessible to all Victorians.

Integrated Criminal Justice

Recommendation 19

The Committee supports the vision and direction of Project Pathfinder and recommends its speedy implementation.

Recommendation 20

In implementing integrated criminal justice, the Victorian Government should examine the model of the Baltimore Arrest Booking facility established by the Maryland Public Safety Department in the United States of America.

Recommendation 21

A similar project to Pathfinder should be initiated for the civil justice system to improve efficiency and integration.

Prosecutorial Functions

Recommendation 22

The Government should encourage the Office of Public Prosecutions, Victoria Legal Aid, the Victorian Bar and the Law Institute of Victoria to cooperate in the sharing of software and information so as to ensure the efficient use of new technologies in decision making.

What is a Digital Signature?

Recommendation 23

The Victorian Government should investigate the possibility of establishing a fee for service secure electronic document registry and storage facility for use by private organisations worldwide.

Draft Electronic Transactions Bill 1999

Recommendation 24

The Victorian Government should continue to support the establishment of an appropriate regulatory framework for electronic commerce at a national level by monitoring industry developments and encouraging acceptable federal initiatives.

Commonwealth Government Public Key Authority

Recommendation 25

The Victorian Government should establish a whole of government body to facilitate and control public key technology within and between Victorian government agencies and between those agencies, their clients and their service providers.

Recent Commonwealth Government Initiatives

Recommendation 26

The Victorian Government should continue to encourage and support a national approach to privacy and data protection.

Victorian Civil and Administrative Tribunal

Recommendation 27

As a matter of priority in consultation with all courts and tribunals, the Department of Justice in the interim, and the State Courts and Tribunals Administrative Authority in the longer term, should implement a uniform case management system for all Victorian courts and tribunals. Such a system must be flexible enough to allow for modifications to cater for the specific needs of each court and tribunal.

Victorian Electronic Filing Initiatives

Recommendation 28

As a matter of priority and in line with the whole of Government commitment to electronic service delivery by 2001, the Department of Justice in the interim, and the State Courts and Tribunals Administration Authority in the longer term, should collaborate with all courts and tribunals to encourage and ultimately require the electronic lodgement of documents over the Internet.

Judicial Support Systems in Victoria

Recommendation 29

The Department of Justice in the interim, and the State Courts and Tribunals Administration Authority in the longer term, should develop a judicial support system that provides up-to-date legal information, directories of social service facilities, sentencing information and standardised judgment production capabilities. The Department should look to the Western Australian and New South Wales judicial support systems as models.

Committee's Assessment of Courtroom Technology in Victoria

Recommendation 30

The Committee recommends that the County Court of Victoria, Magistrates' Court of Victoria and the Victorian Civil and Administrative Tribunal introduce similar practice notes to facilitate the use of technology in courts and tribunals.

Recommendation 31

The Attorney-General should refer a review of changes that may be necessary to the rules of evidence in order to facilitate the technological development of the law and the electronic presentation of evidence in court to a parliamentary committee for inquiry.

Court Reporting in Victoria

Recommendation 32

The Victorian Government should allocate funding for the Victorian Government Reporting Service and the Department of Victorian Parliamentary Debates to collaborate on the development and monitoring of voice recognition software that translates Australian English in the legal and political context. All information gathered on voice recognition software should be distributed to the legal profession through the law and technology clearinghouse.

Recommendation 33

The Department of Justice should aim to integrate the technology used within the courtroom with case management and judicial support systems to provide a complete system that represents world's best practice in all areas of court administration and service delivery.

ELECTRONIC PUBLISHING

Recommendation 34

The Victorian Government should provide modest ongoing funding for AustLII to publish and enhance the quality of Victorian legal information on the site. The Government should encourage other Australian governments to similarly contribute to the funding of AustLII as the national online resource of primary legal information.

Publication of Legislation on the Internet

Recommendation 35

The Victorian Government should obtain and utilise a simple domain name for its Internet legislation site.

Technology and the Suburban, Provincial and Rural Practice

Recommendation 36

The Law Institute of Victoria and the Victorian Bar Council should provide support, information and training for their members on new technologies. These professional bodies

should collaborate with the law and technology clearinghouse to ensure that all members of the legal profession have access to training and information on the best use of new technologies.

Information Kiosks

Recommendation 37

The Department of Justice in the interim, and the State Courts and Tribunals Administrative Authority in the longer term, should ensure that electronic information is available in all Victorian court and tribunal foyers.

The Internet

Recommendation 38

The Victorian Government, through the law and technology clearinghouse, should evaluate legal guides, consider the viability of placing them on the Internet and fund and facilitate the publication of such guides where appropriate.

Translation Software

Recommendation 39

The Victorian Government should continue to develop and prioritise a range of initiatives so as to ensure that traditionally marginalised groups including indigenous people, persons from non-English speaking background, the disabled, the aged and women enjoy equal access to new technology.

Recommendation 40

The Victorian Government through programs such as Skills.net should develop training programs on the Internet and new technologies that target and cater for ethnic communities.

Recommendation 41

The Victorian Government and all courts and tribunals should provide existing multilingual legal information for the public on the Internet. The Victorian Government and courts and tribunals should aim to publish all future legal information for the public in community languages.

Recommendation 42

Multimedia Victoria, in conjunction with the Victorian Multicultural Affairs Commission should identify, evaluate and obtain for implementation software that can automatically translate information into community languages.

Committee's Vision for AI and Law

Recommendation 43

The Victorian Government in conjunction with the law and technology information clearinghouse once established should encourage further research and applications of artificial intelligence including expert systems and natural language systems in law.

Recommendation 44

The law and technology clearinghouse once established should perform a monitoring and evaluating role in relation to new and emerging projects on artificial intelligence, including expert systems and natural language systems. The clearinghouse should coordinate trials of artificial intelligence systems (including expert systems and natural language systems) with various participants in the legal system.

Recommendation 45

The Attorney-General should refer the legal issues raised by new and emerging technologies and their implication for the State of Victoria to a parliamentary committee for inquiry. Such Inquiry should focus on:

(a) intellectual property and the Internet as it impacts on Victoria and its citizens;

(b) legal liability for negligent information and advice provided by an artificially intelligent system;

(c) legal liability in relation to negligent and/or criminal conduct arising out of the application of expert and artificial intelligence systems; and

(d) legal issues in relation to cloning and other bio-medical applications of modern technologies.

PART 1

INTRODUCTION & VISION

1 INTRODUCTION

1.1 Fifty years ago, the Chairman of IBM, Thomas Watson said, 'I think there is a world market for about five computers'.[1] Twenty-five years later, experts still held that 'there is no reason for any individual to have a computer in their home'.[2] These predictions have been obliterated with the exponential growth in computing power and the development of the World Wide Web. The World Wide Web became publicly available in 1991 and has since grown at incredible rates both in content and in the numbers of users. Australians are avid adopters of technology and have one of the highest per capita ratios of ownership of personal computers and use of networks including the Internet.[3]

1.2 The speed of growth of the Internet has been so phenomenal that legislators have had difficulty coming to terms with how to regulate and control the explosion of freely accessible information:[4]

> the role of government now…is to try to implement a proper legal framework in which the restraints we impose are clearly defined and justified on the grounds of public policy, and they can be put into practice effectively. Now that is easier said that done…First, there are uses…of the Internet, which although offensive to many people, could not be made illegal because there's not sufficient reason for so doing…Second, as not all legislators are fully conversant with the Internet, their remedies are sometimes not directed to the specific misuse, but they tend to be of a wider, more general nature, not the specific fault which we wish to cut out…And the third difficulty, if you are trying to legislate for information technology, is it is many years, some will say light years, ahead of the capacity of law makers to comprehend and then address the problems.

1.3 Baroness Thatcher's comments apply more widely to the whole area of information technology and its adoption by government and the private sector. There is no doubt that technology and the information superhighway epitomised by the Internet are an integral part of today's society and will become increasingly

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1 B Sterling, 'A Century of Science Fiction' (1999) *Time Magazine*, Mar. 29, 126, p. 128.

2 K Olson, President of Digital Equipment Corp, quoted in B Sterling, 'A Century of Science Fiction' (1999) *Time Magazine*, Mar.29, 126, p. 128.

3 Justice L Olsson and I Rhode, 'Coming Ready or Not: Courts and Information Technology' (1997) 71 *Reform* 10, p. 11.

4 Baroness M Thatcher, 'Challenges Facing the 21st Century', paper delivered to the XI World Congress on Information Technology, Washington, June 1998.

dominant. The benefits technology offers in increasing efficiency and transforming work practices are widely recognised. However, Australia has not been a rapid adopter of technology to change work practices.[5] The Committee's role has been to examine these issues in the context of the legal system. This report is crucially concerned with accelerating the uptake of new technologies to support the Victorian Government's adoption of new work practices and to assist the community by improving justice services.

Scope of the Inquiry

1.4 The Committee received Terms of Reference from the Governor-in-Council on 23 September 1997 to report on the opportunities offered by new technologies to streamline the administration of justice and increase access to justice.[6] The Committee was requested to have regard to projects currently underway in the Government: the proposed Electronic Commerce Framework Bill; audio and video linking; the Pathfinder Project; the Civil Justice Review Project and the Data Improvement Project. The Committee was requested to take a wider view of the opportunities technology presents for the legal system with particular attention to access to electronic information about courts and tribunals, the future of videolinking and technologies beyond, and improvements to and application of court reporting services.

1.5 The Law Reform Committee is a joint investigatory committee of the Victorian Parliament with statutory power to conduct investigations into matters concerned with legal, constitutional and parliamentary reform or the administration of justice.[7] The Committee's membership, which includes lawyers and non-lawyers, is drawn from both Houses of the Victorian Parliament and all parliamentary parties are represented.

1.6 The Committee consulted very widely in Victoria, interstate and overseas during its Inquiry. It utilised a range of new technologies to conduct research and consult with the public. The Committee subscribed to special online news services on technology and law ensuring that the most up to date information was available from

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5 As Dr John Marsden noted: the use of Internet and e-commerce for more than information gathering and advertising is limited to a small core of both small and medium businesses' see Yellow Pages, *Small Business Computer Technology, E-Commerce and Y2K: Survey Results*, May 1999, http://marsdenjacob.com.au/sbi/special0599/index.htm.

6 *Victorian Government Gazette*, G. 38, 25 Sept. 1997, p. 2713 as amended by *Victorian Government Gazette*, G. 35, 3 Sept. 1998, p. 2367.

7 *Parliamentary Committees Act 1968* (Vic.), s. 4E.

around the world. The Committee has also utilised its website to receive online submissions and to encourage discussion on technology and law issues.

1.7 The Committee has received fourteen written submissions,[8] has taken evidence from fifty-five expert witnesses in Melbourne[9], met with over 100 experts interstate[10] and obtained evidence from 80 expert witnesses overseas during thirty four meetings conducted in sixteen cities[11].

1.8 The wide range of hearings and interactions with various leaders in the field has transformed the Committee's initial views on the area. While the Committee began the Inquiry examining the introduction of technology into courts and tribunals specifically, it became obvious that the Committee could not focus on courts and tribunals in isolation or ignore the cultural issues that impede the adoption of new technologies in the justice system.

1.9 The Committee believes that it has been exposed to international best practice in relation to the use of technology by the justice system. The Committee finds that while some members of the judiciary and government ignore new technologies or give token recognition to the modernisation of the judicial system, as Don Tapscott points out, this is largely due to the fact that they are holders of power under an old paradigm.[12] To be truly accessible and progressive, leaders in the justice system must recognise the importance of technology in providing the opportunity to build a more just society and in exporting Victorian legal services around the world.

1.10 The Committee has taken a broad but pragmatic approach to this Inquiry. It has focused on what is possible in Victoria in the short-term in the context of possible long-term technological developments.

1.11 The Committee also notes that technological development and the uptake of new technologies by courts and governments is an area that is constantly evolving. It recognises that it is difficult to make definitive statements in the context of this constant evolution and flux. This Report represents that Committee's findings based on information received until 7 May 1999.

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8 See Appendix A

9 See Appendix B

10 See Appendix D

11 See Appendix C

12 D Tapscott, Speech delivered via videoconference, Virtual Opportunities Congress, Melbourne October 1998.

Framework of the Report

1.12 Following this introductory chapter, Chapter 2 provides a broad overview of technological and management trends. It explains some of the technologies currently available, predicts how these technologies may develop and outlines the modern management theories of business process reengineering and knowledge management. Chapter 3 outlines the Committee's vision for the use of technology in the Victorian justice system. The Committee's vision is for the citizen to have inexpensive and seamless access to legal information, advice and legal institutions.

1.13 Having articulated its vision, the Committee deals with the cultural resistance to change in Chapter 4. Throughout this Inquiry, the Committee has received evidence suggesting that it is organisational and cultural barriers rather than the technology itself that impedes the modernisation of legal institutions. Technology available today is capable of delivering highly sophisticated yet accessible justice systems. However, impediments to change result largely from a lack of exposure to and understanding of new technologies. The Committee suggests ways to overcome some of these fears and organisational resistance to change.

1.14 Part 2 of this report deals with the impact of technology on government. Chapter 5 focuses on the impact of technology on government as a whole. It also analyses the role of government in facilitating the use of Information Technology (IT) by the broader community. It outlines some of the possibilities IT offers government, then considers Victorian whole of government policies before putting forward the Committee's vision for the future of government technology and the suggested course for implementation of that vision.

1.15 Chapter 6 deals with integrated criminal justice, an area that is receiving increasing attention from governments all around the world. Governments recognise that delays, excessive costs and general inefficiencies in criminal justice systems can be overcome with greater integration of the agencies involved. This chapter focuses on ways in which IT can streamline the criminal justice system and specifically evaluates the Victorian project Pathfinder against international best practice. Chapter 7 is concerned with the impact of IT on the prosecutorial function of government. It specifically examines the use of technology by the Victorian Office of Public Prosecutions and the Police.

1.16 The use of computer technology in the legal process necessarily gives rise to issues relating to the security and privacy of electronically transmitted and stored information. The proposed Electronic Commerce Framework Bill seeks to address these issues by establishing a safe and secure legislative framework for the conduct of

e-commerce. The proposed Data Protection Bill addresses privacy issues in the context of unauthorised access to and misuse of electronically stored data. These proposed legislative initiatives will be discussed in Chapter 8 in the context of the Committee's vision for an integrated electronically enabled civil and criminal justice system.

1.17 Part 3 of this report focuses on the impact of technology on the courts. Chapter 9 concentrates on technology as applied to the back-end of the justice system. It examines case management and registry systems, electronic filing systems and judicial support systems. Chapter 10 then deals with technologies that are and can be utilised within the courtroom. It provides an overview of electronic trials and courtrooms, evidence presentation tools, audio and video linking and court reporting and transcription.

1.18 Part 4 of this report examines the impact of technology on the legal profession and the public. Globalisation and the internationalisation of legal practice place new pressures on lawyers. However, with the effective use of technology, it also provides opportunities never envisaged in the past. Chapter 11 outlines the changes that IT will bring to the profession. It then examines some of the current uses of technology in legal practice. It concludes with a discussion of legal publishing in the context of the production of material for lawyers.

1.19 The achievement of access to justice is reliant upon the availability of easily accessible and simple legal information and advice. Chapter 12 examines access to legal information and access to courts and tribunals from the perspective of the citizen. It explores the ways in which information technology can increase access to simple, inexpensive and accurate legal information. Rapid developments in information technology potentially create a new division in society between the information rich and the information poor. This chapter also explores how governments can ensure that traditionally marginalised groups within our society are not further disadvantaged by the adoption of technology by the legal system.

1.20 The final chapter of this report examines the area of artificial intelligence and its applications to law. The Committee believes that artificial intelligence has the potential to impact on several areas of legal service delivery and the administration of justice. Chapter 13 examines current uses of artificial intelligence in law, its potential uses in the future and its limitations.

Terminology

1.21 New terminology to describe technology is developing just as rapidly as technology itself. The following guide provides a brief summary of the major terms used in this report.

Biometrics: Biometrics refers to the automatic identification of a person based on his / her physiological or behavioural characteristics. This method of identification is preferred over current methods involving passwords and PIN numbers for two key reasons: the person to be identified is required to be physically present at the point-of-identification and identification based on biometric techniques obviates the need to remember a password or carry a token.

CAT: Computer Aided Transcription is a system of recording transcript via the use of a stenotype machine which produces machine readable output that is then translated by a computer.

CD-Rom: CD-Rom is an abbreviation for Compact Disk - Read Only Memory. It is a popular format at present for recording and storing large amounts of data.

Email: Electronic Mail or email refers to the system of sending messages electronically. Emails can include attached computer files that can range from text files to video files.

Free Text Retrieval: Methods of searching over bodies of text.

GUI: Graphical User Interfaces are used to enhance the interaction between computers and humans allowing users to operate within a graphics-based screen rather than issue typed commands.

Hypertext: Hypertext is a method of linking documents or parts of documents to other documents. A reader can move seamlessly to various sections of a document, a range of documents or sites on the World Wide Web by clicking on Hypertext links.

HTML: Hypertext Mark Up is a computer language that has become the standard on the World Wide Web.

Information Technology (IT): Information technology is the broad term used to encompass computers and telecommunications generally. It has become a generic term to refer to a range of technologies. In line with general usage, at times in this report, the terms IT and technologies are used interchangeably.

Internet: The Internet is an abbreviation for 'International network'. The Internet is a worldwide linkage of computers joined by telephone lines and fibre optic cables.

Intranet: A small-scale version of the Internet that operates as a private secure network usually within organisations.

LAN: This refers to a Local Area Network whereby computers within a building or an enclosed area are networked enabling file sharing and printer sharing.

Legacy Systems: Information systems that have been in use for some time.

Modem: A modem is a communications device that converts digital computer information to and from analogue form so it can travel over telephone lines.

MS Dos: the operating system which runs an IBM PC (and IBM PC clones), It was first released in 1981.

Network: This is a term usually used to describe a group of linked computers.

PC: Personal Computer

WAN: Wide Area Networks are usually used for remote access to information stored on a computer network, email and file transfers.

Windows: Microsoft Windows is a GUI that runs on top of MS-Dos. It gained wide acceptance among PC users in the early 1990s.

2 TECHNOLOGY AND MANAGEMENT DEVELOPMENTS IN THE INFORMATION AGE

> We are at the dawn of an Age of Networked Intelligence - an age that is giving birth to a new economy, a new politics, and a new society. Businesses will be transformed, governments will be renewed and individuals will be able to reinvent themselves - all with the help of information technology.[13]

2.1 We are moving into a global economy, which is both driven by and driving information technology. People and companies can now work and collaborate around the clock across the world. The old barriers of geography and time zones are no longer an issue with information of all forms being capable of transmission at any time to almost anywhere. As our society continues to globalise new management structures become crucial. Structuring work not around a physical office but around a network of people around the world brings new challenges.

2.2 The new economy values knowledge and eliminates intermediaries. It is an era where government services and all transactions become digital and therefore available 24 hours a day 7 days a week. Integration between various organisations and services becomes critical with the convergence of various technologies as boundaries blur in the process of globalisation. The new economy requires a fundamental reconception of the role of government, the legal system and each professional group in society. It also requires an analysis of the different relationship that the citizen will enjoy with government, law and the global society in general.

2.3 This chapter commences with a brief analysis of the underlying trends and possible developments in information technology. Such an exercise can only be as good as the information and technology currently available. Any attempt to predict the future of technology is difficult especially in light of the fact that since the advent of the personal computer in the 1970's the rate of technological change has been

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[13] D Tapscott, *The Digital Economy: Promise and Peril in the Age of Networked Intelligence,* McGraw-Hill, New York, 1996, p. 2.

incredibly rapid.[14] It will look at current technologies and propose potential developments in these technologies in general terms.

Developments in Information Technology in the Next Decade

2.4 Al Gore, the Vice-President of the United States invented the term 'information superhighway' to describe the emerging high-speed global communications network capable of carrying data, voice, images, video and a range of other multimedia services around the world. The superhighway now impacts on all aspects of our lives. The following section describes some of the technologies involved in this revolution and suggests likely developments where appropriate.

Telecommunications Infrastructure

> There will be a global telecommunications infrastructure which, for practical purposes, will enable the instantaneous transmission of seemingly limitless amounts of digital information at negligible cost.[15]

2.5 This prediction on the global telecommunications infrastructure is widely accepted. On a local level, the Victorian government's initiative, VicOne, has already ensured that schools, hospitals, police stations and other government entities are connected using high bandwidth broadband networks.[16] The rapid advances in optical fibre technologies, data compression techniques and satellite technology suggests the emergence of a global telecommunications infrastructure that will connect computers right around the world enabling them to seamlessly communicate with each other.

2.6 The telecommunications infrastructure will support and enable communication in any number of ways. In relation to communication and the new technologies emerging in the field, it is useful to define four key concepts: digitisation, interactive, multimedia and virtual reality.[17]

2.7 'Digitisation' describes the process of turning information (including text, voice, and video images and their combinations) into strings of zeroes and ones so

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14 R Widdison, 'Electronic Law Practice: An Exercise in Legal Futurology' (1997) 60 *Modern Law Review* 143, p. 144.

15 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xiii.

16 For more information on VicOne see http://www.mmv.vic.gov.au.

17 R. Ocompo, 'Surfing The Tidal Waves Of The Information Age: Surfing Tsunami For Lawyers', Keynote Address, Californian State Bar Convention, Anaheim, California, 23 Sept., 1994.

that it can be transported through telecommunications systems quickly and without loss in quality.

2.8 'Interactive' describes the real-time two-way and multiple-party communication with other users on the information superhighway. 'Multimedia' allows for the presentation of information using text, voice, video and image media. Sophisticated multimedia products can take the form of film or television familiar to users, with the significant advantage that the product is interactive. Interactive multimedia products provide information at a rate and in a sequence that the user controls. 'Virtual reality' technology simulates a computer-generated world that enables the user to experience another world without leaving their physical or geographical setting.

2.9 The Internet and electronic mail already allows instantaneous communication and the ability to send and receive a variety of multimedia resources. The speed and useability of these technologies will continue to improve. Currently, the Internet does provide basic 'real-time' videoconferencing facilities that will develop and over time become a standard form of communication.

2.10 Advancements in various communication technologies will ultimately lead to the convergence of all computing and communication technologies. Such convergence would promote integrated personal information systems. For instance, a telephone or palmtop (hand held) computer will be linked with a television and computer at home or work. At the same time organisational structures responsible for computing and communications technology along with content development will also, by necessity, converge.

Capacity and Useability of Computers

2.11 Sometimes referred to as 'Moore's Law', the accepted theory till now has been that in an eighteen month period the speed of micro processors can be expected to double while in the same period the price will decrease by a third. However, Susskind suggests that 'performance will come to double in less than eighteen months, so that it will be less than the predicted twenty years before one personal computer will be as powerful as the sum total of all of today's machines in California's Silicon Valley'.[18] These predictions may be too conservative with the development of areas such as quantum computing that could see the performance of micro processors expand at a much faster rate.

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[18] R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, pp. xv - xvi.

2.12 In keeping with these advances in the processing capacity of computers, the amount that can be stored on computer disks is also continually growing. CD-Rom technology and newer technologies such as DVD (digital versatile disk) already allow vast amounts of information to be stored on one disk. At the same time the actual physical size of computers continues to shrink.

2.13 Computers are becoming increasingly easier to use. Today, there are several voice recognition software packages on the market that allow the user to dictate text and instruct their computers. As this technology continues to improve, it is predicted that computers will eventually be able to recognise and interpret conversation amongst a group of people. Common voice recognition programs currently available on the market include Dragon Dictate, Dragon Naturally Speaking, IBM Via Voice and IBM Via Voice Gold. While these are generic programs, specialised voice recognition software is being developed to accommodate professional needs. For instance, Dragon Naturally Speaking Legal Suite[19] and SpeechLaw Inc[20] are products that specifically aim to support legal practice.

2.14 At the same time rapid improvements to systems' graphic interfaces are being made. Systems will continually allow for greater adaptability to individual users enabling the individual to determine what and how they view and interact with computer systems. Other new interfaces on the horizon include: smart rooms, where computers in the walls sense movements and reactions; haptic interfaces, which are body suits or gloves that allow humans to feel tactile impressions as a computer senses your movement; and virtual reality.[21]

2.15 While the World Wide Web and developments in computer software have largely focused on the English-speaking world, access to these resources is widening with the growing sophistication of translation software. At present, the Web allows a document to be translated into a range of languages. While the accuracy of the translation is not perfect, this will improve with further technological developments. A natural extension of the advances in voice recognition is that in the near future computers will be able to recognise a conversation in any language and be able to translate the spoken word into English if necessary. As computer systems enable the user to further customise and personalise their machines, the traditional fear of, and reluctance to use, information technology will be reduced.

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19 http://www.dragontalk.com.

20 http://Site-1.com/cvf.

21 M Dertouzos, *What Will Be: How the New World of Information Will Change our Lives*, Harper Collins Publishers, New York, 1997, pp. 55 - 77.

2.16 Looking further into the future, experts involved with artificial intelligence claim that within forty years 'conscious computers' will be commonplace.[22] It is predicted that these computers will be able to converse with the user and be responsive to vision. The major challenge for these talking, thinking computers is currently to learn the structure of language.[23] While such developments may sound like they belong in the realm of science fiction, it is important to remember the rapid advances in information technology in the last twenty years. The concept of the World Wide Web or even the simple laptop would have been relegated to fantasy a mere twenty-five years ago.

Digital Television

2.17 The increasing ease of use of computers is best evidenced in the emerging convergence between televisions and computers. The next generation of televisions will be totally integrated with home computers and the Internet. In the next five years users will be able to turn on one unit and determine whether it is television or some other form of interactive multimedia activity that they wish to be entertained or informed by.

2.18 In Australia, the Federal Government has introduced reforms that require commercial and free to air broadcasters to commence digital terrestrial television broadcasting (DTTB) in metropolitan areas by 1 January 2001 and in regional areas from that date onwards so that all areas have DTTB by 1 January 2004.[24] DTTB is a new type of broadcasting technology that provides a more effective way of transmitting television services than traditional broadcasting. It can provide for better quality of picture and sound, provide high-definition television programs or a number of standard definition television programs within the standard broadcast channel, and carry a range of multi-media services.

2.19 DTTB systems use advanced digital techniques to convert an analogue signal to a digital signal, which is then compressed, along with other signals, before being broadcast from a transmitter. This technology will enable Australians to:[25]

> access a wide array of new and enhanced programming and datacasting services such as viewer-initiated multiple views of sporting events, advanced information services which are

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22 J von Radowitcz, 'Dawn of the Hotheaded Computer' *The Age*, 'IT Section', 15 Sept. 1998, p. 6.

23 ibid.

24 Senator The Hon R Alston, MLC, 'Digital - a new era in broadcasting', Media Release, 24 Mar. 1998, http://www.dca.gov.au/nsapi-graphics/?MIval=dca_dispdoc&ID=2194.

25 Senator The Hon R Alston, MLC, 'Digital - a new era in broadcasting', Media Release, 24 Mar. 1998, http://www.dca.gov.au/nsapi-graphics/?MIval=dca_dispdoc&ID=2194

linked to television programs, and direct terrestrial television access to material provided via the Internet.

Software

2.20 Software development has more than kept up with hardware innovations. There is a now an enormous array of software that can be purchased 'off the shelf' catering to household, professional and business functions. At present, while there is a ever-growing plethora of software available, a significant amount of individual programming is still required. This will change rapidly. In a few years users will be able to easily customise off the shelf software to suit their individual needs. New software tools that allow automation and group-work will also evolve, making us more productive and our tasks easier.

Internet, Intranets and Extranets

2.21 While there is some dispute between US academics and defence force organisations about who invented the Internet, it is beyond dispute that the Internet has evolved into a commercial, entertainment, recreational and information tool without parallel.[26] The Internet is basically a network of networks. It is the infrastructure and standardised protocols that enable networks regardless of hardware platforms or software, to communicate with each other. The Internet's common languages or protocols allow these independent networks to talk to each other across the publicly available infrastructure.[27]

2.22 The Internet has already ensured that huge amounts of conventionally published material can be accessed on the Web. More sophisticated forms of information delivery are constantly being developed allowing for interactive applications whereby users can be tracked on a question and answer basis through complex issues.[28] In our daily lives, this means that on-line services will replace the middleman or agent. For example, booking and arranging travel on-line already exists as an efficient and easy way of directly organising holidays or business trips. Travel agents, as with other agents, are finding that they need to add value to the services they provide to continue to survive as an industry.[29]

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26 T Hughes, 'Regulation of the Internet' (1997) 71 *Reform* 23, p. 23.

27 ibid.

28 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xiv.

29 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, IBM Institute for Electronic Government, Washington D.C, 17 Jul. 1998.

2.23 As the cost of information technology continues to decrease, almost all private households will have some form of computer that connects them to the Internet. This will enable them to conduct a range of business and financial transactions on line.[30] In Australia, 17.9 per cent of households are already connected to the Internet.[31] This figure had grown by 45 per cent in a period of 6 months and is likely to continue to increase at a rapid rate. The Web will become the 'natural first port of call' for information or guidance on almost any issue. Increasingly business processes and trading functions will be conducted over the information superhighway.[32]

2.24 The same telecommunications infrastructure is being used to construct restricted private networks, which in their present form are called intranets or extranets. While with Internet access there are no barriers to entry, extranet access is the next level above; where entry is only permissible via some form of verification (such as user-identification / password or certificates). Intranet access, is the final level of access usually allowing full access to only those who are within an internal network. In the future, the global telecommunications infrastructure will enable participation in virtual private networks where communities of users who share common interests can communicate with each other and share information with enhanced security and confidentiality. It is predicted that these private networks will counteract the unwieldiness of the World Wide Web, and will assist in steering users towards the precise information they need.[33]

Portals

2.25 To give the information on the Internet structure and make it easier to use, portals and hubs have begun to proliferate. A portal is a gateway that passes a user through to other destinations. It is a term used for sites that gather links to Internet resources in one place, and are designed to be the first destination on the Web surfer's journey, the first page automatically loaded when the user double-clicks on their Internet browser icon. Increasingly, all manner of online services, search engines and Web directories are vying to become the all-purpose portal to the Internet -- the one-stop shop. Portals generally have customisable news, sports, weather, stocks, yellow and white pages, driving directions, horoscopes, and shopping.

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30 Justice L Olsson, 'Coming Ready or Not: Courts and Information Technology' (1997) 71 *Reform* 10, p. 13.

31 Australian Bureau of Statistics, *Use of the Internet by Householders*, Aug. 1998, p. 9.

32 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xiv.

33 ibid, p. xv.

2.26 While portals have been the trend in the last few years, we are now moving towards hubs. A hub is a central position from which everything radiates. While portals provide general interest information without any specific general focus, hubs are more narrowly organised. To succeed as a hub, a site must surround itself with content, commerce and community appropriate to one particular audience. The near future will see more and more specialised legal portals and hubs that are customisable and contain all the information an individual lawyer would require.

Videoconferencing

2.27 Videoconferencing is currently used extensively in the Australian legal system and has revolutionised communication with courts. The basic components of videoconferencing are cameras, monitors, microphones, speakers and a communications network. Videoconferences can include more than two locations with multiple sites being represented on a monitor by splitting the screen, enabling each participant to see everyone else involved. The communications system utilised can be as simple as a pair of coaxial cables connecting the actual sites or as complex as satellite transmission and reception. With the aid of a small television camera mounted on a personal computer and basic software it is now possible to use the Internet to videoconference. While the quality of image is not yet as good as other means of videoconferencing, it is continually improving and will possibly soon become as common as the telephone. Telephones with video are already available and videoconferencing will increasingly become an everyday experience. Whether people want personal contact with courts or other agencies will become a matter of personal choice.

Artificial Intelligence and Expert Systems

2.28 Artificial intelligence (AI) is a broad term for a wide range of research concerned with the development of systems that perform tasks or solve problems that usually require human intelligence.[34] Artificial intelligence is not concerned with replicating the brain as such but rather with modelling intelligent behaviour. As the CSIRO project leader for applied AI, Dr Kowalczyk states:[35]

> We can look at artificial intelligence as a number of technologies which in some sense mimic the nature of human behaviour.

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34 ibid, p. 120.

35 B Howarth, 'Building an Artificial Brain', *The Australian*, 'Computers Section', 6 Apr. 1999, p. 4.

2.29 While the terms AI and 'expert systems' are often used as synonyms in law, expert systems are a category of artificial intelligence, which uses a particular approach to modelling intelligence. Expert systems perform tasks that would otherwise be performed by a human expert. To design an expert system a knowledge engineer is needed who studies how human experts make decisions and translate the rules into a form that a computer can understand.

2.30 Artificial intelligence and expert systems have come to impact on every aspect of our life. One commentator has predicted that[36]

> within 20 years, artificial intelligence should become the dominant software technology of the digital revolution. There will be intelligent machines that provide services, track your needs, have emotions, and interact with each other across a vast network. There will be tools that learn and reason about huge volumes of information and smart interfaces willing to discuss your needs in English. All this will be part of everyday activity. It will also dramatically change the way we live, work and play.

2.31 Just as AI and expert systems will become increasingly dominant, their use in law will likewise be pervasive. As Justice Kirby recently remarked:[37]

> [I]t seems unlikely that the courts will be left completely unaffected by this development which has been called 'perhaps the most intellectually stimulating issue to have arisen from the advent of computer technology'. Certainly, intelligent systems have been developed which are in common use in other professions…Is it impossible to think that courts, and lawyers more generally, could enhance the accuracy and precision of their decision-making by intelligent systems fed by human experts with the relevant data?

2.32 Chapter 13 of this Report deals in detail with artificial intelligence and the possibilities it offers the legal system.

Developments in Modern Management

2.33 New technologies and the changes they bring in the workplace and organisational structures require a rethinking of management structures and practices. Technology offers the opportunity to redesign processes and practices that were developed in the last century. Most new management theories however, emphasise that technology should be seen as a tool or enabler to create more efficient management processes rather than dictate the new processes. While there are several new schools of thought within management, the Committee considers that business

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36 M Georgeff, 'AI: dawn of a new reality', *The Australian Financial Review, Special Report: Life in the New Millennium*, Wednesday 17 Feb. 1999, p. 10.

37 The Hon Justice M Kirby, 'The Future of Courts: Do they Have One?' paper presented at the Judicial Conference of Australia, Third Annual Colloquium, Gold Coast, Queensland, Nov. 1998, http://www.fl.asn.au/resources/kirby/papers/19981107_jh.html.

process reengineering and knowledge management are most relevant to the legal system.

Business Process Reengineering

2.34 The new and burgeoning area of law and technology increasingly uses terms like 'reengineering' 'retooling' and 'integration'. 'Reengineering' is defined as a 'fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as costs, quality, service, and speed'.[38] The term 'reengineering' comes from a contemporary change management school called 'business process reengineering' (or 'BPR').

2.35 BPR is guided by principles including a strong customer focus, the use of a cross-functional, multi-disciplinary approach, the recognition that reengineering involves more than just process redesign and the use of technology as the 'enabler' or catalyst for change. In line with the contemporary nature of BPR, a central feature of reengineering is the use of information technologies to achieve the necessary change.

2.36 As discussed in Chapter 9 of this report, most Victorian courts have engaged in a BPR process to look at the ways to make the courts function more efficiently. BPR was also central in the Pathfinder project that sought to integrate the criminal justice system in Victoria. Pathfinder is discussed in detail in Chapter 6 of this Report.

Knowledge Management

2.37 Knowledge management is a business discipline or theory that reflects the increasing importance of knowledge as a corporate asset. The growth in publications, interest and consulting on knowledge management has been meteoric. In line with the rapid growth of publications in the area, there are numerous varied definitions of knowledge management. In the Committee's view definitions that treat the area as a discipline rather than a mere collection of technologies best encapsulate what knowledge management means. For instance:[39]

> Knowledge Management caters to the critical issue of organisational adaptation, survival and competence in the face of increasingly discontinuous environmental change... Essentially it embodies organisational processes that seek synergistic combination of data and information

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38 M Hammer and J Champy, *Reeingineering the Corporation - A Manifesto for Business Revolution*, Hutchinson, London, 1989. See also, M Hammer, 'Reengineering Work: Dont Automate, Obliterate', (1990) 68 *Harvard Business Review* 104.

39 Y Malhotra, 'Deciphering the Knowledge Management Hype', http://www.brint.com/km/whatis.htm

processing capacity of information technologies, and the creative and innovative capacity of human beings.

2.38 Knowledge management is a potentially important practice when applied to an information-rich discipline like law. While the software tools required to harness knowledge are still developmental, these will become more sophisticated as we move further into the information age. The development of these technologies and the continual emergence of smarter technologies mean that in time users will be able to obtain *'all but only'* the material and information they require.[40] Chapter 4 of this report deals with knowledge management as a means of implementing cultural change in legal institutions.

2.39 While the above discussion is merely a brief sketch of the possible developments in information technology, the potential impact on an information based system like the law is revolutionary. The following chapter outlines the Committee's vision for the use of technology by the Victorian justice system.

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[40] R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xvii.

3 THE COMMITTEE'S VISION

3.1 The Committee believes that the rapid developments in technology offer the opportunity to transform the justice system into an accessible, inexpensive, transparent and efficient system, which is responsive to the needs of the community. The effective use of IT in the justice system can entirely change the relationship between courts, governments and the public. While historically the legal system has been renowned for its elitism, complex, inaccessibility and impenetrability to the citizen, technology can ensure that everyday legal issues are processed without the need for expensive legal advice or long court processes. At the same time, rather than intimidate the profession, IT offers lawyers the opportunity to be world leaders in their chosen field and offers judges access to the best resources possible to make appropriate decisions. The following case study provides a practical possibility that arises out of the Committee's vision.

> As a practical example of this seamless approach, imagine that a Victorian citizen has received a Traffic Infringement Notice for driving her vehicle through a red traffic light. Over the Internet from home, work or a community computing centre (including libraries) and utilising Victoria's Electronic Delivery System, she would first identify herself with an electronic signature and then type in the ticket number. Once the number is entered, the system would give the citizen access to the digital photograph (in Victoria automatic red light cameras digitally photograph vehicles passing through many major intersections) and would inform the citizen of three options:
>
> 1. pay the fine immediately utilising a debit card, credit card or some form of ecash;
> 2. identify the true driver (in Victoria, owner onus applies) and his or her address;
> 3. in the event that she admits driving, it would advise her that the statute provides that the image produced by the red light camera constitutes proof in the absence of contrary evidence that the offence has been committed. It could give her advice on the practical difficulties of satisfying this burden of proof. It can provide the details of camera testing which satisfies the statute. If the driver still decides to contest the decision, she would be able to look at government and commercial online guides to the law to establish her rights. If the driver wished

to make submissions on the question of penalty (Victorian law provides for near-automatic suspension for a month on receipt of 12 demerit points over three years), she could link to an online directory of specialist legal practitioners and expert witnesses. She would be able to seek online legal advice and make an appointment to see a lawyer. Whether she chooses to represent herself or use a lawyer, she would be able to look at the court's schedule and request a time that suited her in a specialist traffic hearing court list. The system would schedule the court appointment and assist her in filing the necessary documents. The system would provide the information needed for a court appearance and provide a movie quality tour of the courtroom and the procedures.

This information would be available in text and audio form and in all community languages.

3.2 The Committee has been fortunate to observe best practice systems currently operating in legal systems across the world, to discuss future possibilities with experts and to contemplate and theorise the ideal use of technology in the Victorian legal system.

3.3 In putting forward this vision, the Committee has attempted to be pragmatic regarding what is achievable in the next five years. The Committee believes that information technology will continue to become more sophisticated and cheaper. Many more Victorians will be comfortable in using a range of new technologies and will expect services to be available online.

3.4 At the outset, it is important to note that the Committee views technology as an enabler, rather than as an end in itself. The benefits technology offers can not be capitalised on unless there is a genuine attempt to examine existing processes with the aim of redesigning them for the next millennium. The Committee has found that a helpful starting point is to consider this challenge: How would one organise and administer a justice system if one were to devise a legal system today, given the historical context and politics surrounding the existing justice system?

3.5 The Committee considers Victoria to be a world leader in many areas in its use of IT. Despite the fact that the justice system has lagged behind other areas of government, there are examples of Victoria's use of information technology representing world's best practice.[41] To capitalise on these pockets of excellence, Victoria should continue to show leadership, integrate our existing justice IT systems,

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[41] See e.g., *Technology for Justice Conference Presentations*, CD-Rom, Australian Institute of Judicial Administration (AIJA), Carlton, 1998; J Leeuwenberg and A Wallace, *Technology for Justice Report*, AIJA, Carlton, 1999. See also the conference websites at http://www.aija.org.au/conference98;http://www.austlii.edu.au/conferences/techjust.

adopt world's best practice wherever possible and promote nationally consistent standards.

3.6 The Committee's vision is for cross-jurisdictional integrated service delivery for all Victorians. It is for an integrated justice system in which the citizen has seamless access to information about the system and to the organisations within the system. The Committee's vision is for technology to be utilised to make government processes more transparent, to allow citizens seamless access to all government services and for the Victorian Government to lead by example in its use of information technology. The Committee also believes that Government has a pivotal role to play in educating the public and taking the community into the information age by ensuring that citizens have equal access to technology.

3.7 The Committee's vision for an integrated system that delivers accessible and online justice to the community will be realised through the integration of courts' administration and information systems and the enhancement of existing Internet interfaces to enable citizens to obtain information about their rights and lodge actions where appropriate. The public will have access to a one-stop-electronic shop that will provide them with government certified legal information that takes them through their legal problem, offers them options for electronic or personal legal advice and electronic lodgement of complaints or writs.

3.8 The citizen will not have to worry about jurisdictional issues or have a thorough knowledge of the mechanisms of justice, but as with the Government's electronic service delivery strategy, will be able to go to one electronic point to receive all the relevant information. Taking into account the diversity of the Victorian population, all online legal services will be available in a range of community languages, via the Internet, at information kiosks, through call centres and, where personal service is required, at centres where a member of the community can receive personalised service. Expert systems will become more sophisticated and will be increasingly utilised to guide people through their legal problems and facilitate access to legal advice or dispute resolution.

3.9 This integrated vision of legal information provision requires the linking of various government agencies and their information systems. The Committee believes that for Victoria to maintain its leadership role in relation to electronic service delivery, all appropriate government departments' information databases should be integrated to ensure that a person's problems, regardless of their nature or complexity, can be addressed from a single electronic point. The integration of government information will also better enable the Government to identify areas of need and improvement in service delivery. Victoria will continue to lead by example

and encourage national cooperation and coordination in the online delivery of government services and provision of information.

3.10 The Government will fulfil its obligation to provide legal information to the public by certifying the content of appropriate legal sites. As the Internet continues to grow, more and more legal information will appear on the World Wide Web leaving the public confused at what is actually the current and accurate status of law. The Government will thus certify content and coordinate the delivery of simplified online legal guides for the public.

3.11 The Committee is of the opinion that information technology will become an increasingly important tool in the administration of justice. Well implemented IT systems will ensure that data is entered only once anywhere in the justice system, that duplication is eradicated and that information automatically flows through the system to the appropriate people at the right times. In relation to courts, in the next few years case management systems will be integrated with judicial support systems and cater for all the administrative and judicial support needs of courts. Such systems will also have the capability to interact with parties and agencies involved in cases, facilitate electronic lodgement and appeal and enable automatic publication of judgements on the Internet.

3.12 Having examined several international models of integrated criminal justice, the Committee believes that the model suggested by project Pathfinder does meet world's best practice. The Committee believes that Victoria will shortly have an integrated criminal justice system that ensures increased efficiency and seamless interaction of the various agencies involved in criminal justice. The Committee believes that this model should be followed for civil justice as soon as possible.

3.13 IT will allow physical courtrooms to be completely computer-integrated with imaging software to capture paper documents and other real evidence. All parties will look at the same information, text or multimedia, at any given time displayed on screens in electronic format. Such technology, while currently employed in only a small number of complex cases, will increasingly be used in routine cases. Sophisticated information technology systems will become the norm; not only in the administration and enforcement of justice, but also in the actual running of trials, evidence presentation, witness examination, transcript production and analysis and judgment production.

3.14 Videoconferencing, an area in which Victorian courts have already shown leadership, will continue to grow in popularity, making courts more accessible to all Victorians. Videoconferencing will be utilised wherever it is deemed that personal

attendance is not essential and for a range of training and administrative requirements. Transcription services will be more efficient and accessible by utilising sophisticated voice recognition software. Judges will be able to comment and annotate proceedings as they occur without needing to write or type notes. This trend is borne out by the current use of increasingly sophisticated real-time court transcription systems.[42] All judgments will be available on the Internet supported by much more sophisticated search facilities and indexing systems.

3.15 All courts and tribunals will have common standards and protocols to facilitate the use of technology within the courtroom and to lodge documents with the courts and tribunals. While not compelling practitioners or judges to use technology, the justice system will encourage its use by implementing appropriate standards and offering incentives to parties who utilise technology because of the cost and time that will be saved by courts.

3.16 To facilitate the adoption of world's best practice and to evaluate existing systems, an information clearinghouse on law and technology will be established. While the clearinghouse will initially focus on the Victorian justice system, interest from other jurisdictions will mean that there will eventually be a national clearinghouse that seeks to promote best practice use of technology in the justice system.

3.17 Ultimately, it is the Committee's view that based on today's technology it is possible to build the most sophisticated IT system to support the administration of and increase access to justice. However, as the evidence, submissions and meetings with experts have confirmed the adoption and effective use of technology is not reliant on what technology can achieve. Rather, it is dependent on organisational and cultural issues. The most sophisticated systems will not ensure that all persons involved in the legal system will use them effectively. Moreover, to achieve the Committee's vision, cultural issues need to be addressed, so that technology is regarded as an aid and effective tool, rather than a threat to employees and the integrity of the legal system.

3.18 The cultural impediments to achieving the Committee's vision and suggestions for addressing these challenges are the focus of the next chapter.

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[42] The transcription software used by the South Australian courts directly transcribes the court reporters stenography into text. Systems developed by Ringtail Solutions (used in the Estate Mortgage trial), used a similar method that was then transmitted via the Internet, thereby enabling all parties involved to access real time transcripts of the proceedings from all over the world.

4 CULTURAL ISSUES

> Every writer in this field remarks upon the notorious inclination of lawyers to adhere to their old ways; the cultural resistance of the legal profession to changes of things considered fundamental; the psychological barrier which must be breached to raise the awareness of judges and lawyers to the technological engines of change and the imperative necessity to begin the process in law schools where new generations must learn the discipline of law with their hands on keyboards and their minds engaged with concepts of law and justice and not just a mass of data.[43]

4.1 As discussed in the previous chapter, technology can only lead to moderate improvements in the justice system unless it is accompanied by cultural and organisational change. The modern justice system is a product of a long and celebrated history. It prides itself on its tradition and connections to the past that highlight its consistency. Moving a system that is reliant upon and values this tradition into the new paradigm demanded by the networked knowledge economy in a manner that is sensitive to its historical context will not be easy. However, to preserve the integrity of and respect commanded by the legal system, it has to remain relevant in the information era. Information technology is here to stay and impacts on our daily lives in numerous ways. The justice system as a whole must focus on how it can best utilise technology to improve the mechanisms of justice and strategically plan for the future.

4.2 The Committee has repeatedly been told that technologies required to support even the most sophisticated electronic legal systems are currently available.[44] While measuring the benefits of technology can be difficult in the short term, long term cost benefit analyses can demonstrate the need for new technologies. However, 'the biggest obstacle to the development of legal applications of technology…[are] the problems lurking in the murky depths of the issue of culture'.[45]

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43 The Hon Justice M Kirby, 'The Future of Courts: Do They Have One?' paper presented at the Judicial Conference of Australia, Third Annual Colloquium, Gold Coast, 7 Nov. 1998, www.fl.asn.au / resourceskirby / papers / 11981107_jh.html.

44 S Drakeford, *Minutes of Evidence*, 6 Apr. 1998, pp 55 - 73; J Leeuwenburg, *Minutes of Evidence*, 9 Feb. 1998, pp. 43 - 54.

45 R. Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 240.

4.3 This chapter will briefly outline the major cultural impediments to the effective adoption and use of technology and offer recommendations to transform some of the organisational resistance. It concludes with a section on knowledge management as a new and potentially beneficial approach to change the way information is viewed and valued within legal organisations.

Historical Factors

4.4 Historically, rapid technological change has caused anxiety in some sectors of society. While resistance to change has been found in most societies during transitional periods, the information revolution challenges our society with accelerated change. As discussed in chapter 2, Moore's law highlights this rapid pace of change in IT. The industrial revolution was characterised by upheaval and those that adopted new technologies prospered and survived while those that resisted it were left behind. Two hundred years later, with more sophisticated understandings of organisational change and psychology, there is no reason why government cannot intervene to minimise the numbers of people left behind. Cultural and organisational change issues can be dealt with sensitively and productively with the adoption of appropriate strategies, training and an understanding of human psychology.

4.5 Change in the legal system, which is renowned for its inherent conservatism, is viewed by many as harder to achieve than in other fields. Organisations within the legal system have seen themselves as unique, separate and discrete agencies and have developed practices to support these views. For instance each court has its own administrative practices and requirements and, until recently, did not even operate under the same rules. The legacy of historical procedures and practices often combines with a sense of preserving the status quo that results in a deep resistance to change.

Adversarial Culture

4.6 Our legal system is adversarial in nature and this quality often extends beyond the courtroom. Information and knowledge have historically been associated with power. Requiring people to share information and knowledge in a field like law where having more information or knowledge than others equates to having the upper hand, is a radical transformation. However, with the increasing pressures of globalisation, most other professions are finding that organisational and institutional sharing of knowledge and information is becoming imperative to international competitiveness. With easier access to information, the competitive advantage will

come from forming the right teams rather than individuals attempting to possess all the relevant knowledge. Law firms will no longer succeed because of their rigid adherence to hierarchical structures and traditional practices but rather success will be dependent upon their ability to be flexible and adapt to the rapidly changing environment.

4.7 Similarly, law firms and courts will not be able to obtain the best results from technological and organisational change while there continues to be a prevailing belief that software for the courts is vastly different from that used in business organisations. Court scheduling is not vastly different to motel booking systems and court filing systems are little different to a vast range of organisations which need to provide effective and secure filing of documents. While court organisation may have special needs, building unique IT systems can often be costly and may not be compatible with other systems. In implementing IT in legal organisations there should be an attempt to develop and utilise standards so that systems can interact and share information appropriately.

The Need for Champions: Characterising Personal Responses to IT

4.8 Legal organisations are largely controlled by people aged 35 and over, many of whom have had limited exposure to information technology and therefore often develop a fear of and resistance to new technologies. The Committee met with Professor Susskind several times in the United Kingdom and discussed cultural impediments to the adoption of IT by the legal system.[46] For Susskind, individuals within legal organisations can be characterised in relation to their understanding and use of IT into one of the following types: 'atheist, agnostic, believer, or evangelist'.[47] Further, the Committee was told by a head of jurisdiction that the judges in his court could be divided into three groups: a third were enthusiastic about technology and used it effectively; another third understood the importance of IT and encouraged its use, but were not themselves totally comfortable using it; while the final third were strongly resistant to technological change.

4.9 Throughout this Inquiry, the Committee has heard evidence suggesting there is a need for 'champions' to progress the adoption of IT in the legal system. There have been different theories posited as to who the champion should be. Some have argued that the champion of technology needs to be the leader of the organisation,

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46 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meetings with Professor Richard Susskind, 20–21 Jul. 1998.

47 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 246.

while others have argued that a bottom up approach is just as likely to work. Wherever the champions come from, there is a need to identify them and empower them to carry the organisation into the next millennium. The Committee has been told also that there needs to be attention paid to middle management, as they are often in the position to stifle or frustrate change whether it is championed from the top or the bottom. Susskind has written:[48]

> the best supporter of IT in a legal environment is the individual I call the 'unlikely champion', of whom it might be said 'if X is taking IT seriously, there really must be something in it'. Invariably an agnostic turned believer, the conviction of the unlikely champion will tend to be more plausible than that of the evangelist, being one born out of recent, personal experience rather than long-standing hobbyism.

4.10 Identifying a champion who can demonstrate the value of technology sensibly and assist in moving the whole organisation forward is crucial. Moving towards an era where IT plays a significant role will attract diverse reactions from different people. Rather than seeing organisations as homogenous, it is important to recognise this diversity of response to IT and develop strategies that address the needs and concerns of all employees within an organisation. In developing systems, it is critical to have an understanding of the diversity within an organisation and build into systems, design features that target different users and accommodate their needs. The responsibility for the implementation of IT projects should thus rest with an identified champion who understands the psychology of the particular organisation and the appropriate technological solutions available.

4.11 The Victorian Government demonstrates the benefits of having an IT champion who is also the leader of the organisation. The Premier, the Hon Jeff Kennett, MP recently mandated the introduction of 'Parlynet' which is a statewide network for parliamentarians and their staff. The project required the resourcing and delivery of infrastructure and hardware to electoral offices around the state and laptops to all parliamentarians. The parallels in culture between parliament and courts can be marked with the same resistance to change and individualistic focus. Parlynet has now been rolled out and has already had a dramatic impact with politicians walking into both houses of Parliament with the information resources of the world at their fingertips. As the system was rolled out all members and their staff received extensive training. It has been a successful project that demonstrates that new technologies can be embraced by an organisation with the necessary resourcing and training. The consensus view is that the project would never have been implemented and all parliamentarians would never have had access to this range of

[48] ibid, p. 247.

advanced computing technology if it had not been mandated, resourced and supported from the top.

4.12 Legal organisations also have to recognise that those with an understanding of IT are likely to be the younger members of the organisation and give such persons policy responsibility over relevant areas. One possibility for bridging the gap in IT skills between the older and younger members of the profession and the judiciary is to institute reverse mentoring schemes. The Committee has found that many judges and senior legal professionals talk about the fact that their children have far superior IT skills and that they have learnt many of their limited skills from their children. In this context, it may be particularly appropriate for courts and law firms to consider reverse mentoring schemes. It may also be wise for courts and law firms to seek out champions among the younger judges and profession generally.

4.13 The Committee has also found that training and exposure to technology are crucial factors in changing organisational resistance. Mr Phillip Argy told the Committee of a recent retreat organised for the New South Wales judiciary that focused on the basics of IT. During the retreat it became apparent that some of the resistance to change had been purely due to a lack of understanding of what technology could achieve. For instance, some of the resistance to paragraph numbering of judgments came from the belief that judges would have to manually number their paragraphs—the notion of automatic numbering had never been explained to them. Those implementing IT solutions in legal organisations must understand the need for basic training and exposure to new technologies for all employees. Furthermore, it may be appropriate to consider utilising the skills of a lawyer who is technologically adept rather than an IT specialist to provide the basic training.

4.14 There is a tendency among legal professionals to aim for perfection rather than improvement:[49]

> Perfection is too often the enemy of improvement and IT often suffers from this. It is, of course, not easy to change the culture or ethos of [legal organisations] but it would be, I believe, immensely beneficial if we fostered an atmosphere in which improvement short of perfection was welcomed rather than condemned.

4.15 While perfection is an important goal to strive for in the practice of law, in the management and administration of law, improvement rather than perfection is an important first step. As legal organisations are often far behind other organisations in

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[49] ibid, p. 248.

their use of IT, it is often more realistic to facilitate incremental improvement rather than expecting monumental change overnight.

Overcoming Fear

> [T]he dividing line between social meltdown and successfully completing our apprenticeship will depend more than ever on our collective ability to create trust. Without trust, the intangible knowledge that is the life blood of an innovation-driven economy will not flow. And without the flow of learning we will be unable to overcome the fragmentation, polarization, and cultural homogenization that threaten the cherished dream of human self-determination and fulfillment.[50]

4.16 Much of the cultural resistance to IT can be traced back to a lack of understanding and a consequential fear of new technologies. In courts and law firms this fear in upper management often translates to policy outcomes. Fear of IT in general is often cloaked as a legitimate concern that prevents its use in organisations. The Committee has often heard heads of agencies, jurisdictions and law firms expressing concern over security and therefore limiting the IT used even to the point of not allowing employees access to the Internet. However, it is interesting that financial institutions have used the Internet and other networking technologies to control and move funds for some time without the same concern of security.

4.17 Today's security systems are very robust and often paper copies are much easier to tamper with or remove than electronic information. Security for paper based systems do not attract the same hype or concern as electronic systems. For instance, the Committee is aware of a Melbourne law firm that kept its clients files in an unsecured home garage. When an overt concern over security is more closely examined it usually collapses into a more general fear and lack of comfort with the use of IT. However, when there are so many people in control of legal organisations who express concerns about security, it demonstrates that it is a significant issue that requires education and needs to be handled sensitively by those designing and implementing new systems.

4.18 The Committee acknowledges that security is a very important issue when dealing with legal documents and court records. The Committee's overseas study tour confirms that today's security systems are strong and would require much effort to circumvent. The Committee believes that it is an area that legal organisations should be vigilant about and continue to update their security systems when appropriate. The Committee however, believes that electronic security is harder to

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[50] R Miller, *Alliance for Converging Technologies,* 1995 quoted in D Tapscott, *Digital Economy: Promise and Peril in the Age of Networked Intelligence,* McGraw Hill, New York, 1996, p. 41.

thwart and easier to audit when compared with physical security. Courts and legal organisations need to consider how comparatively little effort they put into security of their information stored physically when expressing concern over electronic security.

4.19 Another reason often cited as preventing integration of information systems is the doctrine of separation of powers. The doctrine provides a theoretical framework under which power is shared by the three arms of government being the executive, the legislature, and the judiciary so that no single arm dominates the other two. This provides the fundamental checks and balances required to ensure the primacy of the rule of law. The argument as applied to IT systems is that allowing government to integrate the various agencies involved in the justice system is an abrogation of the separation of powers. Like the security argument when examined it becomes obvious that it is often no more than an excuse that veils a deeper fear and discomfort with modern technology. As an American judge noted:[51]

> The issue of appearing fair and impartial is important, and courts try hard to avoid being or appearing biased. But at the same time… it makes no sense to argue that the independence of the courts is dependent on having no ties, including information technology ties, with the other branches of government. We need to think of ways to have the court get access to the kind of information that courts need without breaching security compromising confidentialities, but at the same time, having access where it's useful and necessary.

The integration of IT systems can be done (and has been repeatedly achieved) without offending the doctrine of the separation of powers.

4.20 However, the Committee believes that it is important to reiterate the fundamental principles on which the legal system is founded and ensure that those designing and implementing IT systems understand these principles and demonstrate how they are not compromised. The separation of powers, the integrity of the criminal and civil justice system, the impartiality of the trier of fact, judicial independence, and the primacy of the rule of law are all fundamental principles that must not be compromised. The implementation of IT however, does not have to infringe any of these principles.

Overcoming the Cultural Barriers

4.21 Ultimately, the Committee believes that many of the cultural barriers to IT are fairly natural responses to radical change in society from a section of the population that historically has been conservative. The Committee believes that while the legal

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[51] See T Newcombe, 'Integrated Justice: The Burden of Proof'' (1998) *Government Technology* www.govtech.net.net/gtmag/1998/dec/cover/cover.shtm

system has been slow in its up-take of IT, there are other professions like medicine where the adoption of IT has been met with even more resistance. The Committee believes that cultural factors lie at the crux of the successful use of IT to improve efficiency and increase access to justice. It is important for those involved in policy formulation and implementation of IT to be aware of the cultural issues and develop appropriately sensitive strategies to overcome these barriers.

4.22 In order for organisations to truly benefit from technology, their processes must be re-examined with the end goal of the process in mind. Business consultants refer to this exercise as business process reengineering which involves a fundamental rethinking and radical redesign of essential business processes with the aid of IT to increase efficiency and transform organisations. The Committee notes that most jurisdictions in Victoria have undergone business process reengineering.

4.23 However, the Committee finds that a major impediment to implementing its vision is the fact that each court has seen itself as a totally separate entity in undertaking these exercises. Attempts to coordinate the courts and their administration have failed largely because courts have historically developed as separate entities and cultural issues have been too large to overcome. Such disparateness has meant that each court has its own strategic planning process and timelines for implementation. The Committee believes that this lack of coordination causes inefficiency and hinders the use of IT in administering the courts. A good strategic planning process is critical for the successful implementation of IT. When in England, the Committee noted that while the English legal system is probably behind Australian jurisdictions in its use of IT, its strategy was well understood by employees and their plans were clearly articulated within achievable time frames. The Committee formed the impression that the planning by English courts had placed them in a good position to leapfrog other jurisdictions in the future.

4.24 A further theme that came out of the Committee's discussions with stakeholders in the United Kingdom was the importance of a commitment to IT by top management. Recognising this element, IT conscious judges have been carefully placed as heads of jurisdiction in the United Kingdom, which indicates that the medium to long term prognosis is good. Professor Susskind believes the role for top management will be a mixed one involving:[52]

> The establishment of policy; the resolution of priorities; the provision of overall guidance; the creation and promotion of a culture in which IT can flourish; personal use of IT and so leading by example; and the communication of the IT strategy to all members of the organisation.

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[52] R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 234.

4.25 The Committee agrees with this view and believes that there is a role for an entity at top management to coordinate and set the policy and strategic directions for the whole of government in relation to the use of IT. Such an entity would include major stakeholders and would also assist in establishing policy to facilitate an integrated justice system in relation to the use of IT. In the United Kingdom, a Civil Justice IT Strategy Development Group has been established to formulate the UK IT strategy for the next 5 to 15 years. The Group consists of the Minister of State, Lord Chancellor's Department, several senior bureaucrats, a former Lord Justice of Appeal, and Professor Susskind in his capacity as the IT Adviser to the Lord Chief Justice.[53] The Committee believes that this is a good structure but needs to be extended beyond civil justice and requires a higher percentage of judicial and executive representation.

4.26 The Committee notes that in Victoria the Department of Justice and the courts have established a joint planning group known as 'the Courts' Consultative Council'. The council was established in August 1997 and comprises the Attorney-General and senior officers of the Department of Justice including the Secretary; Deputy Secretary (Legal and Policy); and the Director of Courts Tribunals and Registries Division; the heads of jurisdiction of the three courts and VCAT and the CEOs of the three courts and VCAT.[54] The Council meets quarterly.

4.27 The Committee believes that there is a need for a more permanent body to be established by statute with wider representation which would look at broad policy directions and strategic planning issues with a mandate to focus on the ways IT can be utilised to aid policy and strategic directions. A policy body with wide representation is also likely to provide new perspectives on the justice system and bring in the wider context within which the justice system operates.

4.28 The Committee believes that there have been too many instances of duplication of effort and errors in the implementation of IT in the court system. The consolidation of current projects and the coordination of policy directions and investment in IT in the justice system, would dramatically improve the administration of and access to justice. The Committee believes that such consolidation should occur in the context of the whole of government approach to integrated service delivery.

4.29 The Committee is aware of the fact that Multimedia Victoria (MMV) does perform a coordinating role in relation to electronic service delivery across

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53 See http://www.open.gov.uk/lcd/consult/istrat/civann.htm

54 County Court of Victoria, *Annual Report 1998*, Tabled in Parliament Apr. 1999, p. 34.

government. The Committee notes that there is a review of the effectiveness of MMV and its programs being undertaken by the international consulting firm, McKinsey's. The Committee notes that MMV is currently located within the Department of State Development and currently may not have sufficient resources or departmental independence to perform the role of achieving change for the whole of government. The Committee has received background information and evidence which indicates that MMV is held in high esteem by most informed public and private sector organisations but that bureaucratic impediments prevent it acting as an evangelist throughout the public sector. Its role as an evangelist is also impeded by the lack of IT sensitivity of many public servants. The Committee believes that it is ultimately a matter for Government as to whether a separate entity is formed, whether MMV is moved to a central agency or whether MMV is expanded to form a department to coordinate whole of government strategic policy directions in relation to IT.

4.30 The Committee further believes that the public reporting structure established for all departments in relation to year 2000 compliance should be retained and utilised for IT implementation and Electronic Service Delivery generally across government. The Committee firmly believes that to achieve its vision of seamless access to an integrated justice system, there needs to be a whole of government, centralised and coordinated approach to IT implementation and electronic service delivery.

Recommendation 1

The Committee recommends that an entity be formed to coordinate and implement a centralised approach to the introduction and development of new technologies on a whole of government basis. Such an entity should establish broad policy directions and strategic planning for the whole of government on IT issues and should require government departments and agencies to publicly report on the implementation of new technologies and Electronic Service Delivery.

4.31 While the newly formed entity outlined above would formulate broad strategic directions for the whole of government, there is a need for a unified body to implement the direction in relation to the justice system. The Committee strongly believes that a central administration system for all courts would lead to greater efficiency and easier application of common IT solutions to support the administration of justice. The Committee has been impressed with the South Australian, English and Californian models and believes a similar model with appropriate modifications is important for the future delivery of justice in Victoria. The South Australian Courts Administration Authority is an independent statutory body that services the needs of all courts and some tribunals. A judicial council,

comprising the heads of each jurisdiction and a nominated representative of each court, oversees the Authority.[55]

4.32 The United Kingdom has established a separate entity to provide administrative support to the courts. The Court Service is an independent agency of the Lord Chancellor's Department that carries out the administrative and support work of courts and tribunals and promotes the impartial and efficient operation of the courts.[56] The Court Service operates under a charter and is overseen by a management board made up of senior public servants and court administrators.[57]

4.33 The Judicial Council of California is responsible for improving the administration of justice in California. The council is established under the State Constitution, chaired by the Chief Justice and provides policy direction to the courts and recommendations to the Governor and legislature. The council has played an important role in leading reform measures to achieve more effective and accessible justice. The council's staff body is called the Administrative Office of the Courts. The Committee's discussions with judges and Administrative Office personnel in California indicated that the Californian Courts have embarked on a massive exercise of unifying all the trial courts across the state.[58] Trial courts had relied on their counties for funding and administrative and technological approach. The Administrative Office of the Courts saw the unification of the courts as providing an important opportunity to standardise administrative procedures and technological support across California.[59]

4.34 The Committee believes that the advantages of a unified administrative system for courts and tribunals are too great to ignore. While each jurisdiction in Victoria may see itself as separate and indeed does carry out distinct work, the reasons in favour of amalgamating their administrative and registry functions are overwhelming. Such amalgamation would enable much easier implementation of uniform technological support for all courts and tribunals. The Committee believes that a central authority would also break down some of the cultural issues relating to technology by implementing training and awareness programs across all jurisdictions. An amalgamated authority would also have the benefit of bringing together all the isolated pockets of excellence in the implementation of technology and administrative reform in the justice system.

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55 Courts Administration Authority, *Delivering Justice: Annual Report 1997*, Adelaide.

56 See http://www.courtservice.gov.uk.

57 http://www.courtservice.gov.uk/arep9798/1ar.pdf.

58 Parliament of Victoria, Law Reform Committee, *Notes of Meeting,* Meeting with officers of the Administrative Office of the California Courts, San Francisco, 8 Jul. 1998.

59 ibid.

4.35 To this end, the Committee believes that the administrative and registry functions of all courts and tribunals should be amalgamated under a central statutory authority. The statutory authority would be overseen by a judicial council comprising heads of jurisdiction and supported by those with experience in modern management, IT and alternative dispute resolution. The Committee envisages that the authority would implement some of the broad policy directions set by the whole of government entity detailed above. The authority would also instruct the whole of government body on specific IT needs of the justice system. The Committee believes that the Department of Justice in the short term and the authority once formed, should be mandated to provide the best possible IT system for the justice system.

Recommendation 2

The Victorian Government should amalgamate the administration and registry functions of all courts and tribunals and establish by statute a unified Courts and Tribunals Administration Authority.

Recommendation 3

The Courts and Tribunals Administration Authority should be overseen by a State Courts and Tribunals Administration Council comprising:

- ***(a) The Chief Justice of the Supreme Court or his/her nominee;***
- ***(b) The Chief Judge of the County Court or his/her nominee;***
- ***(c) The Chief Magistrate or his/her nominee;***
- ***(d) The President of the Victorian Civil and Administrative Tribunal or their nominee;***
- ***(e) A representative of the private sector with modern management skills;***
- ***(f) A representative of the private sector with information technology skills; and***
- ***(g) An academic with expertise in alternative dispute resolution.***

Recommendation 4

***Although the judicial members of the State Courts and Tribunals Administration Council would be statutory office holders and not subject to the* Public Service Management and Employment Act 1998*, the Authority itself would be a public authority under the* Act.**

Recommendation 5

The State Courts and Tribunals Administration Authority should be headed by a State Courts and Tribunals Administrator appointed by the Governor in Council, who would serve as a 'department head' under the* Public Service Management and Employment Act 1998*. The States Courts and Tribunals Administrator should be an independent office-holder subject only to the direction of the State Courts and Tribunals Administration Council.

Recommendation 6

The statutory charter for the Courts and Tribunals Administration Authority should include the implementation of whole of government policy directions in relation to IT for the justice system. In doing so, the Authority should:

(1) Establish ways in which information technology can support the strategic policy directions and develop an overall IT strategy across the justice system including its interaction with the whole of government;

(2) Facilitate the integration of criminal and civil justice systems in Victoria;

(3) Consult widely with relevant public and private sector organisations, the judiciary, the legal profession and the public in the formation of policy and the use of information technology;

(4) Consider the future prospects for the development of information and communications technologies and consider their potential for innovation in the support of the justice system; and

(5) Facilitate the delivery of accessible and online justice to the community and in particular assess and evaluate existing guides to the law and encourage, facilitate and fund the online publication of suitable guides to the law.

Recommendation 7

The Committee recommends that the Department of Justice be given a mandate to deliver the best possible integrated justice IT systems

4.36 As outlined above, a major factor impeding the effective use of IT by legal organisations is the lack of understanding of technology and what it can do for an individual. The Committee therefore believes that training of the judiciary, administrators and lawyers is absolutely critical. Financial constraints have frequently been cited by courts as a reason for the lack of modernisation and use of technology in courts. The Committee understands that many courts have to operate under financial constraints and are subject to efficiency dividends upon

implementing technology. However, in many cases technology may not have delivered the presumed efficiency because personnel are not trained to utilise it effectively. The Committee believes that we are in a time of transition and in such an era it is important to provide the maximum amount of support and training possible to ensure that all members of our society progress through the period as easily as possible. The Committee believes that in this period of rapid technological change, Government needs to offer financial incentives to courts and tribunals to adopt new technologies to support the administration of justice.

4.37 A related issue that has surfaced throughout this Inquiry is the fear that many employees have of being made redundant because of the introduction of new technology. The Committee firmly holds the view that the implementation of IT should not be at the expense of jobs; rather employees should be empowered to becomes more creative, and make value-added contributions to the efficiency of the organisation. The Committee believes that there needs to be education and training on managing change in the legal system so as to allay fears that, if left unresolved, may inhibit vital change.

Recommendation 8

That comprehensive and continuous training be offered to judges and administrators of courts on the use of new technologies.

Recommendation9

Recognising the importance to the delivery of accessible justice of the uptake of new technologies by courts and tribunals, additional targeted funding should be available for the implementation of new technologies. Such funding should not be dependent upon budgetary reductions in other areas.

The Need for a National Information Clearinghouse

4.38 Given that much of the cultural resistance comes from a lack of knowledge and understanding of new technologies, the Committee believes there is a role for a national organisation to act as a clearinghouse of information on technology and law. This organisation would facilitate the sharing of information on technology issues and ensure that courts and tribunals around the country meet international best practice. In the context of the importance of standards for compatibility of systems across Australia, such an organisation could play an essential role in ensuring that standards are flexible enough to accommodate technological change while maintaining the ability to interact.

4.39 During the Committee's overseas study tour, its members visited the National Centre for State Courts in Williamsburg and the Federal Judicial Centre in Washington in the United States of America. The Committee found that both of these organisations played a critical role in information dissemination and education and training on a wide range of issues relevant to the courts and the legal profession. Both organisations have taken a leading role in examining the various new technologies available, assessing their optimal use and gathering information on a range of options for their implementation.

4.40 Both the National Centre for State Courts and the Federal Judicial Centre concentrate on the court system. Competition is greater in America than Australia resulting in a greater number of technology firms focusing on legal industries. The National Centre for State Courts and, to a lesser extent, the Federal Judicial Centre demystify these firms' 'marketing spin' for court officials. A further national resource specifically for legal professionals is maintained by the American Bar Association (ABA). The ABA coordinates an online Legal Technology Resource Centre[60] and a Law Technology Centre[61] that provide valuable information and coordinates research into the use of technology by lawyers. While there are separate organisations catering for the needs of lawyers, courts and their use of technology, this is partly due to the larger population and scale of the justice system in America. The Committee believes that in Australia, with effective international collaboration, one national organisation could provide the information and advice to lawyers and courts.

4.41 In the context of extremely rapid developments in the area, the Committee finds that there is a pressing need for a national clearinghouse of information on technology and law. To this end, the Committee met with the Federal Attorney-General to ascertain whether he was willing to take the lead in establishing such a national body. While enthusiastic in the first instance, his considered response was as follows:[62]

> The Government is also supportive of the concept of a clearinghouse of information technology solutions for courts and tribunals. However, I consider that improved co-ordination and co-operation would best be achieved within the framework of the existing links between courts and tribunals. In my view it would be preferable for the courts and tribunals to consider the costs and benefits of such a clearinghouse and, if warranted, to establish and fund it themselves from existing resources.

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60 http://www.abanet.org/tech/ltrc/home.html.

61 http://www.abanet.org/tech/ltrc/lawtech.html.

62 Parliament of Victoria, Law Reform Committee, *Correspondence*, Letter from The Hon Daryl Williams AM QC MP, Commonwealth Attorney-General, 8 Apr. 1999.

4.42 While the Committee agrees that cooperation and coordination can be achieved through existing links between courts and tribunals, the Committee believes that the optimal result is the establishment of a separate clearinghouse. The Committee also believes that in light of the fiscal constraints that already apply to most courts, a suggestion that they fund such a clearinghouse from 'existing resources' is unrealistic. The Committee maintains its view of the importance of a national clearinghouse of IT information to raise awareness, provide solutions and assist courts to implement technology in a coordinated manner. The Committee believes that this is yet another area where Victoria needs to show leadership and champion the wide ranging benefits and long-term savings that such an organisation can generate.

Recommendation 10

The Victorian Government should establish an information clearinghouse on law and technology (with rights to commercialise its research) to support courts, tribunals and the profession in their use of technology and to improve efficiency. It should be modelled on the National Centre for State Courts and the Federal Judicial Centre in the United States of America.

4.43 The Committee envisages that the clearinghouse would collaborate with international organisations, such as the National Centre for State Courts,[63] the Federal Judicial Centre,[64] Courtroom 21[65] and other emerging organisations, to construct global databases of best practice. The clearinghouse should also devote resources to research cultural and organisational change and the impact of rapid IT development in legal organisations. The Committee believes that one of the most important aspects of a clearinghouse is that it will promote a culture of sharing information that is currently lacking in the legal sector. The Committee hopes that the clearinghouse will address critical modern management issues, such as knowledge management, and promote its availability and use within the legal sector generally.

Recommendation 11

The law and technology clearinghouse should collaborate nationally and internationally to determine best practice uses of technology in the justice system and identify a range of technologies that would be most advantageous for the Australian legal system.

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63 http://www.ncsc.dni.us/ncsc.htm.

64 http://www.fjc.gov.

65 http://www.courtroom21.net.

Knowledge Management

4.44 Knowledge management is an area of study that is critical to the future of the legal system and the whole of government. The Committee believes that knowledge management provides an organisational framework for change management and will help the uptake of technology within legal organisations. In moving into the information era, it provides the necessary tools to transform legal organisations into effective and efficient bodies.

What is Knowledge Management?

> In the end, the location of the new economy is not in the technology, be it the microchip or the global telecommunications network. It is in the human mind.[66]

4.45 Knowledge management is a business discipline or theory that reflects the increasing importance of knowledge as a corporate asset. The growth in publications, interest and consulting on knowledge management has been meteoric. In line with the rapid growth of publication in the area, there are numerous varied definitions of knowledge management. In the Committee's view, definitions that treat the area as a discipline rather than a mere collection of technologies best encapsulate what knowledge management means. For example, Malhotra says:[67]

> Knowledge Management caters to the critical issue of organisational adaptation, survival and competence in the face of increasingly discontinuous environmental change… Essentially it embodies organisational processes that seek synergistic combination of data and information processing capacity of information technologies, and the creative and innovative capacity of human beings.

4.46 In evidence given to the Committee, Jeffrey Sussman defined knowledge management as 'leveraging collective wisdom to increase responsiveness and innovation'.[68] 'Leveraging is about taking knowledge collectively in an organisation and trying to turn that to the organisation's benefit.'[69] Collective Wisdom for Sussman is 'about people working together and collaborating and in today's environment increasing responsiveness and innovation'.[70] Borrowing from the father of management, Peter Drucker, Sussman believes that 'responsiveness is about adding

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66 A Weber, quoted in T Davenport & L Prusak, *Working Knowledge: How Organisations Manage What they Know*, Harvard Business School Press, Boston, 1998, p. 1.

67 Y Malhotra, 'Deciphering the Knowledge Management Hype', http://www.brint.com/km/whatis.htm.

68 J Sussman, *Minutes of Evidence*, 22 Feb. 1999, p. 271.

69 ibid.

70 ibid.

knowledge to an existing process' while 'innovation is about adding knowledge to a new process'.[71]

4.47 Three major forces drive the adoption of knowledge management: globalisation, competition, and new technology. The underlying premise for this body of theory is that knowledge is a fundamental factor behind all the activities of an organisation. The central goal of knowledge management 'is to build and exploit intellectual capital effectively and gainfully'.[72]

4.48 A fundamental principle in the discipline of knowledge management is that there is a difference between knowledge, data and information. Data is defined as a 'set of discrete, objective facts about events' which in an organisational sense can be described as 'structured records of transaction'.[73] Information is basically data with meaning defined as 'data that makes a difference' or 'data endowed with relevance and purpose'.[74] However, the concept of knowledge encapsulates a lot more as neither data nor information carries with it the rich context of human interpretation:[75]

> Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of the knowers. In organisations, it often becomes embedded not only in the documents or repositories but also in organisational routines, processes, practices, and norms.

4.49 Computers can help transform data to information by indexing, cataloguing and making it easily retrievable. However, making knowledge retrievable often involves putting people in touch with one another. The availability of low cost computers and specifically networked computers creates the necessary infrastructure for knowledge exchange. E-mail, groupware, intranets, the Internet and networks all provide the technological tools to share knowledge regardless of distance. Most commentators in the field of knowledge management reiterate that it is important to remember that these new technologies are merely the 'pipeline and storage system for knowledge exchange'.[76] As Sussman pointed out to the Law Reform Committee, cultural change within an organisation, which values and rewards the sharing of knowledge rather than the hoarding of knowledge is crucial for successful

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71 ibid.

72 F Simoes, quoted in K Wigg, 'Introducing Knowledge Management into the Enterprise' in J. Liebowitz (ed) *Knowledge Management Handbook*, CRC Press, New York, 1999.

73 T Davenport and L Prusak, *Working Knowledge: How Organisations Manage What they Know*, Harvard Business School Press, Boston, 1998, p. 2.

74 ibid, p. 3.

75 ibid, p. 5.

76 ibid, p. 18.

knowledge management. Ultimately the successful future of the organisation in the new millennium depends upon it:[77]

> You cannot buy knowledge management; you can only do knowledge management. You buy the infrastructure products, and you can only get those products working if there is an internal awareness, if the culture is right and if people want to share.

4.50 While the debate over definitions continues, an increasing number of computer software and services companies, as well as document management companies now call themselves 'knowledge management system providers'. For instance, the Parliament's provider of messaging software, Lotus Development has described its Notes and Domino Release 5 product as a knowledge management platform. Moreover, Lotus[78] announced at its annual users' conference in Orlando, Florida, earlier this year that it has formed an Institute for Knowledge Management, along with its parent company IBM, to conduct research into the creation and deployment of successful knowledge management systems.

4.51 This growing confidence in knowledge management is reflected not only in new technology products attempting to cater for the perceived market need but also the attitudes of those leading business. The 1999 PricewaterhouseCoopers/World Economic Forum CEO Survey released in January 1999 surveyed Chief Executive Officers of large corporations in 19 countries across Asia, Europe, Latin America, and North America. It found that 97 per cent of respondents agreed that 'knowledge management is absolutely critical to the success of their companies'.[79] It contained the following findings on knowledge management:[80]

> It's been said that if companies knew what they know, they would be many times more profitable. For many companies today, the wisdom, experience, and creativity of their people drive a large portion of their value. Managing intellect, finding ways to transfer wisdom from one group to another across functional and geographical boundaries has become as important as managing capital.
>
> Knowledge is defined as an intellectual asset but it's more than the objective and explicit data found in methodologies, handbooks, or company patents. There is also tremendous, and for the most part untapped, value in the highly subjective and hard-to-codify insight, wisdom, and expertise of employees.

4.52 The Global Survey Report identified the components of knowledge management as 'fostering the creation of new ideas and processes' and as including:[81]

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77 J Sussman, *Minutes of Evidence*, 22 Feb. 1999, p. 273.

78 http://www.lotus.com.

79 PricewaterhouseCoopers, *Inside the Mind of the CEO: The 1999 Global CEO Survey*, World Economic Forum 1999 Annual Meeting, Davos, Switzerland, p.11.

80 ibid, p. 12.

81 ibid, p.12.

(a) identifying and capturing knowledge, both internal and external, then turning it into integrated organisational assets;

(b) distributing and sharing knowledge within a corporate culture that rewards such activities; and

(c) leveraging knowledge by using it to create value for the business.

4.53 PricewaterhouseCoopers in its marketing documents has suggested that there are seven principles that leading-edge companies use to harness and amplify the know-how, experience, and expertise of their employees. These can be classified as:

(1) *Knowledge focused.* Knowledge is ubiquitous. Focus only on what your business needs to know—for example, knowing why projects succeed or fail.

(2) *Knowledge visible.* Make important knowledge visible. Create explicit pathways to the experts and important wisdom within the company.

(3) *Knowledge defined.* Pay attention to the vocabulary of knowledge. Define the terms that define the business, and make it easy for people to find explicit information.

(4) *Knowledge outside the walls.* Go beyond traditional company borders to tap knowledge from customers, suppliers and even competitors.

(5) *Knowledge valued.* Make it clear to your employees (through compensation and incentives) that knowledge sharing is a core value of the company.

(6) *Knowledge measured.* Track the results, be it the number of 'hits' a database receives or face-to-face feedback on work won, patents received, time and energy saved.

(7) *Knowledge exemplified.* Lastly, as CEO, show through your actions that expertise and intelligence will only be rewarded if they are shared.

4.54 The Chairman and CEO of Chevron Corporation, Ken Derr reinforced these views in January this year when he said:[82]

> The techniques for managing knowledge and building a learning organization—such as best-practice sharing, benchmarking, networking, new planning tools and work-tracking software—have proven extremely valuable to us.

4.55 At the Knowledge Management World Summit, he credited these techniques with helping Chevron achieve a 30 per cent productivity gain, a 50 per cent

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[82] K Derr, 'Managing Knowledge The Chevron Way', paper delivered to the Knowledge Management World Summit, 11 Jan. 1999, San Francisco, http://www.chevron.com/chevron_root/newsvs/speeches/findex.html.

improvement in safety performance and more than $2 billion in operating cost reductions during the 1990s. However, managing knowledge is no longer just a performance issue, he said, 'Today, it's a reputation issue as well, directly affecting a company's ability to win new business and retain top employees.'[83]

Knowledge Management's Relevance to the Justice System

4.56 While multinationals and global companies seem to have recognised the need for knowledge management and are instituting change in their organisations, this trend has yet to be reflected in the public sector. The justice system generally has been slow to capitalise on new technologies and is characterised by its ties to tradition. The courts and the Department of Justice have begun the process of organisational change through business process reengineering projects, but have yet to take the process to the next stage. Even amongst private enterprise, only a few of the larger law firms have begun to look at knowledge management and the sharing of information and knowledge within the workplace.

4.57 It is important to note that lawyers have traditionally prided themselves on knowledge that only they posses:[84]

> [In order] to understand where that knowledge creation is coming from so we can nurture it, but before that we need to understand the culture behind it because most organisations and people hoard knowledge, especially organisations like the legal industry. I have worked in the industry for the past eight years and I know that people who have the knowledge hoard it to maintain their political strength. We cannot get leverage from people who hoard knowledge. We need to understand the culture and change the way people work. It is easy to say, but not easy to do.

4.58 The above comments are particularly relevant when looking at the storage and retrieval of documents in law firms, especially precedents. Firms with inadequate or out of date precedents become more competitive daily. While many of these firms do have the knowledge, it is usually hidden in a file or archive that is not easily accessible. Once again, the fundamental issue is a cultural one with partners protecting their 'territory' by hoarding their precedents. Law firms, as with government, have to change their practices dramatically to be successful in the new information era.

4.59 The challenge for the Victorian Government, the justice system and this Committee is essentially how do you change the culture of organisations so that knowledge is valued and appropriate technologies are utilised as enablers to

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83 ibid.

84 J Sussman, *Minutes of Evidence*, 22 Feb. 1999, p. 272.

exchange knowledge so that those organisations become the successful organisations of the future? A coordinated effort is required by government and the private sector to transform the justice system into a knowledge-based system, ensuring organisations within the system survive the increasing pressures of globalisation and competition. This Committee can only encourage the private sector to adopt knowledge management practices to ensure that they remain competitive in the next millennium. The Committee believes that this is another area where Government should lead by example and demonstrate the value of knowledge management to the Victorian private legal sector. To this end, the Committee believes that the Victorian Government should develop a knowledge management policy for the whole of government to develop and promote a culture of sharing information and consolidating existing organisational knowledge.

Recommendation 12

The Victorian Government should develop a knowledge management policy across the whole of Government to harness the knowledge of employees and the community and develop a culture of sharing information.

4.60 The following chapters deal first with government and courts and subsequently with the legal profession and public to examine ways in which technology is currently utilised and the ways in which it can aid efficiency and increase access to justice.

PART 2

TECHNOLOGY & GOVERNMENT

5 THE IMPACT OF TECHNOLOGY ON GOVERNMENT

> Widely recognised around the world and documented through numerous polls, governments are simply not working - frozen in Industrial Age structures, at risk of becoming irrelevant, and losing the confidence of their citizens…Most government institutions around the world were built on the understanding of the times one hundred years ago as the world created order for an industrialised society. The challenge today is how to transition from an industrialised model of big government—centralised, hierarchical, and operating in a physical economy—to a new model of governance, adaptive to a virtual, global, knowledge-based, digital economy, and fundamental societal shifts.[85]

5.1 We are in the midst of a revolution. Communications technologies including videoconferencing, the World Wide Web and email are redefining our lives, as geographical and political barriers become increasingly irrelevant to the people of the world in their work, in their family life and in their interaction with friends. The Committee believes that throughout this revolution, from start to finish, government needs to be a leader, an exemplar and a facilitator, at the same time as a protector of rights.

5.2 The Committee believes it is observing a revolutionary period in business, government and society as globalisation and new technologies fundamentally alter the way in which communications occur. Victoria now offers government services over the Internet and through its Maxi kiosks throughout the day. The Autumn sittings of the 1999 Victorian Parliament saw Victoria's MPs take their laptops into the Parliamentary Chamber with full access not only to the laws of the State of Victoria, their Hansard records and other internal documents but to the whole world of the Internet and email communications.

5.3 This chapter will focus on the impact of technology on government as a whole. It will also analyse the role of government in facilitating the use of IT by the broader community. The chapter will outline some of the possibilities IT offers government, then consider Victorian whole of government policies before putting forward the

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[85] J Caldow, 'Governance in the Information Age: A White Paper' paper presented at theInstitute for Electronic Government's 2nd Annual Leadership Workshop', 1997, http://www.ieg.ibm.com.

Committee's vision for the future of government technology and the suggested course for implementation of that vision.

5.4 The Committee has not been specifically required to report on the impact of technology on government as a whole. However, the Committee's vision is for cross-jurisdictional integrated service delivery for all Victorians. It is for an integrated justice system in which the citizen has seamless access to information about the system and to organisations within the system. Such a vision requires an examination of the broader context. The Department of Justice is a key government agency that administers the courts and tribunals of Victoria and an analysis of the whole of government policies within which it operates is essential. This chapter will examine the Department of Justice's vision and strategy in the context of the overall government framework.

Possibilities Information Technology Offers Government

> Governments both define and protect public value, resolving conflicts between individuals and groups in the communities governed. But the nature of what we mean by 'community' is changing and less dependent on geography.[86]

5.5 Information technology has already driven globalisation to new heights with developments such as the Internet creating new communities based on common interest around the globe. With the changing nature of the concept of a 'community' the role of governments in governing the community becomes increasingly difficult. Computer networking raises fundamental issues on the structure of governmental organisations and the role of governance. As information searching and sharing becomes increasingly easy at a very low cost, issues such as privacy, intellectual property, equitable access to information, freedom of speech, sovereignty, place of business and other fundamentals of governance require redefinition.[87]

5.6 The role of government will be changed utterly. In the online environment the boundaries of government and private sector activity become increasingly blurred. Radical new ways of governing need to be explored in a new found collaboration between government and business. As the role of government changes, there needs to be caution exercised in merely applying technology to existing systems. There needs to be caution exercised in the conversion of bad existing systems into electronic

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86 J Mechling and T M Fletcher, *Information Technology and Government: The Need for New Leadership*, John F Kennedy School of Government, Harvard University, Boston, 1996, p. 44.

87 ibid.

systems. Rather, government functions need first to be redefined and then technological systems constructed to support the structure.

5.7 Technology provides governments with the opportunity to consider the fundamentals of governance for the next millennium in a bipartisan fashion. Reengineering government processes with the aim to improve efficiency and provide citizens with seamless access to services must be a priority. The future lies in networked government services that reside on an electronic infrastructure enabling the public to access services wherever and whenever required. Technology offers a variety of new means to integrate various systems and can be ideally utilised to integrate government services so as to increase the efficiency of the mechanisms of government. Technology will enable the arms of government to communicate, share information and collaborate in ways never before considered possible.

5.8 The rapid advances in information technology puts pressure on governments to react and respond more quickly than has ever been required in the past. Global information networks are being constructed by a variety of interconnected technologies and continue to become more sophisticated. As a consequence business and the public are demanding better government service delivery through a variety of access points including kiosks, television, PCs and telephones. Technology provides the basis for electronic service delivery whereby the citizen can use an electronic access point to access any service provided by any level of government without requiring a detailed knowledge of the tiers of government.

5.9 The Internet provides an ideal tool to provide information to the public. The Committee believes that several government Internet sites in the United States provide best practice examples of information provision. Sites like the US Congress site that provides legislative information[88] and the US Department of Justice site[89] provide excellent examples of government information provision on the Internet. The IBM Institute for Electronic Government[90] provides best practice solutions and directions for government officials. It is:[91]

> a global resource for government leaders to explore, develop, and share strategies appropriate to our times—public policy, cyberlaw, economic development, electronic commerce, delivery of services to citizens, constituency relationships, and replacing industrial-age institutions with the art of governance—through digital age technologies and networks.

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88 http://www.thomas.loc.gov.

89 http://www.usdoj.gov.

90 http://www.ieg.ibm.com.

91 http://www.ieg.ibm.com.

5.10 The Committee believes that there is a need to continually evaluate world's best practice in the area of government electronic service delivery. With rapid changes in technology, it is imperative that the Victorian Government continues to leverage off its early gains in this area.

Federal Government Directions

5.11 The Commonwealth Government has articulated a vision of providing leadership to maximise the benefits of IT. The Government's stated aims for information technology are to:[92]

(a) foster business and consumer confidence through a light touch regulatory framework;

(b) establish the Commonwealth as a leading edge user;

(c) improve our information industries base;

(d) facilitate access to the information age particularly for regional and remote Australia, and the disabled; and

(e) to enhance IT related skills in the community.

5.12 Towards this end the Commonwealth Government established the National Office for the Information Economy to develop, co-ordinate and overview broad policy. A further agency created by the Government is the Office of Government Online (OGO)[93] which aims to provide better whole of government approaches to the Government's own use of IT, to support online service delivery and to streamline business dealings with government. OGO is responsible for the establishment of a whole of government intranet called 'fedlink'.[94]

5.13 OGO is taking a lead role in implementing electronic service delivery by the year 2001. Interaction with states and territories through the Online Council is meant to ensure consistency across Australia. The Committee believes that the need for consistency and compatibility of systems across Australia cannot be understated. The need for consistency in the global information age was a recurring theme throughout the Committee's overseas investigations. Unlike the United States, Australia is in the enviable position of having to coordinate only nine jurisdictions in their use of IT. The Committee believes that national consistency in the electronic delivery of

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92 The Prime Minister The Hon J Howard MP, 'Investing for Growth', Address to the National Press Club, 8 Dec. 1997, http://www.pm.gov.au/pm/media/presrel/speech.197/INDUSTRY.htm.

93 Formerly the Office of Government Information Technology

94 http://www.ogit.gov.au.

government services will give Australia an important advantage in the competitive global economy.

5.14 In the legal arena, the Committee met with the Federal Attorney-General and officers of his Department to stress the need for compatibility of systems across all jurisdictions. The Committee believes that the Federal Attorney-General's Department should play a greater role in coordinating a national approach to the electronic delivery of legal services. The Attorney-General in a letter to the Committee stated:[95]

> The Government supports improved co-ordination and co-operation between courts and tribunals on matters of technology in order to promote simplification, efficiency and, in so far as it is possible and appropriate, common processes and outputs. This would in turn, also promote opportunities for economies of scale.

5.15 The Committee agrees with the Attorney-General but believes that the establishment of an adequately resourced national body or clearinghouse is required to carry out this function. The Committee believes that a national approach to standards and compatibility is a fundamental ingredient to successfully negotiate Australia's transition to the information age. Courts and tribunals across Australia operate under budgetary and time constraints that would mean that any individual attempt at coordination could not receive the attention that is required. The Committee urges the Federal Government to re-evaluate its approach and its role in this area and establish a national body to oversee the establishment of common standards and compatible IT systems across the Australian legal system.

Recommendation 13

The Victorian Government should develop protocols for justice information technology systems adopting world's best practice and should encourage other Australian Governments to adopt these protocols with a view to achieving compatibility and interaction between the various state and federal systems.

Current Status of Technology in the Victorian Government

5.16 The Victorian Government, in a whole of government sense, has shown leadership in setting the framework for a knowledge-based economy. In 1995 a taskforce for Communications and Multimedia was established and a developmental policy named Victoria 21 was launched. At the same time the Treasurer, Hon Alan

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95 Parliament of Victoria, Law reform Committee, *Correspondence*, Letter from The Hon Daryl Williams AM QC MP, 8 Apr. 1999.

Stockdale MLA was appointed the nation's first Minister for Multimedia and Multimedia Victoria was established to coordinate and implement the Victoria 21 policy across all government agencies.

5.17 This section will outline the key whole of government policies and initiatives and then focus on the progress and status of these policies within the Department of Justice.

Victoria 21

5.18 The Victoria 21 strategy is a set of initiatives designed to build a networked and knowledge-based economy through new technologies to improve the competitiveness of all industries across the State, and to enhance the lives of all Victorians by doing so. It is intended that through the implementation of Victoria 21, Victorian firms will carve out a major role in the global provision of multimedia products and services. The Government will use the power of information and communication technology (ICT) to transform the way it provides services to, and communicates with, the public. Victoria 21 has three main objectives namely that:[96]

(a) citizen, government and business applications of multimedia communications and information services in Victoria will surpass international benchmarks;

(b) wealth and jobs created by Victoria's computing, multimedia and communications industries will demonstrate sustained growth; and

(c) Victoria is recognised as a centre of excellence in the global information economy by 2001.

5.19 These objectives are to be met by a series of interlocking strategies that consist of supporting programs. These strategies and the supporting programs are outlined below.

1. Lead Victoria's Transition to an Information Economy

5.20 This strategy is aimed at increasing access to information and communication technologies for all Victorians.

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[96] Victoria, Department of State Development, Multimedia Victoria, *Victoria: A Global Centre for the Information Age*, 1997.

VicOne

5.21 VicOne is a project to link together every government site in the State including all schools, public hospitals, police stations, government agencies and in the future private sector organisations. It is the broadband infrastructure for an online network to connect 3,100 government sites through which the government aims to deliver better services to more people. The availability of the VicOne infrastructure network will enable development of a standard operating environment across Government. Rather than being built by Government, the network services are being procured as services from a private sector provider, AAPT. [97]

5.22 VicOne pricing is based on a fixed monthly fee for a connection dependent on the bandwidth required, location of the site and the service level guarantee that is required. While a connection to VicOne is more expensive than a connection of a similar size provided by Telstra, the higher cost is warranted because VicOne offers greater connectivity and a service level guarantee.[98]

Vicnet

5.23 Vicnet is one of the world's largest community networking initiatives to provide public access to internet services. Vicnet is a joint initiative of the State Library of Victoria, RMIT University and the Government and has three key goals:

(1) to create a unique Victorian presence on the Internet;

(2) to provide a free Internet publishing service for Victorian community groups; and

(3) to provide free public access computer terminals in all state public libraries.

5.24 The Vicnet site attracts nearly one million hits a week from all over the world. Through the library system, Vicnet will eventually provide electronic access to information through several hundred PCs located in approximately 200 library branches throughout Victoria. Vicnet is also instrumental in delivering the Skills.net program.

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97 Victoria, Department of State Development, Multimedia Victoria, *VicOne – Victoria's One Network*, http://www.mmv.gov.au.

98 ibid.

Skills.net

5.25 The Victorian Government established Skills.net to provide funding of $5 million over a three year period to create a network of over 100 community based IT centres throughout Victoria. The program is designed to increase community awareness of technologies by providing new Internet and computer facilities that offer access and training, online services, run workshops and develop local web sites. The program targets groups that may not otherwise access information technologies and aims to provide community-based access and training to at least 30,000 Victorians in three years. Skills.net has just been shortlisted as a finalist for the upcoming Global Bangemann Challenge award. The Bangemann award is an international contest whereby the City of Stockholm challenges cities in the whole world to show their finest information technology projects.

2. Government Online by 2001

5.26 An integral part of the Victoria 21 strategy is that all appropriate government services and information be available online, all the time by 2001. The approach is a 'customer-centric' one whereby the user will only need to identify the service they desire without requiring knowledge of the Government agency responsible for providing the service. Multimedia Victoria is coordinating and facilitating a common approach across government to online services and will continue working with Federal and local governments to ensure that cross-jurisdictional information is delivered seamlessly to citizens. For the vision of Online Government 2001 to be fully achieved all levels of government and synergistic private sector organisations should make their services available electronically to the public.[99] The broad policy statement has been clarified in a policy document titled *Online Government 2001: From Vision to Reality*. Online 2001 requires that the following government services are available electronically:[100]

(1) lodgement of all forms and registrations;

(2) all applications for payments and grants;

(3) all payments to Government;

(4) information currently printed for public dissemination;

(5) all payments by Government; and

(6) all Government purchasing.

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99 Victoria, Department of State Development, Multimedia Victoria, *Online Government 2001 – from Vision to Reality*, http://www.multimedia.vic.gov.au.

100 Victoria, Department of State Development, Multimedia Victoria, *Online Government 2001 – from Vision to Reality*, http://www.multimedia.vic.gov.au.

Electronic Service Delivery—Maxi

5.27 In December 1997, the Government launched the Victorian State Government Electronic Service Delivery project, *Maxi*. Maxi now delivers 7 day a week, 24 hour a day government to Victoria. Maxi is an IT infrastructure that provides government and private agencies with a variety of electronic delivery channels to provide services directly to clients. Maxi utilises a 'customer-centric' focus whereby people are able to easily negotiate a particular 'life event' that requires contact with numerous government departments. The goal of the Government is to create the simple appearance of one face for all public transactions. Maxi services include user authentication and financial transaction capabilities.

5.28 The system is accessible through the Internet, an interactive voice response (IVR) system and kiosks are currently operational at locations throughout rural and metropolitan Victoria. Victorians can use Maxi to carry out over 30 government transactions, including vehicle and driver license registration, ordering birth certificates, obtaining driver history reports, notifying government agencies of a change of address and paying rates and other bills. The aim is that over time, a much larger number of services will be available from over a hundred kiosks statewide.

5.29 At present two channels link to the *Maxi* Electronic Service Delivery system, the Business Channel and the Land Channel.

5.30 Victoria's online *Business Channel* is an electronic information service which now allows Victorian industry and employers to gain access to government business information and services through the Internet, Maxi kiosks or the IVR telephone system 24 hours a day, seven days a week. *Business Channel* brings government business services and agencies within easy reach of people, and importantly is organised across business events rather than across Departments. Initially the *Business Channel* will contain information from the Department of State Development, the Department of Justice, the State Revenue Office, the Victorian WorkCover Authority, the Australia Tax Office and Victoria's 78 local councils

5.31 Just as the Business Channel is the place to go online for help with Business, so the Land Channel is the place to look for land information. As with the Business Channel, it allows customers to access land–related information without needing to know which Department is providing the information, which saves customers time and significant frustration. The Land Channel contains information on owning, selling, locating, protecting, exploring and working with land. Five key government agencies have provided information that becomes amalgamated into the Channel:

(a) Department of Natural Resources and Environment;

(b) Department of Infrastructure;

(c) Department of Justice;

(d) Parks Victoria; and

(e) The State Revenue Office.

5.32 The Department of Human Services has a number of existing Internet information services that will form the basis of the 'Health Channel'. At the time of writing the Health, Transport and Education channels are being developed for rollout.[101] The Victorian State Emergency Services is also considering the possibility of establishing an Emergency Channel involving a number of agencies including Ambulance, Fire and Police services, federal Department of Defence and possibly some commercial entities.[102]

3. Government a Best Practice User of Information and Communication Technology

5.33 The Government aims to provide leadership by utilising communications and multimedia applications in its own programs to improve quality, efficiency and effectiveness of government. This policy is focused on the internal workings of departments. A key strategy is to train senior executives in government in business process reengineering. Discussed in detail in the following chapter, business process reengineering refers to a management process that requires examining the operations of an organisation to identify central processes, redesign them in line with contemporary circumstances and discard redundant features.[103]

Department of Justice

5.34 The Department of Justice as it is presently constituted is an umbrella organisation that covers the consumer affairs ministry, corrections, courts and tribunals and police and emergency services. Bringing these distinct and diverse organisations with their own culture and IT systems together has been a challenge for the Department. The Department is currently made up of various organisational structures that have developed historically in isolation resulting in virtually no consistency in cross-agency processes. There is no standard technological infrastructure across the Department, data repositories are not consistent and

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101 R Straw, *Minutes of Evidence*, 26 Nov. 1998, p. 262.

102 Department of Justice Victoria, *Strategic Plan for Electronic Service Delivery*, Aug. 1998, p. 72.

103 For instance, Project Pathfinder attempts to redesign the administrative processes and systems of the criminal justice system.

computer applications have been designed to suit local needs rather than portfolio wide needs.[104]

5.35 The Department has now set a 'target environment' that it is working towards. The target environment is about 'commonality of administrative systems' where all data is treated as a corporate asset, 'consistency of infrastructure and executive information', and 'a focus on improving service delivery via operational systems'.[105] A central information systems and technology (IS &T) board has been established to drive this change towards commonality.[106] A number of current interrelated initiatives represent the Department's movement towards the target environment:[107]

(a) Project Pathfinder;[108]

(b) Electronic Service Delivery;

(c) Portfolio Data Model;

(d) Standard Communication Network;

(e) Internet and Intranet Developments;

(f) Standard Desk Top Operating Environment;

(g) Lotus Notes Implementation; and

(h) Outsourcing of non-Core Strategic Service Delivery.

Electronic Service Delivery (ESD)

5.36 The Department has recently completed a strategic plan for the implementation of electronic service delivery to fulfil its obligations under the Government Online 2001 strategy. The strategic plan adopts a pragmatic approach to implementation with the primary goal of ensuring that all appropriate services are online by December 2001. Underlying principles of the plan also include adopting a whole of government and portfolio wide approach to implementation and management structures and building on current initiatives within the Department while maximising public access to the Department. The strategy development team recommended that:[109]

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104 J Charleson, *Minutes of Evidence*, 25 Nov. 1998, p. 76.

105 ibid.

106 ibid.

107 ibid, pp. 76-77.

108 Project Pathfinder was designed to integrate the criminal justice system and will be discussed at length in the following chapter.

109 Victoria, Department of Justice, *Strategic Plan for Electronic Service Delivery,* Aug. 1998, pp. 10-11.

R1. The Department of Justice adopts this strategy and underlying ESD implementation framework in order to deliver all of the required services by 2001 *in an integrated manner*.

R1.1 Services are integrated with, and gain leverage from, existing ESD-related initiatives.

R1.2 The Department adopt the existing IT infrastructure to provide appropriate and secure online access to services by external customers without compromising the security of operational systems.

R1.3 The Department take a *portfolio-wide* view of services and that detailed cost-benefit analyses are performed on a portfolio-wide basis for all services.

R2. The Department makes use of maxi for all services which require positive customer identification and/or involve credit-card payments online and Departmental managed Internet for other services.

R3. The Department continues to support the concept of the Business Channel as the interface between the Department and its business customers, and the Citizens Channel for general public access.

R4. Perform a 'lead agency' role in supporting the concept of an Emergency Channel.

5.37 The strategy recognises that currently the Department operates and is organised along distinct business units and that there is therefore a significant degree of information overlap and multiple data entry. One of the key strategies for implementation to overcome this duplication is the adoption of an IT infrastructure - a 'staging platform' - that will effectively strip data from their existing operating systems and hold the information for web publication.[110] Another key strategy identified for implementation of online service delivery is the integration and consolidation of the various technology and reengineering projects within the Department.

5.38 The following table sets out the model for implementation of ESD services recommended by the strategic plan:

[110] The Committee has heard evidence that Multimedia Victoria has engaged a consultant to look at an IT infrastructure to deliver services electronically across Government. J Charleson, *Minutes of Evidence*, 25 Nov. 1998, p. 80.

Service Type	Owner[111]	Service	Delivery
		Year 1	
Certification	BDM	Make selected types of certificate available for online maxi ordering. Certificates available include Marriage.	
Information to Public	BDM	Provide online historical index search service.	Maxi
Information to Public	BDM	Provide for sale historical index of births, deaths and marriages by time period.	Maxi
Provide Dept Reports	CCU	Department Reports.	Maxi
Information to Public	CJRSU	Information on crime statistics (open to public).	Non-maxi
Information to Subscriber	CJRSU	Information on crime statistics (restricted).	Non-maxi
Register Subscriber	CJSRU	Registration for a subscription to DoJ services. Access to such services may be restricted to various 'classes' of person and may also carry a fee.	Non-maxi
Information to Public	CJSRU	Information – Publications, Press releases and other Marketing information.	Non-maxi
Information to Subscriber	CJSRU	Restricted information to subscribers (known entities).	Maxi (high security) Non-maxi (lower security)
Make Payment	Corp Services – Purch	Make Electronic Payment [Payment by the Department to nominated persons or organisations. This service is already in place].	Non-maxi
Information to Public	CSCP	Information on Community Safety programs, including: • START • Safer Cities & Shires • Vic Law Enforcement Drug Fund	Non-maxi
Information to Public	CSCP	Community Safety Awards - applications and bursaries.	Non-maxi
Document	CTR	Integrated Document Lodgement -	Courtlink

[111] The abbreviations used are as follows: BDM - Births, Deaths & Marriages; CCU - Corporate Communications Unit; CJSRU - Criminal Justice Statistics Research Unit; CORR - Correctional Services; CSCP - Community Safety & Crime Prevention Unit; CTR - Courts, Tribunals & Registries; DoJ - Department of Justice; EMU - Enforcement Management Unit; ESB - Executive Services Branch; FPU - Firearms Policy Unit; OFT - Office of Fair Trading & Business Affairs; OPA - Office of Public Advocate; OPP - Office of Public Prosecutor; OWA - Office of Women's Affairs; PLU - Policy & Legislation Unit; PSD - Police & Strategic Development; SES - Victorian State Emergency Services; VCAT - Victorian Courts & Tribunals; VRAS - Victim Referral & Assistance Services.

Lodgement		Receipt of electronic documents from an authenticated person in respect of a given matter or case. Initially Magistrates' Court.	CTS
Information to Subscriber	CTR	Transcripts of hearings.	Maxi
Information to Public	CTR	Court Lists online.	Non-maxi
Information to Public	CTR	Information on Reported Judgements in full or summary form. Index searchable by date, court, name, etc. Some forms may carry a charge.	Non-maxi
Information to Public	CTR	General information.	Non-maxi
Information to Public	FPU	Information on firearms appeals.	Non-maxi
Information to Public	FPU	Applications for "user pays" waivers.	Non-maxi
Receive Complaints	OFT	Receive Complaints [the receipt of electronically submitted complaints, e.g. on quality of service through use of a "complaints template"]:	Maxi
Information to Public	OFT	Receive general enquiries.	Non-maxi
Registration	OFT	Business Affairs – Registration. Information on registration requirements (for many types of registration). The provision of information on the status of the application. Provision of registration.	Maxi
Licensing	OFT	Licensing – information on licensing requirements.	Non-maxi
Information to Public	OPA	Information on the services provided by the Office of the Public Advocate.	Non-maxi
Receive Complaints	OPA	Receive Complaints e.g. on quality of service through the use of a "complaints template".	Maxi
Information to Public	OPP	Information on the functions and available publications of the Office of the Public Prosecutor.	Non-max
Information to Public	OWA	Women's Register (Women's Affairs).	Non-maxi
Information to Public	PLU / FPU	Regulatory impact statements.	Non-maxi
Information to Public	PLU / FPU	Legislative review discussion papers.	Non-maxi
Information to Public	PLU / FPU	Promotion of new government policy and / or regulation.	Non-maxi
Information to Public	PSD	Information on control of (non-firearm) weapons.	Non-maxi

Information to Public	PSD	Interactive discussion group ("Chat").	Non-maxi
Information to Public	SES	Browsable historical information of past events, services, emergencies, etc.	Non-maxi
Course Registration	SES	Information on courses. Allow customers to book and pay for attendance at one or more courses.	Non-maxi
Information to Public	SES	Media Release (including sound 'bites').	Non-maxi
Year 2			
Book Appointment	BDM	Provide online Registry marriage booking service (electronic diary).	Maxi
Certification	BDM	Begin making family history certificates (images) available for online delivery.	Maxi
Information to Subscriber	CCU	Information (other than media releases). Provision of an index.	Non-maxi
Receive Fees and/or Fines	CORR	Receive payment of fines to Corrections.	Maxi
Receive Payments in Trust	CORR	Payments made in trust for offenders by authenticated persons.	Maxi
Information to Public	CORR	Receive Request for Service – Request for visit to prisoner. Information on prisoners, visiting hours, visits available, etc. to authenticated persons of an appropriate category (e.g. spouse) followed by submission of a visit request.	Maxi
Receive Fees and/or Fines	CTR	Identified persons may make payments in respect of fees or fines due by them (TCO / EMU initially).	Maxi & Other
Information to Subscriber	CTR	Unreported Judgements – in full or summary form to authenticated persons. Index searchable by date, court, name, etc.	Maxi
Information to Public	OPP	Metropolitan & regional witness / victim referral information to authenticated person.	Maxi
Information to Public	SES	Safety bulletins on storms & other events. Safety messages in audio and text formats. "Push" technology coming as well as real-time updates from Bureau of Meteorology.	Non-maxi
Information to Subscriber	SES	Information on administration manuals and other internal documentation to "subscriber" type members – e.g. volunteers.	Non-maxi

Information to Public	VOCT /VCAT /VRAS	Witness / victim referral information to authenticated person on receipt of appropriate payment.	Maxi
Year 3			
Information to Subscriber	CTR	Provide Integrated Case Management [Obtain information on material associated with a case to authorised persons, allowing document or data creation, updating and linking. Supplemented by electronic diary, calendar and status monitoring]:	Path-finder Maxi
Video Conferencing	CTR	Provide Internet-based Video Conferencing [Provision of VC on demand across the Internet]:	Non-maxi
Information to Public	OFT	Receive Grant Applications from 3rd party providers. Obtain information on available grants. Receive grant application with appropriate payment from identified person(s). Obtain information on the status of the application.	Maxi
Information to Public	OFT	Licensing – Obtain information on the status of applications.	Non-maxi
Licensing	OFT	Licensing – Obtain licenses (for selected customer groups).	Maxi
Information to Public	OPP	Metropolitan & Regional witness / victim – (authenticated person). Change of details. Receive & Respond to information requests including the progress of a case. Respond to questionnaires.	Non-maxi
Information to Subscriber	VOCT /VCAT	Witness / Victim information to authorised person.	Non-maxi
Information to Public	VOCT /VCAT VRAS	Regional Victim Assistance. Obtain information on victim assistance; receive information on customer and receive request for an appointment. Provide means for customer to monitor progress of request.	Maxi
Information to Subscriber	VRAS	Witness / Victim information to authorised person.	Non-maxi
Year 4			
Information to Subscriber	CJSRU	Perform Criminal History Check. Receive request from an authenticated person and provide summary of criminal record (if any).	Maxi
Receive Offender Update	CORR	Receive update information on identified offenders from another authenticated agency.	Maxi

Receive	CORR	Report back (remote monitoring &	Maxi

Offender Update		supervision). The receipt of update info from an authenticated offender.	
Information to Subscriber	EMU	Information on Persons (through Hand Held Terminals) to an authenticated person, including address or other demographic information on the individual.	Non-maxi
Information to Public	OFT	Investigation service.	Maxi
Information of Subscriber	OPA	Integrated Case Management [Obtain information on material associated with a case to authorised persons, allowing document or data creation, updating and linking. Supplemented by electronic diary, calendar and status monitoring]:	Path-finder Maxi
Information to Public	VOCT /VCAT /VRAS	Witness / Victim counselling. An index of available information & delivery of that information. May also provide the means for an electronic reservation for a session to be submitted, with any appropriate payment.	Maxi

Portfolio Data Model

5.39 Different units of the Department had traditionally collected and defined data in diverse ways. The Portfolio Data Model is a project that has been running for about four years across the Department. It has brought the Department to a point where it is applying common data definitions for the justice services aspect of the portfolio that incorporates courts, corrections and some police data. It has also established a system of 'data stewards' to ensure that standardised data definitions are used in the future for the development of all new systems.

Standard Communication Network and Desktop Operating Environment

5.40 The standard communication network has been established within the Department and they will migrate from their current Telstra arrangements to the Government's VicOne network by the end of 1999.

5.41 Currently the Department has several different and often incompatible desktop operating systems. For the first time, the Department is now moving towards a standard desktop operating environment of NT with Windows 97. In line with the whole of government contract with Lotus Notes, the Department will also be implementing Lotus Notes to assist collaboration and reduce duplication.[112]

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[112] J Charleson, *Minutes of Evidence*, 25 Nov. 1998, p. 80.

Internet and Intranet Developments

5.42 At present, while the Department does have information on the Internet, officers of the Department have not been connected to the Internet due to perceived security risks. The Department has recently commissioned an independent study of their security architecture that has concluded that the Department's architecture meets world's best practice standards.[113] Consequently, there is now in principle support for connection to the Internet for staff.

5.43 The Department has also been developing an intranet for over a year and intends to put its common corporate data, procedural data and policy manuals on that site.

Outsourcing of Non-Core Strategic Service Delivery

5.44 In 1998 the Department outsourced the management of its data centre to Fujitsu. The management of the data centre and infrastructure was deemed to be a 'commodity' that need not be performed by an in-house team. The Department believes that the arrangement has already resulted in cost savings and increases in efficiency, with a transference of the risk associated with recruiting trained IT staff for data management.[114]

Committee's Vision

5.45 The Committee's vision is for technology to be utilised to make government processes more transparent, to allow citizens seamless access to all government services and for Government to lead by example in its use of information technology. The Committee also believes that Government must play a major role in educating the public and taking the community into the information age by ensuring that citizens have equal access to technology.

5.46 The Committee believes that the Department of Justice needs to provide leadership through example for the legal profession generally and the courts and tribunals in particular. The Committee believes that there needs to be greater integration of IT systems and knowledge management between the Department and other departments. To this end, the Committee believes that the whole of government intranet should be extended to allow for integration of information databases. The Committee believes that this integration will bring long term benefits to government.

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113 ibid.

114 ibid.

An integration of government information databases would enable the government to more readily determine the areas in need of extra resources and areas in need of improvement in relation to service delivery.

Recommendation 14

The Victorian Government should ensure greater integration of information technology systems and knowledge management between the Department of Justice and other departments. To this end, the Victorian Government intranet should be extended to all departments and agencies to facilitate the integration of information databases across Government and be supported by data warehousing and data mining tools.

Recommendation 15

The Victorian Government should utilise integrated information databases to determine where resources need to be allocated in an effort to reduce crime and deliver criminal and civil justice services more efficiently and effectively and to indicate where improvements to service delivery are required.

Implementing the Committee's Vision

5.47 The Committee believes that the Victorian Government has demonstrated leadership and innovation in the area of information technology. It has taken important steps in setting up the infrastructure to take the community into the next millennium. However, it is important to remember that the information age does bring new challenges and requires innovation and new directions. The information age has the potential to create a new division in society—between the information rich and poor.[115] Stemming this potential is a new challenge for government. It is a challenge that requires continual vigilance to increase access to new technologies and devise new initiatives to ensure access to online services for all Victorians. While much has been done to introduce IT into government, it is the Committee's view that government should continue to prioritise increasing access to and educating the community about the benefits of new technologies.

5.48 The Committee's discussions and evidence to date indicate that it will take some time for the public at large to feel comfortable with technologies such as the Internet. While Internet usage continually increases, the Government needs to keep in mind that there will be a section of the community that may not be able to access

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[115] D Tapscott, *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*, McGraw Hill, New York, 1996 and M Dertouzos, *What Will Be: How the New World of Information Will Change Our Lives*, Harper Collins, New York, 1997.

Internet services for a whole range of reasons. A very effective current model used by agencies such as Queensland Legal Aid is one where call centres supplement information provided by kiosks and the Internet.

5.49 The Government's ESD measures have received international acclaim and have aroused great interest overseas. While most governments around the world are interested in moving their government services online, only Victoria has turned this into a reality.

5.50 The G8 online group met in an enthusiastic engagement with the Victorian Government on the online initiatives, and they assessed the Victorian ESD project as the best electronic government system in the world today.

5.51 In early 1998, at an international conference in Seattle, the CEO of Microsoft, Bill Gates, praised the Victorian Government's ESD efforts. He said:[116]

> The State of Victoria in Australia has been a real pioneer in driving this by looking at when people interact with the government, and sitting down and talking to them about their experiences -- was it easy for you to find what you needed to do? How many offices did you have to call? Where were you confused? So, instead of forcing this citizen to think in terms of the various departments, they have defined an interface where you just talk about what's the life event that's brought you in that you want to do something. For example, turning voting age -- and it has all the different things you do at that point. Changing address, getting married, starting a company, so it can start with your needs and navigate you through all of the different government organizations.

5.52 The Committee commends the government on its ESD measures to date. The Committee believes that to truly capitalise on these foundations, the government should develop a whole of government knowledge management policy to harness the organisational knowledge of employees and promote a culture of sharing information within the public sector.

5.53 The Committee also endorses the fifteen strategies outlined in *Online Government 2001—from Vision to Reality* to ensure government services are online by 2001. However, to leverage from this excellent position, more content needs to be added to Maxi. The Committee is aware that health, education, transport and tourism channels will be functioning in the near future. It has also heard evidence that the feasibility of a state emergency services channel is being investigated.

5.54 The Committee believes that there does need to be a Legal Channel on Maxi. While the Department of Justice is focusing its efforts on the Business Channel and having input into the Citizen's Channel, the Committee believes that there is a need

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[116] B Gates, Remarks made at 'Empowerment 2001', Seattle, 9 Feb. 1998, http://agent.microsoft.com/BillGates/speeches/empowerment2001.htm.

for legal information and easy electronic guides to the law to be made available though a Legal Channel. The Committee recognises that it will require the allocation of significant resources within the Department of Justice to develop such a channel. However, it believes that the Department could provide a coordinating role and opportunities exist for those objectives to be achieved through partnerships with professional organisations like the Law Institute of Victoria, Victoria Legal Aid, the Victoria Law Foundation and academic institutions. The Committee also believes that resources currently available to provide technology and ESD have not been utilised in a coordinated manner.

5.55 The evidence received and the discussions held by the Committee across a broad spectrum of sources suggest that the justice system in general has fallen behind the leading professions and agencies in the use of technology. The Committee applauds the initiatives currently in place to move the Department of Justice towards utilising new technologies and it appreciates that the Department is made up of diverse previously autonomous units that have been amalgamated and that creating consistency and integration is a challenge. However, the Committee has formed the view that unless the Department and the internal processes of the Department embrace technology to achieve efficiency, it will be extremely difficult to convince courts and tribunals that they should do so.

5.56 The Committee's overseas and interstate study tours have demonstrated the amount of useful information that should reside on the Justice Department's websites. The Committee believes that as staff in the department gain access to the Internet, the departmental site will improve. The Committee also believes that as more legal content and legal information becomes available on the Internet, the Department may be required to play a certifying role for legal information that the Government believes is accurate. Given the increasing role the Department will inevitably gain in the information age, the Committee believes that the Department should prioritise the use of technology to further its internal processes and prepare staff for the next millennium. Furthermore, the Government's vision that is endorsed by the Committee is for integrated government service delivery, a vision that can only be achieved if the Department focuses on online service delivery and moves with its staff to a position where online service delivery is a reality.

5.57 A recurrent theme throughout the Committee's evidence and meetings has been the need for leadership and vision in driving the effective use of technology. The Committee believes that in the legal system, a major leadership role needs to be displayed and delivered by the Department of Justice. The Department is responsible for the administration of all Victorian courts and tribunals and associated services. To

manage these services efficiently and ensure that the legal system continues to service the public in the information age, the department needs to take the lead through innovation in its use of technology and management structures. It needs to develop a culture that views change as a positive challenge and uses new technologies to harness the knowledge and organisational wisdom of the Department to take the legal system into the next century.

Recommendation 16

The Department of Justice should prioritise the use of information technology in its internal operations with the aim of providing leadership by example.

Recommendation 17

As a matter of priority and in line with its electronic service delivery commitments, the Department of Justice should provide its employees with training and access to the Internet and intranets, the development of online services and integrate all its systems so as to enable greater communication across the Department.

Recommendation 18

The Department of Justice should coordinate the development of a 'Legal Channel' connected to Maxi, which should be accessible to all Victorians.

5.58 The Committee believes that the Victorian legal system is ideally placed to take advantage of the information revolution. The Government has established the foundations in relation to the infrastructure and mechanisms for online service delivery. The Victorian legal system and the Department of Justice in particular are in a unique position to leverage from these strong foundations and provide leadership by being a best practice user of IT. The foundations and support structures are in place, all that is needed is vision, leadership and the commitment to make the vision a reality.

6 INTEGRATED CRIMINAL JUSTICE

Introduction

> We can make a difference if we use the information, the precious, current, accurate information that we're capable of collecting if we do it the right way. We're going to have opportunities from the patrol car to the jail to collect information and understand what's happening, to understand immediately who's coming out of prison and who should—it's just an opportunity that I think 10 years ago I never dreamed would happen.[117]

6.1 The importance of integrated criminal justice is being recognised around the world. This is perhaps best evidenced by the high priority given to integrated criminal justice by the US Attorney-General, Janet Reno, who has committed funding to a 'Global Justice Information Network'. Early concepts of integrated justice envisaged a centralised common system for justice agencies to share information. However, technology and thinking has progressed with best practice now being connective systems that integrate information through data management and workflow functions while separate agencies maintain their own systems.

6.2 The criminal justice system has long been criticised for delays, the excessive length of trials, high costs and the general inefficiency of the system. This chapter examines the ways in which information technology can help streamline the administration of the criminal justice system. It begins with an examination of the present situation and of the communication systems between the various criminal justice agencies, highlighting areas in which change is needed.

6.3 The chapter then describes a recent initiative of the Victorian Department of Justice called 'Project Pathfinder'. The project is now in its implementation phase and is now referred to as the Criminal Justice Enhancement Program. Project Pathfinder was an attempt to integrate the various agencies involved in the criminal justice system and suggested improvements to the system through radical changes to

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[117] The Hon Janet Reno, United States Attorney-General, *Keynote Address,* US Department of Justice SEARCH and Bureau of Justice Assistance Symposium in Integrated Justice Information Systems, 9 Feb.1999, see http://www.search.org/1999symposium/Presentations/AGpresent.htm.

criminal procedure, and more generally, in adversarial norms. The chapter goes on to compare the project with other attempts to integrate criminal justice systems in Australia and overseas and then offers the Committee's findings, conclusions and recommendations in the area of integrated criminal justice systems.

Defining 'Reengineering'

6.4 The new and burgeoning area of law and technology increasingly uses terms like 'reengineering' or 'retooling' and 'integration'. 'Reengineering' is defined as a 'fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as costs, quality, service, and speed'.[118] The term 'reengineering' comes from a contemporary change management school called 'business process reengineering' (or 'BPR') which was largely conceived and promoted by Michael Hammer and James Champy in their book, *Reengineering the Corporation— A Manifesto for Business Revolution*. BPR is guided by principles including a strong customer focus, the use of a cross-functional, multi-disciplinary approach, the recognition that reengineering involves more than just process redesign and the use of technology as the 'enabler' or catalyst for change.

6.5 In line with the contemporary nature of BPR, a central feature of reengineering is the use of information technologies to achieve the necessary change. As Broadbent and Butler note:[119]

> Information Technology plays a pivotal role in BPR as both an enabler or disenabler for change…BPR analyses the work flows of an organisation, discards non-essential procedures and may then use the power of IT systems and applications to further streamline organisational operations. While the use of technology is not proscribed, the majority of redesign projects undertaken in Australia and elsewhere have invariable included a significant IT component.

6.6 Redesigned processes are said to bring several benefits to organisations including dramatic reductions in processing time, cost savings, streamlining of organisational structure and increased client satisfaction.[120] BPR is now becoming a fairly common process engaged in by justice departments and courts around

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118 M Hammer and J Champy, *Reeingineering the Corporation - A Manifesto for Business Revolution*, Hutchinson, London, 1989. See also, M Hammer, 'Reengineering Work: Don't Automate, Obliterate', (1990) 68 *Harvard Business Review* 104.

119 M Broadbent and C Butler, 'Implementing Business Redesign: Early lessons from the Australian Experience' Key Centre for Technology Management, Melbourne Business School, University of Melbourne, 1995.

120 ibid.

Australia in an effort to increase efficiency and reduce cost in the administration and delivery of justice.

The Criminal Justice System

6.7 This Report adopts Project Pathfinder's definition of the criminal justice system:[121]

> The Criminal Justice system involves those activities that relate to the processing of suspects by police, then of defendants by the courts and ultimately of offenders by Correctional Services.

6.8 The criminal justice system consists of a wide range of agencies and participants that have historically developed as separate entities. The Police, Public Prosecutions, the courts, legal aid services and correctional services have traditionally perceived themselves as providing discreet services with independent interests within the system. This tradition has evolved from the fact that the adversarial system has necessarily cast these agencies as combatants and from the fact that these agencies were created to operate independently of one another. For decades, these agencies have worked mostly independently, sharing information through face to face contact or paper based means.

6.9 The criminal justice system has been in a process of gradual change for decades. However, this change has been described as 'reactive and agency specific'[122] with an absence of any overall long-term vision. One of the fundamental problems within the criminal justice system has been the lack of effective communication between the agencies involved. This lack of communication has also induced a resistance to change, particularly when the direction for change is seen as coming from external sources. Processes have evolved separately in the various criminal justice agencies and are supported by separate systems that do not interact and that require the use of redundant and duplicated procedures. These disparate procedures have also resulted in a lack of consistent data collection across the agencies making it difficult for the individual agencies, government and the community to monitor the performance of the overall system. The current state of the criminal justice system and the need for change is best summed up in the following comments:[123]

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121 Victoria, Department of Justice, *Project Pathfinder: Stage 1 - Redesign Opportunities*, May 1996, p. 3.

122 Victoria, Department of Justice, *Project Pathfinder: Stage 1 - Redesign Opportunities*, May 1996, p. xiv.

123 Hon George Nicholson and J A Hogge, 'Retooling Criminal Justice: Interbranch Cooperation Needed' (1996) *Government Technology*, http://www.govtech.net/1996/gt/feb/jandtfeb/jandtfeb.shtm.

> As the world pulls into the fast lane of the Information Age, criminal justice has fallen behind dramatically. What was once a workable system is becoming increasingly unworkable as public safety falters, civil rights diminish, and public trust in criminal justice wanes. … Criminal justice must enter the Information Age by incorporating technology as a tool to make the system run efficiently and effectively. This will happen only when the participants make an enthusiastic common cause to fully integrate the information processes involved in criminal justice while maintaining independence for parts which must remain separate.

The Victorian Criminal Justice System

6.10 The problems outlined above combine to create a system that is increasingly slow, complex and inefficient. In Victoria, Project Pathfinder found that criminal case lengths are increasing due to a combination of system inefficiencies and increased case complexity.[124] In 1996, Pathfinder reported that the Magistrates' Court had a 2-month backlog of cases while the County had a 6-month backlog and the Supreme Court a 5-month backlog. Long delays between the committal and the trial were also reported with only 43 per cent of County Court trials commencing on the day scheduled. Almost a quarter of the system's effort (in resources and time) was found to be expended in preparing multiple paper based copies of briefs and transcripts.

6.11 A further strain on the system is the fact that of the 110,000 cases that are brought before the Magistrates' Court in a year, 40 per cent are adjourned at least once with each adjournment adding, on average, 40 days to the length of a case.[125] Adjournments were found to be largely attributable to the failure to obtain legal representation or delayed funding by Legal Aid. Charges were also found to be frequently withdrawn largely due to the practice of laying multiple charges to cover all possible options. At the same time, the management of custodial care and transportation of prisoners was found to be labour intensive. Pathfinder's analysis shows that the management, tracking and recording of a defendant's movement between police and corrections is inefficient with simple tasks like the name and address of the defendant being recorded manually up to 15 times.[126]

6.12 The problems outlined above are by no means unique to Victoria and are experienced in varying degrees by other Australian and international jurisdictions. Information technology has consistently been identified as a tool capable of

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124 For a detailed analysis of the problems associated with long criminal trials and complex criminal trials with recommendations for change, see Dr. C Corns, *Anatomy of Long Criminal Trials*, AIJA, 1997 and G Greenleaf and A Mowbray, *Information Technology in Complex Criminal Trials*, AIJA, 1993.

125 Victoria, Department of Justice, *Project Pathfinder: Stage 1 - Redesign Opportunities,* May 1996, pp. iv–vi.

126 ibid, p. vi.

providing an opportunity to address some of the inefficiencies in the criminal justice system. However, while there have been several efforts in many jurisdictions to identify and rectify specific problems, Project Pathfinder attempts a large-scale, system-wide approach to addressing the problems inherent in the criminal justice system.

Project Pathfinder

6.13 Project Pathfinder was commissioned by the Victorian Department of Justice with the objective of:[127]

> reengineering the Criminal Justice System to achieve significant improvement in the delivery of Criminal Justice services, as provided by Victoria Police, the courts, Victoria Legal Aid, Office of Public Prosecutions and Correctional Services.

6.14 The Project adopts BPR methodology which when applied to the administration of criminal justice in Victoria involves:[128]

(a) adopting a system wide perspective across agencies;

(b) challenging all existing practices and procedures;

(c) considering all aspects that affect performance including the effect of people, policy, information system support, legislative support and physical infrastructure;

(d) targeting significant improvements in overall performance that is driven by a common vision of the future;

(e) involving wide consultation with all stakeholders; and

(f) recognising the critical issues of integrity and independence inherent in the Criminal Justice system by improving service without compromising the core principles of the criminal justice system.

6.15 The project was divided into two stages. Stage one outlined the opportunities for redesign, while Stage two focused on design and implementation. Part of the justification for the project was found in the recent consolidation of the previously separate agencies involved in the criminal justice system under the umbrella of the Department of Justice. The project's optimistic vision for criminal justice is that all parties involved are 'natural allies in providing a world class Criminal Justice service for all Victorians'.[129] The principles said to support this vision include commitment to

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127 ibid, p. i.

128 ibid, pp. 6–7.

129 ibid, p. ii.

a system that is client focused, cost conscious, cohesive, responsive, purposeful, impartial and continually improving.

6.16 It is important to note that while Pathfinder's analysis confirms that technology can enable significant improvements throughout the entire criminal justice system, it goes further to recommend changes to actual processes that can be aided by increased use of technology.[130] Having identified areas for redesign in Stage one, Stage two of the project specified processes for the implementation of five redesign areas. The five areas are:

(a) better and earlier case preparation;

(b) increased judicial control;

(c) planned custodial arrangements;

(d) use of electronic means to increase management; and

(e) convenient information exchange.

6.17 The Stage two report was finalised in July 1998 and identified 16 strategies to reengineer the criminal justice system. The strategies clearly demonstrate the importance of technology to the implementation of the project:[131]

(1) introducing progressive disclosure of information to all parties when a charge is laid;

(2) improved access to legal advice services;

(3) more timely legal aid assessments;

(4) the greater application of case time standards;

(5) certainty in the case listing process;

(6) improved case management of criminal cases;

(7) introduction of court program coordination services to provide advice on assessments, treatment programs, etc.;

(8) the assignment of single responsibility for custodial care;

(9) persons on remand being accommodated in custody centres;

(10) the better coordination of prisoner transportation management and operation;

(11) the development of an investigation management process which is well supported by electronically based information systems;

(12) the expansion of electronically based brief management;

(13) improved exhibit management;

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130 M Thomas, *Minutes of Evidence*, 23 Dec. 1997, p. 15.

131 M Thomas, *Minutes of Evidence*, 26 Nov. 1998, p. 271.

(14) the development of a Justice Information Exchange (JIX) to facilitate the electronic exchange of information between criminal justice agencies;

(15) the introduction of an accused management system based around a single, secure and current store of information about accused persons;

(16) the progressive development of appropriate statewide justice technology infrastructure to support electronically the new, integrated criminal justice processes.

6.18 Pathfinder's recommendations for early and better case preparation involve progressive disclosure by the prosecution and defence from the date the charge is laid. Due to the nature of police work a lot of time is spent by defence lawyers chasing up information on their briefs. An electronic document exchange system would enable police informants or prosecutors to release information as it becomes available into a database accessible by the defence lawyer. Earlier and improved access to legal aid and a more efficient legal aid assessment process are also seen as fundamental, with suggested improvements including 24 hour access to legal advice and practitioners having delegated authority to approve legal aid applications.

6.19 A pilot project called 'Project Mercury' focusing on progressive disclosure was instituted in 1998 involving five private practitioners, Victoria Legal Aid, the Office of Public Prosecutions and the Footscray Police Station. One of the practitioners involved with the pilot told the Committee in evidence of their positive experiences:[132]

> Our firm was one of the firms that was part of the Project Mercury experiment late last year and earlier this year. Firstly I must say that we think it is a terrific opportunity. Most of my fellow practitioners in the criminal area also believe it is a great opportunity...[I]n terms of that technology and the ability to electronically obtain material from and lodge material with both the police and the courts, it is a great opportunity, because many criminal lawyers—they will not like me saying this—are a little paper bound. We are bound to books, to charge sheets and all those sorts of things. It will take a cultural leap for us as criminal lawyers to get there, but I, and I think most of my colleagues, believe it is a very positive thing.
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> ...
>
> The technology that was used was user friendly for people who are not technology people. I am certainly not a technology person; I got a laptop just a month ago and have only just started using the Internet. Perhaps, like one of the members of the committee, I will find it pretty exciting and interesting. I think you will find that once lawyers get into it they will find it really useful and spend the time needed to get into it. The Project Mercury idea is a very good and positive one. From my perspective and that of my firm, and I think from the perspective of criminal lawyers, we would like to see it go further.

6.20 Pathfinder advocates an increasingly interventionist and proactive role for judges in the supervision of lists and management of cases. It also recommends a system that imposes time standards to control case progression. For instance,

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132 A George, *Minutes of Evidence*, 25 Nov. 1998, pp. 229–230.

Pathfinder suggests the introduction of a time standard for initial hearing dates of 14 days from the date on which the defendant is charged. It also recommended that practitioners would advise the court 48 hours before the hearing date of what they intend to use in court for scheduling purposes. In return for the confirmation of date and times, the courts would offer date certainty.

6.21 At present there is a very complicated mix of responsibilities in the custodial area and Pathfinder recommends a single integrated electronic approach to the management of the accused from the time of arrest. As the accused moves through the system there should be consistent and progressive assessments undertaken across the State by agencies responsible for the individual. One of the major problems in the custodial area is transportation and accommodation of defendants. Pathfinder articulated the need to rationalise responsibilities. Currently, Victoria Police is responsible for prisoners in police cells and for movement of those prisoners, while the Office of Corrections is responsible for them in prisons and for their movement in various situations. Custody centres that service the needs of police, courts, defence and corrections are seen as a long-term solution to coordinate the system.

6.22 While Pathfinder viewed technology as essential in facilitating all its recommendations, it also had specific IT reliant recommendations in relation to electronic storage of briefs and evidentiary materials to reduce the inefficiencies in the current paper-driven system. Pathfinder envisaged an increased role for electronic movement of information and digital imaging. Electronic movement of information could also ensure smoother progression of cases by the use of automated triggers for action that would flag the necessary requirements to be attended by specific practitioners or agencies as they enter and use the computerised database.

6.23 The most important and practically achievable recommendations of the project concern the 'Justice Information Exchange' (JIX) whereby all agencies involved with criminal justice would be electronically linked, while operating their own individual systems:[133]

> The JIX will be a secure source of operational information and access methods, and will be stored independently by agency systems. The JIX will act as an exchange facility between agency systems and provide the ability to lodge or view information, and will in effect be a Department of Justice Extranet. It is intended that the JIX will contain, for example, brief information, accused information, exhibit information, reference information and process performance information. The Department of Justice considers a priority initiative in implementing the recommendations of Project Pathfinder is the development of the JIX. That initiative will have significant implications for progressive implementation of a number of other recommendations.

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133 M Thomas, *Minutes of Evidence,* 26 Nov. 1998, pp. 271–272.

6.24 The JIX is essentially a database that will track an accused from the moment of charge through the criminal justice process with secure access being made available to authorised agencies at appropriate points of the case. JIX will support the administrative processes and procedures of the discreet components of the criminal justice system rather than building a new large computer system. In line with a key principle underpinning the Committee's vision of data being captured only once at the source, information would be entered only once and then be sent to JIX, which would update the whole system. Anyone wanting to access the information could do so as long as they were authorised. The 'Data Improvement Project' melds with Pathfinder at this stage as it has been developing common standards for data collection across agencies and has been working on establishing a unique identifier for an accused and for a brief that will apply right through the process.

6.25 All the recommendations in the Pathfinder reports have been fully costed. In conjunction with the University of Melbourne the first ever model of the criminal justice system was built and the recommendations were tested on the model. The project team believe that the recommendations will lead to a considerable reduction in the time taken for matters to be processed by the system; reduction in the length of pending court lists; increase in the system's capacity to complete cases and reductions in paper-based costs. The time line for the design of JIX is eighteen months with statewide roll out to follow over the following two and a half years.[134]

6.26 The implementation of Pathfinder is estimated to cost $27 million. The Victorian Treasurer has agreed to provide $7 million from the micro-economic reform fund over the next four years on a dollar-for-dollar basis. A further $7.5 million will be made available from the Department of Justice. The project now has a phased implementation plan with a new project director. The Department has taken the view that Project Pathfinder is complete and the implementation phase is now called the Criminal Justice Enhancement Program.

Reengineering Initiatives in Other Australian Jurisdictions

Western Australia

6.27 Like Victoria, Western Australia made the decision in 1993 to integrate all criminal justice agencies under the umbrella of the Ministry of Justice to address concerns about the lack of co-ordination and inefficiencies in the criminal justice

[134] ibid, p. 272.

system.[135] The 'first era' of technology in the justice system began in 1988 following the 'Courts Information Plan', which focused on the internal automating of court processes. The 'second era' began in 1996 with the 'Court Services Division Information Plan' which had the primary aim of improving communication and information exchange across the justice system.

6.28 Unlike Victoria, Western Australia has chosen to integrate rather than separate criminal and civil justice. Their focus for the next three years is to develop a generic information system, which will be suitable to both criminal and civil matters and that is equally applicable to tribunals and boards as it is to courts. This generic system is to be built around messaging and the use of Internet to facilitate the exchange and dissemination of information to all parties and the broader community. While in relation to technological vision there are great similarities with Pathfinder, the Western Australian approach encompasses the whole justice system. However, the focus appears to be on technology rather than changing existing business processes that technology can augment.

Queensland

6.29 The Queensland government has recently announced several policy initiatives to streamline the administration of justice. In relation to criminal law, the Government has announced the 'Criminal Justice Integration Strategy' (CJIS). The CJIS vision is:[136]

> to ensure relevant, timely, and accurate information is available and accessible to authorised users to support the business needs of all agencies in the criminal justice system sector in Queensland and their clients to monitor the criminal justice environment.

6.30 A standard offence database is considered a priority for CJIS to allow for comparability across criminal justice agencies for offences. A new case management system has also been introduced into the Office of the Director of Public Prosecutions to help the office structure its workload and monitor and manage the progress of cases.[137]

6.31 The Committee sent a delegation to investigate developments in New South Wales and Queensland. In the discussions held with the Queensland Attorney-General's Department it became apparent that while there is a desire to use IT to increase efficiency in the justice system, the priority is to ensure that the basic

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135 Submission no. 7, p. 1.

136 Submission no. 2, p. 4.

137 ibid.

infrastructure is in place for technology to have an impact. The size and geography of Queensland has meant that there has been very little coordination between courts and even less with other criminal justice agencies. These issues only highlight the potential benefits that technology can offer and the importance of establishing the infrastructure in the form of computer hardware to all parts of Queensland.[138] However, reform must be put in the context of the vastness of Queensland and the massive resource expenditure involved in equipping all courts and justice agencies in Queensland with basic computer hardware.

New South Wales

6.32 The only project in New South Wales that can be characterised as reengineering the criminal justice system is the 'Judicial Agencies Data Exchange' (JADE) project. JADE includes agencies such as the Police Service, the Department of Public Prosecutions, the Department of Corrective Services and Juvenile Justice. Jointly these agencies are developing strategies to standardise and streamline their responsibilities and to increase communication between agencies using information technology. To date, JADE has developed standard offence codes that are being utilised by relevant agencies and is in the process of standardising court result codes used by agencies.

6.33 The Judicial Commission of New South Wales has developed a sentencing information system which is basically a computerised database of sentencing statistics, case law and legislation to assist the courts to attain consistency in sentencing. The database is now offered to private practitioners as an online subscription service.[139] While there are discrete projects within the justice system to increase the use of information technology, New South Wales has not yet committed to large scale reengineering of their criminal justice system.

South Australia

6.34 South Australia's system is unique and has been held up as a model by the Victorian Department of Justice.[140] South Australia has a central Court Administration Authority that administers all courts in the state. This naturally reduces some of the

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138 The infrastructure requirements and upgrade of existing systems is dealt with by a project called the 'Courts Modernisation Project'. A part of the project is to develop a new criminal case management system that will integrate with financial management systems to be implemented in all Magistrates' and Higher Courts.

139 The Judicial Commission's Sentencing Information System is described in detail in Chapter 9.

140 The Victorian Department of Justice has commenced a pilot project in the Children's Court that utilises the South Australian generic courts' computerisation support system.

inefficiencies in the system and leads to enhanced communication and coordination. A centralised authority in a larger jurisdiction however, does involve greater political and logistical issues. A number of agencies in South Australia including the police already lodge criminal matters electronically with the court via a range of media. The Authority is also currently developing a new Court Case Management System that will incorporate data on the outcomes of all cases.

6.35 The South Australian Courts Administration Authority has focused its reengineering efforts on a civil case management system. The case management system has been implemented and has been piloted by the Victorian Children's' Court.[141] The criminal case management system is to be implemented during the course of this year.

Northern Territory

6.36 Currently, the Northern Territory uses the 'Integrated Justice Information System' that is a mainframe application that links the Supreme and Magistrates' Courts to the Police and Correctional Service allowing for a centralised database.[142] Further, courts in the Northern Territory will soon be linked using a wide area network to facilitate greater communication between courts. At present the Committee is unaware of any other specific measures in the Northern Territory or in other Australian jurisdictions that attempt to reform the criminal justice system through the use of technology.

Reengineering Initiatives in Overseas Jurisdictions

United States of America

6.37 While it is beyond the scope of this paper to detail developments in the vast number of jurisdictions in the USA, it is important to note that the Office of Automation and Technology,[143] on a Federal level, and the National Centre for State Courts, on a State level, play a major role in developing and disseminating information about technology and court computerisation. Furthermore in the area of

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141 Case management systems are discussed in detail in Chapter 9.

142 Parliament of Victoria, Law Reform Committee, *Correspondence*, Letter from the Hon Shane Stone, then Attorney-General of the Northern Territory, 16 Feb. 1998.

143 The Office of Automation and Technology is an arm of the Administrative Office of the United States Courts.

integrated criminal justice there are a number of other organisations that provide information and support.[144]

6.38 According to the National Centre for State Courts, nearly 35 States maintain some degree of a unified court system that is seen as a strong foundation for creating an integrated justice system.[145] The most renowned integrated criminal justice projects are those implemented in Colorado and Baltimore Maryland. However, projects are also in progress in North Carolina, Michigan, Kansas, Harris County, Missouri, Pennsylvania, Los Angeles County and other counties and states.[146]

Colorado

6.39 Colorado was the first state to introduce a statewide integrated justice information system. The 'Colorado Integrated Criminal Justice Information System' (CICJIS) was developed in response to the familiar issues of lack of communication, duplication of effort and general inefficiency in criminal justice administration.[147] The model used by CICJIS is identical to that recommended by Pathfinder, whereby all agencies involved in the criminal justice system are linked while operating their individual systems. CICJIS also tracks and moves data from one system to another as an accused moves from one agency to another. The use of the system has forced a degree of 'commonality of language' and standardisation.[148]

6.40 CICJIS went live on 4 May 1998 and began moving appropriate information between the various criminal justice agencies. It uses OmniCONNECT middleware to provide a common interface for agencies with distinct computer systems. Colorado uses digitised fingerprints for identification purposes. These fingerprints yield a number called the State Identification Number that ensures that a person can be tracked through the system. When a business event occurs in one agency, the system automatically transfers data to the next agency as part of a workflow process. Thus a case history can be tracked from arrest through to conviction or release.

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144 See for example, SEARCH, The National Consortium for Justice Information and Statistics, http://www.integration.search.org/; Department of Justice Office of Justice Programs, http://www.doj.gov; Bureau of Justice Statistics, http://www.ojp.usdoj.gov/bjs.

145 M Cotter, 'Will Integrated Public Safety & Criminal Justice Become a Reality?' (1996) *Government Technology*, http://www.govtech.net/1996/gt/aug/aug1996-integratedpublicsa.

146 T Newcombe, 'Justice Online Uniting our Fractured Judicial System with Technology' (1999) *Government Technology*, http://www.govtech.net/gtmag/1999/feb/justicefearture/justicefeature.shtm.

147 J Kavanaugh-Brown, 'To track and Prosecute', *Government Technology*, October 1997, http://www.govtech.net/1997/gt/oct/jandt/jandt.shtm.

148 ibid.

6.41 During its overseas investigations, a delegation of the Committee met with the designer of the Colorado system. The Committee was impressed with the operation of the system and believes that the Pathfinder implementation team would benefit from visiting Colorado and talking to those who devised and implemented the system about how they overcame some of the cultural barriers.

Baltimore

6.42 The Baltimore Arrest Booking Facility provides another excellent example of integrated justice. In light of Pathfinder's recommendations for a custody centre, the Baltimore system demonstrates how all services can be combined in one physical building with IT used to facilitate the speedy processing of arrest, identification, offender management and detention. The state of Maryland also has other successful integrated justice projects.[149]

6.43 A business process reengineering exercise was initiated to review the process of handling offenders from the point of arrest, through booking, pre-trial, initial bail hearings and remand or release. One of the drivers for this project was the need to reduce the growing crime problem in Baltimore, through improving the process and reducing unnecessary activities which kept participants in the criminal justice system from doing the most valuable part of their jobs through the need to complete administrative functions. A further driving factor was that Baltimore was having increasing trouble with its antiquated prison system. To effect the best result with the newly re-engineered process, it was decided that a new facility for handling the booking of arrestees, as well as integrated information technology needed to be provided. The projects to deliver the IT and the building were coordinated to ensure that each supported the other.

6.44 The system implemented in Baltimore is like no other the Committee has seen. The arrest centre is linked to the prison so that when a suspect follows the process they reach a fork and either get released or move on to prison. All suspected offenders are barcoded on arrival and fingerprinted. The barcode is worn around the wrist of the suspect and is scanned at each of the stops the prisoner has to make through the process. The prisoner is handcuffed to what looks like a bank-teller where a person takes down their details. During that time the police can complete their reports on computers provided in a separate area. Digitised fingerprints are

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149 Prince George's County, Maryland, reputedly leads the way with its 'JusticeLINK' solution which was introduced in 1995. JusticeLINK enables electronic filing by practitioners, electronic access to court documents and opinions and the ability for practitioners from both sides to communicate with each other and court officials. J Kavanaugh-Brown, 'To Track and Prosecute', (1997) *Government Technology*, http://www.govtech.net/1997/gt/oct/jandt/jandt.shtm.

matched within an hour with a database of over 13 million prints that are stored. Bail justices, prosecution and defence solicitors are all available within the building.

6.45 The whole process is remarkably quick with the centre coping with over 300 arrests per day and processing 90 000 cases a year. The system's security measures with the barcodes and video cameras ensure that every transaction is logged. Furthermore, all information from the Booking Facility is electronically transmitted to courts, police and the public safety mainframe system. The Committee believes that while all the processes used in the centre may not be appropriate for Victoria, it provides an excellent example of the ways technology can be utilised to integrate processes and increase efficiency and accuracy.

Los Angeles County

6.46 In evaluating criminal justice reengineering initiatives it is important to consider the size of the jurisdiction. For example, Los Angeles County has the largest criminal justice system in America incorporating 50 law enforcement agencies, 62 additional authorities, 21 different attorney/prosecutors' offices and 24 municipal court districts consisting of 300 judicial officers presiding over more than half a million arrests per year. All these agencies have their own information systems that are incompatible with others.[150] At the end of 1996, the county began rolling out its 'Consolidated Criminal History Reporting System' (CCHRS) allowing police, judges, prosecutors and probation officers instantaneous access to information in the various databases. CCHRS generates criminal histories incorporating laser technology, fingerprinting, indicates which agencies are investigating a person, and generates information and precautions to court staff, judges and prosecutors.[151] While the system does not appear to extend to electronic filing of documents, it offers a massive increase in efficiency to such a large and disparate jurisdiction.[152]

United Kingdom

6.47 In 1997, Laurie West-Knights noted:[153]

> In England, there are pockets of activity that are truly millennial…[However,] there exists, despite the efforts of, in particular, some members of the judiciary, no overall strategic view, or plan, or budget.

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150 D Lemov, 'Say "Cheers" in LA: A Consolidated Criminal History Reporting System', (1998) *Court Technology Bulletin*, http://www.ncsc.dni.us/ncsc/bulletin/V09n02.htm.

151 ibid.

152 ibid.

153 L West-Knights, 'IT in the Courts: A World of Contrasts', (1997) *The JSB Journal* 17, p. 17.

6.48 However, the Committee's impression on visiting the United Kingdom is that this view can no longer be sustained. The Lord Chancellor's Department and the Court Services have engaged in long term planning for the use of IT. While there is much reform in the civil justice area following Lord Woolf's Report on *Access to Justice*, reviews and plans for the criminal justice system are underway. The Government recently established a cross-departmental review of the criminal justice system, which showed up the current weaknesses and pointed to the means for improvement, not least in the area of information systems and the use of technology. As the Hon Geoff Hoon recently noted:[154]

> For the first time we have set two overarching objectives for the criminal justice system. First, to reduce crime and the fear of crime, and their associated social and economic costs. Second, to dispense justice fairly and efficiently, and to promote public confidence in the rule of law.
>
> If we are to achieve these aims, cooperation is vital. Here are just a few examples of what we stand to gain from effective joint planning.
>
> 1. Direct access from the prisons to the criminal database on the Police National Computer will save the Prison Service at least £1m a year, through faster risk assessment and categorisation.
>
> 2. Direct access to criminal records for all criminal justice agencies will save the police 75 man-years of effort each year.
>
> 3. The use of video-conferencing for pre-trial hearings will significantly reduce the 235,000 journeys of remand prisoners that take place each year.
>
> 4. Shared case data will eliminate multiple keying-in, and reduce the large number of adjournments that are granted by magistrates because the prosecution case is unable to proceed.
>
> 5. E-mail links to defence solicitors will speed up advance disclosure and reduce the significant number of adjournments that are granted by magistrates because advance disclosure has not been made to the defence in time.

6.49 To facilitate greater collaboration and integration of criminal justice systems, a group of senior officials from the government departments and agencies that are involved in the criminal justice system have formed the Integrating Business and Information Systems (IBIS) Board. IBIS recognises the fact that IT cannot be considered in isolation from the associated business processes. As the United Kingdom has lagged for some years in its use of IT, the timeframe for implementation of integrated justice is longer than has been required in the United States:[155]

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154 The Hon G Hoon MP, Minister of State, the Lord Chancellor's Department, 'Crime, Criminal Justice and the Internet', paper delivered at the British Irish Law Technology Association Cyberspace 1999, York, 30 March 1999, http://www.open.gov.uk/lcd/speeches/1999/1-4-99.htm.

155 ibid.

> The timetable for whole system development is, inevitably, long - some strategic systems will not become fully operational for six or seven years - and it is not clear what degree of full system integration we can achieve, no matter how hard we try. In addition, we must ensure that we do not move as a convoy - at the pace of the slowest.

6.50 It is also important to note that many of the broad reforms to procedure and processes suggested by Pathfinder are very similar to reforms advocated in 1993 by the Royal Commission on Criminal Justice chaired by Viscount Runciman.[156] The Royal Commission recommended early and progressive disclosure by the defence and prosecution, and a more interventionist role for the judiciary in managing cases to increase efficiency.

Conclusion

6.51 Information technology offers numerous solutions in relation to management support and coordination of a large cumbersome structure like the criminal justice system. At the same time contemporary society is steadily becoming accustomed to the high quality of services that technology can help deliver. With increases in the public use of technology and with the rapid development of new technologies, it is inevitable that the public will expect the justice system to deliver accessible, cheaper and efficient services. However, the ways in which technology is employed and the rate and method in which it is rolled out appears to be important to achieving the potential benefits.

6.52 The Committee believes that Project Pathfinder is one of the most ambitious reengineering efforts in the criminal justice area. While several jurisdictions seem to be investigating and enabling the increased use of technology to streamline the administration of criminal justice, none suggest major changes to the operation of cases. The success of Pathfinder does rely very strongly on the commitment of all participants to create a more efficient system. As the Hon Nicholson notes:[157]

> The integration of criminal justice will not happen without cooperation from its participants. No single participant can force this integration on the remaining participants. Indeed, any attempt to do so may be met by firm resistance and seen as an infringement on the right of the participant to perform its own function independently.

6.53 The above statements also hint at the cultural issues involved in radical reform. All agencies in the criminal justice system have to be convinced of the

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156 United Kingdom, The Royal Commission on Criminal Justice, *Report*, HMSO, London, 1993, Cm 2263.

157 Hon G Nicholson and J Hogge, 'Retooling Criminal Justice: Interbranch Cooperation Needed' (1996) *Government Technology*, http://www.govtech.net/1996/gt/feb/jandtfeb/jandtfeb.shtm.

benefits that technology and streamlined processes can bring them. This requires strong leadership and an understanding by policymakers of the utility and long-term cost-effectiveness of technology.

6.54 The evidence received by the Committee from the Pathfinder project team was that cooperation from participants and commitment from top management is more present than ever in Victoria's criminal justice agencies. The 'time is right' for the radical changes proposed as Victoria has already developed a strong foundation of technological infrastructure. However, Pathfinder is a long-term project and the challenge will be to sustain that commitment and cooperation from all participants.

6.55 The Committee finds that Project Pathfinder in its breadth of vision and use of technology does represent world's best practice in the area of integrated criminal justice. The Committee believes that the Department of Justice in particular and the Government as a whole should support the speedy implementation of the project.

6.56 The Committee also believes that the name 'Pathfinder' is now internationally renowned and renaming the implementation stage has produced confusion. The Committee believes that the project should retain its original name to ensure that the advantages gained are capitalised upon.

6.57 The Committee also is of the opinion that there is a need to integrate civil justice in a similar way. While the Committee understands that the parties to civil proceedings are not usually government agencies and that integration of the courts and the legal profession and the public requires a different approach, the Committee believes that a project examining integration and reform of the civil justice system is required. The Committee notes that the Department of Justice is conducting a Civil Justice Review Project that is due to release a discussion paper shortly but the Committee is concerned that information received indicates that the Project is not investigating the use of IT.[158] To ensure that we have an integrated justice system that can bring greater accessibility, productivity, consistency, speed, quality and efficiency, the inclusion of such investigation to civil justice initiatives is essential.

Recommendation 19

The Committee supports the vision and direction of Project Pathfinder and recommends its speedy implementation.

Recommendation 20

158 Professor P Sallmann and R Wright, *Minutes of Evidence*, 25 Nov. 1998, pp. 186–200.

In implementing integrated criminal justice, the Victorian Government should examine the model of the Baltimore Arrest Booking Facility established by the Maryland Public Safety Department in the United States of America.

Recommendation 21

A similar project to Pathfinder should be initiated for the civil justice system to improve efficiency and integration.

7 PROSECUTORIAL FUNCTIONS

7.1 When one considers the implications of the interface between the use of technology and the prosecution of crime, many exciting visions and possibilities come to mind. At its bleakest, one recalls books like Aldous Huxley's *Brave New World* and George Orwell's *1984* and films like *Robocop*[159] and *Gattaca*.[160] In its more optimistic visions, the use of modern technologies to support and enhance the prosecutorial function of the State calls to mind a court system in which there is a ready exchange of information between the defence and the prosecution in an environment in which the finder of fact (whether this be a judicial officer or a jury) has the best possible tools to carry out its function of determining guilt or innocence.[161]

The Structure of Prosecution in Victoria

7.2 This chapter is concerned with the impact of information technology (IT) on the prosecutorial function of government. In Victoria, the Director of Public Prosecutions (DPP), who is supported by the Office of Public Prosecutions (OPP) and by Crown Prosectors, conducts prosecutions for criminal offences in the superior courts. Specially trained members of the Victoria Police usually prosecute criminal offences brought in the Magistrates' Court of Victoria. OPP also handles committal proceedings throughout the State and appeals whether from the Magistrates' Court, County Court or Supreme Court. Other functions include applications under the *Confiscations Act 1998* and applications on behalf of victims of crime claiming for pain and suffering under section 86 of the *Sentencing Act 1991*.

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159 In *Robocop* (1987), which is set in Detroit in the near future, a policeman who dies in the line of duty is transformed into an ultrasophisticated cyborg by the corporation which now runs the city police department. Its view of life in the future is unremittingly bleak and ugly.

160 *Gattaca* (1997) depicts a near-future society in which genetic engineering makes possible the creation of biologically superior human specimens who then grow to positions of power and prestige, while those who are naturally born can only hope to attain low paid employment.

161 For a futuristic description of technology in support of policing see B Walsh, 'Future Cop', *Herald Sun*, 17 Apr. 1999, p. 25.

7.3 For indictable offences, OPP becomes involved in criminal litigation at the earliest opportunity. This is typically at the status hearing stage in the Magistrates' Court, which usually takes place within one week of the alleged offender's arrest.[162]

7.4 The prosecutorial function has four stages:

(1) Investigation and preparation of the brief, usually by Victoria Police.

(2) Trial preparation and case management within OPP and the DPP and Crown Prosectors' offices or, in the case of matters tried in the Magistrates' Court, in the Victoria Police prosecutor's office.

(3) Conduct of the trial or other court hearing.

(4) Post-trial or hearing procedures.

7.5 The Victorian Government's strategy for investigation of offences and the preparation of paperless briefs as part of an integrated criminal justice system has been dealt with in the previous chapter. DPP, OPP, Crown Prosecutors and Victoria Police are all components of the Pathfinder Project's vision for an integrated criminal justice system.

7.6 In so far as trial preparation and case management within OPP is concerned, OPP's submission to the Committee notes:[163]

> In reality, OPP is a Solicitor's Office with one client: the Director of Public Prosecutions. The OPP works to assist the Director in carrying out his or her statutory functions by preparing and conducting Court proceedings on behalf of the Director.

The impact of technology on the legal profession in general is the subject of Chapter 11. Much of what is said there is applicable to OPP. More specific matters pertaining to case management and post-trial or hearing processes within OPP will be discussed in this chapter.

7.7 The conduct of trials and other court hearings is, to a large extent, within the control of the courts. The impact of technology on the courtroom is the subject of Chapter 10. Nonetheless, there is much that the OPP can do to assist the courts and the public in the preparation and presentation of material in court. These matters will also be discussed in this chapter.

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162 P Tobin, *Minutes of Evidence,* 26 Nov. 1998, p. 291.

163 Submission no. 14, p. 1.

Information Technology within the Office of Public Prosecutions[164]

7.8 In 1994, OPP had some 72 PCs consisting of all sorts of processors, makes and models—only 14 machines were 486s. IT was used primarily for word processing, however the business records of the office were maintained by means of more than a dozen independent databases, which hindered efficient management and the effective handling of matters. Before 1994, computers were mainly used for case management functions but rarely used in the preparation of trials.[165] The OPP submission to the Committee stated that 'the corporate level of IT knowledge and training was extremely low'.[166] However, the office is now fully networked with all staff having a Pentium computer, 60 of which are notebooks.

OPP Victoria Case Management System—'PRISM'

7.9 A sophisticated file registration and management system called 'PRISM' has been developed, based upon a package developed by the Commonwealth Director of Public Prosecutions. PRISM performs the following basic functions:

(a) provides a record of all prosecutions effected by the office;

(b) manages the allocation of staff and Crown Prosecutors to attend court hearings;

(c) manages the briefing and payment of external Counsel; and

(d) manages the attendance and payment of witnesses and interpreters at court hearings.

7.10 The PRISM application is installed on a Novell Netware 4.1 local area network. The network supports a total of 110 desktop PCs and an additional 60 laptop PCs that can utilise dial-in connections to access network applications including email and PRISM.

7.11 PRISM was originally written for a Windows 3.1 environment using Gupta SQL Windows. It is currently being ported to the 32 bit version of SQL Windows. The PC desktop workstations and laptop computers have been upgraded to Pentium II processors with 64MB of RAM and are now running Windows NT 4.0 Workstation. The conversion will be completed this year.

7.12 PRISM uses Sybase System 11 as its database server that runs on a Unix host. The database supports up to 60 licensed connections from the PRISM application,

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164 See generally, P Tobin, *Minutes of Evidence*, 26 Nov. 1998, pp. 290–298 & Submission no. 14.

165 P Tobin, *Minutes of Evidence*, 26 Nov. 1998, p. 291.

166 Submission no. 14, p. 2.

with 35 to 40 users connected concurrently during a normal working day. PRISM has external interfaces to the Magistrates' Court system (Courtlink) and the Criminal Trial Listing Directorate. This is achieved by the external systems downloading relevant information, which is sent to OPP by email and then uploaded into PRISM.

7.13 When there is a committal result or a new hearing booking, the Courtlink system downloads hearing, Defendant, Informant and charge details for uploading into PRISM. Whenever there is a new hearing booking involving the OPP in the Criminal Trials Listing Directorate system, hearing, Defendant and Defence Solicitor details are downloaded for importation into PRISM.

7.14 The electronic transfer of results from Courtlink to the Victoria Police System known as 'Leap' is currently being implemented.

7.15 OPP has sought to take whatever advantage it can from information already available in electronic form. To this end, OPP imports to PRISM through email and floppy disc the following information:

(a) relevant information including bookings and charge details from Courtlink (the Magistrates' Court System);

(b) information including hearing bookings from the Criminal Trial Listings Directorate; and

(c) confirmation of payments from the Department of Justice Financial Management System.

PRISM also exports information to the Department of Justice Financial Management System for the payment of external counsel.

7.16 At a practical level, PRISM means that, for example, details of about 3000 County Court appeals per year do not have to be keyed in by OPP staff. One recent matter that was imported into PRISM contained over 800 criminal charges.

Other Uses of Technology within OPP

7.17 Comprehensive training programs have involved OPP staff in the use of technology. According to the OPP submission 'some [members of staff] have adapted better than others but, by and large, the level of involvement and IT usage is very good'.[167] All staff have access to the Internet. This has proved helpful for reference material and research, particularly for provincial circuit courts. An ISYS text retrieval system is commonly used, particularly in drug cases that have large transcripts.[168]

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167 ibid., p. 3.

168 P Tobin, *Minutes of Evidence*, 26 Nov. 1998, p. 291.

This can save thousands of hours of case preparation time by enabling an OPP officer to electronically search for information on key elements of an offence through thousands of hours of listening device transcripts.[169]

7.18 Considerable effort has been put into resourcing the Audio-Visual Section of the OPP over the past two years. The section is mainly concerned with preparing material for playback in court. The section is necessarily reactive to equipment used by other agencies. For example, when the Special Projects Unit of the Victoria Police started using compact disc technology as a mastering medium, the OPP responded by purchasing equipment that enabled compact disc writing and editing. At the other end of the spectrum, a great deal of time and expertise is used converting stereo and dual mono recordings to mono only recordings, because the court systems are all mono. This is an area where if equipment was standardised and available throughout the criminal justice system a great deal of time and effort could be saved.

The Future for Information Technology within OPP

7.19 OPP in its submission observed:[170]

> Each link in the Criminal Justice System is dependent upon those both before and after it. For example, there is no point in preparing evidence in a particular form/format if the Courts cannot handle it.

Consequently, OPP has expressed to the Committee its desire to pursue opportunities for networking with key stakeholder agencies. In particular, OPP considers that there are 'considerable business opportunities for improvements in the transfer of data from Police to OPP and from OPP to the Courts'.[171]

7.20 OPP has also expressed its desire 'to be able to share and access databases using developing Internet technology'.[172] In large organisations, such as the Victoria Police, different databases or different data processing software is used everywhere. An Internet language, such as HTML, can be used as a translator to put information into a form that criminal justice agencies can download and import into their own systems. In this way, the 'ultimate goal is that in the criminal justice system there should be no need for re-keying of any common data'.[173]

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169 ibid., p. 293.

170 Submission no. 14, p. 3.

171 ibid.

172 ibid.

173 P Tobin, *Minutes of Evidence*, 26 Nov. 1998, p. 293.

7.21 The OPP believes that standards and protocols need to be set for the whole of the criminal justice system. To this end, OPP has participated in Department of Justice initiatives such as the Pathfinder Project and the Data Improvement Project.[174]

7.22 One of the difficulties in the uptake of new technologies by OPP is that defence lawyers must have access to the same or similar technologies, otherwise the prosecution could have an unfair advantage. For example, if the OPP were to prepare a case for presentation to a court using a particular litigation support tool, the courts and the defence would need access to that tool. It would be grossly unfair if defence counsel could not receive transcript and exhibits prepared in an electronic form and manipulate them in the same manner as the prosecution. Nonetheless, as one witness said:[175]

> If there were a technological solution and all parties had access to it and were able to produce it and it was also available to the court, I could not imagine a court in Victoria refusing to have an attempt at it.

Information Technology within Victoria Police[176]

Major Systems

7.23 The major operational database within Victoria Police is the Law Enforcement Assistance Program (LEAP) database. It is a mainframe computer-based system that was introduced in 1993. It records crime incidents, offender details, victim details, criminal records, stolen property, intervention orders, and warrants. It is available at all police stations, and police members have access to LEAP over the mobile radio network via the Police Communications Division (D24). LEAP is updated with about 1500 reports per day.

7.24 Criminal charges entered into LEAP are dispatched electronically to the Magistrates' Court database, Courtlink, using an upload and download system. Upon the electronic receipt of Informations (the formal documents initiating criminal charges in the Magistrates' Court), court officers using Courtlink schedule the charges for a court hearing. When a magistrate determines the court order in respect of a charge, it is attached to the recorded charges and the information is then

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174 See Chapter 6.

175 P Tobin, *Minutes of Evidence*, 26 Nov. 1998, p. 293.

176 See generally C Oates, P Donelly, L Snowball & P McDonald, *Minutes of Evidence*, 26 Nov. 1998, pp. 299–327.

downloaded by Courtlink to be uploaded by Victoria Police. In this way the LEAP database is automatically updated with the outcome of charges.

7.25 Leap is undergoing a continuous program of enhancement and development on a year-by-year basis, and is currently undergoing conversion to year 2000 compliance. It is also being redeveloped to be more flexible and to be integrated with other databases.

7.26 Victoria Police maintains four further databases: the Firearms Licensing and Registration System (FLARS), the Traffic Accident Information System (TAIS), the Crime Information System (CIS) and an ethical standards database known as ROCI.

7.27 FLARS was developed in 1996 and records details of firearms, shooter's licences, prohibited persons and organisations that use firearms. It is available to district firearms officers and firearms registry staff.

7.28 TAIS was introduced in 1988 and records information about major motor vehicle accidents. The information is available to all police districts and is regularly forwarded to Vicroads, the Transport Accident Commission and Workcover. TAIS is subject to a development program for an integrated road safety system. A $16.3 million contract has recently been signed with DMR Consulting Group (Australia) Ltd. to develop a new computer system which issues driver's licenses and motor vehicle registrations and records, and manages the demerits points system and VicRoads records of driving convictions.[177] Improved analysis and reporting facilities will allow the detailed study of driver behaviour. This means improved programs can be developed targeting high-risk drivers. Additionally, the Department of Justice will benefit from improvements to name and address information. This will assist the Sheriff of Victoria to recover unpaid fines. Work on developing the new system commenced in February 1999 and components will be progressively delivered over the next two years.[178]

7.29 So far as CIS is concerned, a business case is currently under development for its integration with LEAP.[179] ROCI/ROCSID is a redevelopment of the ethical standards database. It provides Victoria police with a secure and total information system within the Ethical Standards Department.[180]The Future for Information Technology within Victoria Police

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177 Victoria, Office of the Minister for Roads and Ports (The Hon. Geoff Craige, MLC), 'Drivers to Benefit from $16m computer system for registration and licensing', *News Release,* 12 Mar. 1999.

178 ibid.

179 C Oates, *Minutes of Evidence,* 26 Nov. 1998, p. 312.

180 ibid.

Information Technology Developments and Applications Developments

7.30 The Victoria Police vision for information technology involves the following elements:[181]

(a) statewide IT network linked to all police stations, courts and government agencies;

(b) online policing applications suite providing information access and entry anywhere at anytime;

(c) electronic interchange of information from point to point;

(d) mobile data terminal network integrated with the statewide IT network and voice network;

(e) flexible support and office based systems;

(f) electronic service delivery systems; and

(g) best practice service provision in partnership with industry through competitive tendering.

7.31 A statewide IT infrastructure that links all police stations is being introduced using VicOne. VicOne is a broadband infrastructure for an online network to connect all 3,100 Victorian Government sites, including schools, hospitals, police stations and all other public sector facilities using a telecommunications backbone developed by AAPT Ltd. Victoria Police aims to be online 'from any point to any point'[182] providing access to its databases including LEAP. This wide area network will eventually be linked to mobile data terminals in police vehicles. This integrated network will have flexible support systems that link with electronic service delivery systems as part of the Victorian Government's *Online Government 2001* program.

7.32 In late February 1999, Victoria Police became the first police force in the world to outsource all its IT needs. A five-year contract worth in excess of $110 million has be signed with IBM Global Services to replace and upgrade computer equipment and provide local and wide area networks linking 278 police sites and 103 one-man police stations throughout the State.[183] Every police station will have a local area network linked to a wide area network using the AAPT backbone developed under the VicOne project. The computer upgrade component of the contract will involve the introduction of a new operating system and email service, as well as the roll-out of 5300 desktop computers and 500 notebook computers. Software will be standardised

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181 C Oates, *Minutes of Evidence*, 26 Nov. 1998, pp. 301, 308 & 310.

182 ibid., p. 311.

183 Victoria, Office of the Minister for Police and Emergency Services (The Hon. Bill McGrath, MP), 'McGrath announces major police computer upgrade', *News Release*, 23 Feb. 1999.

by adopting a Windows operating system and the Microsoft Office suite of applications. Application development, help desk responsibilities and specialised training for 8000 staff will be provided.[184] The Victorian Minister for Police and Emergency Services has said:[185]

> Strict security and screening procedures have been incorporated into the contract so the community can be assured that all confidential information is protected and the force will remain firmly in control of its information.

7.33 The contract covers the first phase of a three phase ten-year strategy that will culminate in a totally electronic police force with mobile computing available in every patrol car.[186] Phase one is scheduled to be completed by December 1999. Phase two, which involves business unit application development, will commence in December 1999 and be completed by December 2003. The third phase will link Victoria Police and all other emergency services in the State.[187]

7.34 On 20 February 1999, the Bureau of Emergency Services Telecommunications (BEST) sought registrations of interest from the private sector for the provision of Mobile Data Network (MDN) Services for Victoria's Emergency Services Organisations, including Victoria Police.[188] BEST is a business unit within the Victorian Department of Justice, which has been given responsibility to procure a mobile data network service on behalf of all the emergency service organisations. It is now implementing a process under which a supplier will eventually be appointed on a five year contract to build, own and operate an integrated, multi-agency mobile data network which interfaces with the existing BEST Computer Aided Dispatch system.[189] The registration of interest process will enable the identification of service providers having the demonstrable capacity to design, build, own and operate MDN services. Registrants are expected to have all the necessary skills, knowledge and experience, to provide a cost-effective MDN service in an innovative manner.[190]

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184 See M Hollands, 'Victoria's police outsources its IT', *The Australian*, 2 Mar. 1999, p. 41.

185 Victoria, Office of the Minister for Police and Emergency Services (Hon. Bill McGrath, MLA), *News Release*, op. cit.

186 See M Hollands, 'Victoria's police outsources its IT', *The Australian*, 2 Mar. 1999, p. 41.

187 C Oates, *Minutes of Evidence*, 26 Nov. 1998, pp. 301 & 308.

188 Victoria, Department of Justice, Bureau of Emergency Services Telecommunications, 'Registration of interest for provision of mobile data network services' http://www.justice.vic.gov.au/BEST/BESTsite.nsf/pages/reginterest.

189 Victoria, Department of Justice, Bureau of Emergency Services Telecommunications, 'Making sure emergency service organisations get the mobile data system they need', http://www.justice.vic.gov.au/BEST/BESTsite.nsf/pages/system.

190 Victoria, Department of Justice, Bureau of Emergency Services Telecommunications, 'Registration of interest for provision of mobile data network services' http://www.justice.vic.gov.au/BEST/BESTsite.nsf/pages/reginterest.

7.35 BEST expects the first phase of the mobile data service to be delivered in the second half of the year 2000, with remaining phases of the service being progressively rolled-out. BEST is asking suppliers to show how they would establish a system with the capabilities and potential to meet mobile data requirements of Victoria's emergency service organisations well into the 21st century.[191]

7.36 The main requirements or potential capabilities of the system are:[192]

(a) seamless interface with BEST computer aided dispatch system (CAD);

(b) dispatching information to mobile data terminals in vehicles;

(c) push-button status reporting from vehicles;

(d) once-only data entry;

(e) database enquiries from mobile terminals;

(f) system accessible by mobile and fixed terminals;

(g) automatic vehicle location (AVL) by global positioning system (GPS) satellite in the metropolitan Melbourne area; and

(g) future capacity to interface with Statewide CAD and AVL.

7.37 The mobile data network will have the potential to:[193]

(a) increase productivity through once-only data entry and direct data access;

(b) improve the accuracy of information, dispatching and use of resources;

(c) reduce congestion on voice radio channels, reserving them for the most urgent business;

(d) improve resource management, accountability and service delivery; and

(e) help decentralised decision-making.

7.38 For emergency service workers, the mobile data network will mean:[194]

(a) better access to information;

(b) more support for front-line decision-making;

(c) improved focus on primary duties;

(d) better occupational health and safety;

(e) enhanced skills and capabilities; and

(f) reduced paperwork requirements.

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191 Victoria, Department of Justice, Bureau of Emergency Services Telecommunications, 'Mobile data technology for the 21st century', http://www.justice.vic.gov.au/BEST/BESTsite.nsf/pages/21century.

192 ibid.

193 ibid.

194 ibid.

National Systems Development

7.39 A number of issues, including the increased mobility of people across Australia, make it necessary for police and other law enforcement agencies to cooperate more in sharing information. Accordingly, in 1990 a national exchange of police information was established. The major systems are the National Automated Fingerprints Identification System (NAFIS) and the National Names Index (NNI). These databases can be shared and accessed across Australia.[195]

7.40 NAFIS is based in Sydney, but there are terminals in Victoria at the Fingerprint Branch of the Victoria Forensic Science Centre. NAFIS allows for the lodgment of fingerprints and the searching of known fingerprints and latent fingerprints found at crime scenes. NAFIS has a database of approximately 2.1 million sets of fingerprints. The system can receive, search and store ten prints (print of each finger on both hands taken at time of arrest) and latent prints (single or partially developed crime scene fingerprints) for comparison and identification. NAFIS is considered by Victoria Police to represent world's best practice.[196]

7.41 NNI is a national index of criminally recorded persons, intervention order subjects and shooter's licence-holders. The NNI is available through the LEAP database for Victorian Police members. However, it is only an index, and detailed information has to be obtained from the relevant jurisdiction. The Victorian Police Records Services Branch has online access to the New South Wales Police Criminal Records, Inquiries and Correspondence Section. Similar access is being negotiated with the South Australian Police Department.[197]

7.42 More recently, a national firearms system has been established by feeding off the various jurisdictional firearms databases into a national index. A national vehicle system is under development by Austroads to create a national exchange of vehicle and driver information. This will have a national index of car registrations and driver licences. Victoria Police is keen to access this national information so a person from interstate can be checked in Victoria and the best information available about a person can be available to a policeman on the street. Some of the important applications for such a system are, for instance, the Sydney 2000 Olympics, when many people will be moving across Australia.[198]

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195 See P McDonald, *Minutes of Evidence*, 26 Nov. 1998, p. 312.

196 See P Donelly, *Minutes of Evidence*, 26 Nov. 1998, p. 300.

197 ibid.

198 See P McDonald, *Minutes of Evidence*, 26 Nov. 1998, p. 312

CrimTrac

7.43 During the federal election campaign the Federal Government announced an initiative to spend up to $50 million on a national law enforcement system called 'CrimTrac'.[199] CrimTrac will incorporate:[200]

(a) replacement of the National Automated Fingerprint Identification System with an enhanced system incorporating live scan fingerprinting capabilities;

(b) establishment of a national DNA database, which will be able to store and match DNA samples from convicted criminals and samples from crime scenes;[201]

(c) establishment of a new national register of child sex offenders;

(d) real time access through an integrated information exchange to national operational policing data including:

(i) apprehended and domestic violence orders,

(ii) person warnings,

(iii) charged persons,

(iv) facial features and images,

(v) distinguishing features,

(vi) court notices and orders,

(vii) persons of interest,

(viii) firearms register,

(ix) vehicles of interest and driver information,

(x) missing persons, and

(xi) integrated public number database;

(e) exchange between jurisdictions of all law enforcement information pertinent to CrimTrac in a quick, accurate and standardised way. Operational police require access to consolidated operational policing data

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199 Australia, The Liberal Party of Australia, Coalition Policies [for the 1998 federal election], *Law and Justice Policy*, http://www.liberal.org.au/ARCHIVES/election98/policy/law/law.html. See also, Australia, Minister for Justice and Customs (Senator the Hon. A Vanstone), 'CrimTrac—Using Technology to Fight Crime', *Media Release*, 16 Sept. 1998, http://law.gov.au/aghome/agnews/1998newsjus/97_98.htm; and Australia, Minister for Justice and Customs, 'The Most Important Law Enforcement Initiative Since Federation—CrimTrac', *Media Release*, 23 Sept. 1998, http://law.gov.au/aghome/agnews/1998newsjus/105_98.htm.

200 Australia, Attorney-General's Department, *CrimTrac—Request for Information*, 22 Dec. 1998, p. 3, available at http://law.gov.au/crimtrac/welcome.htm (hereafter *CrimTrac RFI*).

201 See further, S. Bushell, 'Government Goes Ahead with Plan to Implement DNA Database', *Computer World*, 26 Nov. 1998.

relevant to investigations, regardless of where the information is collected and stored;

(f) alignment of policy and legislation between jurisdictions to allow maximum benefits to accrue from CrimTrac;

(g) relevant national applications and standards that are developed, supported and implemented by all jurisdictions;

(h) a state of the art technical architecture utilising emerging technologies, agreed to and supported by all jurisdictions and capable of supporting policing systems in the next century;

(i) capacity to migrate state operational files and systems in stages (for example, when an existing State system is due for replacement) to national files and systems; and

(j) cost-effective operation of CrimTrac.

7.44 At the Australasian Police Ministers Council meeting held in Auckland on 17 November 1998, all States and Territories gave their backing to the project and established a steering committee and a central project office.[202] A request for information (RFI) was released to industry on 22 December 1998—responses were due by 1 February 1999.[203] The RFI is intended to 'seek innovative responses from industry and other interested parties about the technology and services available to initiate and support' CrimTrac.[204] At the time of adoption of this report, the responses to the RFI are being assessed to determine the ability to develop and operate CrimTrac. Recommendations will then be made to the project steering committee on the next phase of the project. CrimTrac has received a budget allocation of $20 million in the 1999–2000 federal budget handed down on 11 May 1999.[205]

Conclusion

7.45 The Committee accepts that much has been achieved in the use of modern technologies to support the prosecutorial function of the State. CrimTrac in particular has the potential to revolutionise policing in this country. However, the Committee believes that there needs to be a more cooperative approach to technology by the whole legal profession—prosecutors and defence lawyers alike.

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202 Australia, Minister for Justice and Customs (Senator the Hon. A Vanstone), 'CrimTrac—Using Technology to Fight Crime', *Media Release*, 16 Sept. 1998. See also, Australia, Minister for Justice and Customs, 'CrimTrac Wins National Support', *Media Release*, 17 Nov. 1998.

203 *CrimTrac RFI*, p. 6.

204 *CrimTrac RFI*, p. 1.

205 See http://www.treasury.gov.au/publications/CommonwealthBudget/1999-2000/bp1/bs5/bs5.html#Attorney-General's

Recommendation 22

The Government should encourage the Office of Public Prosecutions, Victoria Legal Aid, the Victorian Bar and the Law Institute of Victoria to cooperate in the sharing of software and information so as to ensure the efficient use of new technologies in decision making.

8 ELECTRONIC COMMERCE: SECURITY AND PRIVACY ISSUES

> Whereas data-processing systems are designed to serve man…they must, whatever the nationality or residence of natural persons, respect their fundamental rights and freedoms, notably the right to privacy, and contribute to economic and social progress, trade expansion and the well-being of individuals.[206]
>
> In developing regulatory and policy frameworks for electronic commerce, Australia has punched above its weight internationally.[207]

Introduction

8.1 In undertaking the present review of technology and the law, the Committee's Terms of Reference require it to have regard to two pieces of proposed Victorian legislation—the Electronic Commerce Framework Bill and the Data Protection Bill.[208] The relevance of these bills to the present Inquiry is their facilitation of electronic commerce ('e-commerce'). As the New Zealand Law Commission recently noted, 'business benefits are to be gained by trading through electronic, rather than paper-based, means'.[209] These business benefits include: lower information transfer costs, lower procurement costs, product customisation, the ability to conduct business over long distances with ease and increased operational efficiency.

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206 European Union, Legislation in Force, 395L0046, *Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data*, Official Journal No. L 281, 23/11/1995 P. 0031–0050, preamble cl. 2, http://europa.eu.int/eur-lex/en/lif/dat/en_395L0046.html.

207 Ira Magaziner, until recently President Clinton's special adviser on electronic commerce. Quoted in Hon. Daryl Williams, Commonwealth Attorney-General, *Speech by the Attorney-General to Australian Information Industry Association on Electronic Transactions Bill, privacy and digital agenda reforms*, speech delivered at the Taronga Centre, Mosman, Sydney on 14 Dec. 1998, para. 83.

208 *Victoria Government Gazette*, G 38, 25 Sept. 1997, p. 2713. The Data Protection Bill Discussion Paper (including the draft Bill) and the Electronic Commerce Framework Bill Discussion paper (including the draft Bill) are available via the Internet at http://www.mmv.vic.gov.au (under 'publications').

209 New Zealand, Law Commission, *Electronic Commerce Part One: A Guide for the Legal and Business Community*, NZLC R50, Law Commission, Wellington, 1998, p. xiii.

8.2 Similar benefits will apply to the delivery of legal services, particularly in the areas of online service delivery, electronic document lodgement and online access to legal information. In this context, the Committee notes the Victorian Government's goal to have all appropriate State of Victoria services and information available '*online, all the time, by 2001*'.[210]

8.3 The main legal issues that arise in electronic commerce relate to identity and the security and privacy of electronically transmitted and stored information. These issues include how to:

(a) ensure that a person who purports to electronically sign and/or lodge a document is in fact the person who signed and/or lodged the document;

(b) ensure that the document sent by a person is received and stored in the same form in which it was sent;

(c) prevent unauthorised access to documents during transmission and once stored.

The proposed Electronic Commerce Framework Bill seeks to address these issues by establishing a safe and secure legislative framework for the conduct of e-commerce. The proposed Data Protection Bill addresses privacy issues in the context of unauthorised access to and misuse of electronically stored data.

8.4 This chapter examines these proposed legislative initiatives in the context of the Committee's vision for an integrated electronically enabled civil and criminal justice system and discusses recent Commonwealth Government initiatives in that context.

Security Issues

8.5 The risks of conducting business electronically are mainly associated with issues concerning 'identifying parties and the ability of parties to deny transactions' and 'other issues [including] invasion of privacy and loss of confidentiality of communications'.[211]

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210 See, Victoria, Department of State Development, Multimedia Victoria, *Victoria: A Global Centre for the Information Age*, p. 8; Victoria, Department of State Development, Multimedia Victoria, *Delivering Government Services Online*, 2 Apr. 1998, http://www.mmv.vic.gov.au (under 'Government'); Victoria, Department of State Development, Multimedia Victoria, *Online Government 2001: From Vision to Reality*, 6 May 1998, http://www.mmv.vic.gov.au (under 'Government').

211 ibid.

8.6 Consequently, it is important that there is some method by which the author of an electronic document can be reliably ascertained or verified. This can be achieved through the use of electronic signatures and biometric identifiers.[212] The Committee recognises that the concept of electronic signatures may be only an intermediate phase as more sophisticated methods of identification will be developed. Moreover, for an electronic document to be relied upon as authentic, it is essential to be able to demonstrate with a high degree of certainty that a document has not been tampered with or altered in some way.[213] This is particularly important for the electronic lodgement of court documents.

Victorian Government Initiatives

8.7 In addressing these issues, the Victorian Government has drafted a proposed Electronic Commerce Framework Bill and circulated it for comment.[214] The bill was developed by the Electronic Commerce Framework Group[215] within Multimedia Victoria, which was chaired by Mr. Victor Perton MP, the Chairman of this Committee. The bill aims to:

(a) provide legislative recognition of electronic signatures in order to promote and encourage electronic commerce;

(b) encourage the development of industry codes of practice in relation to electronic commerce; and

(c) address issues of computer crime.[216]

The bill is based on international best practice in the regulation of e-commerce including principles expounded by the United Nations Commission on International

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212 See e.g., the Association for Biometrics (UK) web site at http://www.afb.org.uk/ and the Hursley Services & Technology Division of IBM web site at http://www.hursley.ibm.com/~cep/external/innovate.html.

213 See generally, R. Bond, 'International Legal Issues of E-Commerce', in Faegre & Benson LLP, *Legal Updates*, Dec. 1998, pp. 12–16, http://www.faegre.com/firm_article.asp?id=204.

214 Victoria, Department of State Development, Multimedia Victoria, *Discussion Paper—Promoting Electronic Business: Electronic Commerce Framework Bill*, Jul. 1998. See also, Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998 both available on the Multimedia Victoria web site at http://www.mmv.vic.gov.au.

215 The members of the Electronic Commerce Framework Group were: Victor Perton MP; Dr Bronte Adams; Professor Mark Armstrong; Oliver Barrett; Alan Chapple; Robert Kirby; Adam Lewis; Susan Oliver, Robert Crompton, John Rimmer, Randall Straw, Professor Mark Sneddon, Jo-anne Fisher, Bridget Bainbridge.

216 Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, p. iii.

Trade Law[217] and the policies espoused by OECD member states including, Canada and the United States.[218]

8.8 Security of data needs to be addressed at all levels—organisational, governmental and international. So far as organisations are concerned, the implementation of network security, such as access controls and firewalls, and the encryption of data stored and exchanged, are vital to the integrity of an electronic legal system.[219] But beyond the organisational level, there is a need for governments to establish a safe environment for the storage and exchange of data. This can be achieved to a large extent by the use of electronic signatures issued through a 'trusted third party' or certification authority. This method 'is widely acknowledged by governments and the private sector as a cornerstone of trust in electronic commerce'.[220]

What is a Digital Signature?

8.9 In general terms, a certification authority will issue each party to a transaction with a digital private key and a digital public key. These keys are based on asymmetric cryptography whereby a unique number is created by a mathematical security algorithm.[221] The contractual documents may specify the certifying authority to be used. A party electronically transmitting a document will double encrypt the document using his or her private key and the recipient's public key. The party receiving the document will be in possession of his or her private key and the transmitting party's public key. If the document is authentic and has not been tampered with, the recipient's private key and the transmitting party's public key will 'unlock' the document and therefore authenticate both the identity of the sender and the integrity of the document. Otherwise, the document will be a meaningless

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217 See, United Nations, Commission on International Trade Law, *Model Law on Electronic Commerce with Guide to Enactment*, 1996 (with addition of article 5 bis as adopted in 1998), http://www.un.or.at/uncitral/english/texts/electcom/ml-ec.htm. See also, United Nations, Commission on International Trade Law, Working Group on Electronic Commerce, Thirty-fourth session, Vienna, 8–19 Feb. 1999, *Draft Uniform Rules on Electronic Signatures* (with 'Note by Secretariat'), http://www.un.or.at/uncitral/english/sessions/wg_ec/wp-79.htm.

218 Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, p. iii. See e.g., Canada, Uniform Law Conference, *Electronic Commerce—Overview*, by M. Power, J. Remsu & J. Gregory, http://www.law.ualberta.ca/alri/ulc/current/eee98il.htm; Canada, Uniform Law Conference, *Uniform Electronic Commerce Act*, (March 1999 draft), http://www.law.ualberta.ca/alri/ulc/acts/eueca.htm; United States, The White House, *A Framework for Global Electronic Commerce*, 1 Jul. 1997, http://www.whitehouse.gov/WH/New/Commerce.

219 See Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, p. iii.

220 ibid.

221 See R. Straw, *Minutes of Evidence*, 26 Nov. 1998, p. 373.

jumble of characters. In Australia the accounting firm KPMG Australia and the credit agency Dunn and Bradstreet jointly offer these services.[222] Australia Post until recently also offered this service through 'KeyPOST', but has withdrawn from the market.[223] Internationally, these services are provided by a number of organisations including Bureau Veritas Quality International (headquartered in the United Kingdom and with offices in 45 countries),[224] Det Norske Veritas (headquartered in Norway and has 300 offices in 100 countries)[225] and Lloyd's Register of the United Kingdom.[226]

8.10 Owing to the fact that technology is advancing at a very rapid rate, there is widespread concern that a form of encryption that is one hundred percent safe today, may become no obstacle to hackers of tomorrow. Although the Committee recognises that this is a problem for paper-based documents also, the implications of this for the long-term electronic storage of documents cannot be overstated. One way of protecting the integrity of stored documents is to use a program which constantly 'relocks' the data using the latest technology—in a manner somewhat akin to a virus scanner. This will be effective as long as the other party to the transaction does the same. Both copies of a contract will remain in their original condition. However, if there is a dispute regarding the terms and conditions of an electronically executed contract, each party is capable of producing a different version. It may be possible for an expert to ascertain which is the authentic version, but alternatively it may not, particularly if the contract was 'written' using obsolete technology.

8.11 Accordingly, there is a role for an organisation that would be a repository for authentic copies of commercial documents. Such an organisation would need to be above reproach, have extremely long-term viability and very large computer storage facilities. The Committee believes that there is a role for the Victorian Government in providing such a 'trusted third party' registry and storage facility on a fee for service basis, at least in the early stages of the development of the information economy. A substantial Victoria Government electronic registry system presently operates in the Land Registry and the Public Records Office of Victoria has recently published its important report on the *Victorian Electronic Records Strategy*, establishing international standards for the long-term storage of electronic records.[227] The Committee believes that such a Government service could significantly assist the process of attracting

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222 See http://www.kpmg.com.au/certauth.html.

223 See http://www.auspost.com.au/keypost.

224 See http://www.bvqi.com.

225 See http://www.dnv.com.

226 See http://www.lr.org/index.html.

227 See http://home.vicnet.net.au/~provic/vers/final.htm.

electronic commerce to Victoria. A condition of use of the registry might be that the contract be subject to Victorian law. Thus, if the registry became internationally renowned for its security and reliability, it could also be a boost to the legal services industry because Victorian law would become 'the law of the contract' in many international contracts, thereby vesting Victorian courts with jurisdiction.

Recommendation 23

The Victorian Government should investigate the possibility of establishing a fee for service secure electronic document registry and storage facility for use by private organisations worldwide.

8.12 Under the proposed Electronic Commerce Framework Bill, an 'electronic signature' is applied to a document by a person to authenticate the document and to acknowledge that it is being signed.[228] Subject to some exclusions,[229] an electronic signature may be used and is effective for any purpose for which a signature is required or permitted by law.[230]

8.13 Subject to the same exclusions,[231] the bill also makes writing in electronic form effective for all purposes, provided 'the electronic form is such as to permit retention of the writing for subsequent reference'.[232] To come within this provision, an electronic document must be such as to permit 'reproduction of the document at any time as it existed when used for the relevant purpose'.[233] This raises the issue noted above of the need to store documents in a tamper-proof manner over lengthy periods of time.

8.14 Under the bill, documents may be effectively 'delivered' electronically. There are detailed provisions as to when a document is deemed to have been sent and received.[234]

8.15 The provisions of the bill do not apply to certain classes of documents including: testamentary instruments, trust deeds, powers of attorney, documents requiring personal service, affidavits and other sworn documents, or documents

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228 'Electronic Commerce Framework Proposals', cl. 3 in Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, p. 2.

229 See ibid., cl. 8.

230 ibid., cl. 5.

231 See ibid., cl. 8.

232 ibid., cl. 6, particularly sub-cl. (2).

233 ibid., cl. 6(3)(b).

234 ibid., cl. 7.

required for the creation or transmission of interests in real property.[235] The view has been expressed that the community is not yet ready for electronic documents in these categories. At this stage, the bill does not extend to documents required or permitted under a law 'regulating the practice or procedure of a court or tribunal'.[236] Consequently, court documents are presently excluded from the operation of the proposed bill, however, once courts and are able to properly handle the receipt and storage of electronically written, signed and delivered documents, it is probable that this exclusion would be removed.

8.16 The bill provides further for the Minister responsible for the legislation to approve:[237]

> any organisation or code of practice that the Minister considers can provide guidance to participants in electronic commerce or facilitate electronic commerce.

This is consistent with the Victorian Government's expressed policy, which is to:[238]

> allow the private sector to lead in the implementation of public key technology, and to create an environment in which information industries can flourish. The Victorian Government through Multimedia Victoria will provide light-handed encouragement of online authentication, by projects such as ESRB [Electronic Signature Recognition Body],[239] in conjunction with education, access and networking programs.

8.17 Finally, the bill introduces a number of new offences relating to computers into the *Crimes Act 1958* (Vic.), including 'unlawful access to data in a computer' and 'damaging data in a computer'. Both offences can incur a maximum penalty of ten years imprisonment.

8.18 The Committee understands that the bill is in its final drafting stages, and may be introduced into State Parliament during 1999.

Commonwealth Government Initiatives

8.19 Although the Victorian Government has vigorously pursued the need for a State legislative framework for electronic commerce, it 'strongly supports the establishment of an appropriate regulatory framework at a national level by

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235 ibid., cl. 8(1).

236 ibid., cl. 8(1)(c).

237 ibid., cl. 9.

238 ibid., p. v.

239 The Electronic Signature Recognition Body would be a private company established by Multimedia Victoria to 'facilitate, promote and encourage the uptake of appropriate electronic signature technologies (see ibid., p. iv).

monitoring industry developments and supporting suitable federal initiatives'.[240] Indeed, the federal Attorney-General has said that 'all [Australian] Governments, through their involvement with the Online Council, have expressed their strong desire to rapidly and effectively develop the information economy in Australia'.[241] The Standing Committee of Attorneys-General has recognised also 'the need for swift, cooperative and uniform action to encourage the information economy in Australia to grow'.[242]

8.20 As part of a partnership between all Australian governments, the Commonwealth has developed a proposal for a national uniform legislative scheme. The scheme requires all governments to enact legislation within their jurisdiction to facilitate the removal of existing legal impediments to electronic commerce. 'It is the Commonwealth's expectation that the State and Territory legislation will mirror the Electronic Transactions Bill, which is the first component of the national scheme.'[243] However, while it is part of the national scheme, the Commonwealth's bill will operate independently of legislation in other jurisdictions and will take effect immediately from its commencement.[244]

Draft Electronic Transactions Bill 1999

8.21 At a meeting in October 1998 of the Standing Committee of Attorneys-General, the Ministers for the States and Territories agreed in principle to a proposal put forward by the federal Attorney-General that 'the Commonwealth proceed to develop uniform legislation to remove legal obstacles to electronic commerce'.[245]

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240 See Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, p. vi.

241 Hon. Daryl Williams, Attorney-General, 'Labour Misguided on E-Commerce', *News Release*, 2 Feb. 1999, http://law.gov.au/aghome/agnews/1999newsag/520_99.htm. See also, Australia, Online Council, 'Joint Media Statement', 19 Nov. 1998, http://www.dcita.gov.au/nsapi-text/?MIval=dca_dispdoc&ID=3354. The Online Council is a forum where senior Ministers from State, Territory and local governments meet twice a year to discuss policy issues related to the information economy. Secretarial support for the Council is provided by the National Office for the Information Economy (NOIE).

242 Hon. Daryl Williams, Attorney-General, 'Encouraging Growth in Electronic Commerce', *News Release*, 28 Jan. 1999, http://law.gov.au/aghome/agnews/1999newsag/515b–99.htm.

243 Australia, Attorney-General's Department, *Explanatory Paper: Draft Electronic Transactions Bill 1999*, Jan. 1999 (hereafter *Explanatory Paper*), p. 2. See also the attached draft Electronic Transactions Bill 1999 (Cth) (hereafter *Draft Bill*). Both are http://www.law.gov.au/ecommerce/interim2.html.

244 *Explanatory Paper*, p. 2.

245 See Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, p. vi. See also, Hon. Daryl Williams, Attorney-General, 'Agreement on National Laws for Electronic Commerce', *News Release*, 30 Oct. 1998, http://law.
gov.au/aghome/agnews/1998newsag/478a_98.htm.

Subsequently, in January 1999, the Commonwealth Attorney-General launched an exposure draft Electronic Transactions Bill together with an explanatory paper.

8.22 The Electronic Transactions Bill meets the Prime Minister's commitment 'to develop a light-handed regulatory framework for the online environment to support and encourage business and consumer confidence'.[246] The federal Attorney-General has commented that:[247]

> This legislation is not intended to be internet regulation as such, and it should not be seen as restrictive. Rather, the legislation aims to remove existing impediments to electronic commerce. It is permissive in its approach and encourages the opening of new vistas for commerce.

8.23 The bill is part of the Commonwealth Government's strategic framework for the development of the information economy in Australia. It will apply to all Commonwealth law—legal requirements under State and Territory law being left to their respective legislatures to enact complementary legislation.[248] It aims to encourage the development of the information economy and in particular the use in commerce of electronic communications. The bill will provide a mechanism for business and the community to voluntarily choose electronic communications when dealing with Commonwealth Government agencies.[249]

8.24 Moreover, the bill is intended to facilitate the development of electronic commerce in Australia by removing a number of existing legal impediments to the use of electronic communications. It will put electronic documents and paper-based documents on the same legal footing, in the sense that electronic documents shall not be discriminated against merely because they are in electronic form. Moreover, the bill does not discriminate between different forms of technology.[250] However, electronic communications can only satisfy legal requirements if they comply with certain specified criteria designed to ensure that the electronic communications are accessible, reliable and maintain the integrity of the information communicated.[251] It should be emphasised that the provisions of the bill are not intended to alter existing

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246 D Williams, *Speech by the Attorney-General to Australian Information Industry Association on Electronic Transactions Bill, privacy and digital agenda reforms*, delivered at the Taronga Centre, Mosman, Sydney on 14 Dec. 1998, para. 21, http://www.law.gov.au/ministers/attorney-general/articles/AusInfInd.html. The Prime Minister's commitment was made in: J. Howard, 'Investing for growth: The Howard government's plan for Australian industry', p. xi & Chapter 8, p. 1, http://www.dist.gov.au/growth/html/infoage.html.

247 D. Williams, ibid., para. 22.

248 ibid., para. 35.

249 *Explanatory Paper*, p. 1.

250 ibid.

251 ibid., p. 2.

legal rights or obligations. Instead, they are designed to allow compliance with existing legal requirements by electronic means.[252]

8.25 Like its Victorian counterpart, the Commonwealth draft bill is based on the Model Law on Electronic Commerce prepared by the United Nations Commission on International Trade Law (UNCITRAL), with some modifications recommended by the Federal Government's Electronic Commerce Expert Group.[253] It is intended that the bill be introduced in two stages. Prior to 1 July 2001, it will only apply to Commonwealth laws specified in regulations. After that date, the bill will apply to all laws of the Commonwealth, unless they have been specifically excluded from its application.[254]

8.26 The bill is based on two fundamental principles—technology neutrality and media neutrality (or functional equivalence). 'Technology neutrality' ensures that the law does not discriminate between different forms of technology. 'Media neutrality' means that paper-based commerce and electronic commerce should be treated equally by the law.[255] Consistent with the principle of technology neutrality, the bill does not contain a detailed electronic signature regime, because most electronic signature schemes are technology specific.[256]

8.27 In general, the bill provides that any existing requirements under a law of the Commonwealth for writing,[257] signature,[258] the production of documents,[259] and the recording[260] and retention of information[261] can be satisfied by the use of an electronic communication containing the required information, subject to the electronic communication complying with certain specified criteria. Firstly, the method of

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252 D Williams, *Speech by the Attorney-General to Australian Information Industry Association on Electronic Transactions Bill, privacy and digital agenda reforms*, delivered at the Taronga Centre, Mosman, Sydney on 14 Dec. 1998, para. 40, http://www.law.gov.au/ministers/attorney-general/articles/AusInfInd.html.

253 ibid., para. 29. The UNCITRAL Model Law on Electronic Commerce is http://www.un.or.at/uncitral/english/texts/electcom/ml-ec.htm. The Report of the Federal Government's Electronic Commerce Expert Group entitled *Electronic Commerce: Building the Legal framework, Report of the Electronic Expert Group to the Attorney-General*, 31 Mar. 1998 is http://law.gov.au/aghome/advisory/eceg/ecegreport.html.

254 *Explanatory Paper*, p. 2.

255 D Williams, *Speech by the Attorney-General to Australian Information Industry Association on Electronic Transactions Bill, privacy and digital agenda reforms*, delivered at the Taronga Centre, Mosman, Sydney on 14 Dec. 1998, para. 30, http://www.law.gov.au/ministers/attorney-general/articles/AusInfInd.html.

256 ibid., para. 31.

257 *Draft Bill*, cl. 9.

258 *Draft Bill*, cl. 10.

259 *Draft Bill*, cl. 11.

260 *Draft Bill*, cl. 12(1).

261 *Draft Bill*, cl. 12(2).

communicating or generating the information must provide a reasonable means of assuring the maintenance of the integrity of the information contained in the document.[262]Also, the information must be readily accessible so as to be useable for subsequent reference.[263] There is also a requirement that the information comply with particular software or electronic communication specifications,[264] and a requirement that particular action be taken by way of verifying the receipt of the information.[265]

8.28 So far as electronic signatures are concerned, the method a person uses to satisfy the requirement must both identify the person and signify their approval of the contents of the electronic communication.[266] It should be noted that, although some signature technologies, such as digital signatures, will by the nature of the way they operate also verify the integrity of the communication, the signature method specified in the bill is not required to verify the integrity of the communication.[267]

8.29 The term 'law of the Commonwealth' is not defined in the bill, but is intended to be read in its broadest sense as including all laws of the Commonwealth, whether they are made by or under a statute or derive from the common law or rules of equity.[268] A transitional provision provides that before 1 July 2001 'law of the Commonwealth' means 'a law of the Commonwealth specified in the regulations'.[269]

8.30 The bill also sets out default rules intended to operate in the absence of any agreement between the parties to a transaction.[270] These rules deal with the time and place of dispatch and receipt of electronic communications,[271] and the attribution of electronic communications.[272] Specified transactions and/or laws of the Commonwealth can be exempted from the operation of the Act by regulation.[273] Importantly for the purposes of the present Inquiry, Rules of Court made under a law of the Commonwealth may provide that the provisions of the bill do not apply to requirements or permissions that arise under those rules or in connection with the procedures of the courts concerned.[274]

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262 *Draft Bill*, cll. 11(1)(a) & 11(3); 12(2)(a) & 12(3).

263 *Draft Bill*, cll. 9(1)(a); 11(1)(b); 12(1) & 12(2)(b).

264 *Draft Bill*, cll. 9(1)(b); 11(1)(c).

265 *Draft Bill*, cll. 9(1)(c); 11(1)(d).

266 *Draft Bill*, cl. 10(a).

267 *Explanatory Paper*, p. 10.

268 *Explanatory Paper*, p. 5.

269 *Draft Bill*, cl. 5(2).

270 *Draft Bill*, cl. 8.

271 *Draft Bill*, cl. 14.

272 *Draft Bill*, cl. 15.

273 See e.g., *Draft Bill*, cll. 8(3) & (4) & 13.

274 *Draft Bill*, cl. 13(4) & (5).

Recommendation 24

The Victorian Government should continue to support the establishment of an appropriate regulatory framework for electronic commerce at a national level by monitoring industry developments and encouraging acceptable federal initiatives.

Commonwealth Government Public Key Authority

8.31 The Commonwealth Government has established its own peak body known as the Government Public Key Authority (GPKA) for authentication requirements within government and with government clients. The GPKA is responsible for overseeing the use of public and private key technology in government, the application of standards and the evaluation of authentication technologies and service providers.[275] It has established a number of working groups which are considering a wide range of issues including: interoperability of computer systems,[276] privacy issues, confidentiality, non-repudiation of electronic transactions, integrity, ease of use, marketability and archiving of electronic documents, security requirements and technical standards.[277]

Recommendation 25

The Victorian Government should establish a whole of government body to facilitate and control public key technology within and between Victorian government agencies and between those agencies, their clients and their service providers.

National Authentication Authority

8.32 The National Office for the Information Economy (NOIE) released a discussion paper in August 1998 containing a proposal for a National Authentication Authority (NAA).[278] NOIE is the Australian Government body responsible for developing strategies to address the key issues arising from the convergence of the information

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275 The GPKA web site is located at http://www.gpka.gov.au.

276 The ability of computer systems to exchange and make use of information.

277 See Australia, Department of Communications, Information Technology and the Arts, Office of Government Information Technology, *GATEKEEPER: A Strategy for Public Key Technology Use in Government*, http://www.ogit.gov.au/gatekeeper/pub/GATEKEEPER.pdf.

278 Australia, Department of Communications, Information Technology and the Arts, National Office for the Information Economy, *Establishment of a National Authentication Authority: A Discussion Paper*, 19 Aug. 1998 (hereafter *NAA Paper*), p. 4, http://www.noie.gov.au/docs/naadp.htm.

economy, information technology and telecommunications.[279] The Committee understands that the NAA proposal is currently awaiting federal cabinet approval.[280]

8.33 The NAA would be created to 'facilitate the uptake of authentication and electronic commerce technologies by increasing consumer and business confidence in their use'.[281] Many of the functions proposed for the NAA are similar to those planned for Multimedia Victorian's Electronic Signature Recognition Body.[282] The NAA would aim to reassure consumers and industry of the safety of documents by:

(a) according a 'quality label'[283] to best practice organisations and systems;

(b) endorsing industry developed codes of practice;

(c) recognising relevant industry standards; and

(d) raising awareness of authentication technologies.[284]

8.34 The rationale for the creation of a NAA has been explained as follows:[285]

> the NAA would provide independent reassurance that providers of authentication services meet international best practice standards, but in a way that did not constrain the market in its search for viable technologies and business models. The incentive for businesses to have themselves and/or their systems and/or their technologies approved by the NAA would be increased user acceptance and increased marketability.

8.35 The Victorian Government is committed to the progress of the Electronic Signature Recognition Body in the absence of any suitable national model, but is prepared to modify its proposals as necessary in order to achieve national uniformity.[286] At the time of writing, the Committee understands that a proposal for the establishment of the NAA will be brought before federal cabinet for approval in principle before the end of May 1999.

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279 The NOIE web site is located at http://www.noie.gov.au.

280 D Williams, *Speech by the Attorney-General to Australian Information Industry Association on Electronic Transactions Bill, privacy and digital agenda reforms*, delivered at the Taronga Centre, Mosman, Sydney on 14 Dec. 1998, para. 34 http://www.law.gov.au/ministers/attorney-general/articles/AusInfInd.html.

281 *NAA Paper*, p. 6.

282 Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, p. vi.

283 The Victorian proposal uses the term 'trust mark'.

284 National Office for the Information Economy, op. cit., p. 7.

285 ibid.

286 Victoria, Department of State Development, Multimedia Victoria, ibid.

Privacy Issues

8.36 Privacy issues are crucial in the development of electronic commerce. They have become even more crucial as a result of modern techniques of data storage and 'data mining'. In a speech in October 1998,[287] the Chairman of the Committee said:

> Today's technologies have already led to the storage of vast quantities of data related to us as consumers, taxpayers and web-users. The challenge of the Information Age is that with almost every transaction we leave a data trail which provides a detailed electronic record of our personal history and preferences. The computerisation of our health, education, employment and consumer records, along with fast improving techniques for the merging of data and the application of profiling, means that frighteningly accurate psychological profiles can now be created on most of us. This information may be sent across state and national boundaries where it can be sold, reused or integrated with other databases without our knowledge or consent…Privacy and human dignity are the values at the foundation of the secret ballot (as in last Saturday's Federal election), in doctor-patient confidentiality, solicitor-client privilege, even the concept that 'my home is my castle'. The Information Revolution is challenging these very concepts that we tend to take for granted. Yet, given the right legal framework, the price of progress need not be a loss of privacy.

8.37 Privacy concerns are one of the major impediments to the take up of the online economy. The April 1998 report by Anderson Consulting, entitled *eCommerce: Our Future Today*, identified the lack of privacy laws as a significant impediment to the growth of e-commerce. The Federal Privacy Commissioner, Moira Scollay, has stated:

> One of these (impediments) is consumer concern, and producer caution, about the privacy of information transmitted across the Internet or fed into other electronic commerce systems. What will it be used for, where will it end up, what if it is incorrect or misinterpreted? Who else will have access to this information and what will they do with it?

8.38 Unauthorised access to information is a significant concern. For example, often in the course of litigation, information of a personal nature is disclosed, such as business, family or medical details. A natural concern of parties revealing such information will be to ensure that it is only used for a specific purpose and not unnecessarily disclosed or accessed. The potential for the unauthorised use of sensitive information is of increased concern where it is stored and transmitted electronically. This is due in part to the greater amount of information that is able to be stored and accessed electronically, and also to a community perception that material stored electronically is less secure than that stored in hardcopy form.

8.39 Issues of privacy also arise in the context of the electronic publication of some legal information. For example, although legal decisions and trial transcripts are in

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[287] Victor Perton, 'Privacy for Victorians', Privacy Seminar Speech for the Young Lawyers Section of the Law Institute of Victoria, 7 October 1998, http://home.vicnet.net.au/~victorp/speeches/Privacy5.html.

the public domain, the greater accessibility to these documents that technology offers may mean that personal information contained within them is more readily accessible and more widely disseminated. For example, the transcript of the evidence and cross-examination of an alleged rape victim may contain very personal and intimate details, which the victim might not want his or her next door neighbour to read on the Internet. Of course, there is nothing to prevent the curious coming into an open court and listening to the evidence. However, the practicalities of the situation are that this is a less likely scenario than people surfing the web in the privacy of their homes. The result of greater public access to sensitive information is that people may become less willing to provide it. This could have dire consequences for the administration of justice.

8.40 It is important that concerns such as these are adequately addressed in order to guarantee the integrity of any electronically facilitated legal system and to establish confidence in the reliability of the system. Without sufficient guarantees of security and a respect for the privacy of information, the development of electronic legal procedures is unlikely to be readily accepted by the legal profession and the wider community.

Ensuring the Privacy of Stored and Transmitted Data

8.41 Security and privacy issues arise in a number of contexts, including the unauthorised interception of electronically transmitted data and unauthorised access to and / or interference with electronically stored data.

Interception

8.42 In a system involving electronic document transmission and lodgement, documents may be exchanged between numerous parties and computer systems. These include transmissions between clients, legal practitioners and the court and transmissions between individuals within a legal practice or client company. Modes of document transmission may range from the exchange of floppy disks or CD Roms, transfer via a local area network or intranet, transfer via a wide area network or extranet, to transfer via the Internet.

8.43 The possibility of interception of electronic communications in the context of an electronic filing system has the potential to limit its capacity to serve those involved in legal proceedings. This is particularly so where there is the potential for the disclosure of confidential client / legal practitioner communications, which could have a significantly detrimental effect on the conduct of actual or contemplated legal

proceedings. The risk of interception also reduces confidence in the authenticity of any communication. Without sufficient safeguards, court processes could be seriously degraded.

8.44 Where communication is by the exchange of floppy disks or CD Roms, the risk of interception may be no greater than is currently the case with traditional forms of communication.[288] Where information is exchanged over a computer network, the communication is conducted over shared communication lines. This means that it is possible for an outsider to program their computer system to receive copies of messages exchanged between two parties. It is also possible for an outsider to configure their computer to emulate that of the intended recipient of a message. This would allow a third party to act as an impostor and to intercept messages intended for the recipient. The imposter could also reply to the sender in the name of the intended recipient, giving the impression that the message was properly received.[289] The proposed legislation previously discussed under 'Security Issues' goes some way towards overcoming these problems.

8.45 Even if the outsider cannot view the contents of the message, he or she may still be able to determine attributes of the communication such as the time, amount of information exchanged and the parties involved.[290] This may be significant in the context of some commercially sensitive transactions. For example, a person may be able to deduce that two companies have exchanged contracts at a particular time. This could have commercial and market implications.

Storage of Information

8.46 Currently, the courts and legal practitioners store personal information relating to legal proceedings long after the matter has been completed using a number of different media including microfiche.[291] Electronic storage increases the ease and reduces the expense of storing large amounts of information. A change from paper to electronic records requires a change in the security procedures and devices protecting stored information. As well, it is important to ensure that better storage mechanisms do not result in information being stored for longer than is actually required.

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288 Note that there may be an increased risk that any tampering with electronically stored material during transmission will not be easily detected. This concern will be addressed below.

289 RL Jones, *Client Confidentiality: A Lawyer's Duties With Regard to Internet E-Mail*, 16 Aug. 1995 http://www.gsu.edu/%7Elawppw/lawand.papers/bjones.html.

290 S Friewald, 'Uncertain Privacy: Communication Attributes After the Digital Telephony Act' (1996) 69 *S Cal LR* 949.

291 See e.g., *Legal Practice Act 1996* (Vic), s. 443(1), which requires a file to be kept for 7 years.

The Legal Framework

8.47 There are two main ways in which the law operates to ensure that information is used only for authorised purposes. The first is by imposing criminal or civil sanctions upon those who gain access to sensitive information without permission. The second is by requiring the party holding the information to ensure that it is handled in accordance with certain security and privacy standards.

Criminal and Civil Sanctions

8.48 To some extent, the deterrent effect of deeming any interceptive conduct to be a criminal offence helps to ensure the integrity of electronically communicated information. As noted earlier, such measures have been included in Victoria's proposed Electronic Commerce Framework Bill which, if enacted, amends the *Crimes Act 1958* (Vic.) to include offences such as the gaining of access to data without authorisation, with an intent to defraud, or where the offender knew or ought to have known that the data was of a sensitive nature.[292] These offences carry a maximum penalty of 10 years imprisonment.[293] These provisions are in addition to existing legislative regulation of computer crimes at both federal and state level.[294]

8.49 General law actions in trespass, breach of confidentiality, conversion, negligence and deceit may also be available against those who gain unauthorised access or cause damage to data, and provide remedies in the form of compensation for loss and damage and injunctions against further disclosure of information.[295]

8.50 While this general legal framework is no doubt of assistance, its effectiveness in protecting the privacy of electronic information is limited. In practice, the nature of computer crimes gives rise to particular problems of enforcement. Investigators face new challenges in establishing the identity of offenders, in the collection of sufficient

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292 See 'Electronic Commerce Framework Proposals', cl. 11, in Victoria, Department of State Development, Multimedia Victoria, *Electronic Commerce Framework Bill Discussion Paper*, Dec. 1998, pp. 7–10.

293 ibid.

294 See e.g. *Telecommunications (Interception) Act 1979* (Cth), s. 7(1) [offence to intercept information passing over telecommunications system]; *Crimes Act 1914* (Cth), ss. 76B, 76D [offence to gain unauthorised access to Commonwealth computers]; *Crimes Act 1958* (Vic.), s. 81(4) as amended by the *Crimes (Computers) Act 1988* (Vic) [deception includes an act directed at a computer]. The Bill, if enacted, repeals *Summary Offences Act 1966* (Vic), s 9A [offence to gain access to a computer system without authorisation].

295 See generally, New Zealand, Law Commission, op. cit., pp. 51ff.

evidence to result in a successful prosecution and in acting against offenders who are outside the legal jurisdiction.[296]

8.51 Detailed inquiry into methods for improving the effectiveness of prosecuting computer crimes is beyond the scope of this Report. As any increase in the likelihood of detection for a breach of the law may have a deterrent effect upon potential offenders, work in this area is no doubt important in increasing the security of electronic technology. However, sanctions are largely reactive in nature and, therefore, are of themselves inadequate to fully address concerns regarding the prevention of a breach of privacy in relation to electronic information. Consequently, this section will focus upon the way in which the law is able to ensure that more proactive privacy measures are adopted in an effort to prevent any unauthorised access to data.

Current Standards of Privacy

Duty of Confidentiality

8.52 There is no general right of individual privacy recognised at common law in Australia?[297] Nonetheless, some protection of information is offered in particular areas by various privileges and duties. At both general law and under section 64(c) of the *Legal Practice Act 1996* (Vic.),[298] a legal practitioner has a duty to maintain the confidences of his or her clients. In particular, confidential information imparted in circumstances giving rise to an obligation of confidence may be legally protected.[299]

8.53 This protection currently extends to most client information held by legal practitioners. Generally, information given to a court may be of a public nature. However, in certain cases the information will not be intended to be publicly disclosed. More obvious examples include applications to the court by investigating officials to intercept the telecommunications of suspects, matters involving trade secrets and information given by complainants in sexual offence cases. Should this confidential information be electronically stored or transmitted by the court, then a duty would most likely be owed to ensure that reasonable precautions were taken to ensure no persons have unauthorised access.

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296 See e.g., IJ Lloyd, 'Detecting and Prosecuting Computer Crime', *Information Technology Law*, pp. 186–196.

297 *Victoria Park Racing and Recreation Grounds Co Ltd v. Taylor* (1937) 58 CLR 479.

298 s. 64(c).

299 See e.g., *Seager v. Copydex Ltd. (No. 1)* [1967] 1 WLR 923; *Coco v. A.N. Clark (Engineers) Ltd.* [1967] 2 All ER 415.

8.54 Where there is, or is likely to be, an unauthorised use of confidential information, the court may prevent disclosure by injunctive relief, the delivery up and destruction of the information, or the compensation for any loss suffered by the plaintiff arising as a result of the breach.[300]

8.55 It remains open to question whether the interception of information communicated via email would be considered to be of a sufficiently confidential nature as to be protected by a duty of confidence. An analogy may be drawn with English and United States decisions where it has been held that parties communicating over the telephone accept the risk of their communication being intercepted.[301] However, this approach has been criticised. The New Zealand Law Commission has concluded that such communications are of a confidential nature.[302]

8.56 The Committee is aware of a recent opinion of the American Bar Association's (ABA) Standing Committee on Ethics which states that under most circumstances, a lawyer does not violate a client's confidentiality by transmitting documents via unencrypted electronic mail, 'because the mode of transmission affords a reasonable expectation of privacy from a technological and legal standpoint'.[303] According to this opinion:[304]

> The same privacy accorded U.S. and commercial mail, land-line telephonic transmissions, and facsimiles applies to Internet e-mail. A lawyer should consult with the client and follow her instructions, however, as to the mode of transmitting highly sensitive information relating to the client's representation.

While mail can be lost or stolen and telephone conversations may be overheard by wiretap or eavesdropping, both provide reasonable expectations of privacy the ABA committee said. The ABA committee did not address the issue of the use of cellular or cordless phones.[305]

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300 It is open to question whether the plaintiff must also show that they suffer detriment due to the unauthorised use of the information. While proof of detriment was required in *Coco v. A.N. Clark (Engineers) Ltd.* [1967] 2 All ER 415 and assumed to be required in *Commonwealth v. Fairfax* (1980) 147 CLR 39 per Mason CJ, the requirement of actual pecuniary loss was doubted by Lord Goff in *Attorney-General v. Observer Ltd.* [1990] 1 AC 109.

301 *Malone v. Metropolitan Police Commissioner* [1979] Ch 344; *Edwards v. Bardwell* 632 F Supp 584 (MD La 1986).

302 New Zealand, Law Commission, op. cit., para. 166. See also *Francome v. Mirror Group Newspapers Ltd.* [1984] 1 WLR 892, 895 per Sir John Donaldson MR; Meagher, Gummow and Lehane, *Equity Doctrines and Remedies*, 3rd ed., Butterworths, Sydney, 1992, para. 4109.

303 American Bar Association, Standing Committee on Ethics and Professional Responsibility, Formal Opinion No. 99-413 March 10, 1999, 'Protecting the Confidentiality of Unencrypted E-Mail', 'Headnote Summary' http://www.abanet.org/cpr/ethicopinions.html.

304 ibid.

305 See B Sandburg, 'Bar Says E-Mail OK for Transmissions', *LAW NEWS NETWORK .com*, 28 Apr. 1999, American Lawyer Media, http://www.lawnewsnet.com (under 'Archive').

8.57 Nonetheless, given the uncertainty of the law in this area, and the growing ease with which email communications can be intercepted, it is likely that some measures should be taken by the parties to the communication to prevent interception so as to ensure the communication remains confidential. Should legal practitioners or the courts fail to maintain the confidential nature of information they hold they may be in breach of a duty of confidence owed to the party providing the information.

Legal Professional Privilege

8.58 The privacy of many communications between legal practitioners and clients, as well as documents relating to a proceeding, are protected by the doctrine of legal professional privilege.[306] The privilege covers a narrower field of information than a duty of confidence. Generally, communications for both the sole purpose of legal advice and relating to a legal proceeding are protected from demands of disclosure (with some limited exceptions).[307]

8.59 Clearly, the loss of legal privilege would be of significant detriment to anyone appearing before a court. A case may be severely undermined if, for example, communications between the solicitor and client which reveal the weaknesses of the party's position could be accessed by the opposing side and tendered as evidence before the court. Increasing the likelihood that legal privilege may be lost could result in reluctance on the part of clients to be frank with their legal representatives and thereby affect access to and the effectiveness of the legal system.

8.60 Legal professional privilege only extends to the protection of confidential information.[308] As discussed above in relation to confidentially, it is likely that communication of information via unprotected email, or otherwise unprotected information, would be inconsistent with any later claim that the information was of a confidential nature.[309] While the law in the area is uncertain, clearly it would be prudent to ensure that legal practitioners adopt a reasonable standard of security and privacy so as to ensure the legal privilege of client information.

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306 *Baker v. Campbell* (1983) 153 CLR 52.

307 e.g. communications made in the furtherance of a crime or a fraud are not protected (*R. v. Cox and Railton* (1884) 14 QBD 153.

308 S Colbran, et al, *Civil Procedure: Commentary and Materials*, Butterworths, Sydney, 1998, para. 11.5.6.

309 See Part 2.3.2.1

Negligence

8.61 Legal practitioners, having a clear duty of care to act in the best interests of their client, may also be liable for damage resulting from any loss of privilege or confidentiality arising from their negligent conduct.[310] It is even possible that a failure to implement reasonable security measures to protect the privacy of electronic communications may be held by the courts to constitute negligent conduct.[311] When assessing whether or not an allegation of negligence is made out, courts will take into account current industry practice.[312] Clearly, increased use and availability of precautionary measures in relation to the handling of sensitive information would make it increasing difficult to sustain an argument that non-adoption of reasonable precautions was not in breach of a duty of care.

The Privacy Act 1988 (Cth)

8.62 To some extent the privacy of individuals is protected by the *Privacy Act 1988* (Cth). This Act imposes legal requirements concerning the handling of information. However, at present its application is limited to the regulation of the Commonwealth Government and its agencies, credit providers and handlers of tax file numbers.[313]

Mandating Privacy Standards

8.63 A significant deficiency in the current privacy law framework is its general failure to regulate the conduct of those in the private sector that hold personal data. Moves to extend the law in this respect are fuelled by a growing concern in an apparent increase in the extent and sophistication of data warehousing and data mining technologies and data matching practices by some private companies.

International Developments

8.64 A growing number of countries[314] are adopting the 1980 OECD Privacy Guidelines in relation to data protection.[315] These guidelines regulate the conduct of

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310 For requirements for liability in negligence, see generally, *Jaench v. Coffey* (1984) CLR 549.

311 RL Jones, *Client Confidentiality: A Lawyer's Duties With Regard to Internet E-Mail*, 16 Aug. 1995 http://www.gsu.edu/%7Elawppw/lawand.papers/bjones.html.

312 Although this may not necessarily be determinative. See eg, *Rogers v. Whitaker* (1991) Aust Torts Reps 81-113

313 See s. 13.

314 e.g., EU countries, New Zealand and Hong Kong.

both the public and the private sector and prohibit the transfer of information to other countries where standards of privacy are inadequate.

8.65 In October 1998, at the OECD Ministerial level Conference held in Ottawa, Canada on 'A Borderless World: Realising the Potential of Global Electronic Commerce', OECD member countries (including Australia) issued a *Ministerial Declaration on the Protection of Privacy on Global Networks*.[316] The Declaration reaffirms that:[317]

> the technology-neutral principles of the 1980 OECD Privacy Guidelines continue to represent international consensus and guidance concerning the collection and handling of personal data in any medium, and provide a foundation for privacy protection on global networks.

8.66 The European Union also has been very active in the area of personal data protection. On 24 October 1995, the European Parliament and the Council adopted *Directive 95/46/EC on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data*.[318] The Directive entered into effect on 25 October 1998.[319] The Directive is intended:[320]

> (a) to establish a clear and stable regulatory framework to ensure:
>
> (i) a high level of protection for the privacy of individuals in all Member States; and
>
> (ii) the free movement of personal data within the European Union;
>
> (b) to facilitate the development of electronic commerce by promoting consumer confidence and minimising differences between Member States' data protection rules; and
>
> (c) to establish rules to ensure that personal data is only transferred to countries outside the EU when its continued protection is guaranteed.

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315 The Guidelines are annexed to, OECD, Council, *Recommendation of the Council Concerning Guidelines Governing the Protection of Privacy and Transborder Flows of Personal Data*, 23 Sept. 1980, http://www.oecd.org/dsti/sti/it/secur/prod/privacyguide.htm.

316 OECD, Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, Working Party on Information Security and Privacy, *Ministerial Declaration on the Protection of Privacy on Global Networks*, Ottawa, 7–9 Oct. 1998, DSTI/ICCP/REG(98)10/FINAL, http://appli1.oecd.org/olis/1998doc.nsf/linkto/dsti-iccp-reg(98)10-final.

317 ibid., p. 4.

318 European Union, Legislation in Force, 395L0046, *Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data*, Official Journal No. L 281, 23/11/1995 P. 0031–0050, http://europa.eu.int/eur-lex/en/lif/dat/en_395L0046.html (hereafter '*EU Directive*').

319 ibid., art. 32(1).

320 Victoria, Department of State Development, Multimedia Victoria, *Data Protection Bill Discussion Paper*, Dec. 1998 (hereafter *DPB Paper*), http://www.mmv.gov.au (under 'publications'), p. vi.

8.67 While the EU Directive is principally intended to facilitate cross-border flows of personal data between all those involved in a private or public capacity in economic and social activity in the Member States,[321] the Directive contains provisions relating to the transfer of personal data to 'third countries'—that is, non EU members.[322] Article 25(1) provides:[323]

> The Member States shall provide that the transfer to a third country of personal data which are undergoing processing or are intended for processing after transfer may take place only if, without prejudice to compliance with the national provisions adopted pursuant to the other provisions of this Directive, the third country in question ensures an adequate level of protection.

Other provisions of Article 25 give further definition to the concept of 'an adequate level of protection'.[324]

8.68 It is essential, therefore, that Australia makes legislative provision for the protection of personal data if it is to take full advantage of the opportunities offered by the information economy. For example, with the increase in globalisation of legal practice, personal data may be transferred between teams of lawyers around the world working on the same project.[325]

Australian Developments

Federal Privacy Commissioner's National Principles

8.69 In February 1998, the Federal Privacy Commissioner released a recommended approach to the issue of information handling.[326] The report outlines a set of *National Principles for the Fair Handling of Personal Information* (National Principles), which are in line with international standards and designed to assist the private sector in the development of their own voluntary privacy codes. This is relevant in the context of article 26 of the EU Directive, which states that even if a 'third country' has inadequate national protection for personal information, such information may be exported on a 'case-by-case' basis if a particular organisation (such as a private company) can show that it specifically has adequate measures in place to protect the privacy of personal data. When issuing the National Principles, the Privacy

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321 *EU Directive*, preamble, cl. 5.

322 ibid., art. 25.

323 ibid.

324 See particularly, ibid., Art. 25(2).

325 In fact, there is an Internet-based 'Virtual Law Firm', which links clients and attorneys worldwide using the Internet. See their web site at http://www.tvlf.com/vlf_homepage.html.

326 Australia, Office of the Privacy Commissioner, *National Principles for the Fair Handling of Personal Information*, Feb. 1998.

Commissioner noted then that they would need to be reviewed within six to twelve months in the light of discussions on implementation, and in response to any issues that arise in practice. In particular it would be necessary to review the principles relating to law enforcement functions.

8.70 Those reviews were completed late in 1998, and a number of amendments were made.[327] The law enforcement provisions were made more specific. A small number of changes were made to bring the principles more closely into line with the European Union's data protection framework. Other minor changes were introduced to clarify the meaning of particular provisions.[328]

8.71 The federal Attorney General has observed that 'the National Principles have been drafted in such a way as to be capable of application in both the conventional and electronic environments.[329]

8.72 Of particular relevance to the issue of the protection of information from unauthorised access is National Principle 4.1, which states:[330]

> An organisation should take reasonable steps to protect the personal information it holds from misuse and loss and from unauthorised access, modification or disclosure.

Additionally, the storage of information is regulated by National Principle 4.2, which states:[331]

> An organisation should take reasonable steps to destroy or permanently de-identify personal information if it is no longer needed for any purpose.

8.73 It is noted that a recent Senate Committee report has strongly criticised the National Principles as being 'a very weak and piecemeal approach to the issue of collection and protection of data'.[332] However, it is also noted that when the Senate

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327 Australia, Office of the Privacy Commissioner, *National Principles for the Fair Handling of Personal Information*, revd ed., Jan. 1999, http://www.privacy.gov.au/private/index.html.

328 ibid.

329 D Williams, *Speech by the Attorney-General to Australian Information Industry Association on Electronic Transactions Bill, privacy and digital agenda reforms*, delivered at the Taronga Centre, Mosman, Sydney on 14 Dec. 1998, para. 54, http://www.law.gov.au/ministers/attorney-general/articles/AusInfInd.html.

330 Australia, Office of the Privacy Commissioner, *National Principles for the Fair Handling of Personal Information*, revd ed., Jan. 1999, http://www.privacy.gov.au/private/index.html, p. 5.

331 ibid.

332 Australia, Parliament, Senate Legal and Constitutional References Committee, *Privacy and the Public Sector—Inquiry into Privacy Issues, including the Privacy Amendment Bill 1998*, Mar. 1999, p. iii.

Committee made its findings, it did not have the benefit of seeing the revised version of the National Principle that was released in January 1999.[333]

The Victorian Draft Data Protection Bill

8.74 In July 1998, the Victorian Government released a proposal for the development of a Data Protection Bill.[334] A draft proposed bill was circulated for public comment in December 1998.[335] The bill is based on the Commonwealth Privacy Commissioner's National Principles and was facilitated by the work of the Victorian Data Protection Advisory Council, which was chaired by Mr Victor Perton MP, the Chairman of this Committee.[336] The aim of the proposed legislation is to provide a minimum standard in relation to the handling of personal information by both the public and private sector within Victoria. The regime would also facilitate the development of industry based voluntary codes which, once approved, would regulate the practice of the particular industry.

8.75 The Victorian Government has recently observed:[337]

> Data protection primarily involves a careful balancing of two competing objectives: the first aims to inform and regulate the collection, use, storage, disclosure and quality of personal information; the second recognises that competing public interests, for example the free flow of information, may outweigh the individual's right to privacy. Without trust and confidence being established in the use of electronic services their potential use will remain just that—a potential use.

8.76 The Data Protection Bill (DPB) will protect the privacy of personal information handled by Victoria-based organisations and personal information handled in Victoria by business, State and local government and other organisations. It provides a 'light-handed legislative scheme',[338] which aims to:

(a) implement the National Principles for the Fair Handling of Personal Information, so far as legally possible, to provide a uniform balance between the protection of information privacy and the free flow of information;

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333 ibid., p. iii & Chap. 5.

334 Victoria, Department of State Development, Multimedia Victoria, *Discussion Paper: Information Privacy in Victoria: Data Protection Bill*, Jul. 1998.

335 Victoria, Department of State Development, Multimedia Victoria, *Data Protection Bill*, December 1998. http://www.mmv.vic.gov.au (under 'publications').

336 The members of the Data Protection Advisory Council were: Helen Shardey MP; Professor Ron Sacks-Davis; Dr Gordon Hughes; Dr Chris Brook; Dr Roger Clarke; Professor Greg Tucker, Dr Bridget Bainbridge and Victor Perton MP.

337 *DPB Paper*, p. iii.

338 ibid., p. vii.

(b) provide equivalent standards for the handling of personal information by both the public and the private sectors; and

(c) ensure that commercial and other exchanges of information between Victoria and entities based overseas are not improperly impeded.[339]

8.77 Part 1 of the bill contains general and definitional provisions and provides for certain exemptions from the bill's provisions, including:

(a) household or domestic collection of personal information;

(b) certain publicly available documents;

(c) the disclosure of personal information in certain circumstances by journalists;

(d) the use of non-identifying information by organisations compiling statistics or conducting other forms of research;

(e) documents subject to the *Freedom of Information Act 1982* (Vic.); and

(f) other specific exemptions in relation to law enforcement agencies.[340]

Part 1 also provides that any inconsistent provision in any other legislation will prevail,[341] and refers to arrangements with the Commonwealth regarding the role of the federal Privacy Commissioner in the Victorian scheme.[342]

8.78 Part 2 of the bill imposes obligations on companies and individuals to comply with the Information Privacy Principles (IPPs), which are set out in a schedule to the bill. These are based on the National Privacy Principles 'to the greatest extent possible, given legal and practical restrictions'.[343] IPPs will not apply retrospectively to the collection of information, but will regulate the use and disclosure of personal information, as well as prescribing rights to access information, regardless of when the information was collected. There is a phasing-in period of twelve months after the bill comes into force, which is expected some time after 1 January 2001.[344]

8.79 It is noted that for the purposes of the bill, the status or effect of an act or practice is not affected by any outsourcing contract.[345] This provision has been inserted because the Government:[346]

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339 ibid.

340 See, 'Data Protection Proposals' (hereafter *DPB Bill*) cl. 4, in ibid., pp. 7–9.

341 ibid., cl. 5(1).

342 ibid., cl. 8.

343 *DPB Paper*, p. ix.

344 ibid. See also, *DPB Bill*, cll. 9–11 & cl. 2(3).

345 *DPB Bill*, cl. 12.

346 *DPB Paper*, p. ix.

> is committed to ensuring the information handling standards that apply to an organisation wishing to outsource its functions are the same standards that must be applied by the service provider.

8.80 Part 3 of the bill provides for the approval of codes of practice. An organisation may seek to discharge its duty to comply with an IPP by complying with an approved code of practice.[347] This provides flexibility by allowing organisations to tailor their obligations to the specific needs of their business.[348] Codes may create lesser or greater standards than those specified in IPPs,[349] provided that they meet two criteria, to be assessed by the Victorian Privacy Commissioner:

(a) a code must substantially achieve the objectives of the bill; and

(b) a code must not be contrary to the public interest.[350]

The Victorian Privacy Commissioner will be required to consult with the federal Privacy Commissioner in making a decision whether to approve a code.[351]

8.81 Part 4 of the bill deals with the resolution of complaints by the Privacy Commissioner. In cases where a code of practice specifies a complaints mechanism, that mechanism must be followed first. Where complaints are not resolved satisfactorily at this stage, it is possible to refer the complaint to the Privacy Commissioner.[352] The Privacy Commissioner is not established as a tribunal and cannot issue determinations that are binding on parties to a complaint. His or her main function is to conciliate complaints.[353]

8.82 In the event that conciliation is unsuccessful, the Victorian Civil and Administrative Tribunal (VCAT) has a review function.[354] VCAT also has a limited jurisdiction at first instance.[355] VCAT may make binding determinations to resolve complaints. It can make orders including restraining or mandating conduct of the respondent, orders for compensation to a maximum of $100,000, orders for the correction of information or that certain other steps be taken.[356]

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347 *DPB Bill*, cl. 13.

348 *DPB Paper*, p. x.

349 *DPB Bill*, cl. 13(2).

350 ibid., cl. 14(3).

351 ibid., cl. 14(4).

352 ibid., cl. 18.

353 *DPB Paper*, p. xi.

354 *DPB Bill*, cl. 29. See also, ibid., cll. 30–34.

355 ibid., cll. 20(5), 22 & 23(2).

356 ibid., cl. 34.

8.83 Part 5 of the bill provides a mechanism for dealing with serious contraventions of approved codes of practice or the legislation by the issue of a compliance notice.[357] The maximum penalty for failure to comply with a compliance notice is $60,000 for an individual and $300,000 for a corporation.[358] The Privacy Commissioner's decision to issue a compliance notice is subject to review by VCAT.[359]

8.84 Part 6 of the bill establishes the office of Privacy Commissioner, describes his or her functions and confers various powers.[360] The functions of the Privacy Commissioner are very wide and include:[361]

(a) promotion of IPPs;

(b) development of guidelines for compliance and model contractual terms;

(c) assessment of codes of conduct for compliance with information handling standards;

(d) conduct of investigations and conciliation of complaints;

(e) providing advice and training on the operation of the scheme;

(f) advising government on legislation and policies;

(g) monitoring developments in technology and data processing;

(h) undertaking educational programs about information privacy; and

(i) conducting and overseeing audits.

8.85 Part 7 of the bill contains miscellaneous provisions,[362] while Part 8 deals with necessary amendments to Acts that interact with the data protection scheme.[363]

8.86 Despite its expressed intention to enact its own data protection legislation, the Victorian Government has recently said that it remains committed to the development of a suitable national privacy scheme:[364]

> Clearly a national regime backed by federal legislation would be preferable. Should the Commonwealth's position on this issue change, and a suitable national regime for the private sector be developed, Victoria will vacate the field to the extent of the Commonwealth's powers.

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357 ibid., cl. 35.

358 ibid., cl. 39.

359 ibid., 40.

360 See ibid., cll. 41–46.

361 ibid., cl. 49. See generally, *DPB Paper*, p. xii.

362 *DPB Bill*, cll. 55–62.

363 ibid., cll. 63–65.

364 *DPB Paper*, p. iv.

8.87 Depending upon the speed and nature of developments at a national level, the Victorian Data Protection Bill is scheduled for introduction and passage through the State Parliament during 1999.[365] Given the Victorian Government's preferred option, it is necessary therefore to consider developments in data protection at the Commonwealth level.

Recent Commonwealth Government Initiatives

8.88 The Privacy (Amendment) Bill 1998 (Cth) (the Outsourcing Bill) was passed by the House of Representatives on 1 April 1998, but was sent to the Senate Legal and Constitutional References Committee when it reached the Senate. Rather than simply consider the Privacy Amendment Bill, the Senate Committee decided to conduct a wide-ranging inquiry into privacy, including whether the private sector should be covered by national legislation. It tabled its final report in the Senate in March 1999.[366] The bill lapsed when the Senate was prorogued for the October 1998 General Election and has not been restored to the notice paper.[367]

8.89 After examining the issue of privacy in the private sector, the Senate Committee concluded that:[368]

> there is strong evidence of widespread community concern over the protection of privacy rights generally, fuelled by the rapid advances in technology, particularly in the areas of electronic commerce and the Internet.

The committee also concluded that privacy protection currently provided by existing legislation and common law actions is inadequate and that, at this stage, 'private sector self-regulatory systems do not, of themselves, provide an adequate system of privacy protection in Australia'.[369]

8.90 The Senate Committee's main recommendation was that the Commonwealth Government:[370]

> introduce legislation to provide privacy protection uniformly covering the public, private and the charitable and 'not for profit' sectors. The coverage of the bill should be as broad as possible and minimise the extent of exemptions.

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365 ibid., p. vii.

366 Australia, Parliament, Senate Legal and Constitutional References Committee, *Privacy and the Public Sector—Inquiry into Privacy Issues, including the Privacy Amendment Bill 1998*, Mar. 1999.

367 ibid., p. 2.

368 ibid., p. i.

369 ibid., pp. ii–iii.

370 ibid., p. iv & Chap. 6, particularly para. 6.52.

The Senate Committee's preferred solution for addressing the need for privacy protection in the private sector is a co-regulatory model based on a model developed by the Commonwealth Attorney-General's Department. This comprises privacy protection based on flexible industry codes developed in cooperation with the Privacy Commissioner and backed by a legislative scheme.[371]

8.91 The committee further recommended that the Commonwealth Government 'investigate mechanisms to achieve a cooperative legislative approach with the State and Territory Parliaments that could ensure effective legislation'.[372] It urged the Government 'to move promptly' to develop a comprehensive national scheme for privacy protection, because 'an effective privacy protection regime is urgently required in Australia'.[373]

8.92 On 15 December 1998, the Commonwealth Attorney-General and the Minister for Communications, Information Technology and the Arts announced that the Federal Government would legislate to support and strengthen self-regulatory privacy protection in the private sector. A 'light touch legislative regime based on the Privacy Commissioner's *National Principles for the Fair Handling of Personal Information*'[374] was proposed. It is intended that the scheme will be based on industry codes and apply a legislative framework only where industry codes are not adopted.[375]

8.93 The scheme contains some exemptions. For example, businesses that hold no personal data other than employee records will not be affected by the legislation. Personal information collected and used by the media for journalistic purposes will also be exempt from the scheme. The federal Privacy Commissioner will assist business to implement the scheme.[376] The Ministers opined that: 'This decision will provide a boost to electronic commerce by increasing the confidence of users that their personal data will be adequately protected'.[377] The Victorian Government announced that it would offer its assistance in the development of the

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371 ibid., p. v & Chap. 7.

372 ibid., pp. 172–173.

373 ibid., p. 175.

374 Australia, Attorney-General (Hon. D. Williams) & Minister for Communications, Information Technology and the Arts (Senator Hon. R. Alston), *Joint News Release*, 'Government to Strengthen Privacy Protection', 15 Dec. 1998, http://law.gov.au/aghome/agnews/1998newsag/Joint–13–98.htm.

375 ibid., p. 1.

376 ibid.

377 ibid., p. 2.

Commonwealth scheme.[378] At the time of publication of this report, the draft bill had not been completed.

Recommendation 26

The Victorian Government should continue to encourage and support a national approach to privacy and data protection.

[378] See, Australia, Attorney-General, *News Release*, 'Victorian Agreement on Privacy Welcomed', 16 Dec. 1998. See also *DPB Paper*, p. iv.

PART 3

TECHNOLOGY & THE COURTS

9 IMPROVING COURT PROCESSES

> The Courts are the most conservative institution of government—and they're supposed to be. So you're talking about taking the most rapidly changing area on one hand, and talking about how it plays in one of society's most conservative institutions on the other.[379]

> IT will be the foundation of the court system in the near future and now is the time that it should be seen to be receiving attention at the highest levels.[380]

9.1 In comparison to other service industries, courts and tribunals around the world have lagged behind in their use of technology. Lord Woolf in his Report on Access to Justice recognised the importance of IT in streamlining the civil justice system and increasing access to justice. Lord Woolf believes technology can revolutionise justice and provide assistance in the areas of case management, the administration of courts, the conduct of litigation and access to legal information.

9.2 Generally, Australian jurisdictions are probably in a better position than courts in the United Kingdom in relation to the implementation of technology. However, we are at a crossroads with a multitude of legacy systems that cannot communicate with each other. We are at a period now where with effective strategic planning and reengineering of court processes, new technologies can be utilised to facilitate a more streamlined, integrated and accessible court system.

9.3 The Committee was specifically requested to report on the opportunities that new technologies provide for streamlining the administration of courts and tribunals. This chapter will focus on the ways in which technology can improve and support court and judicial processes. While this chapter will concentrate on the use of technology in the 'back-end' of the justice system and the processes that are involved, the next chapter will focus on technology in the courtroom.

9.4 This chapter will examine case management and registry systems, electronic filing systems and judicial support systems. Chapter 10 will examine technologies

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379 'Interview with R Warren, President of the National Centre for State Courts' (1996) *Government Technology* 22, p. 23; http://www.govtech.net/1996/gt/aug/aug1996-interview/aug1996-interview.shtm.

380 United Kingdom, Lord Woolf, *Access to Justice—Final Report to the Lord Chancellor on the Civil Justice System in England and Wales*, HMSO, London, 1996, p. 284.

within the courtroom including electronic courtrooms, evidence presentation tools, audio and video linking and court reporting and transcription.

Case Management and Court Management Systems

> Case management…is a type of project management. It is not absolutely necessary for the practice of case management, but it is proving immensely useful…in two categories of application: case flow management systems; and case-load management systems.[381]

9.5 At their simplest, case management systems can contain electronic diary and scheduling applications and timetables for key events in the life cycle of a legal case. Historically, court officials have managed and scheduled cases using some form of case management systems. In the last decade, information technology has begun to replace the ubiquitous diary and complex forms. Increasingly sophisticated case management systems are being developed using database technology and project technology to schedule and allocate resources appropriately to achieve the optimum in the circumstances. While court management systems can be seen as automating traditional processes, they can also aid in the generation of reports and the overall efficient management and analysis of court operations.

9.6 Lord Woolf believes that case load management systems will greatly assist in the administration of courts as it will facilitate the allocation of resources within courts including the scheduling of judges' workloads, timetabling and listing of cases and allocation of courtrooms. He believes that case flow management systems will dramatically change the role of the judge enabling them to play a much more interventionist role in supervising, controlling and managing cases from initial filing through to final disposal.[382]

9.7 Computers were introduced into Australian courts in the mid-1980s and the area of court management and support was the first area to see the implementation of IT.[383] Case management systems were introduced in the 1980s with automated processes to record, process and manage data in relation to case files and their progress through the system.[384] We now have a multitude of case management

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381 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 188.

382 See United Kingdom, Lord Woolf, *Access to Justice—Final Report to the Lord Chancellor on the Civil Justice System in England and Wales*, HMSO, London, 1996; see also L Henderson, 'Lord Woolf and Information Technology' paper prepared for the University of Exeter; R Widdison, 'Electronic Law Practice: An Exercise in Legal Futurology' (1997) 60 *Modern Law Review* 143.

383 J Leeuwenburg and A Wallace, *Technology for Justice Report*, AIJA, 1999, p. 5.

384 ibid, p. 6.

systems in courts around Australia. However, these systems were designed and built on a court by court basis. Apart from a few notable exceptions, most courts in Australia still use clumsy mainframe-based court management systems. While many of these systems are currently being redesigned, the tendency in Australia is still for courts to develop their own individualised case management systems rather than adapt current packages available on the market or attempt to develop generic systems across a jurisdiction.

9.8 Despite the lack of sophistication of existing case management systems around Australia, they have nonetheless provided the following benefits to courts:[385]

(a) increased staff efficiency by reducing duplication, allowing faster and easier access to information about cases;

(b) accuracy, integrity, reliability and consistency of case information;

(c) improved case monitoring; and

(d) consequent improved service to clients of the court.

International Experience

United States of America

9.9 A fundamental difference between Australian and American courts is that courts in the United States make much greater use of commercial case management packages than their Australian counterparts.[386] This is partly due to the larger market in America that has seen a number of commercial firms develop packages targeted at courts. In Australia, we have yet to see the development of commercial packages or even the use of American packages.

9.10 Case management systems in America have made dramatic progress in the last few years largely due to the improvements forced by the competitive market in which suppliers of court software operate.[387] The role of the National Centre for State Courts (NCSC) in providing information, advice and a list of vendors for case management systems also cannot be understated.[388] The NCSC has a section of its

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385 A Stanfield, 'Dinosaurs to Dynamos: Has the Law Reached its Technological Age?' (1998) *UNSW Law Journal*, http://www.austlii.edu.au/au/other/unswlj/thematic/vol2no2/stanfield.html

386 Findings of the AIJA Technology for Justice Conference, see J Leeuwenberg and A Wallace, *Technology for Justice Report*, AIJA, 1999, p.8

387 J McMillan, 'Case Management Systems in the USA', paper presented at the AIJA Technology for Justice Conference, April 1998.

388 During its overseas study tour, the Committee repeatedly heard about the important role played by the National Centre of State Courts. Various courts around America praised the

website dedicated to case management issues.[389] The NCSC also has a division called the 'Court Technology Laboratory' that trials commercial systems and works with companies to improve systems.[390]

9.11 Jim McMillan, the Director of the Court Technology Laboratory at the NCSC, believes that there are several interrelated factors that have led to the advancement of case management systems in recent years in America:

(1) Relational database software—this technology has enabled designers to more accurately reflect the complexity of information surrounding legal cases.

(2) The availability of application development software.

(3) Event/table driven systems—the development of these business systems has enabled commercial case management companies to develop generic or 'foundation' systems that can easily be modified for individual courts.

(4) Use of word processing and ad hoc reporting programs—this has enabled court personnel to create and modify reports from the case management system without the help of a programmer.

(5) A good economy generating tax income combined with less expensive computer hardware—this has enabled courts to fund new case management systems which has in turn meant that commercial enterprises in the field have developed a new generation of products.

(6) Years of publicity and teaching have raised court's expectations of what case management systems should do.

9.12 Despite these advances, American courts suffer from a similar problem to that experienced in Australia. Various courts have developed individualised case management systems that make integration or communication with other courts very difficult. During the Committee's overseas study tour, delegates met with members of the Californian Judicial Council and the Administrative Office of the Californian Courts. The Committee was told that despite the fact that the Federal Government had allocated a large amount of money for the development of a national case management system, this had not been taken up largely due to disparity between systems across the United States.

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clearinghouse function of the Centre and the ability to locate up to date advice when the decision to update systems was made.

389 http://www.ncsc.dni.us/NCSC/TIS/CASEMGMT/CASEMGT1.HTM.

390 Parliament of Victoria, Law Reform Committee, *Notes of Meeting,* Meeting with J McMillan, National Centre for State Courts, Williamsburg, 14 Jul. 1998.

Committee's Contact with Innovative Models

9.13 During its overseas study tour, the Committee had the benefit of seeing many case management systems in operation. The best models were those that integrated case management with other functions including electronic document lodgement, publication of material on the Internet for the public and the integration of systems across justice agencies. One of the best examples of an integrated IT system was that used in Maryland by the Baltimore Arrest Booking Centre.[391]

9.14 A further best practice example was found in the Midtown Community Court in New York. The Midtown Community Court was established with the aim of providing community-based justice for low level crimes. Its success, which has been internationally recognised, is based on its ability to process defendants extremely quickly and get them to commence their community based order directly after being sentenced. Technology is used very effectively in the court to achieve its aims, with the judge having access to as much online information about the defendant that is available on one computer screen.

9.15 Midtown operates an integrated computer system that uses 'smart' technology to build a system in which information about the case is gathered electronically from computers around the state. Arrest information, the defendant's criminal record, the complaint prepared by the prosecutor, the colour-coded results of drug testing following treatment programs, and the assessment interview are displayed on a single screen in an accessible graphic form. The administration of the court is completely computerised enabling the judge, defence lawyers, prosecutors and social workers to communicate electronically about a case. When a decision is made, the judge records it on his or her computer on the bench making it possible for the defendant to commence his or her sentence immediately. The court also has large screen terminals that display the facts of each case visible to the defendants, their family and the public. The Midtown example does not use overly complicated technology but demonstrates that with careful planning and an integrated approach to court technology, positive results can be obtained.

United Kingdom

9.16 Courts in the UK have lagged behind their American and Australian counterparts in the use of technology. However, having met with officers of the Court Service, the Committee believes that the United Kingdom may now be in a position to leapfrog the US and Australia. There is a groundswell of interest and

[391] This system is described in detail in Chapter 6, which deals with integrated criminal justice.

enthusiasm for the use of IT in the justice system that has gathered momentum since Lord Woolf's report.[392] This enthusiasm is complemented with the emphasis on planning and the establishment of clear strategies for the use of IT in the legal system.

Australian Experience

9.17 The Committee has received information from and has visited courts and tribunals in most Australian jurisdictions. Case management systems and their redesign and implementation was a high priority for most courts visited. The review of technology in courts conducted by the Australian Institute of Judicial Administration (AIJA) Technology for Justice Conference also noted that case management systems were an 'area of significant concern'.[393]

9.18 The Committee believes that the High Court of Australia's system represents best practice in a small volume jurisdiction, while the NSW Compensation Court System represents best practice in a high volume jurisdiction. While the Committee has a view on best practice systems in Australia, it offers the following brief overview of case management systems to provide an overall context.

Federal jurisdictions

High Court of Australia

9.19 The High Court of Australia has the functions of interpreting and applying the law of Australia, deciding cases of national significance, determine challenges to the constitutional validity of legislation and hearing appeals from Federal, State and Territory courts. The Committee is pleased to commend the High Court on the leadership it has shown in the effective use of new technologies even to the extent of providing the public with an online virtual tour.[394]

9.20 The High Court introduced a new case management system using Lotus Notes in January 1998.[395] Notes enables the court to use several interconnected databases with data seamlessly moving across each component. Internet publication is

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392 United Kingdom, Lord Woolf, *Access to Justice—Final Report to the Lord Chancellor on the Civil Justice System in England and Wales*, HMSO, London, 1996.

393 J Leeuwenberg and A Wallace, *Technology for Justice Report*, AIJA, 1999, p.6.

394 The virtual tour was created with minimal expenditure. The Committee believes that such innovative initiatives perform an excellent educative and demystifying function for the whole community. See http://www.hcourt.gov.au/virtual/index.htm.

395 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officers of the High Court of Australia, Canberra, 30 March 1998.

automated and easy to implement. As the court has used an off-the-shelf computer software package, development of the system was quick, costs were low and interfacing with the system was easy.

9.21 The High Court has moved away from a relational database architecture to an emerging GroupWare technology. Using a GroupWare product like Lotus Notes enables unstructured information including sound, pictures, video and text to be embedded in a database and manipulated and indexed in new ways. It also has workflow functionality and enables selected information to be automatically published on the Internet.[396]

9.22 The Committee has seen the system demonstrated and was very impressed with its functionality. It would seem that for small volume jurisdictions like the High Court, where interaction with other courts is essential Lotus Notes is one of the best available solutions. Under the direction of the justices of the court, the court's officers have commenced work on the development of information systems which will permit lawyers and members of the public to access the court's case management systems in order to discover precisely the stage reached in any case awaiting hearing. As soon as privacy and security issues are fully resolved access is expected to be made publicly available to a wide range of information about proceedings before the court.[397]

Federal Court of Australia

9.23 The Federal Court changed its case management practices in 1996 to an individual docket system after consultation with key stakeholders and the legal profession.[398] The Individual Docket System involves each case being allocated to a particular judge who will ordinarily be responsible for that case from commencement to disposition. The system, as designed for use in the Federal Court facilitates case management of all types of cases and makes provision for the management of cases in various specialist categories.[399]

9.24 This is supported by the court's current case management system FEDCAMS, which was introduced in 1986. The FEDCAMS system is a mainframe system that allows access to its data from all registries. FEDCAMS has been continually upgraded

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396 Dr J Popple and T de la Fosse, 'Escaping the Relational Database Paradigm: Case Management in the High Court of Australia', paper presented at the AIJA Technology for Justice Conference, Apr. 1998.

397 High Court of Australia, *Annual Report 1997-98*, http://www.hcourt.gov.au/98report/98ar.htm

398 http://www.austlii.edu.au/au/other/fca/individual.htm.

399 ibid.

and improved since its introduction, but has reached the limit of its capacity and cannot continue to meet the IT requirements of the court.[400]

9.25 The Committee notes that the court did put out a request for tender for a case management system in late 1998 based on the needs identified in its Information Technology Strategic Plan. However, the Committee's information indicates that the Court will not be proceeding with the tender process.

Family Court of Australia

9.26 The Family Court's case management procedures are drawn from its case management guidelines,[401], the Family Court Rules and the *Family Law Act 1975 (Cth)*. The Family Court has used a computerised system called 'Blackstone' for its case management needs since 1988, with all registries coming online in 1992. The software was originally used in the US Tax Courts and was modified by Hewlett Packard for use in the Family Court. Blackstone has undergone major modification and review over the last ten years.

9.27 In 1996 the court contracted CSC Australia Pty Ltd to develop a Corporate Information Technology Plan. This plan was endorsed by the Chief Justice's Consultative Council in 1997 and is in the process of being implemented. A major proposal in the plan relates to the introduction of a new integrated case management and management information system.[402] While the court hopes to have the system in operation by mid-1999, tenders for a new system were still under consideration at the time of tabling this Report.

New South Wales

9.28 The NSW Attorney-General's Department undertook a major review of its IT investment in 1995 to determine its future strategic direction. One of the major aspects of the IT strategic plan was the implementation of a NSW-wide Courts Administration System (CAS).[403] CAS replaces a number of legacy applications. It is to be a uniform court administration system designed to handle the case management needs of all New South Wales courts. It will also handle the financial

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400 See Australian Law Reform Commission, *Technology - What It Means for Federal Dispute Resolution?* IP 23, 1998, p. 39.

401 These guidelines came into force on 8 January 1996 along with the simplified procedures.

402 Submission no 1.

403 Submission no. 4.

and listing aspects of court registries' work. The system is also envisaged as enabling the electronic lodgement of court documentation.

9.29 The CAS initiative was established as a long-term program that would provide improved levels of IT services to NSW courts. The IT strategic plan envisages CAS as a series of related projects to provide court systems and basic IT support to as many courts as possible in the shortest time-frame possible. Business process reengineering was to be conducted in conjunction with the implementation of CAS projects.

9.30 Funding for the development and implementation of CAS was approved in late 1997. At the time of tabling this Report, the New South Wales government had put out a request for tender for the CAS system. The Committee's information indicates that the government is yet to choose the preferred tenderer.

NSW Compensation Court

9.31 In evidence given to the Committee, it was suggested that the Compensation Court of New South Wales has one of the best case management systems in Australia.[404] A delegation of the Committee visited the New South Wales Compensation Court to observe this system in operation. The case and court management system implemented in the Compensation Court is called 'Phoenix'. The Committee was impressed with the system and believes it provides a best practice example of a case management system for a court with a high volume of cases.

9.32 The Compensation Court has jurisdiction under the *Workers Compensation Act 1987* (NSW) to resolve workers compensation disputes arising out of work related injury or disease suffered by a worker in NSW. The Court deals with an average of 20,000 cases per year.[405] The Phoenix system is primarily a registry management system that also offers judicial support by providing access to databases.

9.33 The Phoenix system allows for computerised timetabling of cases, allocation of judicial officers and direct input into the system by registry officials. It has lead to a substantial decrease in waiting time and has cleared the backlog of cases that the Court used to have. The Phoenix system was first conceived in late 1989 and has been redeveloped twice since then to provide greater functionality.

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404 J Leeuwenburg, *Minutes of Evidence*, 9 Feb. 1998, p. 45.

405 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officer of the Compensation Court of New South Wales, Sydney, 3 Feb. 1998.

9.34 The Phoenix system is interactive and user-friendly with a Windows interface that allows access to all the relevant details in relation to any case that is or has been before the Compensation Court. It is based on a client/server architecture with the client interface developed in PowerBuilder 5 and the database component utilising SKYBASE II. The modules of the system are designed with reference to the 'one stop shop' concept which means that there is a consistent and easy to use interface throughout the application. It also has strong online help features and a security system that only gives users access to those functions required for the performance of their duties.

Queensland

9.35 Queensland's justice system and its utilisation of IT, needs to be understood in its unique context:[406]

> The majority of Court sites are situated in rural communities with limited access to modern forms of communication and technology to provide a proper client service or links to the urban centres. Information contained in these isolated pockets cannot currently be shared with other Courts or agencies, resulting in an extremely labour intensive and limiting environment in which to provide a service to the community.

At present, 73 out of the 81 courts in Queensland are not networked in any way. The 'Courts Modernisation Project' is a large replacement and upgrade program for the courts' information systems and technology infrastructure. It is the key strategic initiative within the Department and will:[407]

(a) deliver infrastructure to all courts that will enable them to communicate with each other on a wide area network; and

(b) develop a new criminal case management system that will be integrated with a financial management system and be implemented in all Magistrates' and higher courts.

9.36 The Department of Justice in Queensland recognises the need for a case management system that can be installed in all courts. However, its priority is to deliver the necessary infrastructure to courts to enable them to run a case management package. While Queensland is currently behind other States in its use of technology, it has the advantage of implementing a new system rather than redesigning legacy systems. The departmental officers that met with the Committee displayed a great deal of enthusiasm for the ways in which technology generally, and

406 Submission no. 2.

407 ibid.

a uniform case management system specifically, could improve the efficiency of their courts.[408]

Western Australia

9.37 The Supreme Court of Western Australia has a Civil Case Management and Listings System and a Criminal Case Management System. The Civil Case Management System is available to registrars, registry staff and will in due course be available to judges on the local area network. The system:

(a) maintains an electronic form of the several registers maintained by the court;

(b) has a comprehensive search mechanism;

(c) enables the semi-automatic production of daily lists;

(d) has a wide array of statistical reporting functions;

(e) has a tool for specialised management of cases;

(f) has a facility to track significant events in a case; and

(g) has an internal file tracking system.

9.38 A similar system operates in the District Court for civil cases. Both the Supreme Court and District Court civil case management systems are Oracle based and utilise a Unix operating system.

9.39 The Criminal Case Management System:

(a) provides registry staff with the creation of indictable and miscellaneous criminal files;

(b) records a range of historical data;

(c) automatically generates a range of documents;

(d) generates lists and reports on caseflow; and

(e) records the movement of a physical file allowing for enquires on the history of file movements.

9.40 The District Court's criminal registry is subsumed within the Supreme Court Criminal Case Management System. These systems, like the civil systems, are developed in Oracle and run on a Unix operating system.

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[408] Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officers of the Queensland Attorney General's Department, Brisbane, 5 Feb. 1998.

9.41 The Western Australian Department of Justice has a vision that involves the use of messaging, generic systems, new communication technologies and predictive modelling. In line with this philosophy it has begun to develop a single generic court information system which would form the basis for both civil and criminal cases. Its focus is on automating the interaction between parties rather than merely automating court processes. The Committee applauds that the approach taken by the Western Australian Department of Justice. The Department has consolidated the gains of its early efforts at court automation and has entered into a new era that has involved rethinking the way processes in the justice system are conceptualised and implementing an integrated model of technology across the justice system.[409]

South Australia

9.42 South Australia is unique in that a central statutory authority called the Courts Administration Authority manages all courts and tribunals. Having the administration and management of courts centralised has meant that South Australia has been able to institute uniform technological improvements. Courts have not developed individual solutions that result in a lack of communication between courts. The South Australian model ensures an integrated and consistent approach to management issues and the implementation of technology.

9.43 In 1997 the Courts Administration Authority introduced a single Courts Case Management System (CCMS) for all South Australian courts. The system basically supports all the core operations of courts relating to civil, criminal and other types of cases.[410] Budgeting, human resource management and property management were not seen as core functions and other IT systems support these functions. The Authority assigned the marketing rights to the CCMS software to DMR Consulting Pty Ltd. As discussed below, Victoria expressed interest in the software and piloted the system in the Children's Court with the aim of implementing the system in all courts in Victoria.

Victoria

9.44 In 1995 the Courts, Tribunals and Registries Division of the Department of Justice commissioned a strategic review of technology to:[411]

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409 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officers of the Western Australia Ministry of Justice, Adelaide, 14 Apr. 1998.

410 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officers of the South Australian Courts Administration Authority, 17 Apr. 1998.

411 Submission no. 11.

(a) foster a more strategic and unified approach to the use of technology among courts and tribunals; and

(b) identify opportunities for the reform of processes and use of technology in the delivery of services.

9.45 The review looked at the Supreme Court, County Court, Magistrates' Court and various tribunals and combined business process reengineering principles and the more effective use of technology to develop proposals. Some of the findings of the review included:[412]

(a) current systems have not been able to respond readily to change;

(b) documents, records and files cannot be effectively tracked or controlled;

(c) there is a lack of standardisation in both processes and documents across the four jurisdictions contributing to low levels of integration and consistency;

(d) a high percentage of activity can be classified as unnecessary overhead;

(e) there is limited empowerment to employees hence the decision process is often lengthy; and

(f) listings and rostering are manually intensive and unable to optimise resources.

9.46 In relation to case management, the review recommended the development of a single case management system that could be implemented across all courts and tribunals customised to meet their needs.[413] The review also recommended that the viability and acceptance of the concept of a single case management system be assessed through the implementation of a pilot project in the Children's Court.[414]

9.47 However, the individual courts and tribunals in Victoria have strongly held the view that differences in jurisdictions and practices mean that a single case management system is 'both undesirable and unrealistic for their efficient operation'.[415] The Department adopted a revised strategy whereby a pilot would be developed and implemented in the Children's Court and each of the courts would individually look at the suitability of the system for use as the basis of their future case management systems.[416] DMR Consulting won the tender and is piloting the

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412 Victoria, Department of Justice, Courts and Tribunals Services Division, *Request for Tender: Children's Court Computer System*, 1996.

413 Submission no. 11, p. 5.

414 ibid.

415 ibid.

416 ibid.

South Australian generic case management system. The pilot project is called Jurislink.

9.48 The pilot has now been running for over 18 months and there has yet to be any published evaluation of the system. The CEO of the Supreme Court expressed frustration at the time the pilot has taken:[417]

> All (our) systems…are somewhat antiquated and we have got be simply because we have had to and nothing else was available. Jurislink has held a lot of promise for us, but it has been a long time coming…We would like to have the best systems available in the country in the courts. We have not been able to achieve this principally for two reasons: the first is money, and the second is developments that are occurring elsewhere in the state to which we are a party, by implication, really.

Supreme Court

In relation to case management in Victorian courts, the Supreme Court with its numerous out-dated systems is probably the worst off. The Supreme Court has several registry systems, a separate stand-alone listing system, and records management systems. This disparateness and 'lack of integration…really affects the efficiency of the registries and their capacity to meet service requirements, whether for the judiciary or litigants'.[418]

County Court

9.49 The County Court of Victoria currently uses a case management system that is a mainframe database developed in 1987.[419] The court would like to replace their existing County Court Case File Management System (CCCFMS) as it is no longer capable of supporting the functions of the court adequately.[420] The court conducted a major business process reengineering (BPR) project in 1996 that reinforced the desire of the court to do business electronically wherever possible. The project identified the requirements for a case management system for the County Court.

9.50 In 1998, the County Court commissioned KPMG to conduct a gap analysis between the requirements identified in their BPR project and the functionality of the South Australian CCMS system.[421] The analysis found that in overall terms the South

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417 B McLean, *Minutes of Evidence*, 25 Nov. 1998, p. 96.

418 ibid, p. 95.

419 R Allen, *Minutes of Evidence*, 25 Nov. 1998, p. 100.

420 ibid.

421 As discussed above, the South Australian CCMS is being piloted in the Victorian Children's Court under the name 'Jurislink'. County Court of Victoria, *Case and List Management System - Gap Analysis*, Apr. 1998.

Australian case management system had a close functional fit to the County Court's requirements.[422] The only exceptions were the electronic lodgement of court documents (which the CCMS was expected to develop) and the provision of investment and scanning functionality. The gap analysis estimated that it would take 20 to 40 days mandatory enhancements for the CCMS package to meet the County Court's requirements.[423] As the CEO of the Court told the Committee:[424]

> Ultimately, a decision for the court will be between Jurislink (the adapted South Australian CCMS), which seems to be the best system if we were to take an existing system and do tailoring work with it to make it work for us, and the other alternative, which is to build a brand new system from the ground up.

9.51 However, this decision is complicated by the fact that a new building is being built for the County Court and the implementation of IT in the court has become bound up with the delivery of the building. The Department of Justice invited the consortia tendering for the new building to tender for the delivery of IT as well. It is therefore possible that CCMS could be delivered to the County Court as part of a building and services package. The gap analysis recommends that the Court 'monitor the progress of the building project closely and ensure that the provision of a case management system is negotiated to the satisfaction of the court'.[425]

Magistrates' Court

9.52 The Magistrates' Court has had a case management system in operation for over 10 years called 'Courtlink'. The Courtlink system is located in 57 court locations across Victoria. It is a stand-alone system with data on the system being the only record of the court. Courtlink is a unique system that has been built to cater for the Magistrates' Court and is revolutionary because it is the 'only place in the world where magistrates input their findings on the bench at the time of decision'.[426] While Courtlink uses antiquated technology in today's context, it is still one of the only systems that enables electronic lodgement of documents. Electronic lodgement has been operating in the Magistrates Court for a number of years and more than 35 per cent of civil complaints (about 1000 per month) are filed electronically by approximately 135 law firms.[427] The electronic lodgment system is a national award

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422 ibid, p. 2.

423 ibid.

424 R Allen, *Minutes of Evidence,* 25 Nov. 1998, p. 103.

425 County Court of Victoria, *Case and List Management System - Gap Analysis*, Apr. 1998, p. 30.

426 P Armstrong, *Minutes of Evidence*, 25 Nov. 1998, p. 107.

427 ibid.

winner for technology and the law with costs per transfer to the user being 40 cents rather than $4.80 if filed manually.[428]

Victorian Civil and Administrative Tribunal

9.53 On 1 July 1998 the Victorian Civil and Administrative Tribunal (VCAT) was formed from the amalgamation of a number of existing boards and tribunals, including the Administrative Appeals Tribunal, the Anti Discrimination Tribunal, the Credit Tribunal, the Domestic Building Tribunal, the Guardianship and Administration Board, the Residential Tenancies Tribunal, and the Small Claims Tribunal. Each one of these formerly independent tribunals had its own case management and registry systems. VCAT is currently in the process of undertaking a business process review, an aspect of which will focus on the need for a common integrated information system. Mr John Ardlie, the CEO of VCAT, believes that:[429]

> The ideal system will provide obvious benefits such as streamlining of case management processes, management information, training, technical support, etc. The ideal system will incorporate and enhance common processes of each list that develop as a result of the reengineering process.

9.54 The important issue to negotiate for an organisation like VCAT is to utilise the best existing system as a benchmark for all the tribunals to meet rather than be dragged down to the lowest common denominator. The Committee has visited the new VCAT premises and believes that processes are in place to create a uniform system. The Committee also notes that the system that was in place in the Residential Tenancies Tribunal has received wide acclaim especially for its electronic lodgement capacity.

9.55 The Committee's impression is that all courts and tribunals in Victoria have their case management plans on hold while Jurislink is being trialed. However, the pilot was established in May 1997 and as stated above, there has been no evaluation of the system's performance. The Committee's current information indicates that the pilot is not proceeding. If this is the case, the Committee believes that the Department of Justice must as a matter of urgency consult again with all courts and tribunals to determine if there is support for a common case management system. In the context of the possible abandonment of Jurislink, the Committee believes that its recommendation for a centralised Courts Administration Authority is particularly important to ensure that there is a uniform case management system (with appropriate modifications) for all Victorian courts and tribunals. Further, as the

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428 ibid.

429 J Ardlie, *Minutes of Evidence*, 25 Nov. 1998, p.117.

Committee has recommended that the Department in the interim, and the Authority in the longer term, be mandated to provide the best possible IT system for the justice system, a priority for both bodies must be to implement a uniform case management system.

Recommendation 27

As a matter of priority in consultation with all courts and tribunals, the Department of Justice in the interim, and the State Courts and Tribunals Administrative Authority in the longer term, should implement a uniform case management system for all Victorian courts and tribunals. Such a system must be flexible enough to allow for modifications to cater for the specific needs of each court and tribunal.

9.56 Ultimately, case management systems in Victoria need to move to the next level of sophistication and act as a management tool for all court information. To achieve this aim the following developments are crucial:[430]

(a) electronic filing over the Internet with relevant case information being placed automatically into the case management system;

(b) for the public and legal profession to dial-in to search case information over the Internet;

(c) publication of judgments directly from the case management system to the Internet;

(d) judgments capable of being viewed from within the case management system; and

(e) transcripts being made available over the Internet.

9.57 These features are all possible with the technology available today. However, courts do need to establish standards for the collection of information and review their processes to be effective in the information age.

Electronic Filing

> Imagine a lawyer working late at night putting finishing touches on a set of pleadings. A few more clicks of the mouse and the document is on file with the court.[431]

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430 A Stanfield, 'Dinosaurs to Dynamos: Has the Law Reached its Technological Age?' (1998) 22 *UNSW Law Journal*, http://www.austlii.edu.au/other/unswlj/thematic/1998/vol21no2/stanfield.html

431 D Egar, http://www.ncsc.dni.us/ncsc/ctc4/articles.elec_c.html.

9.58 Case management systems that are being redesigned or implemented today must have the capacity to enable electronic filing. Electronic filing has obvious benefits to practitioners, litigants and courts. Furthermore, the capture of documents in electronic form at the source means that courts are able to manipulate the information in any number of ways to meet their registry and judicial needs. This would dramatically improve the efficiency of the administration of courts.

9.59 While the Committee has seen a few very good examples of electronic filing systems, it believes that change in this area has been slow. This is partly because the legal profession has not yet established the demand for the service. With current Internet based technologies and the increasing sophistication of security systems, electronic filing is possible in all Victorian courts. However, because the foundations in relation to a functional case management system are not yet in place in some Victorian courts, electronic filing has not been possible or a priority.

Innovative International Models

United States of America

9.60 During the Committee's overseas study tour, it became aware of several electronic filing initiatives in the United States. These include systems in the Maricopa County Court in Phoenix, Arizona, the Maryland Circuit Court, the Ohio District Court and several courts administered by the Administrative Office of the California Courts. Many of the electronic filing pilots and systems in the US have failed because they relied on proprietary systems and required law firms to purchase specific software to lodge documents.

9.61 In 1996, the US Department of Justice, which employs more than 8200 practising attorneys, established the Electronic Document Exchange (EDE) Laboratory to analyse issues in relation to the electronic exchange of documents in the government litigation environment. The Laboratory consists of representatives from the Department, the Administrative Office of the US Courts and other justice agencies. In 1997 the EDE Laboratory joined forces with the District Court of New Mexico to test a new electronic filing project.[432] The New Mexico system enables filing over the Internet. It also uses HTML to link necessary documents and PDF format

[432] J Plante, 'Filing Over the Internet: An Experiment in New Mexico' (1998) *E Government: The National Newspaper for Electronic Government* 1.

documents. The Committee heard that the New Mexico system was working well and receiving very positive feedback.[433]

9.62 Similarly the US Administrative Office of the Courts is piloting electronic filing over the Internet in nine federal courts. The Office believes that it has learnt from past mistakes and believe, that electronic filing projects need to utilise an open platform like the Internet. It also believes that a system like electronic filing could not be forced on practitioners, but tools need to be established to facilitate the process. The Office's early experiences have also revealed that training for the judiciary and practitioners is critical for the success of electronic filing.[434] A final report on the pilot projects is due to be released this year.

9.63 The National Centre for State Courts announced a collaborative project with West Group to develop model rules for electronic filing of documents in state courts around the country.[435] During a meeting with the National Centre for State Courts, Jim McMillan, the Director of their Court Technology Laboratory, emphasised the need for broad standards in the area that can be customised to meet the individual needs of state courts.[436] It is expected that the model rules will be published later this year.

Singapore

9.64 Singapore is developing what it believes is a state of the art electronic filing communication system known as EFS. The system is said to combine leading edge IT developments in electronic data interchange (EDI), workflow and imaging to facilitate the management and transmission of documents between the judiciary and law firms.[437] EFS is an extension of LAWNET, a proprietary system that links the legal profession in Singapore. The project has several phases that will be implemented over the next few years.

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433 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officers from the US Department of Justice, Washington, D.C., 16 Jul. 1998.

434 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officers from the Federal Judicial Centre and the Administrative Office of the US Courts, Washington, D.C., 16 Jul. 1998.

435 http://www.westgroup.com/newsinfo/wgnews/presrlse/wg/natcentr.htm

436 Parliament of Victoria, Law reform Committee, *Notes of Meeting*, Meeting with J McMillan, National Centre for State Courts, Williamsburg, 14 Jul. 1998.

437 http://www.asianconnect.com/efs/overview.html.

Innovative Australian Models

9.65 The High Court of Australia's reputation for innovation in the use of technology is further enhanced in relation to its experiments with electronic filing. Preliminary development of a system for lodgement of documents over the Internet through the High Court's website has commenced. At the time of writing, a beta test site had been established on the High Court website.[438] Once the site is tested, the court will receive documents lodged over the Internet.

9.66 The New South Wales Compensation Court is also developing an extension to their Phoenix case management system, which would enable electronic filing.

9.67 The Committee believes that the High Court and the Compensation Court of New South Wales are leading the field in moving Courts towards electronic filing, partly because of excellent case management systems that allow for electronic lodgement with little alteration to the systems. The Committee also believes that the Victorian Magistrates' Court electronic filing initiative and the system in place in the former Residential Tenancies Tribunal represent best practice examples of electronic filing.

Victorian Electronic Filing Initiatives

9.68 The Magistrates' Court of Victoria through its Courtlink system has allowed electronic filing for several years. Since June 1994 law firms have been able to purchase the EDI program to facilitate electronic lodgement. The EDI service allows law firms to issue legal proceedings and file documents electronically in the Magistrates' Court civil jurisdiction. The transmission of documents is done through electronic mailboxes by uploading and downloading information, and fees for lodgement are directly debited from an account nominated by the law firm.[439] Approximately 135 law firms are connected to the system and more than 35 per cent of civil complaints are lodged electronically. The system is also utilised for other documents such as warrants and summonses for oral examination.[440]

9.69 The Magistrates' Court's Courtlink system also now enables the Victoria Police to file complaints electronically via the latter's LEAP system.[441] Case results are

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438 http://www.hcourt.gov.au/link33.htm.

439 R. Allen, *Minutes of Evidence*, 25 Nov. 1998, p. 152.

440 ibid.

441 ibid, p. 153.

electronically sent back to LEAP. The integrity of both the LEAP and Courtlink systems is maintained through the upload and download of information.[442]

9.70 The former Residential Tenancies Tribunal in Victoria established a system whereby real estate agents could lodge claims with the tribunal over the Internet. On 1 July 1998, the Tribunal was amalgamated with other tribunals as part of the Victorian Civil and Administrative Tribunal (VCAT). In evidence to the Committee, the CEO of VCAT, Mr John Ardlie stated that electronic lodgement would be introduced to VCAT by the middle of 1999.[443] Electronic service delivery via lodgement of forms over the Internet will first be introduced in the Residential Tenancies List.

9.71 VCAT has been working with the Office of Housing within the Department of Human Services to receive data from the Department straight into VCAT's mainframe. The same system would operate in relation to Victorian real estate agents. Early market research demonstrates that estate agents accept and support the proposed model for electronic service delivery. VCAT is aware that 'access to…the tribunal by the housing department and real estate agents will become rather exclusive'.[444] However, VCAT will use the Department and estate agents as a pilot before opening up Internet electronic lodgement for all Victorians. VCAT will also extend the electronic lodgement program to all other appropriate divisions within the tribunal.

9.72 The Committee believes that while the Magistrates' Court system for electronic lodgement is effective, it relies on fairly old technology. The Committee appreciates that Courtlink represents the Magistrates' Court's only record and therefore uploading and downloading information is necessary. However, with the implementation of a new case management system like Jurislink, the emphasis should be on electronic lodgement over the Internet to facilitate access for all Victorians. All Victorian courts and tribunals should consider a model such as that being developed by VCAT.

9.73 While security is an important requirement, the Department of Justice recently commissioned an external study on its security infrastructure, which concluded that the Department's arrangements are better than world best practice.[445] Security systems are also continually improving. As discussed in Chapter 8, the use of digital signatures and encryption can further overcome problems associated with security of

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442 ibid.

443 J Ardlie, *Minutes of Evidence*, 25 Nov. 1998, pp. 164–175.

444 J Ardlie, *Minutes of Evidence*, 25 Nov. 1998, p. 171.

445 J Charleson, *Minutes of Evidence*, 25 Nov. 1998, p. 113.

systems. It appears to the Committee that concerns regarding security are often used as an excuse for inaction, rather than a legitimate technical concern.

9.74 The Committee believes that courts in Victoria should considers setting up an integrated IT system. For technology to improve efficiency, it needs to integrate all areas of administration and judicial support. For instance, the Committee believes that electronic lodgement in the context of a non-functional case management system will not achieve efficiency. Ultimately courts need to work out their requirements and set appropriate uniform standards for the exchange of data. Current technology will be able to meet even the most optimistic requirements a court or tribunal may have.

9.75 To ensure justice is accessible in the information age, electronic lodgement will become and should be a necessity. With the advancement of fields such as artificial intelligence, it will be increasing possible to use intelligent checklists and intelligent forms to ensure that data entered is acceptable to the courts. The cost benefits to clients and the administrative benefits for courts of capturing data at its source clearly demonstrates the need for electronic lodgement to be a priority in any redesign or implementation of IT systems in courts.

Recommendation 28

As a matter of priority and in line with the whole of Government commitment to electronic service delivery by 2001, the Department of Justice in the interim, and the State Courts and Tribunals Administration Authority in the longer term, should collaborate with all courts and tribunals to encourage and ultimately require the electronic lodgement of documents over the Internet.

Judicial Support Systems

> As in the private sector, the tendency in the past has been for back-office administrative functions to be the subject of the lion's share of IT rather than for technology to be used at the cutting edge, which in this context is IT for judges in the courts.[446]

9.76 Many jurisdictions around the world are recognising that computers can aid decision-makers by providing them with up to date information on all aspects of a case before them. Judicial support systems can include anything from judges having access to computers and laptops, the Internet, CD Rom services and primary research

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[446] R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 243.

materials through an intranet or LAN and access to a variety of other material including judicial bench books, sentencing information and other information.

Innovative International Models

9.77 The Committee believes that one of the best examples of the value of a good judicial support system can be found at the Midtown Community Court in New York. As described above, the Court was established with the following goals:[447]

(a) to restore the community;

(b) to bridge the gap between communities and courts;

(c) to knit together a fractured criminal justice system;

(d) to help offenders deal with problems that lead to crime;

(e) to provide courts with better information; and

(f) to build a court that fosters these ambitions.

9.78 Fundamental to the achievement of these goals was to provide judges with all possible information and options at a defendant's first appearance. This was facilitated through the use of technology. The electronic core of the Midtown Court is a judicial desktop that uses graphical design and colour coding to present easily accessible information about the defendant.

9.79 The desktop brings together on a single screen arrest and complaint information, assessment information (including all social service needs), criminal history information, and disposition recommendations made by the resource coordinator (including community and social service options).[448] The system was designed around the judge and has thus become the core information system in the courtroom forcing all other personnel to complete their data input requirements as accurately as possible. The system ensures extremely quick processing of defendants and at the same time a reduction in crime due to the dispensation of appropriately targeted community based sanctions.

9.80 The Centre of Sentencing Research in Scotland developed another system that the Committee had the benefit of seeing at the University of Strathclyde. The system was available to all Scottish High Court judges and provides information on sentencing including statistics, case summaries, and the standard range for a given

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447 J Feinblatt and G Berman, 'Responding to the Community: Principles for Planning and Creating a Community Court' *Bureau of Justice Assistance Bulletin*, US Department of Justice, 1998.

448 R Zorza, 'The Ten Commandments of Electronic Courthouse Design Planning and Implementation: The Lessons of the Midtown Community Court', paper presented at the Fourth Nation Court Technology Conference, Oct. 1994.

offence. The system contains information on over 6000 cases over the last seven years.[449]

9.81 The system is similar to that used in New South Wales developed by the Judicial Commission. One major difference between the two systems is that the Scottish system is not based on official statistics, as the researchers believe that they do not capture the traditional categories within criminal law. They use criminologists to collect and sort through their data. A further difference is that all judges are identified in the system. This makes it easier to ascertain what, if any, patterns there are in individual judicial officer's sentencing dispositions.

9.82 The Scottish system is to some extent more in-depth than the New South Wales system, partly because its developers were all researchers working in sentencing. However, the New South Wales system has much broader use and access and achieves the desired end of consistency of decision making.

Innovative Australian Models

9.83 The Committee has had the opportunity to visit most jurisdictions around Australia and examine the technology available to judges to aid decision making. The best judicial support systems that the Committee has seen in Australia are in the Western Australian Supreme Court system and the Judicial Information Research System developed by the NSW Judicial Commission.

Western Australian Judicial Support System

9.84 The Western Australian judicial support system is basically a number of Lotus Notes databases that run over a Windows NT local area network. The system is comprised of a Judgment Processing System that establishes standard and structured procedures for the delivery of all judgments in the Supreme Court.[450] Once delivered, judgments are processed and automatically converted into a format that is loaded onto the unreported judgments database. The unreported judgments database contains all judgments of the Supreme Court from July 1991. This database is Internet enabled and there are plans to distribute it to authorised users within government and eventually to the public.[451]

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449 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with C Tata, University of Strathclyde, Glasgow, 27 Jul. 1998.

450 P Rapiac, 'A Judicial Support System for the WA Supreme Court', paper delivered at the AIJA Technology For Justice Conference, Mar. 1998.

451 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with officers from the Western Australian Ministry of Justice, Perth, 14 Apr. 1998.

9.85 The decisions database is augmented by the statutes database that is a compilation of all Western Australian statutes and regulations and a transcript database. Judges can obtain electronic copies of the transcripts of any cases they are presiding over. As all these databases run on Lotus Notes, there are sophisticated search capacities built into the system. As the system is built using Lotus Notes, images and audio files can be embedded and retrieved with ease. The judges also have access to email, a fully networked diary and a word processor.

9.86 The strength of the system lies in its easy to use interface. The use of Lotus Notes as the standard platform has enabled the seamless integration of all applications. Due to this standardisation, the Ministry of Justice has been able to extend the system to develop an electronic appeal book. This system also uses Lotus Notes and pulls together the relevant transcripts, exhibits, judgments under appeal and all associated documents and distributes them electronically to the judges hearing the appeal. Western Australia has already run an electronic appeal and their system formed the basis for the model of the Council of Chief Justices' Electronic Appeals Project. In the context of the whole of government contract with Lotus Notes, the Committee recommends that Victorian courts look at the judicial support system developed by Western Australia.

Judicial Information Research System

9.87 The most well known judicial support system is called the Judicial Information Research System (JIRS) and was developed by the New South Wales Judicial Commission.[452] JIRS comprises a highly sophisticated sentencing information system that includes statistics, a text of sentencing principles, a directory of sentencing facilities, unreported judgments of the Court of Criminal Appeal, leading cases from other jurisdictions as well as summaries of select Court of Criminal Appeal judgments. JIRS currently contains over 3000 judgments from the Court of Criminal Appeal and also 2000 summaries of Court of Criminal Appeal decisions. The graphs and tables of sentencing statistics are displayed through a new software application especially designed to enable judicial officers to instantly identify and compare sentencing patterns based on offender characteristics.

9.88 JIRS also contains court bench books, Land and Environment and Industrial Court databases, computer education, Commission publications such as sentencing trends and a full set of State and Commonwealth legislation. All information is hypertext linked and utilises a Windows based interface.

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[452] http://www.judcom.nsw.gov.au/jirsbroc.htm.

9.89 The sentencing information system within JIRS is the most sophisticated aspect of the system. It was developed with relatively small investment[453] and is widely regarded as the best online sentencing information package available in the world. It is available to all judges and magistrates in New South Wales and was developed with the aim of achieving consistent approaches to sentencing in the state. The system has received a lot of interest from practitioners and the Judicial Commission now offers the system on a subscription basis to practitioners in New South Wales.[454]

9.90 The Committee was impressed with JIRS and the sentencing information system and believes that the Department of Justice should consider providing a similar system that runs on a Lotus Notes platform to judges and magistrates in Victoria.

Judicial Support Systems in Victoria

9.91 All Victorian judges, magistrates and tribunal members have access to their own computers and each Victorian court and tribunal has a LAN. The Supreme Court library has established a CD-Rom tower with an extensive collection of current commercial CD-Rom services. These services, along with the library's catalogue, are now available not only to judges of the Supreme Court but also to all County Court judges, magistrates and VCAT members through dial-up access. This joint initiative now distributes up to date State and Federal legislation, case precedents, histories and library research material to all jurisdictions. The County Court has also networked a range of its resources including its sentencing and trial manuals and the charge book.[455]

9.92 Due to a departmental policy, courts and tribunals in Victoria have not been able to provide Internet connections on all PCs. However, as an external study into the security infrastructure within the Department has determined it meets world's best practice, all judges, magistrates and tribunal members should be connected to the Internet in the near future.

9.93 While access to a centralised CD-Rom tower for research purposes is an effective initiative that is easy to implement, the Committee believes that the

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453 The system cost between $2–3 million to set up. The Commission believes that a 10 % decrease in appeals would be more than enough to cover costs—it would save between $7–10 million per year. See, Parliament of Victoria, Law Reform Committee, *Notes of Conversation,* Meeting with officers of the Judicial Commission of NSW, Sydney 10 Jun. 1998.

454 http://www.judcom.nsw.gov.au/sisbrochure/sis.htm.

455 R Allen, *Minutes of Evidence*, 25 Nov. 1998, p. 143.

Department of Justice needs to consider the development of a judicial support system. Such a system would help standardise the production, distribution and publication of judgments, provide judges with current information and contribute to consistent decision making. In Victoria, all magistrates already have a computer on their benches and in their chambers and a good judicial support system may aid in convincing judges of the County and Supreme Courts to follow this precedent.

Recommendation 29

The Department of Justice in the interim, and the State Courts and Tribunals Administration Authority in the longer term, should develop a judicial support system that provides up-to-date legal information, directories of social service facilities, sentencing information and standardised judgment production capabilities. The Department should look to the Western Australian and New South Wales judicial support systems as models.

10 COURTROOM TECHNOLOGY

> On those occasions in the future where dedicated court rooms are used for the hearing of cases…IT will come to play an ever more dominant role. With voice recognition technology capturing the proceedings, judges will no longer need to handwrite notes or type on their own machines but instead may annotate and comment upon the text as it appears before them…There could be immediate access from the court room to all primary and secondary source material, entire document sets may be made easily accessible in the court with individual pages capable of presentation on all participants' screens, some evidence may be taken remotely by video-linking and computer and video simulations deployed in the presentation of evidence. Oral evidence might be supplemented by multi-media techniques which could take the court graphically through the evidence and legal arguments, while case management systems may be immediately to hand enabling decisions or directions to be implemented on the spot, with relevant documentation directed electronically to all relevant parties and bodies across the justice system.[456]

10.1 This prediction might sound futuristic to some, but as this chapter will demonstrate many of the technologies described above are already utilised in the Victorian justice system. While technology can aid in the back-end of the justice system making it more efficient, as the profession becomes more adept at using technology the 'relative cost and efficiency considerations will combine to demand an increasing use of technology in the actual conduct of trials'.[457]

10.2 The future will see courtrooms completely computer-integrated with imaging software to capture paper documents and other real evidence. All parties will look at the same information, text or multimedia, at any given time on screens with all information in electronic format. Simultaneously, relevant information will be readily accessible over the Internet to anyone interested in the proceedings. In Australia, such technology has been employed in a small number of complex cases, usually at the instigation of the parties who have recognised the efficiency and savings technology can bring. In Victoria the Longford Royal Commission is currently demonstrating the effectiveness of a fully computer-integrated courtroom. The first high profile case to utilise a high-tech courtroom was the Estate Mortgage case where all the information was stored and displayed electronically and all parties connected

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456 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xxxii.

457 Justice L Olsson and I Rhode, 'Coming Ready or Not: Courts and Information Technology' (1997) 71 *Reform* 10, p. 12.

through an intranet. Those involved in the case have estimated that using the technology reduced court time, and therefore costs, by almost 50 per cent.[458] While Victoria has only seen this level of computer integration in complex criminal cases, the future will see such technology used for all cases where there is a need for a physical courtroom. It is quite feasible that within the next five years, all Victorian courtrooms will be computer-integrated at a relatively low cost.

10.3 This chapter will discuss the use of technology in the conduct of a trial. It will examine the sorts of technology that have been used in the handful of cases conducted in high-tech courtrooms. It will also look at evidence presentation tools, the use of videoconferencing and the future of transcription services in courts. In keeping with the rest of this report, this chapter will set out what the Committee believes is best practice and discuss developments in Victoria within this context.

Electronic Trials

> Computerised management of documentary evidence—litigation support systems—particularly where hearings involve the presentation of large 'bundles' of documents, can result in faster, cheaper and fairer trials. Interestingly, the benefits of dematerialising documentary evidence do not end there. Presentation of documents on screen in such a way as to enable them to be inspected, enlarged, highlighted or otherwise electronically enhanced and manipulated by witnesses, advocates, judges or jury members can produce gains that were simply not available before the technology was introduced.[459]

10.4 When looking at technology and justice, an area that has received continual publicity and has led to legal practitioners being exposed to new technologies is the use of technology in a few high profile trials. These 'electronic trials' have to date involved enormous volumes of documents that are converted into electronic form to utilise before and during the trial. The benefits of technology in litigation are obvious. Discovery usually results in a huge volume of material that needs to be managed and organised. The whole process of discovery can be made easier by imaging and storing documents on a database that can be easily retrieved.

10.5 Technology can be used to reduce delays and costs in pretrial procedures, but is also useful in presenting evidence. It can improve the quality of evidence presentation and increase the ability of litigation participants to view exhibits. The use of computer generated graphics and three-dimensional modelling can simplify

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458 The Wood Royal Commission in New South Wales used similar technology effectively.

459 R Widdison, 'Electronic Law Practice: An Exercise in Legal Futurology' (1997) 60 *Modern Law Review* 143, p. 161.

complex technical arguments. Technology can also aid in preserving evidence, as it does not have to be physically handled to be viewed by all those involved in the case.

10.6 A rapid move to recognise the legal validity of electronic documents (with the necessary safeguards in place) would remove the need to physically submit documentary evidence. Similarly with real evidence (such as the 'blood stained knife' or the scene of the crime itself) computer simulations, digital photographs or virtual reality technology can be used. In the United States, judges and juries in both civil and criminal cases have been given the opportunity to move into and around three-dimensional electronic images of relevant scenes and locations and virtually reach out and 'touch' objects they find there.[460]

Innovative use of Technology in Litigation

10.7 In the United States, there are two model electronic courtrooms that serve the functions of promoting the best practice use of technology in courtrooms and testing the various technologies available. The Committee visited Courtroom 21 at Williamsburg and the University of Arizona Courtroom of the Future and believes they provide an excellent display of the sorts of technology that can be utilised in courts and an insight into the future of legal trials.

10.8 Courtroom 21 is a joint project of the William and Mary College School of Law and the National Centre for State Courts in Williamsburg, Virginia. It is a demonstrational and experimental project that seeks to determine how technology can best improve the legal system. Courtroom 21 has been carefully designed so that the technology is unobtrusive and easy to use. It experiments with commercially available, reasonably priced technology. Its broad capabilities include:[461]

(a) voice activated video where five hidden ceiling mounted cameras keep track of proceedings. When a person speaks, the cameras aim at him or her and the video images are projected simultaneously on monitors;

(b) videoconferencing and arraignment facilities. There are mock judge's chambers and jail cell that contain videoconferencing facilities for remote arraignment, witness examination and conference meetings;

(c) real time court transcription. As the court reporter types the proceedings it is available on monitors for the use of judges, lawyers and the jury;

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460 O'Flaterty, 'Computer-Generated Displays in the Courtroom: For Better or Worse?' (1996) 4 *Web Journal of Current Legal Issues,* http:www.ncl.ac.uk/~nlawwww/1996/contents4.html.

461 http://www.courtroom21.net.

(d) high tech podium featuring the controls for several evidence presentation tools, video and litigation support systems; and

(e) individual monitors for the jury, judge and parties through which all evidence can be viewed.

10.9 The University of Arizona Courtroom of the Future Project is similar to Courtroom 21.[462] It serves to educate students and legal professionals on the best use of technology. As with Courtroom 21 it seeks to utilise current commercially available technologies in innovative ways rather than develop advanced technologies specifically for the legal system. It too boasts evidence presentation tools such as document cameras and scanners that can display documents and other exhibits on a large screen. Video and real time transcription facilities are used to construct a 'virtual courtroom', where the participants are brought together with technology rather than a physical building. The project also investigates law office technology and the ways lawyers can use workflow, communications, multimedia and computerised legal research to improve their productivity.[463]

10.10 While both these courtrooms are highly sophisticated, their primary role is to educate legal professionals and court personnel to utilise technology. In Australia, we already have a few examples of the successful use of such technology in the conduct of real trials and royal commissions.

Estate Mortgage Case

10.11 In 1990, the Estate Mortgage case began as Australia's largest commercial litigation case. Partners from Arthur Anderson were appointed trustees of Estate Mortgage and sought to recover $1 billion lost by unit-holders in the trust collapse. The hearing in the Supreme Court occurred in 1997 before Justice Tim Smith and involved about 80 court sitting days. A special courtroom was set up with over 50 computer terminals networked by an intranet.

10.12 More than 1.5 million pages prior to the trial and a further 200,000 documents during the trial were imaged and stored on 3 servers and all documents and images were hyperlinked. The most sophisticated aspect of the case was that the database used to store and deliver images was available via the Internet. It enabled documents to be viewed on all screens seconds after they were requested, with links to the real time transcript that was also 'live' on the Internet. The use of browser technology meant that traditional problems associated with proprietary database systems were

462 http://www.law.arizona.edu/courtrm.html.

463 http://www.law.arizona.edu/courtrm.html.

not encountered and any computer could access the information within or outside the courtroom as long as they had an account and password with the system.

10.13 The information stored on the court system during the Estate Mortgage litigation was accessible from any computer attached to the in-court network by viewing the Estate Mortgage home page using an Internet/intranet browser such as Netscape Navigator or Microsoft Internet Explorer. Lawyers involved in the case did not have to sit in court to follow the progress of the case but could follow the case from their Sydney and London offices, email information to their colleagues in Melbourne or notate the real time transcript to highlight areas for cross-examination.

10.14 Facilities used during the trial were provided by Systematics and all parties shared the cost of the system. The facilities included:

(a) court book database and image library, which was constructed using the data collected during discovery, and accessed using the Estate Mortgage home page;

(b) court document presentation, consisting of documents produced by the parties, which were added to the electronic court record continually throughout the hearing. Documents could be converted from all electronic formats to the HTML format, which was presented via the home page;

(c) public document image view. Within the courtroom an operator, under instruction of the judge and counsel, controlled the display of images shown to the judge and witnesses. All documentation accessible from the home page could be displayed using the Public Document Image View;

(d) transcript management services, which included:

  (i) supply of real time transcript; and

  (ii) supply of final copy formatted transcript in a number of electronic formats and hard copy, if required.

  Participants could use the transcript management application of their choice;

(e) network infrastructure, which was provided throughout the hearing room, the judge's chambers and the participants' workrooms. The set-up was designed specifically to allow the integration of public and private infrastructure;

(f) communications services, which included dial-in access to all home page facilities, allowing remote access and participation, and email; and

(g) audio/visual broadcast and recording services, which included:

  (i) public address system;

(ii) video display to a remote public gallery;

(iii) audio and video recording of proceedings; and

(iv) ability to display video recordings over the public image view.

10.15 It was estimated that the intranet utilised for the Estate Mortgage case saved about 50 per cent of court time and approximately $3 million in legal costs. It also saved a considerable amount of space. A partner from one of the law firms involved in the case claimed; '[u]nless we took over the Tennis Centre, there's no practical way we could have conducted the case without the system'[464].

10.16 The use of technology in the case has received international acclaim. Similar technology has been employed in the current Victorian Royal Commission into the Explosion at Esso's Longford Gas Plant.

Longford Gas Inquiry

10.17 Following the explosion at Esso's Longford gas plant, which cut gas supplies to Victorians for two weeks, the Victorian Government decided to establish a Royal Commission into the matter. It soon became evident to the lawyers representing the numerous parties that the Royal Commission would need to utilise technology to meet the tight reporting deadline. The services of software developer, Mr Chris Preistley, who produced the Estate Mortgage System (now commercialised as a software package called 'Lantern'), are again being utilised.

10.18 Following the announcement of the inquiry, the law firms involved with the case and the Department of Justice met with the software company to establish technology standards for use in the inquiry. Common standards for document numbering, imaging, provision of data and party codes were established so that all parties could refer to documents using a common indexing system.[465]

10.19 The Committee believes that the Internet/intranet based system used in conjunction with common technology standards will set a benchmark for future large litigation and inquiries. A major difference between the Longford inquiry and the Estate Mortgage case is that the proceedings from the inquiry are accessible by the public rather than just the parties involved in the case.[466] It is the first inquiry in the

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464 C Connor quoted in K Derkley, *Law Institute Journal*, http://www.ringtail.com.au/estate_mortgage/lij.htm.

465 R Beazley, *Minutes of Evidence*, 25 Nov. 1998, p. 204. A document containing the adopted technology standards was provided to the Committee.

466 http://www.vgrs.vic.gov.au/public/longford.html.

world where an Internet user can follow the proceedings as they occur. As Mr Priestley states:[467]

> Instead of the transcript being published to say, 50 people in a courtroom, it's being published to a potential audience of 800 million around the world. That level of projection of a live courtroom has never happened.

10.20 The Committee notes that there have been other inquiries notably the Wood Royal Commission into Police Corruption and the Thredbo Coronial Inquest in New South Wales that have utilised technology very effectively to conduct large-scale public inquiries. For instance, the recent Thredbo Coronial Inquest utilised a software system developed by Auscript based on Lotus Notes client/server technology to manage the documents, maps and exhibits involved. The Committee believes however, that the system developed by Mr Priestley ensures more equitable access to the information both inside and outside the courtroom because it utilises Internet technologies.

10.21 The technology utilised in these instances can and will become common place in all cases as courts and lawyers are exposed to it. The benefits, while more obvious in large cases, are equally applicable to smaller cases. As more lawyers use litigation support software in their everyday cases, it is more likely that the benefits to practitioners and courts become obvious. The issues for the Committee in relation to the use of technology in courtrooms are funding responsibilities, the establishment of infrastructure and the establishment of standards for the use of technology.

Victoria: Current Developments

10.22 In Victoria, the Supreme Court is refurbishing Court 13 to become an electronic court. The fully computer integrated courtroom will potentially enable:[468]

(a) audio and video systems in the courtroom;

(b) electronic presentation of evidence;

(c) electronic management of case information, such as exhibits;

(d) remote witness recording; and

(e) electronic transcript.

10.23 The Committee supports the view expressed by the CEO of the Supreme Court in relation to the development of a high-tech courtroom 13:[469]

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467 C Priestley quoted in A Burrell, 'Gas Inquiry Trials High-tech Tools', *The Financial Review*, 18 December 1998, p. 22.

468 Submission no. 11, p. 8.

> We are not in the business of hardware infrastructure. We are not in the business of static courtrooms or static premises. We want to be able to expand the organisation and the service so that one day a courtroom may well be constituted by a barn in the Wimmera-Mallee region and we will have everything available at our fingertips as we would in a traditional courtroom in Melbourne. We are seeking only to create infrastructure so that any committee member in front of me, no matter what his or her hardware of software systems, could come into the facility and patch in. That will incorporate email, electronic service exchange, Internet services - all the things that you would expect this state to be engaged in at this part of the century.

10.24 As discussed in the previous chapter, the delivery of IT in the County Court of Victoria is tied in with the new County Court building. The Department of Justice and the court called for tenders on the supply of the building and services, including IT.[470] The IT specifications for the new building require the successful tenderer to provide a comprehensive and integrated set of IT services including the provision of infrastructure and cabling. In relation to courtroom technology, the specifications require litigation support and trial management administration services. It also clearly requires the contracted provider to ensure that the court has the capacity to present material electronically during the trial. Detailed specifications for videoconferencing and transcription services are also included. These requirements will be discussed later in this chapter.

10.25 The Magistrates' Court rarely deals with complex cases and therefore does not see the need to install permanent high-tech courtrooms, as the majority of their workload consists of routine, quick turnover cases. However, the CEO of the court did indicate that a document management and display system was installed for a recent complex Commonwealth prosecution.[471] As discussed later in this chapter, the court uses videoconferencing very effectively. In light of its caseload, the court does not seem to consider the installation of the necessary infrastructure for high-tech courtrooms as a priority. The Committee believes that the Magistrates' Court, as with all courts, should facilitate the use of technology in their courtrooms should parties choose to do so. This does not necessarily mean the establishment of a high-tech courtroom, but requires the requisite cabling infrastructure to enable parties to bring in their own equipment that can be plugged into courtrooms.

Committee's Assessment of Courtroom Technology in Victoria

10.26 The Committee believes that all courts in the future will need to provide the basic infrastructure and believes that the views expressed above by the CEO of the Supreme Court reflect the approach that should be adopted. However, providing this

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469 B McLean, *Minutes of Evidence*, 25 Nov. 1998, p. 138.

470 R Allen, *Minutes of Evidence*, 25 Nov. 1998, p. 143.

471 P Armstrong, *Minutes of Evidence*, 25 Nov. 1998, p. 154.

infrastructure especially in courts situated in ancient buildings can be a costly exercise and consideration needs to be given to how such funding can be provided. The Committee is aware that private enterprise has approached the Department of Justice and the courts and offered to equip courtrooms and recover costs from the parties. One provider suggested to the Committee that half the cost involved is in putting in and taking out the technology from temporary courtrooms. It was suggested that establishing permanent technology courts would halve the costs to parties for the use of these services.[472] The Department to date has rejected such offers conscious of the fact that it does not want a private company to monopolistically control the technology infrastructure in a courtroom.

10.27 However, in evidence to the Committee, all Victorian court officials expressed concern in relation to the budgetary constraints that often limit the extent of technology employed in courts. The implementation of technology in the justice system is an expensive exercise. However, if effectively implemented, technology can bring long term gains that outweigh the costs. Improved efficiency in courts and increased access to justice may be difficult to quantify but it is an ideal for which all democratic societies should aim.

10.28 The Committee believes that Victorian courts are in a phase of transition. All courts have gone through an administrative or business process reengineering review and are looking to implement case management systems specifically and technology generally. The Committee believes that the government should take advantage of the interest within courts and encourage the effective use of technology. The Committee believes there are pockets of excellence within the courts that need to be supported and extended with the right infrastructure and integrated systems. To this end, as recommended in Chapter 4, the Committee believes that in this transitory phase, funding for technology projects for courts and tribunals should not be dependent upon efficiencies in other areas.

10.29 The Committee also believes that for technology to effectively aid in court proceedings, minimum technology standards need to be adopted by all courts. As the Victorian Government Solicitor urged:[473]

> We would like to see—and we urge this Committee to so recommend—the courts adopt technology standards in just the same way as we now have (for the Longford Royal Commission) and have had for hard copy documents for many years. The rules require documentation to be produced in a certain form, a certain type size, certain requirements regarding headings, margins and all the rest of it. Court documentation is vastly improved

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472 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with I Chivers, Systematics, Sydney, 7 May 1999.

473 R Beazley, *Minutes of Evidence*, 25 Nov. 1998, p. 204.

> from what it used to be because of technology. We would like to see some minimum standards introduced though perhaps rules-of-court mechanism, perhaps legislation, which would in effect do what the technical standards set for the Longford Royal Commission do—that is, set down minimum standards that the parties who are involved in major litigation are expected to meet if they are to be involved in a trial that will take some time and generate a lot of documents.

10.30 Similarly the Law Institute of Victoria believes that there is a real need for standards or rules to be established enabling electronic discovery of documents.[474] The Law Institute believes that the standards ought to be based on the standards developed in the Estate Mortgage case. It believes that the introduction of protocols is a matter of urgency.[475]

10.31 The Committee had intended to recommend that all Victorian courts and tribunals establish uniform standards for the use of technology in litigation, including standards facilitating electronic discovery of documents. However, in the final stages of this Inquiry, the Supreme Court of Victoria issued Practice Note No. 3 of 1999 containing guidelines for the use of technology in civil litigation.[476] The Practice Note encourages parties in civil cases to:[477]

(a) use electronic data to create lists of their discoverable documents;

(b) make discovery by exchanging electronic data created in accordance with an agreed protocol;

(c) exchange electronic versions of documents such as pleadings and statements;

(d) arrange for inspection of discovered material by way of images if appropriate; and

(e) consider the use of electronic data at trial.

10.32 The Practice Note strongly suggests that if there are over 1000 discoverable documents between parties, they should consider the exchange of documents in electronic format using agreed fields. There is a guide appended to the Practice Note with suggested fields and technology. It also canvasses the need for parties to consider types of equipment and technological services if required, including whether a third party service provider should be engaged. The Committee commends the Supreme Court on the Practice Note. The Committee notes that the New South Wales Supreme Court has recently introduced a similar practice note and commends the consistent approach of both jurisdictions. The Committee believes that all other courts and tribunals in Victoria should introduce the guidelines contained in the Practice Note to ensure uniformity. While some courts may believe that there will be no use for such standards, technology will become a part of all Victorian courts

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474 Submission no. 13.

475 A Foster, *Minutes of Evidence*, 25. Nov. 1998, pp. 234-239.

476 Supreme Court of Victoria, Practice Note No. 3 of 1999.

477 Supreme Court of Victoria, Practice Note No. 3 of 1999.

and tribunals. The Committee believes that there should also be a systematic examination of the rules of evidence to ensure that there are no impediments to the use of technology in the conduct of trials.

The Committee commends the Supreme Court on the introduction of Practice Note No. 3 of 1999 that establishes guidelines for the use of technology in litigation in any civil matter.

Recommendation 30

The Committee recommends that the County Court of Victoria, Magistrates' Court of Victoria and the Victorian Civil and Administrative Tribunal introduce similar practice notes to facilitate the use of technology in courts and tribunals.

Recommendation 31

The Attorney-General should refer a review of changes that may be necessary to the rules of evidence in order to facilitate the technological development of the law and the electronic presentation of evidence in court to a parliamentary committee for inquiry.

Videoconferencing

> As legal standards and procedures emerge, virtual hearings and meetings could come to play a major role in the justice system, not only displacing some forums of today but also enabling more frequent and greatly improved communication where, hitherto, face-to-face meetings have not been feasible.[478]

10.33 Australia, and Victoria in particular, is internationally recognised for the effective use of videoconferencing in legal processes.[479] The Australian Institute of Judicial Administration's Technology for Justice review indicated that now 'a mature and manageable technology' is utilised extensively in the Australian legal system.[480] Australia's lead in this area probably stems from the vast geographic distances involved, which have forced courts to be inventive with their use of technology.

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478 R. Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xxii.

479 Several papers at the AIJA Technology for Justice Conference noted Australia's effective use of videoconferencing. These sentiments were supported in the Committee's overseas study tour with American and European jurisdictions believing that Australia has taken the lead in relation to videoconferencing.

480 J Leeuwenberg and A Wallace, *Technology For Justice Report*, AIJA, 1999.

10.34 While videoconferencing in Australian courts was primarily used to take evidence from vulnerable witnesses including children, it is now used in a wide range of contexts. It is used to take evidence from witnesses or parties in custody; to take expert evidence from around the world; to conduct directions hearings, pretrial conferences, chamber applications, applications for special leave to appeal, and appeal hearings; and to facilitate internal administrative meetings.

10.35 At the federal level, the High Court and Federal Court use videoconferencing to conduct hearings. The Family Court hears appeals by videoconference and is piloting videoconferencing facilities in Melbourne, Hobart and Launceston. Tribunals, especially those that are newly established such as the National Native Title Tribunal, utilise the technology extensively to overcome the geographical distances involved in the cases they deal with.

Benefits to Courts

10.36 The are many advantages to be gained from the use of videoconferencing technologies. In the context of criminal law, where it has been used for a range of preliminary hearings while the prisoner is in custody, the advantages include:[481]

(a) the reduction of inmate transportation costs;

(b) the elimination of security problems in prisoner transportation;

(c) a reduction in the number of jail personnel needed for inmate movement;

(d) reduction in tension by eliminating inmate movement and waiting in holding cells;

(e) the ability of inmates to be released more quickly after the court hearing;

(f) savings in travel time and costs; and

(g) savings in court time awaiting the arrival of inmates.

10.37 In civil cases, the benefits of videoconferencing include the ability to carry out a range of case management hearings in circuit towns and most importantly to increase access to justice. The cost and time benefits of receiving expert evidence by video rather than transporting experts and having them wait in court are also enormous. Videoconferencing can aid in overcoming problems associated with distance and communication particularly in rural communities. The Committee saw an excellent example of the effectiveness of videoconferencing in the Queensland Legal Aid office where a client from remote Charleville was able to consult with and give instructions to a legal aid solicitor using a videoconference link.

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[481] Court Technology Advisory Committee, *Judicial Council of California Report on the Application of Video Technology in the California Courts*, Aug. 1997, p. 11.

10.38 Videoconferencing can also strengthen the training and administrative functions of courts. In the United States, the Federal Judicial Centre has used videoconferencing technology to train judges and court staff all around the country. Using satellite television, judges and court staff can take part in training sessions via the use of interactive videoconferencing technology which enables participants to ask questions of the trainer at any given point.[482] In Tuscon, Arizona, the Committee had the opportunity to see and use cutting-edge videoconferencing technology. The package allowed high quality video and audio communication over a standard telephone line. The communication system was a portable unit and could be used from anywhere with a telephone connection as long as the person you were communicating with had a computer with a standard Internet browser.[483]

Victoria

10.39 Victorian courts have displayed leadership in the area of videoconferencing. In Victoria, the vision for video linking in the courts and tribunals is the development of an integrated audio/visual system including videoconferencing capabilities.[484] The Victorian Government Reporting Service (VGRS) within the Department of Justice has rolled out a unique system that integrates remote recording facilities with transcription and videoconferencing.

10.40 The Victorian *Evidence (Audio Visual and Audio Linking) Act* came into operation in December 1997. It enables the judiciary to direct that people appear by audio or audiovisual link from any place within or outside Victoria or outside Australia. The Department of Justice instituted a pilot program in 1997 at Melbourne Magistrates' Court, Melbourne County Court, and at Mildura and Moe Courts. The following table sets out the strengths of the system:[485]

Remands	Prisoners can remain at gaol and therefore eliminate or reduce transport costs, security risks and disruption to prisoners.
Pre Hearing Conference/ Interlocutory	Solicitors and their clients interact with the court from any location and have access to the judiciary for circuit, early arraignments, circuit directions hearings and other

482 Parliament of Victoria, Law Reform Committee, *Notes of Meeting,* Meeting with officers of the Federal Judicial Centre and the Administrative Office of the United States Courts, Washington, D.C., 16 Jul. 1998.

483 The system was called Video Packer Pro AVP III. Parliament of Victoira, Law Reform Committee, *Notes of Meeting,* Meeting with W Woods, University of Arizona College of Law, Tuscon, 12 Jul. 1998.

484 Submission no. 11.

485 Submission no. 11, pp. 9-11.

Proceedings	interlocutory steps on a daily basis without the judge, practitioners and litigants having to travel.
Remote/Protected Witness	Current remote witness system requires witness to give evidence from an office within the court building, but outside the actual courtroom. This facility also provides unlimited opportunities for expert witnesses and protected witnesses to be able to provide evidence quickly, securely and cost effectively from any location worldwide.
Expert Witness	Currently, it is very costly to provide this type of evidence, which occurs most commonly in medical and forensic science areas. The facility enables organisations like Police Forensic Science Laboratories as well as private practitioners to increase their productivity by reducing travel time and making it more affordable to use intrastate, interstate and overseas experts.
Remote appearance by Counsel (DPP, VLA, etc)	There are instances where lawyers can adequately fulfil their duties remotely from the court. This increases accessibility and raises productivity utilising video conference technology.

10.41 Following the success of the pilot, videoconferencing facilities were installed in 26 courtrooms in the County Court, in four courtrooms in the Melbourne Magistrates' Court, the Supreme Court, Boards and Tribunals, Children's Court and the Coroner's Court during 1998. The facilities were also rolled out to country courts at Warrnambool, Geelong, Ballarat, Bendigo, Mildura, Shepparton, Wangaratta, Moe and Morwell. The Department of Justice has also installed equipment at the Police Forensic Science Laboratories and three private prisons.[486]

10.42 Currently, the Magistrates' Court utilises a closed circuit video system to enable a protected witness to give evidence from a location in the court building. In addition, the court, using a point to point macro link, has conducted bail applications remotely without requiring the prisoner to appear in court. Videoconferencing has also been used in the County and Supreme courts to take evidence from experts from interstate and overseas. The County Court is also using the technology for case management hearings in civil cases, preliminary hearings in criminal trials and as an 'access to justice tool':[487]

> Now litigants, wherever they are in the state, are able by videoconferencing to make an urgent application to our practice court for injunctions, or whatever simply using the video. It needs to be emphasised that communication does not always have to be and it is not always courthouse to courthouse. There are plenty of occasions where the person at the other end can

[486] Submission no. 11.

[487] R Allen, *Minutes of Evidence,* 25 Nov. 1998, p. 144.

be in an educational facility, a Telstra or Optus centre or wherever else using the videoconferencing facilities to contact and talk to the court.

10.43 The Committee believes that the Victorian courts have been innovative and imaginative in their use of videoconferencing technology. As the profession and the public see the benefits of the use of such technology, videoconferencing will be utilised for a larger range of procedures. At the same time, as the costs continue to decrease, the obvious benefits of videoconferencing will ensure that it becomes an integral communication tool for all court functions.

Limitations of Videoconferencing

10.44 The pilot program conducted by the Department of Justice identified the following limitations:

The Personal Contact	Videoconferencing will never replace the personal contact in the courtroom, which the judiciary and court users feel is needed in some areas. It will merely provide an alternative communication method for those matters where such contact may not be critical to the running of a case.
Technical Breakdown	Like any technology, computers can malfunction and will require appropriate technical support.

10.45 Professor Fredric Lederer, when considering the effects of videoconferencing at a psychological level, suggests that the fact that the American population is a 'visually oriented group' means that 'a person on television may be received very sympathetically—more sympathetically than if they were actually in the courtroom.'[488] While the same may be true of Australians, it may equally be argued that the absence of the witness in the courtroom has a distancing effect, removing any sense of empathy or humanity.

10.46 One of the strongest arguments mounted against using videoconferencing in all aspects of legal processes is that of examination and cross-examination of witnesses and the accused. It is argued that barristers and juries need to 'smell the fear' of the witness. Professor Lederer refers to the opinion of several legal experts who maintain that the most constructive method of ensuring witnesses tell the truth is by placing them in a courtroom amongst the formal paraphernalia of justice, rather

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488 F Lederer, 'Modern Technology in the Courtroom: Possibilities and Implications' paper presented at the Fourth National Court Technology Conference National Center for State Courts Oct. 1994, p. 2.

than at a remote location where they might be tempted to dismiss the importance of the situation.[489]

10.47 Alternatively, it could be argued that information technology actually enhances our ability to determine the credibility of a witness. Reactions and demeanour of a witness can be easier to gauge using electronic means. Combining the use of high quality video images accompanied by digital transcripts with the ability to replay testimony from different angles and enlarge images may reveal a lot more about the credibility and honesty of a witness than that whichcan be deciphered physically.[490]

10.48 The Committee believes that these limitations can be explained as part of the process of adapting to new technologies. However, the Committee has noted a paucity of material on the effects of videoconferencing on juries, judges and witnesses. The psychological effects of videoconferencing upon Australian juries needs to be investigated more fully in order to ascertain whether videoconferencing might place parties appearing remotely at a psychological disadvantage. The extent to which remote testimony would be more or less persuasive to a fact finder than in-court testimony is an issue of critical importance to the admission of remote witness testimony and warrants further exploration. The Committee believes that the law and technology clearinghouse or the Department of Justice should conduct a study into the effects of videoconferencing on all those involved with courts.

Technology and Court Transcription

10.49 While transcripts of legal proceedings have not been part of the legal system for very long, they have now become an integral part of the system. The take-up of transcript technology over the last 100 years exemplifies the way technology is initially adopted and then normalised by those who use it. It has evolved from written shorthand that is later transcribed, to contemporary real-time computer assisted transcription.[491] The first computer assisted commercial stenograph system was released in 1972 and the first time real-time transcription was used in the Victorian legal system was in the notorious Bond case in 1990.[492]

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489 ibid.

490 R Widdison, 'Electronic Law Practice: An Exercise in Legal Futurology' (1997) 60 *Modern Law Review* 143, p. 161.

491 E O' Brien, 'Court Reporting Methods and Alternatives', paper presented at the AIJA Annual Conference, Sydney, Aug. 1997.

492 *National Bank Ltd v Bond Brewing Holdings Ltd* 1990 169 CLR 271.

10.50 Currently, courts use several different forms of transcription and each has its benefits and pitfalls. In terms of today's technology, real time transcription represents leading edge technology that is continually being refined. Courts today use a variety of transcription methods that are described below.

Real Time Transcription

10.51 One of the best examples of real time reporting is the Hansard reporters who report the proceedings of Parliament using stenograph machines. The following passage encapsulates the process of real-time transcription in the court environment:[493]

> Realtime translation is the ability of the court reporter to use a computer-assisted stenograph machine and have the testimony of a witness appear on the computer monitor in plain English text within a matter of seconds from the time when the words were spoken. The 'computer magic' is accomplished by matching of the reporter's stenographic keystrokes with the same stroking already stored in the reporter's 'computer dictionary' and associated with a specific English word. If a 'match' does not occur, an 'untranslate' appears on the screen in the form of the stenographic keystroke which, of course, are unreadable to the untrained eye but which can later be corrected by the court reporter or his / her assistant or 'scopist'.

10.52 Real time transcripts can be fed directly into computer packages such as transcript analyser software and then indexed, enabling annotations to evidence and searching of evidence. Using intranet technologies, as described above in the discussion of the Estate Mortgage case, parties outside the courtroom can access real time transcripts.

Audio Transcript

10.53 This refers to the practice of audio recording court proceedings using either analogue or digital audio equipment. This is the most widely used form of transcription as it reduces costs by minimising staff. Court personnel, rather than highly specialised court reporters operate the recording equipment and the tape is transcribed at a later date as required by a typist.

Video Transcript

10.54 Video recording of court proceedings can form a complete record but can be an expensive exercise due to the infrastructure costs. Once the infrastructure is established however, it is estimated that there can be savings. In 1992 the Californian

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493 J Andrews, quoted in V Harris, 'Overview of Computerised Transcript', paper presented at the AIJA Technology For Justice Conference, Melbourne, Apr. 1998.

Judicial Council found that a video-recorded courtroom could save US$41,000 per year.[494]

10.55 The Kentucky Circuit courts in the United States provide an example of the use of video recording. In the United States, court reporters have formed a fairly strong lobby group to respond to the pressures that new technologies have placed on their jobs. Furthermore, it has been found that many transcripts that are produced at great expense are never needed or utilised again. The Kentucky courts responded to these issues by sacking all their court reporters and replacing them with video recorders almost 15 years ago.[495] The videotape is the 'record' used for appeals unless the judge or the parties want the tape transcribed. Parties wanting a copy of their case can obtain one from the courts for $10 and transcribe them if necessary.

10.56 The State of Utah also trialled the use of video recording. However, rather than discarding all their court reporters, Utah courts have developed a system whereby court reporters are used for real time reporting for cases involving serious crime, while all other cases are video taped.[496]

Court Reporting in Victoria

10.57 The Department of Justice expounds its vision for court transcription as being:[497]

> To provide an integrated audiovisual system which enables courts to be recorded for the purpose of producing a transcript without the need to have a recorder operator in the courtroom.

10.58 The Department instituted a pilot program whereby courtrooms in the County Court building had video and audio equipment installed. Such equipment was also installed remotely at the Victorian Government Reporting Service (VGRS) offices, where court transcription occurs. Audio systems were installed in Geelong, Morwell, Bendigo and Ballarat circuit courts where sound was transmitted via links back to VGRS in Melbourne for transcription. The system is operated through a simple touch screen and does not require specialised technical support staff to operate the

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494 B Miller, 'Court Reporting: From Stenography to Technology', (1996) 9 *Government Technology* 1, p. 1.

495 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with J McMillan, National Centre for State Courts, Williamsburg, 16 Jul. 1998.

496 E Leeson, 'Utah Tries Video' (1996) 10 *Government Technology* 20.

497 Submission no. 11, p. 11.

equipment.[498] The system is integrated with the videoconferencing facilities described above.

10.59 The pilot project demonstrated that video and audio recording gave the VGRS a lot more flexibility in the use of its staff. By centralising transcription, technical staff could remotely monitor and correct faults in the system, and rural circuit courts enjoyed the same level of service as metropolitan courts.[499] In 1998, the integrated audio visual system was rolled out to 22 criminal courts and the Melbourne County Court. The software running the system enables tipstaves or other court personnel to switch between recording, videoconferencing, the PA system and the closed circuit witness system as necessary.

10.60 The system is reported to be working well. Recording cases represents the VGRS' 'base product' utilised for most cases while real time reporting is their 'Rolls Royce' service offered to high profile complex cases and inquiries.[500]

10.61 VGRS, along with the Supreme Court of Victoria, has trialed voice recognition software including Dragon Dictate and Naturally Speaking. The software currently available is still slower and not as accurate as an audio typist. VGRS is monitoring developments and believes that:[501]

> It is likely we will get a breakthrough in the next five years where there will be a viable form of voice-recognition software for transcription production.

10.62 The Committee agrees with this view and believes that voice recognition will ultimately replace audio recording and possibly real time transcription utilising stenography machines. Voice recognition software that is fed into the Internet/intranet, so that the parties, judges, jury and public can follow the progress of a case, will become the norm. The Committee has received anecdotal evidence that suggests that current programs do not sufficiently cater for Australian English. The Committee believes that there is a need for software development in this area. The Committee believes that as VGRS and the Department of Victorian Parliamentary Debates[502] are both experimenting and monitoring developments in voice recognition, funding should be allocated for both organisations to collaborate in the development of voice recognition software for Australian English in the legal and political environment.

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498 M Francis, *Minutes of Evidence*, 25 Nov. 1998, p. 179.

499 Submission no. 11, p. 11.

500 M Francis, *Minutes of Evidence*, 25 Nov. 1998, p. 177.

501 ibid, p. 178.

502 The Department produces Parliamentary Hansard.

Recommendation 32

The Victorian Government should allocate funding for the Victorian Government Reporting Service and the Department of Victorian Parliamentary Debates to collaborate on the development and monitoring of voice recognition software that translates Australian English in the legal and political context. All information gathered on voice recognition software should be distributed to the legal profession through the law and technology clearinghouse.

10.63 The Committee believes that Victoria has shown leadership in the use of technology in the courtroom. The technology used in the Estate Mortgage case, the innovative use of videoconferencing and excellent transcription services all demonstrate that the Victorian justice system is well placed in this area. The Committee believes that it is important to leverage from this position by integrating these services with a state of the art case management and judicial support system. The Committee also believes that for technology to truly facilitate access to justice, more emphasis should be placed on providing the infrastructure for use in all cases, rather than merely the high profile complex cases.

Recommendation 33

The Department of Justice should aim to integrate the technology used within the courtroom with case management and judicial support systems to provide a complete system that represents world's best practice in all areas of court administration and service delivery.

PART 4

TECHNOLOGY, THE PROFESSION & THE PUBLIC

11 TECHNOLOGY AND THE LEGAL PROFESSION

11.1 The Committee has seen several examples of legal professionals using technology to enhance their business. However, with the onset of the information revolution and the increasing availability of free Internet guides to law[503], some lawyers will suffer. As Kohler predicts:[504]

> For information vendors the Internet changes everything. For them all…it is a nightmare from which many will never wake up…This is partly because of [the] 'perfect market' point, but also because the cost of entry into the business collapses.

11.2 Don Tapscott, an international authority on information technology and what he terms the 'digital revolution', has warned:[505]

> If you have the name agent, broker, wholesaler, distributor, lawyer in your job title, time to do some serious career planning…whole industries are being wiped out, replaced by something new.

11.3 In focusing these predictions specifically on the legal profession, Professor Susskind argues that:[506]

> The genie, as they say, is out of the bottle; it is time now for lawyers to plan their future on the assumption that IT is here to stay and most will not be able to avoid its impact.

11.4 The law is an information-based discipline. The ability to access information electronically will have a dramatic impact on the legal profession. The legal profession in Australia and other parts of the world has been left in the wake of advances in other professions in the use of technology. The Committee believes that in considering how technology can improve efficiency, courts and tribunals cannot be

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503 See for example, the Parliament of Victoria, Law Reform Committee *Guide to Fences Law* http://www.lawreform.org.au/fences.

504 A Kohler, 'Cyberbabble: The Myths About the Internet' Australian Financial Review, 6 Jun. 1998.

505 D Tapscott, A Lowy, D Ricoll (eds.) *Blue Print to a Digital Economy: Wealth Creation in the Era,* McGraw Hill, New York, 1998.

506 R Susskind, *The Future of Law: Facing the Challenges of Information Technology,* Clarendon Press, Oxford, 1998, p. xlv.

seen in isolation. The predominant users of the legal system have to be receptive and adopt technology in their own practice before the benefits of IT can be realised in the justice system.

11.5 With globalisation and rapid developments in information technology, legal practice as we know it today will change beyond recognition in the next decade. Information technology ideally complements the clear trend towards the globalisation of law and legal practice. Lawyers will have to learn to use technology to their advantage and come to terms with their changing role if they wish to continue to survive in the information age. Lawyers will also have to develop new markets in the information economy to remain competitive. Some law firms have begun to develop products that provide high level information and advice on complex areas of law for non-legal managers.[507] These types of products, and lawyers who are capable of looking at the future strategically in search of new markets, are likely to be the successes of the next millennium.

11.6 This chapter will look at aspects of globalisation and the urgency for legal practitioners to commit to IT. It will then examine some of the current uses of technology by law practices. It will conclude with a discussion of legal publishing in the context of the production of material for lawyers.

The Internationalisation of Legal Practice

> Globalisation, technology and privatisation are dramatically altering the promulgation and enforcement of law no less than other sectors of social and economic life. Consequently, national laws, legal institutions, legal cultures and legal professions — except those of a few economic superpowers — are of declining relevance and efficacy.[508]

11.7 In the next decade, successful lawyers will no longer work in isolation or within the constraints of their firm. The internationalisation of business relationships and transactions has already meant that commercial lawyers can no longer merely specialise in one jurisdiction. This need to keep abreast of global developments in law can be achieved by international collaboration with the use of information technology. The global telecommunications infrastructure, groupware intranet and videoconferencing technologies will make interaction and collaboration between lawyers on an international level a reality. Physical structures and institutions will

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507 e.g., Elisabeth Broderick of Blake Dawson Waldron has developed a range of CD-Roms that provide legal advice and information to middle managers. The Committee was very impressed with the products and believes that this represents a potential future market for many law firms.

508 H W Arthurs, 'The Information Explosion: Power, Knowledge, Law and Libraries', paper presented at the New Zealand Law Librarians Group Conference, Feb. 1998, http://io.knowledge-basket.co.nz/nzllg/arthurs.html.

dematerialise into their electronic virtual equivalents and, as we are already witnessing, lawyers will effortlessly work in global teams regardless of location.[509]

11.8 Large law firms may find new competition in the form of virtual law firms which come together either on a project basis or form a network of smaller firms that can combine their talents and attain a sizeable workforce in a way that has not been possible in the past.[510] This vision is already being realised with the establishment of an Internet based law firm called the 'Virtual Law Firm'.[511] The firm was established by Californian lawyers, but utilises practitioners from around the world and attracts clients from the Internet. While the firm has a central administrative office, it is not an office for lawyers, and all communication between lawyers and clients is conducted over the Internet.

11.9 As discussed above, currently available technology enables any professional to work from where and when they choose. However, as Phillip Argy pointed out to the Committee, physical meeting spaces are important because they allow for human contact and social interaction which is important in building creative and collaborative teams.[512] There is no longer a need for all solicitors in major law firms to travel into a central office in the middle of an urban centre. The Committee has heard anecdotal evidence suggesting that some firms now have telecommuters who 'dial-in' to work from home via a modem. It has also heard that some large Australian legal firms are examining the possibility of buying properties away from the centre and establishing them as fully equipped telecentres where lawyers can meet in teams when required and carry out any administrative tasks in relation to their cases.

11.10 Furthermore, the legal market place is under pressure from other disciplines, such as accountancy, in a variety of commercial fields and even from legal publishers in information provision. Lawyers will not only have to reconstruct their role but also become comfortable with marketing and selling their talents using new technologies

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509 As discussed in Chapter 10 of this Report, in the Estate Mortgage case, lawyers involved in the case were spread across Australia and the UK. Technology was used effectively so that all involved could follow the progress of the case regardless of where they physically were and they only appeared in court in Victoria when needed saving valuable time. See also, Hardy, 'Electronic Conferences: The Report of an Experiment' (1993) 6 *Harvard Journal of Law and Technology* 213.

510 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xxviii.
Widdison likewise predicts the onset of 'ad hoc' legal firms that are assembled for particular legal issues as they arise. He predicts that there will be a 'legal architect' who will be contacted by a client who will bring together the expert team or ad hoc firm. R Widdison, 'Electronic Law Practice: An Exercise in Legal Futurology' (1997) 60 *Modern Law Review* 143, p. 155.

511 http://www.tvlf.com/vlf_homepafe.html.

512 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with Phillip Argy, Sydney, 7 May 1999.

such as the Internet. Lawyers will also have to fundamentally reevaluate traditional methods of charging clients in six-minute time units. For instance, as IT makes drafting easier and precedents and do-it-yourself legal kits proliferate on the Internet, it is going to be harder for lawyers to convince clients of the need to charge at their rates for drafting documents. Lawyers and firms will have to begin to charge for the actual service rather than the time taken to complete a task. For most law firms this would represent a dramatic change in practice.

11.11 The pressures of business and global economic reality combined with increased expectations of clients for better services make changes to the practice of law a necessity. There is general community dissatisfaction with the cost and increasing complexity of justice. Those who can afford a lawyer are acutely aware of the costs and time involved in resolving issues through traditional legal processes. Those who cannot afford lawyers are also increasing unhappy with the system:[513]

> Ordinary people increasingly find their lives affected by laws that they do not understand, cannot use to their advantage and cannot control when used against them. These ordinary people are looking for a better way, but to date they have not been happy with the available alternatives…Dissatisfaction with the present system has not yet caused a revolution because it appears that you must sacrifice the power of truth, as established by formal process, for affordability, simplicity and speed. When technology makes powerful new alternatives available, watch out.

11.12 Technology offers lawyers new solutions to the problems raised by the economics of practice and public dissatisfaction by ensuring that lawyers spend more of their time solving problems rather than carrying out routine work that IT is already capable of streamlining. Rather than being threatened by the power of new technology lawyers need to utilise it to deliver better, cheaper services to ensure they remain relevant.

11.13 As these pressures combine, the culture of law firms will have to transform into organisations that share and harness knowledge to gain competitive advantage, and organisations that use modern technologies to facilitate collaboration and ensure that they operate efficiently. While yet to make an impact on a majority of law firms, knowledge management practices will become increasingly important as the benefits they demonstrate in other corporations become apparent. The ascendancy of knowledge management as a legitimate business discipline in law practice will also highlight the need for information technology:[514]

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513 S Maher, 'Law Futures, or, Will You Still Need Me, Will You Still Feed Me, When I'm Sixty Four?' (1995) 1 *Richmond Journal of Law and Technology* 6, p. 11.

514 M Lauritsen, Capstone Practice Systems, Inc., message posted on 'TechnoLawyer' List Server, 25 Jan. 1999.

> Dramatic success by some organisations in leveraging expertise through smart technology and innovative management will jolt others into similar action, and we'll be off on a positive feedback cycle that will narrow the gap [between information technology] and real lawyering.

The Use of Technology by Lawyers

11.14 Law firms at greatly varying speeds are adopting technology. While there are a few firms that have embraced modern information technology, the vast majority have yet to fully capitalise on the benefits technology can offer. The Law Institute of Victoria recently undertook a survey of practitioners on the use of IT to dispel the popular belief that lawyers are not taking advantage of new technologies. While the survey found that 63 per cent of law firms had more than 6 computers in their practice, the percentage of those that had access to computers on their desk was around 40 per cent.[515] The survey also found that around 70 per cent of those who responded offered Internet access to their staff. However, anecdotal evidence received by the Committee suggests otherwise. Many law firms only provide access to the Internet through the library and still have concerns relating to security and the 'time wasted' by employees. Despite the fact that the Committee has largely had contact with IT friendly lawyers, the Committee's impression has been that a majority of them do not have Internet access on their desktops or the level of sophistication they would like in the systems they use.

11.15 The Committee is concerned by some of the practices in law firms in relation to access to new technologies. The Committee has had contact with one firm that only provides Internet access to partners and articled clerks. While such practices are justified on the basis of wasted time and security, in the context of modern organisations, the Committee believes that this demonstrates a lack of understanding of the Internet. As discussed in chapter 4, the Committee believes that law firms should consider relegating policy formulation on the use of new technologies such as the Internet and email to younger staff who have a better understanding of the technologies. The Committee also believes that reverse mentoring may help dispel some of the erroneous assumptions held by senior management within law firms on new technologies.

11.16 American lawyers, possibly due to their greater exposure to technology and increased competition, have much higher levels of use of IT. The American Bar Association (ABA) conducted a survey in 1998 of small and large firms' and corporate legal departments' use of IT. The survey found corporate legal departments lead the way in their use of IT because they were a part of larger international

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515 R Smith, Law Institute of Victoria, *Minutes of Evidence*, 25 Nov. 1998, pp. 224-225.

enterprises. They upgraded hardware on a more regular basis with 92 per cent of legal departments reporting that most of their computers featured Pentium class processors or faster, compared with 70 per cent at large law firms and 65 per cent at small law firms.[516]

11.17 The survey also found that the last two years has seen a dramatic uptake of new technologies. For instance, in 1996, 38 per cent of small firms reported using the Internet. This figure dramatically increased to 80 per cent in 1998. A majority of those that used the Internet in smaller firms did so for legal research,[517] while over half used it to communicate with clients,[518] and colleagues[519]. A survey of 500 of the largest law firms in the United States indicated that 58 per cent of them had a presence on the World Wide Web with another 17 per cent in the process of developing web pages.

Technology in the Law Firm

11.18 With the dawn of the electronic age, lawyers have begun to see themselves as part of a global system and develop international practices. Undoubtedly, such an age increases the complexity of the law. However, it also allows for international solutions to local problems.

11.19 At the same time, free online access to primary legal materials will result in pressure on governments to simplify the law. Access to the law by non-legally trained citizens will only highlight the complexity and elitism of the legal system and will increase the need for law to be more generally understood. Information technology can provide the catalyst for the emergence of quite a different kind of legal service. In an industry that will become more and more an information service, online access to primary legal materials is a fairly simple proposition—it is a question of how lawyers and those involved in the legal industry position themselves to take advantage of online information and technology in general.

11.20 New technologies could be utilised in every area of a practice to increase its efficiency and improve service delivery. However, the greatest use of IT by lawyers to date has been to facilitate legal research and systems that support the litigation process.

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516 http://www.abanet.org/media/dec98/98corp.html.

517 86.4 % .

518 53.6 %.

519 52.7%.

Litigation Support Systems

11.21 Litigation support has come to mean the use of information technology to manage and store documents, to generate documents and to present information in court. Lawyers are increasingly using litigation support systems to manage and store their document load by converting all material to electronic form that is searchable and can be delivered to the court in digital format. Litigation support systems are particularly useful for discovery, trial preparation, trial support records and project management.[520] These systems index and store documents for later use and distribution. Most law firms, especially those that are involved in complex litigation, have some form of litigation system that they have either developed in-house or bought off the shelf.

11.22 In the United Kingdom, Lord Woolf recommended:[521]

(a) more widespread use of litigation support technologies within the legal profession to assist with the management of document loads in preparation for trials and, more specifically, to help cope with discovery; and

(b) that a set of standard formats should be established which would encourage parties to agree on compatible systems with the possibility of an extended protocol for use across the entire civil justice system.[522]

11.23 The future will see litigation support systems managing not just text but documents that are a blend of text, graphical images, video, sound and other multimedia. Litigation support systems will increasingly consist of a sophisticated document management systems that will use hypertext to link correspondence, research, opinions, decisions, documents, photographs, video and audio clips relevant to trials. These systems will also contain highly developed document generation software that will be able to automatically assemble complex legal documents and correspondence. Artificial intelligence applied to these systems will result in the machine 'learning' and automatically updating the templates used as changes in the law are recorded in the lawyers research database. These systems will also support presentation of cases in both physical or virtual courts. Technology

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520 S Sherwood, 'Pros and Cons of Inhouse Litigation Support' (1998) 18 *Proctor* 18.

521 United Kingdom, Lord Woolf, *Access to Justice: Final Report to the Lord Chancellor in the Civil Justice System in England and Wales*, HMSO, London, 1996, pp. 285-286.

522 In relation to common standards, as discussed in Chapter 10, the Committee notes that the Supreme Court has introduced Practice Note No. 3 of 1999 setting out guidelines for the use of technology in litigation.

augmented evidence presentation will become increasingly common and will ensure that less court time is spent in describing evidence to the judge or jury.[523]

Legal Research and the Internet

11.24 Legal research has been transformed over the last few years with increasing amounts of legal information being made available on the Internet and publishers providing information on CD-Rom. Historically the nature and use of information has been determined by the technology available to create, communicate, and store it.[524] Legal publishers are increasingly becoming brokers of legal information, reshaping their market into the value added, rather than their traditional role of providing primary materials that are now freely available on the Internet. Lawyers today have access to virtual libraries of statutes, caselaw and other legal material. Sophisticated research tools like Lexis and Westlaw bring together legal information from all over the world that can be accessed at any time and from anywhere by a practitioner.

11.25 Advances in computerised research will potentially mean that lawyers spend less time finding relevant information and more time analysing the issues involved in coming to solutions or strategies to a given problem. In an area like legal research, it is easy to see how information technology can liberate lawyers to be more creative rather than 'bogged down' in mundane processes.

11.26 The Internet is not only a tool that has revolutionised legal research: it also provides lawyers with the ability to communicate with clients, other firms and court staff conveniently. There are an increasing number of legal services such as Land Title searches that legal practitioners can access over the Internet. Practitioners can also access court list on most court websites and gain other current information on courts. Where requested, the Law Institute of Victoria delivers daily court lists via email to law firms. The Internet is increasingly also being utilised by firms to market their products and services.

11.27 The Internet is also proving to be an excellent tool for education and continuing legal education. In Australia, the New South Wales College of Law and the Australian National University Legal Workshop are providing more coursework

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523 Studies conducted by Courtroom 21 indicate that in many cases visual displays of evidence during witness testimony before a judge or jury eliminates the need for many of the questions that would be asked if the evidence had not been available contemporaneously. Juries were also found to much prefer visually presented material. F. Lederer, 'The Courtroom as a Stop on the Information Superhighway' (1997) 71 *Reform* 4, p. 7.

524 R. Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, pp. 91-96.

information on the Internet and by interactive CD-Rom. Similarly, in the United Kingdom, the Law Coursework Consortium has developed a range of electronic coursework packages using interactive CD-Roms and the Internet for seven undergraduate subjects.[525] Recently the consortium has formed a connection with the University of Melbourne, which is developing Australian computerised coursework with the aid of the Victorian Law Foundation.[526] The University of Melbourne also offers course materials and assessments for a number of law subjects over the Internet.

Secure Intranets/Extranets for Lawyers

11.28 Intranets can help lawyers within a firm access sensitive material and relevant information held by the organisation. Intranets are particularly useful for large national or international firms where a physical network cannot be achieved. An example of an effective intranet is one that is in place at the national law firm Phillips Fox.[527] The system enables clients to have access to the intranet to look at information relevant to them including correspondence, pleadings, trust account information, and to pay bills and give instructions.[528]

THEMIS

11.29 THEMIS is a secure extranet system for solicitors developed by the Queensland Law Foundation Technology Services.[529] The private legal extranet is designed to facilitate secure email communications between solicitors and their clients. It also provides a vehicle for the delivery of quality controlled, legal research materials. The inspiration for building such a system was to provide access and resources to remote and sole practitioners in Queensland.

11.30 *THEMIS Private Network* provides fast access, free help desk support services, free Internet email and private network audit trailed email, and lawyers' email directories. It is a closed system with several levels of security built into it. Once a practitioner subscribes, he or she has access to a whole range of legal resources and tools. THEMIS enables access to a range of Queensland legal databases, enables

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525 Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with A Palliwalla, University of Warrick Law and Technology Centre, Coventry, 23 Jul. 1998.

526 http://www.viclf.asn.au/html/alcindex.htm.

527 http://www.phillipsfox.com.au.

528 Similar systems have been set up between law firms and a number of insurance companies who can track the progress of cases by the law firm.

529 http://www.themis.com.au.

online allocation of sitting dates with the Supreme Court, access to precedents, forms and calculators for stamp duty and other fees.

11.31 *THEMIS Private Network* is based on Lotus Notes and Domino technology. Lotus Notes works on the principle of database synchronisation. When a practitioner dials in to the central THEMIS server via a modem subscription services are automatically updated through the process of 'replication' offered by Lotus Notes.

11.32 While commercial publishers provide online subscription services to access their publications, the Committee is not aware of any other system in Australia like THEMIS that offers a range of services targeted specifically at solicitors. The Committee believes that such systems provide an ideal mechanism to bring lawyers into the new information era. The system clearly demonstrates the potential offered by the Internet for lawyers.

ELECTRONIC PUBLISHING

11.33 Government departments and courts have begun to put an increasing amount of primary legal material on the Internet. Rather than relying on in-house libraries in firms or court and public libraries, lawyers can now access legislation and case law from most Australian jurisdictions on the Internet at any time of the day or night from anywhere.

AustLII

11.34 One constant throughout this Inquiry has been the high praise across Australia and around the world for the Internet site 'the Australian Legal Information Institute' (AustLII).[530] Experts from various parts of the world have told the Committee that AustLII has been a pioneering site that has helped promote the free dissemination of legal information.

11.35 AustLII has provided free Internet access to Australian legal materials since July 1995. AustLII is one of the largest sources of legal materials on the Internet, with over six gigabytes of raw text materials and over a million searchable documents. AustLII publishes primary legal materials (legislation, treaties and decisions of courts and tribunals) and secondary legal materials created by public bodies for purposes of public access (such as reports from law reform bodies and royal commissions).

530 http://www.austlii.edu.au.

AustLII currently publishes legislation from all states apart from Tasmania[531] and decisions from most federal and state courts and tribunals.

11.36 AustLII also has subject specific databases and an extensive index to Australian law on the Internet. AustLII has received funding from the Asian Development Bank for a venture called 'Project Dial'.[532] The project aims to examine the potential use of the Internet to assist those involved in the development of legislation in the developing member countries of the Bank. It is a major part of AustLII's project to make the whole world's law indexed and searchable.[533]

11.37 Over 80,000 people use AustLII each working day. AustLII's usage statistics indicate that the largest group of users are educational institutions (30 per cent), followed by legal professionals (25 per cent), community organisations (15 per cent), and government (10 per cent).[534] AustLII's policy agenda has been to convince parliaments, governments, courts, law reform bodies and other public institutions to make legal materials they control available free via the Internet.

11.38 The Commonwealth Attorney-General's Department has a site called ScalePlus[535] that has some of the information contained on AustLII. ScalePlus however, only contains legislation from the Commonwealth, Territories and South Australia. The general feedback received by the Committee during the course of this Inquiry has been that ScalePlus is not as user-friendly as AustLII and does not contain as much information. The Committee has raised these issues with the Federal Attorney-General and has suggested that rather than have two sites that provide largely the same information, it would be more efficient to consolidate the sites and resource one national site.

11.39 AustLII is currently funded by grants from the Australian Research Council, the New South Wales Law Foundation, federal Department of Foreign Affairs and Trade and other bodies. While funding is sufficient for current operations, AustLII

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531 The Tasmanian government provides access to its laws via its own website http://www.thelaw.tas.gov.au. The Committee's current information indicates that AustLII has received all of Tasmania's legislation and is just waiting for final approval before publishing it on its site. Parliament of Victoria, Law Reform Committee, *Notes of Meeting*, Meeting with Graham Greenleaf and Phillip Chung, AustLII, Sydney, 7 May 1999.

532 http://www.austlii.edu.au/au/special/dial/index.html

533 See World Law Index—http://www.austlii.edu.au/links/World; and World Law Search—http://www.austlii.edu.au/World/Worldsearch.html. Try any country in the world at http://www.austlii.edu.au/links/World/Countries.

534 http://www.austlii.edu.au/austlii/stats.

535 http://scaleplus.law.gov.au.

has great potential to develop further and engage in further research. Beyond the year 2000, AustLII has no certain sources of funding.[536]

11.40 AustLII has ensured that Australia has the largest amount of legal materials available on the Internet of any country. Even if the material and useability of ScalePlus is significantly improved to achieve the standard maintained by AustLII, the maintenance of two sites in an era of ever expanding information on the Internet is only likely to cause confusion. Given the acclaim, useability and user loyalty that AustLII attracts, the Committee believes that the Commonwealth in conjunction with the states should fund AustLII as a national repository of legislation and case law. The Committee believes that Victoria should show leadership and provide modest ongoing funding for AustLII to publish and add value to Victorian legal information on the Internet. The Committee's discussions with AustLII indicate that a recurring funding of approximately $30 000 per annum from the Victorian Government would ensure the continuing survival of Victorian material on AustLII. The figure represents 50 per cent of the cost of publishing and enhancing Victorian material and the government would be appropriately acknowledged on the site for any funding provided.

Recommendation 34

The Victorian Government should provide modest ongoing funding for AustLII to publish and enhance the quality of Victorian legal information on the site. The Government should encourage other Australian governments to similarly contribute to the funding of AustLII as the national online resource of primary legal information.

Publication of Legislation on the Internet

11.41 While AustLII publishes legislation from almost all jurisdictions, Victorian and Tasmanian Governments have published state legislation on their own sites. The Victorian site represents world's best practice in relation to online legislation.[537] For legislation passed after 1997, it enables the user to search the law as enacted at any given date.[538]

11.42 The Victorian site is the bi-product of a larger integrated legislative management system. Called the 'Legislative Document Management System'

536 G Greenleaf, 'AustLII - Changing the Nature of Public Access to Law' Paper presented at the New Zealand Law Librarians Group Conference, 1998, see http://io.knowledge-basket.co.nz/nzllg/greenpta.html.

537 http://www.dms.dpc.vic.gov.au.

538 The Tasmanian site has similar functionality.

(LDMS), it provides support for drafting and automates the process of the progress of a bill through Parliament. Once a bill is lodged on the system by the Office of the Chief Parliamentary Counsel, the system can monitor changes in status as the bill progresses through its first, second and third reading. Warranted versions of the law are available on the government intranet, while unwarranted versions appear on the Internet site.

11.43 The Committee finds that some Victorian legal professionals are not aware of the existence of the Victorian legislation site. The Committee is disappointed that professional bodies such as the Law Institute of Victoria and the Victorian Bar Council have not adequately publicised the free availability of Victorian legislation and the added functionality of the site. Knowledge of the site seems to be currently spread by word of mouth. The Committee believes that to increase the ease of use of the site and to ensure that the site is more widely used, the government should obtain a simple domain name such as 'victorianlaw' or 'thelaw' or 'law'.[539] The Chairman of this Committee has also held the view that the Victorian legislation site should facilitate linkages to private sector sites that add value. For instance, there would be a link to a commercial publisher's commentary on a particular Act that could be obtained by the user for a fee.

Recommendation 35

The Victorian Government should obtain and utilise a simple domain name for its Internet legislation site.

Publication of Judgments on the Internet

11.44 As mentioned above, most jurisdictions around Australia now publish their decisions on the Internet on the AustLII site.[540] The High Court of Australia was one of the first courts to make all its decisions available online. The Court takes the view that access to justice is very important and therefore has published all its judgments from 1947 onwards in full text on the AustLII site. The Court also has a subscription service that distributes judgments electronically within 30 minutes of their delivery.[541]

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539 The current Internet address is http://www.dms.dpc.vic.gov.au. A simpler version could be http://www.thelaw.vic.gov.au; http://www.law.vic.gov.au; http://www.victorianlaw.vic.gov.au.

540 For a full list of available resources on AustLII see http://www.austlii.edu.au/databases.html.

541 The subscription costs $430 a year.

The Court also introduced paragraph numbering and 'media neutral' citation with the first online judgment in 1998.[542]

11.45 Until recently, Victoria was one of the only jurisdictions that did not make its judgments available through AustLII. While Court of Appeal decisions have been available since 1997 on the AustLII site, this was not the case for Trial Division cases of the Supreme Court. The Committee has received submissions urging a change in this policy by the courts on electronic publication and access to judgments.[543]

11.46 The Supreme Court also had a policy whereby decisions had to be removed from the Internet once reported in the Victorian Reports.[544] The Committee believed that Victorian courts should follow the excellent example set by the legislative arm in the delivery of legislation online. During 1998, the policy did change in the Supreme Court with the introduction of Practice Note No. 4,[545] which states that from 20 July 1998 judgments of the Trial Division of the Supreme Court will be available at AustLII. Summaries of unreported judgments are accessible through the Supreme Court website[546] and the full judgment is available by linking through to AustLII. The Practice Note also introduces media neutral citation for judgments consistent with the High Court policy. The correct form of citation is clarified in Practice Note No. 2 of 1999.

11.47 The Committee believes that the Supreme Court's decision to publish its judgments online is an important access to justice measure. The Committee understands that a judgment will remain on the Internet even if it is published in the Victorian Reports.[547] The Committee believes that all other jurisdictions should follow this lead. The Committee notes that the County Court of Victoria has published selected judgments on its Internet site[548] but believes that the Court should publish significant decisions through AustLII.

The Committee commends the Supreme Court's policy of making most of its judgments available via the Internet and the implementation of its policy on media neutral citation of judgments. The Committee encourages all other Victorian courts and tribunals to follow that lead.

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542 In contrast, the US media neutral citation is bogged down in the courts because West Publishing is suing in relation to interests.

543 Submission nos. 8 and 9.

544 Parliament of Victoria, Law Reform Committee, *Notes of Meeting,* Meeting with G Greenleaf, P Chung, A Mowbray, AustLII, Sydney, 3 Feb. 1998. See also submission no. 9.

545 [1998] 2 VR 401.

546 http://www.supremecourt.vic.gov.au.

547 Parliament of Victoria, Law Reform Committee, *Notes of Conversation,* Telephone Conversation with James Butler, Supreme Court Librarian, 19 Apr. 1999.

548 http://www.countycourt.vic.gov.au.

Commercial Publishers

11.48 Lawyers have relied on legal publishers for up-to-date legal information for a long time. The Committee believes that legal publishers must fundamentally rethink their role in an era where an increasing amount of information is available free online. The Committee believes that rather than utilising technology in an innovative manner, many publishers essentially have taken a product first conceptualised in the 1890s and reproduced it in a 1990s electronic medium. There has not been a fundamental remodelling of the material or a questioning of what the lawyer in the computer age needs or is demanding.

11.49 The Committee met in Sydney with representatives of all major Australian legal publishers and has taken evidence from a range of law librarians in Melbourne. Amongst the legal publishers, Butterworths appears currently to be the most advanced in relation to electronic publication, since it was the first publisher to provide online services and most of its material is now available though its website.[549] However, Law Book Company (LBC) and Commercial Clearing House (CCH) have similar long-term plans. The Committee's recent meeting with CCH indicates that it has developed rapidly during the last year.[550] All legal publishers offer CD-Rom services which are basically reproductions of paper based products with search capabilities. However, it is important to remember that CD-Rom is an interim technology and the Internet will become the ultimate delivery mechanism because the capacity to store information is not limited and updating information is much easier.[551]

11.50 The law librarians who gave evidence before the Committee generally expressed dissatisfaction with legal publishers and the way they are tackling the move to electronic publishing. As one librarian commented:[552]

> I do think that the commercial publishers are still a bit behind and their search interface is one that replicates a book. In the majority of cases they use Folio Views, which is not a good search interface necessarily, but they think lawyers, as in small firms and barristers, will be more comfortable with it as it looks more like a book. So they have been quite patronising in some ways, that is my view.

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549 http://www.butterworths.com.au.

550 LBC has recently gone online. At the time of writing, the only service that seemed to be available was access to their database of unreported judgements. See http://www.online.lbc.com.au, Parliament of Victoria, Law Reform Committee, *Notes of Conversation,* Meeting with representatives of CCH, Sydney, 7 May 1999.

551 E Predavec, 'The Future of Legal Electronic Publishing', paper presented at the New Zealand Law Librarians Group, 1998, http://www.knowledge-basket.co.nz/nzllg/predavec.html

552 R Bird, *Minutes of Evidence,* 11 May 1998, p. 84.

11.51 The librarians also expressed concern that the electronic products are no cheaper than the paper products making it difficult for librarians to justify access to paper, CD-Rom and Internet. There was general agreement that the paper based products continued to rise in price and that the benefits of electronic access were yet to be realised.[553] Publishers on the other hand, argued that conversion to electronic products was extremely expensive and time consuming and that the majority of clients still wanted paper products.[554]

11.52 The Committee believes that part of the reason for the lack of innovation amongst Australian legal publishers is due to the fact that the market is fairly small and that each company has a monopoly over a certain area. However, as material becomes increasing available without charge over the Internet, the pressure on these companies will grow to provide innovative value added services. Electronic publishing is still in its infancy and creating and developing products coming from a paper paradigm is difficult especially when there are no real market imperatives for such development.

11.53 In the future, online libraries like AustLII will continue to grow more sophisticated by incorporating more information, better filters and search facilities to ensure lawyers obtain 'all but only'[555] the information they need. Finding the relevant information will become the domain of the 'intelligent agent' or a customised automated researcher that will roam the Internet in search of information and buy or bring back the relevant information for the lawyer. Widdison predicts that these intelligent agents will be a type of software robot having the capacity to replicate aspects of itself. Using these means, it will leave a part of itself to stand sentinel at the entrance to every site where it finds useful information. When new information is placed on the site the sentinel will note the change, assess its relevance and communicate it back to the lawyer's computer.[556] The lawyer will thus build a customised library of digitised, up to date information. While such predictions may sound far-fetched, when considering that electronic publication has only been a serious concern in the last five years, it is easy to see that there is a long road of development ahead.

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553 Parliament of Victoria, Law Reform Committee, *Minutes of Evidence*, 11 May 1998, pp 86 - 90.

554 Parliament of Victoria, Law Reform Committee, *Notes of Meetings*, Meetings with representatives of Butterworths, CCH and LBC, Sydney, 9 Jun. 1998.

555 ibid.

556 R Widdison, 'Electronic Law Practice: An Exercise in Legal Futurology' (1997) 60 *Modern Law Review* 143, p. 158.

The Role of Legal Professional Bodies in Promoting Technology

11.54 Professional organisations, such as the Law Institute in Victoria and the Law Society in New South Wales play an important role in assisting their constituents to adopt new technology. For instance, the New South Wales Law Society has published a paper on how to create websites and has an IT adviser available to give members advice on installing and upgrading systems and to provide training on the use of the Internet for research.[557]

11.55 The Law Institute of Victoria provides services over the Internet, but has yet to engage in the clearinghouse role that the New South Wales Law Society has begun to perform in relation to legal technology.[558] Similarly the Victorian Bar also has a website that provides general information to its members.[559] It is the Committee's view that professional organisations should and can do more to aid their members in adopting technology to ensure the legal profession remains relevant to its clients. The Committee also believes that the Law Institute of Victoria should form strategic alliances with a range of organisations including the Bar Council and the Victorian Law Foundation to provide support and information to lawyers as to the best means for adopting new technologies.

11.56 The Committee has recommended the establishment of a technology and law clearinghouse.[560] The Committee believes that professional bodies should collaborate with the clearinghouse to develop training programs and information on technology for the profession. To ensure that smaller firms and sole practitioners are not left behind, it is critical that professional bodies form the alliances necessary to provide information and support on the best use of new technologies.

Technology and the Suburban, Provincial and Rural Practice

11.57 While businesses will still need lawyers to give advice, with the increasing availability of 'do-it-yourself' kits and legal information on the Internet, small, suburban and rural practices may have difficulty coping with the change in paradigm. The Committee does not have any easy answers as to how small firms, sole practitioners and rural practitioners can cope with the transition to the information age.

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557 http://www.lawsocnsw.asn.au/services/technology/index.html.

558 http://www.liv.asn.au.

559 http://www.ozemail.com.au/~vicbar.

560 See Chapter 4.

11.58 The Committee has been disappointed with professional organisations in Victoria. The Committee believes that the Law Institute of Victoria should play a much bigger role in ensuring that all its members move through into the next millennium with adequate support and understandings of new technologies.

Recommendation 36

The Law Institute of Victoria and the Victorian Bar Council should provide support, information and training for their members on new technologies. These professional bodies should collaborate with the law and technology clearinghouse to ensure that all members of the legal profession have access to training and information on the best use of new technologies.

12 PUBLIC ACCESS TO LEGAL INFORMATION

> The absence of a user-oriented or client-focused perspective is a leading cause of erosion of public confidence in legal institutions. It also contributes to delays, costs and lack of understanding.[561]

12.1 Access to justice is a central tenet of the Australian legal system yet it is a principle that courts and governments have had difficulty in providing equitably. Access to the law (both statute and judge made), legal advice and information is an integral requirement to achieve effective access to the justice system. Information technology offers us new opportunities to meet the obligations that government and courts have to the community in providing them with free, simple information on law and inexpensive, easy access to dispute resolution.

12.2 The Committee's vision is for an integrated justice system in which the citizen has seamless access to information about the system and to the organisations within the system. The Committee's vision is that technology should be utilised to make government processes more transparent, to allow citizens access to all government services including legal services. To achieve this vision, it is necessary to examine the level of access the public currently enjoys to legal information and legal institutions and suggest ways that IT can improve access to justice.

12.3 The terms of reference for this Inquiry specifically require the Committee to consider the ways in which new technologies can increase access to justice. In examining access issues, this chapter will focus on access to legal information and access to courts and tribunals. The rapid developments in IT potentially create a new division in society between the information rich and the information poor.[562] This chapter will also explore strategies to ensure that the traditionally marginalised groups within society are not further disadvantaged by the adoption of technology in the legal system.

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561 Canadian Bar Association, *Report of the Taskforce on Systems of Civil Justice,* 1996, p. 17.

562 D Tapscott, *The Digital Economy: Promise and Peril in the Age of Networked Intelligence,* McGraw Hill, New York, 1996.

Obligations to Provide Access to the Law

12.4 Access to the law is a fundamental right of all Australians. As the New South Wales Task Force on Access to Justice has found:[563]

> In order for the community to exercise their right to participate in the justice system, whether it be to assert a civil right or defend a criminal wrong, it is important that the justice system is seen to be and is:
>
> (a) accessible and affordable;
>
> (b) readily easy to understand; and
>
> (c) fair, efficient and effective.

12.5 The majority of the population has found the legal system to be totally inaccessible, owing to the costs, delays, complexity, specialised knowledge required and uncertainty associated within and by the system. The government, courts and tribunals, and the legal profession share the responsibility to ensure that legal services are delivered in an accessible manner. Over the last decade, there have been many reports and studies conducted into access to justice.[564] However, governments, courts and the profession need to be vigilant and endeavour to continually improve service delivery to ensure that the public has access to the justice system.

12.6 The changes facilitated by IT can potentially change the relationship between the public and legal institutions. Information technology offers the opportunity to transform the legal system so that the average citizen can deal with it with confidence. The effective use of IT could mean that everyday legal concerns, which are not currently met because of the cost of lawyers and lack of information, could be easily catered for. Furthermore, a central aspect of access to justice is access to legal information. If citizens have access to accurate and simple legal information their options potentially expand, thereby relieving some of the pressure on the system.

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563 New South Wales Law Society, Access to Justice Task Force, *Access to Justice Final Report December 1998, http://www.lawsocnsw.asn.au/about/papers/access_to_justice/access_to_justice-3.html*

564 Australia, Access to Justice Advisory Committee, *Access to Justice*, AGPS, 1994; Commonwealth Attorney-General's Department, *Justice Statement* 1995; Australian Law Reform Commission, *Multiculturalism and the Law*, Report No. 57, 1992; *Equality Before the Law*, Report No. 69, Vols. I and II, *Making Rights Count*, Report No. 79, 1996; *Seen and Heard: Priority for Children in the Legal Process*, Report No. 84, 1997; United Kingdom, Lord Woof: *Access to Justice: Final Report to the Lord Chancellor on the Civil Justice System in England and Wales*, HMSO, 1996.

COURTS AND TRIBUNALS AND THE PUBLIC

> The public is involved most fundamentally in the work of the courts as jurors. Individual citizens hear cases and judge their peers. The courts are open to the public, as they have been since the great movements to create a democratic public space during the Enlightenment. However, the nature of society and of communications have changed so much between the eighteenth and the twentieth centuries that the traditional means of the courts' communication with the public is badly out of step.[565]

12.7 Professor Stephen Parker's recent study into *Courts and the Public* found that while most Australian courts are moving towards a customer-centric approach, the public still find courts largely hostile, unfriendly places and do not have sufficient awareness of or confidence in the processes or improvements implemented in courts.[566] Providing legal and court information in an accessible and inexpensive form becomes particularly critical given the growing number of unrepresented litigants.

12.8 Professor Parker discusses ways in which courts can use information technology to:[567]

(1) communicate information to the public;

(2) provide legal and procedural advice; and

(3) facilitate the conduct of cases.

12.9 It is the Committee's view that courts need to collaborate with government and the profession to develop innovative solutions by utilising new technologies to provide information, advice and access to the legal system. The Committee believes that the Government should coordinate the delivery of simplified legal information through the infrastructure already in place. The Government should coordinate online legal guides and provide information and ultimately access to courts and tribunals through Maxi. Call centres, videos and face-to-face community legal education, should supplement such information. Courts and tribunals should not only utilise technology to facilitate the conduct of cases, but also to provide as much information as possible to potential litigants, targeting the public rather than merely legal practitioners.

12.10 As recommended by the Committee in Chapter 4, the statutory committee charged with progressing justice should evaluate existing online guides to the law and facilitate and fund integrated online legal guides for the public. The law and

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565 H Gamble and R Mohr, 'Courts and Communities' in R Mohr and S Lloyd (eds.) *Delivering with Diversity*, University of Wollongong, 1996, 2, p. 7.

566 S Parker, *Courts and the Public*, AIJA, 1998.

567 S Parker, *Courts and the Public*, AIJA, 1998, p. 72.

technology clearinghouse would also play a major role in evaluating artificially intelligent systems and in examining ways in which the courts and legal practitioners can implement such systems to make it easy for the public to resolve everyday disputes, without the need for expensive legal advice or the use of scarce court resources.

Meeting the Information Needs of the Public

> I have always believed that if it is not a defence to say 'I didn't know what the law was', ordinary citizens ought to be entitled to access the law—and what is more, they ought to be able to access it for nothing. There is something dreadful about the proposition that if you are charged with a criminal offence and you say, 'I didn't know this was against the law', you are quickly told that ignorance of the law is no excuse, yet if you need to find out what the law is, unless you can afford a lawyer or pay for some hideously expensive subscription to a series of books or reports, you do not find out what the law is.[568]

12.11 Providing the public with basic information on law, the legal process, alternative dispute resolution and litigation is crucial to achieving access to justice. As the Australian Law Reform Commission notes, 'if people have sufficient information about litigation and alternatives to it they will be able to make informed choices about dispute resolution'.[569] Information technology can deliver up-to-date information widely for very limited cost. In utilising IT to disseminate information, courts should to be aware that a number of delivery mechanisms need to be considered because no single distribution vehicle will reach our diverse population.[570]

Information Kiosks

12.12 Kiosks located in court buildings can provide a range of legal information, freeing up registry personnel from answering routine queries from members of the public. Kiosks comprise touch screens and a keyboard and can include payment facilities and printing capacity. Many of these systems use basic artificial intelligence to interact with users and guide them through the process of filling in the required forms. The Committee has had the opportunity to observe and use a range of kiosks around the world.

12.13 Built by North Communications Pty Ltd, one of the first successful legal kiosks was the Arizona 'Quickcourt', which is an interactive multimedia system that uses

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568 M Rozenes, QC, *Minutes of Evidence*, 26 Nov. 1998, p. 289.

569 Australian Law Reform Commission, *Technology - What it Means for Federal Dispute Resolution*, IP 23, 1998, p. 76.

570 S Biondo, *Minutes of Evidence*, 19 Apr. 1999, pp. 450–465.

text, graphics and an on-screen narrator to guide the client through the legal process. Quickcourt offers its services in Spanish and English and has the capacity to print out forms based on the information gathered from the user. Quickcourt was introduced in Arizona in 1993 as a means of making courts more accessible and responsive. The Committee's discussions with registry personnel in Arizona suggested that the kiosks have been extremely successful with over 150 in operation across the state.

12.14 Singapore has a system called Automated Traffic Offence Management that is a network of self-operated kiosks where an accused can plead guilty to minor traffic offences and pay the requisite fine. A magistrate behind the scenes accepts the guilty plea.[571] Fines imposed by the system are lower than those imposed on an accused who appears in person. The kiosks are meant to realise the vision of the Singaporean Subordinate Courts of the virtual court.[572]

12.15 In May 1997, Queensland Legal Aid introduced three kiosks developed by North Communications. The kiosk offers general information on the services provided by Legal Aid, legal information on family law, child support, and domestic violence. It enables a user to complete an application for dissolution of marriage, print out the form and then obtain further information on how to lodge the form. The kiosk also guides users through small claims and debt recovery matters and enables users to print out blank Small Claims Tribunal and Small Debts Court forms while providing them with advice on how to prepare a case, file the form and comply with procedures.[573]

12.16 The Committee was impressed with the Queensland Legal Aid kiosks and believes that other legal aid offices should consider taking advantage of this innovative system. The system would require little modification for use in other states because the majority of its information is family law based, which applies nationally. However, kiosk technology has always been seen as an intermediate step to make the interaction and accessibility of technology easy for the public. The natural progression of such technology is to remove the physical constraint of a kiosk by locating the content in cyberspace on an interactive website.

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571 Judge F Hock, 'Judicial Philosophy in Information Technology Strategy', paper delivered at the AIJA Technology for Justice Conference, Melbourne, Apr. 1998.

572 http://www.gov.sg/judiciary/subct/technology/atoms.html.

573 Parliament of Victoria, Law Reform Committee, *Notes of Meeting,* Meeting with officers of the Queensland Legal Aid, 6 Feb. 1998. Similarly, a touch screen kiosk providing information and answering queries was constructed in the Blacktown Model Local Court project in New South Wales. However, the system was discontinued because the supplier of the system went out of business. See, Attorney-General's Department of New South Wales and the Law Foundation of New South Wales, *The Model Court Project,* Sydney 1992.

12.17 The Committee saw a very good example of such a system that did not rely on kiosks, but utilised touch screens on basic PCs in conjunction with the Internet. The Fund for the City of New York has developed a touch screen system which guides a client through issues relating to domestic violence and public housing. The system asks a series of tick-box questions and automatically generates the relevant forms for lodgement. An important added feature of the system is that the citizen can complete the questions in their own language and have the forms printed out in English and/or their preferred language. The future plans for theses systems include operation on voice recognition to complement their touch screen function.

12.18 The Committee in discussions with the Chief Magistrate of Victoria was told that he would not allow kiosks in his court. The Chief Magistrate argued that it would tie up his registry personnel who would have to explain how to use the system. The Committee's overseas study tour contradicts this view. In Arizona, for instance, the kiosk seemed to reduce the demands on registry personnel. The Committee believes that information kiosks in court foyers have the potential to increase the accessibility of courts. The Committee believes that the Department of Justice in the interim and the State Courts and Tribunals Administrative Authority in the longer term should take responsibility for ensuring that electronic information is available in all Victorian court foyers.

Recommendation 37

The Department of Justice in the interim, and the State Courts and Tribunals Administrative Authority in the longer term, should ensure that electronic information is available in all Victorian court and tribunal foyers.

The Internet

12.19 Most Australian courts now have a web presence. However, much of the information on these sites focuses on practitioners rather than the general public. All Victorian jurisdictions have their court lists, jurisdiction, history, and contacts available on the Internet.[574] This material is currently founded on paper based material available in courts and there has yet to be a clear rethinking of information service delivery over the Internet for the general public.

12.20 The Committee believes that some of the American courts have become very sophisticated in the ways they present interactive information to the public with

[574] http://supremecourt.vic.gov.au/; http://www.countycourt.vic.gov.au; http://www.magistratescourt.vic.gov.au; http://www.vcat.vic.gov.au

guided tours, consumer information and the opportunity for feedback.[575] In Australia, the High Court and Family Court websites provide more information that is clearly targeting the general public.[576]

12.21 The Internet has already ensured that vast amounts of conventionally published material can be accessed on the web. While there is an increasing amount of legal information on the Internet, at present it consists mostly of primary material that are not easily understood by the general public. However, more sophisticated forms of information delivery are being developed allowing for interactive applications whereby users can be taken through complex issues on a methodical question and answer basis.[577] As the cost of information technology continues to decrease, almost all private households will have some form of computer that connects them to the Internet, which will enable them to conduct a range of business and financial transactions on line.[578] The web will become the 'natural first port of call' for information or guidance on almost any issue. Increasingly business processes and trading functions will be conducted over the information superhighway.[579] The development of these technologies and the continual emergence of smarter technologies will mean that in time users will be able to obtain '*all but only*' the material and information they require.[580]

12.22 The Committee's vision is for legal services in general in the next few years to be delivered through a single point of access on the Internet which will take citizens to the relevant area for his or her problem. Members of the public will not have to wade through primary materials, but will have access to a legal guidance system that will take them through the problem, providing them with answers to their legal questions. Such systems will include intelligent checklists that will automatically generate the necessary court forms that will be filed electronically with the virtual or physical court. Citizens will not need to concern themselves with the complexities of

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575 See e.g., California Courts Homepage, http://www.courtinfo.ca.gov/; Colorado Courts Homepage, http://www.courts.state.co.us/ct-index.htm; New York State Unified Court System Homepage, http://ucs.ljx.com; Federal Judiciary Homepage http://www.uscourts.gov; Arizona Judicial Department Self Service Centre http://www.supreme.state.az.us/selfserv;

576 http://www.hcourt.gov.au; http://www.familycourt.gov.au.

577 R. Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xiv.
In our daily lives, this means that on-line services will replace the middleman or agent. For example, booking and arranging travel on-line is already a more efficient and easy way of organising holidays or business trips. Travel agents, as with other agents, are finding that they need to add value to the service they provide to continue to survive as an industry.

578 Justice L Olsson, 'Coming Ready or Not: Courts and Information Technology' (1997) 71 *Reform* 10, p. 13.

579 R. Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. xiv.

580 ibid, p. xvii.

jurisdiction because the system will automatically file the document in the appropriate court. While this does not mean that conventional legal services are replaced, it does mean that the community has access to easy, affordable and practical legal guidance. It will also mean that when a citizen gets to the point where he or she needs to see a lawyer, they are better informed.

12.23 However, to achieve this vision, courts need to fundamentally rethink the way they present material to the public. Similarly, government will have to play a much bigger role in coordinating and certifying primary legal information and provide resources needed to create freely accessible legal guides to help the public. One of the best examples of an Internet guide to law for the public is a website called 'lawstuff' funded by the National Children's and Youth Law Centre and the New South Wales Law Society.[581] Lawstuff is a site that informs young people of their legal rights. The site has specific information on each State and uses cartoon characters and stories to answer questions ranging from sexuality and workplace violence to pollution and police interrogation.

12.24 The Law Society of New South Wales provides a range of guides on common legal problems that can be accessed through their website.[582] The Legal Information and Access Centre (a Joint project of the New South Wales Law Foundation and the State Library of New South Wales) provides a range of pamphlets on legal issues and referral guides to lawyers over the Internet.[583] Similarly, the Administrative Appeals Tribunal has published a series of pamphlets on the Internet.[584] OzEmail has created a Legal Help site that assists the general public with simple legal questions and referral.[585] Questions are submitted to the site and answered by a panel of legal professionals and posted on the website every Friday.

12.25 A commercial venture called Legalmart enables members of the public to create their own forms for a relatively modest fee.[586] The site provides kits on personal affairs including wills, alternative dispute resolution, business affairs, relationships and help for charities in establishing themselves legally. The Brisbane law firm of Janssen Mitchell originally initiated the site. They believe:[587]

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581 http://www.lawstuff.org.au.

582 http://www.lawsocnsw.asn.au/public.

583 http://www.slnsw.gov.au/liac/toolkit.htm.

584 http://www.aat.gov.au/info.htm.

585 http://www.lawnet.com.au/help/index.html.

586 http://www.legalmart.com.au.

587 http://www.legalmart.com.au/about_us.htm.

> that soon it will involve hundreds of affiliate law firms and jurists and legal academics from around the globe who share the vision of making the basic law of each jurisdiction affordable and therefore accessible to all peoples of the earth from one convenient location...your PC.

12.26 While these examples represent important first steps, the Committee believes there is a lot more scope to use information technology to provide freely accessible public guides to the law. Paper based guides such as the Fitzroy Legal Handbook are an excellent foundation for any member of the public with a legal question. The Committee considers that the Government has a role in ensuring that such guides are suitably modified to be interactive and available online. However, the Committee understands that for many community organisations such as the Fitzroy Legal Service there is a need to find 'the right balance for maintaining the future viability of the enterprise'.[588] The handbook relies on a series of volunteer professionals to contribute practical legal information. As the Fitzroy Legal Handbook is a self-funding publication, placing it on the Internet may reduce the need for paper based copies and thereby jeopardise the financial viability of the whole venture. To ensure that such guides are available on the Internet, the Government, through the law and technology clearinghouse, needs to evaluate legal guides, consider the viability of placing them on the Internet and fund and facilitate the publication of such guides where appropriate.

Recommendation 38

The Victorian Government, through the law and technology clearinghouse, should evaluate legal guides, consider the viability of placing them on the Internet and fund and facilitate the publication of such guides where appropriate.

Televising Court Proceedings

12.27 Today, electronic media has enormous potential to educate and inform people of their legal rights. The majority of the general public receive their information about the court system through the electronic media. As Professor Parker notes:[589]

> The Hearst Corporation found that the media was a more important conduit of information about courts than lawyers, the public's personal experience, schools or libraries. This finding was backed up by figures showing that:
>
> – 54% said they obtained their information from TV news
>
> – 51% said they obtained their information from newspapers

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588 S Biondo, *Minutes of Evidence*, 19 Apr.1999, p. 455.

589 S Parker, *The Courts and the Public*, AIJA, 1998, p. 90. These figures were backed up by a 'Marketshare Survey' in Queensland which found that 82% of the general public obtained information on the courts from the media and of these 40% indicated they wanted more information.

– 19% said they obtained their information from TV drama, such as Hill Street Blues and LA Law.

12.28 Electronic coverage of court proceedings has been the subject of much debate across the world in the last few years. As Professor Stepniak points out, it is not just America that televises court proceedings but:[590]

> [a] number of overseas and international courts and tribunals permit judicial proceedings to be televised, while several jurisdictions are currently conducting or considering experimenting with electronic media coverage of court proceedings.

12.29 Victorian courts have been at the forefront of televising court proceedings. Between 1994 and 1996, television cameras were permitted into Victorian Magistrates' Courts on a number of occasions. In 1995, the Supreme Court of Victoria became the first Australian superior court to specifically consider the legality of courtroom televising:[591]

> After evaluating arguments for and against permitting the televising of court proceedings, Justice Cummins held that objections to electronic media coverage could only be sustained in exceptional circumstances.

12.30 The most controversial instance of electronic media coverage of the Victorian Supreme Court occurred when Justice Teague permitted television coverage of his sentencing of convicted child murderer Nathan John Avent in May 1995. The televising of the sentencing took place under strict guidelines based on those governing the experimental televising of the courts in New Zealand.

12.31 The Committee agrees with the Stepniak report, which highlights the benefits of televising some proceedings. The Committee also agrees that guidelines need to be formulated and approved before going further. The Committee finds that when live transcripts are available over the Internet for proceedings like the Longford Royal Commission,[592] it is only a matter of time before court proceedings are televised over the Internet. However, the protection of the privacy of an individual needs to be carefully balanced with the public benefit gained by televising proceedings on a case by case basis.

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590 D Stepniak, *Electronic Media Coverage of Courts: A Report Prepared for The Federal Court of Australia*, 1998, http://www.austlii.edu.au/au/other/fca/television.htm.

591 D Stepniak, *Electronic Media Coverage of Courts: A Report Prepared for The Federal Court of Australia*, 1998, http://www.austlii.edu.au/au/other/fca/television.htm.

592 http://www.vgrs.vic.gov.au/public/longford.html.

Ensuring Access for All

12.32 At August 1998, 17.9 per cent of all Australian households were connected to the Internet. This represented a 46 per cent increase from February 1998.[593] While the increase is significant and can be expected to continue to rise, it is important to note that there is a possibility of a new division in society between those who have access to IT and those who do not. In implementing new technologies in the legal system, policy makers need to be aware of the inequities of resources within our society and ensure that disadvantaged groups are not further marginalised.

12.33 Inequities in access to technology may mean that governments and courts and tribunals use multiple forms of delivery. For instance, any information available on the Internet should also be accessible through call centres and where possible on videotapes made available in public libraries. The Committee believes that the model for electronic service delivery adopted by the Victorian Government whereby all services are available over the Internet, through Maxi kiosks, call centres and ultimately Web TV is a good strategy. The Committee was impressed with the Queensland Legal Aid Office's use of the Internet, kiosk and call centres. All the information the Queensland Legal Aid Office had developed for its Internet site and kiosk was made available over the phone with trained operators taking clients through their legal problems.[594]

Multilingual Access to Legal Information

> Equality before the law requires that efforts be made to ensure that information about the legal system, including such matters as bail and the jury system, is accessible, that explanations are available in community languages and that interpreting is available when necessary. [The Commission] has recommended that governments should take responsibility for removing barriers to equality and access to the legal system. This should be done by increasing awareness of legal rights, duties and responsibilities and the role of the state among the community in general and persons from non-English speaking backgrounds in particular. [595]

12.34 The lack of legal information for non-English speaking background Australians has been a significant issue for courts and governments. The 1996 census data demonstrates that 2.6 million Australians (16 per cent) aged five years and over speak a language other than English at home.[596] The National Multicultural Advisory

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593 Australian Bureau of Statistics, *Use of the Internet by Householders,* Aug. 1998, p. 9.

594 Parliament of Victoria, Law Reform Committee, *Notes of Meeting,* Meeting with officers of Queensland Legal Aid, Brisbane, 6 Feb. 1998.

595 Australian Law reform Commission, *Multiculturalism and the Law,* Report No 57, AGPS, pp. 14-15.

596 Australian Bureau of Statistics, *Australia Now: A Statistical Profile,* 1996, see http://www.abs.gov.au.

Council has found that some level of proficiency in English is essential for Australians from non-English speaking backgrounds to fully participate in society, enhance their sense of belonging and enjoy equity with other Australians.[597]

12.35 As new technologies are employed by courts, governments and legal professionals, the impact of these technologies on non-English speaking background Australians must be considered. Many immigrants with low proficiency in English have difficulty in accessing services and are unlikely to be able to access services offered using new technologies. Programs like Skills.Net need to target specific ethnic communities to ensure that they can access training to utilise new technologies.[598]

12.36 Learning to use new technologies will only improve access to justice if courts and governments publish multilingual legal content and sites. Ethnic communities need to feel that there is relevant information that they can access before they will use new technologies. While some courts do publish brochures in languages other than English, this has yet to become a feature on their websites. At the very least, courts that already have brochures in community languages should publish them on the Internet.[599]

Translation Software

12.37 The Internet search engine operated by Alta Vista offers translation of websites over the Internet instantaneously to or from German, French, Italian, Spanish or Portuguese.[600] At present, the software used produces translations at about 90 per cent accuracy. However, translation software is likely to become more sophisticated and to include more of the community languages spoken in Australia. The Federal Court is the only court to link its site to the Alta Vista translation service.

12.38 The Committee finds that there is a need to monitor developments in the area of translation software, and to trial software as it released. The Committee believes that government information generally and legal information in particular should be available in a range of community languages. The Committee's experience in America suggests that multilingual access is becoming a priority in the design of several expert systems.[601] The Committee believes that Multimedia Victoria in

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597 National Multicultural Advisory Council, Multicultural Australia—The Next Steps, http://www.liberal.org.au/ARCHIVES/MULTICULTURAL/settle7.htm.

598 For a discussion on skills.net see Chapter 5.

599 An easy method would be to publish PDF versions of the original pamphlets.

600 http://babelfish.altavista.digital.com.

601 See discussion above in para 12.17 on the Fund for the City of New York's touch screen systems and the Arizona Quickcourt system.

conjunction with the Victorian Multicultural Affairs Commission should identify, evaluate and obtain for implementation translation software appropriate to Victoria's multicultural population.

12.39 The Committee believes that information technology offers the potential to transform the relationship between the legal system and the citizen. Information technology can increase access to legal information, inexpensive legal advice and dispute resolution. However, to ensure that IT is used for these purposes courts and government need to be vigilant.

12.40 Parties with resources can easily exploit technology in the legal system to the detriment of those who are traditionally disadvantaged. Differences in capacity, resources, and experience may impact on whether a person feels comfortable or is able to utilise new technologies. Special measures need to be taken to ensure that marginalised groups within society are given access and training in new technologies and that content on the Internet is developed with a consciousness of the diverse needs of the Victorian community. In this era of transition into the information economy, it is particularly important that governments and courts sustain different mechanisms to deliver information and services. Interpersonal assistance, paper based material, video and audio tapes should be utilised in conjunction with interactive multimedia systems on the Internet, kiosks and call centres to ensure that all Victorians enjoy real access to the legal system.

Recommendation 39

The Victorian Government should continue to develop and prioritise a range of initiatives so as to ensure that traditionally marginalised groups including indigenous people, persons from non-English speaking background, the disabled, the aged and women enjoy equal access to new technology.

Recommendation 40

The Victorian Government through programs such as Skills.net should develop training programs on the Internet and new technologies that target and cater for ethnic communities.

Recommendation 41

The Victorian Government and all courts and tribunals should provide existing multilingual legal information for the public on the Internet. The Victorian Government and courts and tribunals should aim to publish all future legal information for the public in community languages.

Recommendation 42

Multimedia Victoria, in conjunction with the Victorian Multicultural Affairs Commission should identify, evaluate and obtain for implementation software that can automatically translate information into community languages.

Improving Public Consultation in Law-making and Policy in General

12.41 There is no doubt that the general level of public participation in Australia and most other countries is quite low. This may be due to a number of factors including the 'They won't listen' truism. To counteract this, governments need to alter their methods of consultation. Today, most governments produce discussion papers that they advertise and ask for submissions. Government is being reshaped by technological change but to borrow an observation from Don Tapscott, author of *The Digital Economy* and chairman of the Alliance for Converging Technologies, despite significant progress and innovation, the basic model of government remains firmly entrenched in the industrial era.[602]

12.42 Government needs to ask people questions in their own language and we should permit greater informality in their response. In its Report on Regulatory Efficiency, the Committee suggested that as far as possible options papers and discussion papers should be accompanied by a video and other modern interpretation guides. The Committee recently received an excellent submission to its Inquiry into Fences Law from an illiterate man who sent it a video in his case showing graphic evidence of the truth of his testimony.

12.43 All consultation documents should be published on the web. Even in countries where telephones and computer modems are few and far between, the web offers a relatively cheap and reliable means of ensuring accurate information can get through to remote communities.

12.44 We should reduce the waste of ideas of people of good will in our community. Many ideas are wasted because:

(a) People don't feel that anyone will listen to their idea and therefore, they don't contribute them to the system.

(b) The people who receive them have no adequate means to process them—this includes the executive arm of government.

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602 D Tapscott, 'Governance in the Digital Economy', draft paper made available by the author, 1998.

(c) The information is sent to the wrong people or is not communicated in the right way.

(d) There are inadequate systems in place to bring people together, to better formulate or implement their ideas.

12.45 The use of a single database for government policy input would ensure that no input was lost. In paper-based systems, there are often inadequate systems for ensuring that those who have expressed an interest in a policy area are consulted. Fairly basic data mining tools could ensure that submissions with common concepts could be identified and people brought together to refine their policy inputs before government needed to apply its resources. Submissions to otherwise unrelated departments and agencies might enable cross-departmental project teams to increase the pay-off of new projects by delivering benefits across government. Such a database could ensure that submissions are always routed to any agency/team working on a project to which the submission may or may not be related. The Committee believes that in formulating a whole of government knowledge management policy (as recommended in Chapter 4) the Government should facilitate online public consultation.

13 ARTIFICIAL INTELLIGENCE AND THE LAW

13.1 Thirty-one years ago, Stanley Kubrick and Arthur C. Clarke gave us the indelible image of HAL, the archetype of the 'thinking computer' in the film of Clarke's *2001: A Space Odyssey*. While HAL might appear to be a mere fantasy firmly in the realm of science fiction, the advances in artificial intelligence suggest otherwise. In May 1997, an IBM super computer called 'Deep Blue' defeated the then world chess champion, Gary Kasparov, in a chess match. We now also have software packages capable of being loaded on to a home PC which translate speech into the written word. While these systems are fairly limited and do not yet understand language, such comprehension is merely a matter of time.

13.2 Artificial intelligence is an area of study within computer science that attempts to automate intelligent behaviour. Within computer science and more recently within the law, artificial intelligence has experienced periods of great enthusiasm followed by periods of scepticism. Artificial intelligence has yet to bring some of the early-predicted gains but has nevertheless impacted on our lives in ways that we have now come to take for granted. We are entering an age where there is a resurgence of interest and research into artificial intelligence. Commentators predict that:[603]

> within 20 years, artificial intelligence should become the dominant software technology of the digital revolution. There will be intelligent machines that provide services, track your needs, have emotions, and interact with each other across a vast network. There will be tools that learn and reason about huge volumes of information and smart interfaces willing to discuss your needs in English. All this will be part of everyday activity. It will also dramatically change the way we live, work and play.

13.3 While these predictions may seem exaggerated, the Committee believes that AI does have the potential to impact on several areas of legal service delivery and the administration of justice. As AI cannot be easily relegated to any one area of the Inquiry, the Committee has decided to devote a chapter to investigating the nature of AI, its current uses in law, its potential use in the future and its limitations.

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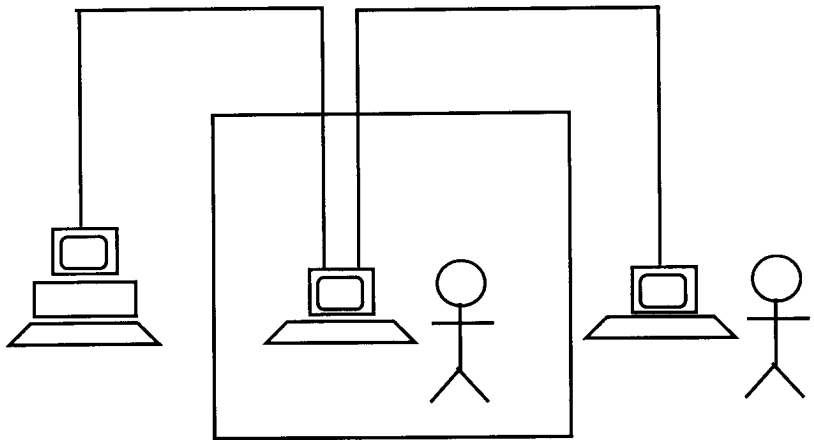
603 M Georgeff, 'AI: dawn of new reality', *The Australian Financial Review, Special Report: Life in the New Millennium*, 17 Feb. 1999, p. 10.

What is Artificial Intelligence?

> Artificial intelligence is inherently defined as the pursuit of difficult computer-science problems that have not yet been solved.[604]

13.4 Artificial intelligence (AI) is a broad term for a wide range of research that is concerned with the development of systems that perform tasks or solve problems that usually require human intelligence.[605] Artificial intelligence is not concerned with replicating the brain as such, but rather with modelling intelligent behaviour. It is not concerned with the internal workings of the brain, but with the nature of intelligent behaviour. 'If a system looks like it is behaving intelligently, that is sufficient for the purposes of AI.'[606] The classic test for whether a machine can be deemed artificially intelligent is the Turing test. The graphic and explanation below demonstrates the test:[607]



13.5 The graphic depicts a person inside a room communicating with the outside world by some form of computer or terminal. That person may be communicating with either a computer, which is the indication on the left-hand side of the graphic, or with another human being, as shown on the right-hand side. If the person inside the room cannot tell whether he or she is communicating with a computer or with a person typing on a computer, then the entity on the left-hand side of the graphic is considered to be an intelligent entity.[608]

13.6 The history of AI as a discipline can be traced back to Alan Turing who lead a team of British mathematicians and electrical engineers to crack German military

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604 R Kurzweil, *The Age of Spiritual machines: When Computers Exceed Human Intelligence*, Allen & Unwin, 1999, p. 72.

605 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 120.

606 D Hunter, *Minutes of Evidence*, 1 Mar. 1999, p. 292.

607 The graphic and explanation were provided to the Committee in evidence by Dan Hunter. D Hunter, *Minutes of Evidence*, 1 Mar. 1999, p. 292.

608 ibid.

codes during the Second World War. Turing and his team developed the first operational computer and established the theoretical foundations of computation. Turing was instrumental in the early attempts to apply this new technology towards emulating human intelligent behaviour.[609] He wrote the first chess-playing program and in 1950 set out an agenda that has occupied advanced computer research since then – decision making, games, natural language understanding, translation, and encryption and the cracking of codes.[610] Rapid progress in the 1950s gave researchers unprecedented optimism in the ability of machines to match or even surpass human mental capability. The stigma attached to the extremity of this position remains today in the scepticism of some to the AI discipline.[611] Kurzweil in part explains this scepticism in the following terms:[612]

> It turned out that the problems we thought were difficult—solving mathematical theorems, playing respectable games of chess, reasoning within domains such as chemistry and medicine —were easy, the multithousand-instructions-per-second computers of the 1950s and 1960s were often adequate to provide satisfactory results. What proved elusive were the skills that any five-year old child possesses: telling the difference between a dog and a cat, or understanding an animated cartoon.

13.7 The 1980s saw the first signs of commercialisation of AI. Despite early mistakes in focus and applications, machines with 'sharply focused intelligence' became increasingly the norm. One clear example of the pervasiveness of AI has become evident in the use of statistical and adaptive techniques by financial institutions to maintain stock, bond, currency, commodity and other markets. Moreover, AI has been used fairly effectively in the area of robotics and where computers are utilised widely in assembly plants to do a limited range of tasks.[613] At the other end of the spectrum, the use of intelligent machines was perhaps best 'showcased' in the Gulf War with the US use of intelligent scanning by unmanned aircraft and weapons hitting targets though machine vision and pattern recognition.

13.8 Despite the pervasiveness of intelligent machines in our lives, AI still attracts cynicism and is often relegated to the realms of science fiction. An explanation for the cynicism expressed at AI and the possibilities it offers us, is found in one of Turing's early predictions. Turing predicted that with the increasing pervasiveness of machine

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609 R Kurzweil, *The Age of Spiritual machines: When Computers Exceed Human Intelligence*, Allen & Unwin, 1999, p. 68.

610 ibid.

611 ibid, p. 69.

612 ibid, p. 70.

613 Robotics is a branch of AI that aims to program computers to see and hear and react to other sensory stimuli. However, robots to date have difficulty in identifying objects based on appearance or feel and they still move and handle objects fairly clumsily.

intelligence in our everyday lives, people would fail to recognise or notice that it was 'artificially intelligent'. As Mr Dan Hunter pointed out to the Committee:[614]

> The interesting thing is that at one stage trying to intelligently extract a definition from a dictionary would have been considered an artificial intelligence problem, but because most people have become familiar with and understand that technology it is no longer included in artificial intelligence…The idea is that they are not intelligent because we understand how they work.

13.9 Accordingly, AI can be inherently defined as 'anything computers cannot do yet'.[615]

Artificial Intelligence and Law

13.10 The earliest uses of AI in law can be traced back to the 1950s with the development of basic legal information retrieval systems, which replicated aspects of human intelligence, including memory and recognition of symbols.[616] The 1970s saw the development of a number of legal intelligence systems to aid lawyers draft documents, establish appropriate causes of action and to determine whether the legal elements of a particular statute were met. While early systems 'failed to account for the complexity and subtlety of the law and legal reasoning',[617] research and applications in the area have progressively become more sophisticated. AI techniques used in law include logic programming, neural networks and case-based reasoning. These approaches will be discussed in this section.

13.11 Applying the Turing test of AI to law, Don Bernam devised a test for 'genuine legal intelligence':

> A legal artificial intelligence is one which generates a solution to a legal problem which leads experts to prefer this solution over one produced by a human lawyer.

13.12 In other words, the essential question for determining whether a system is legally intelligent is: 'Does this computer system operate at the same level as an expert lawyer?' Such a characterisation of AI and law allows for many different applications and contexts to be included within the field.

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614 D Hunter, *Minutes of Evidence*, 1 Mar. 1999, p. 293.

615 ibid.

616 Australian Law Reform Commission, *Technology – What it Means for Federal Dispute Resolution* IP23, 1998, p. 100; For a general history on AI and Law see P Gray, *Artificial Legal Intelligence*, Aldershot Dartmouth 1997, Chapter 2.

617 M Aikenhead, 'The Uses and Abuses of Neural Networks in Law' (1996) 12 *Santa Clara Computer and High Technology Law Journal* 31, p. 32.

Expert Systems

> Expert systems are computer programs that have been constructed (with the assistance of human experts) in such a way that they are capable of functioning at the standard of (and sometimes even at a higher standard than) human experts in given field…that embody a depth and richness of knowledge that permit them to perform at the level of an expert.[618]

13.13 While the terms AI and 'expert systems' are often used as synonyms in law, expert systems are a category of AI that use a particular approach to modelling intelligence. Expert systems perform tasks that would otherwise be performed by a human expert. To design an expert system, a knowledge engineer is required who studies how human experts make decisions and translates the rules into a form that a computer can understand. 'Expert systems' or 'knowledge-based' systems use symbolic reasoning systems, which 'transform symbols representing things in the real world into other symbols according to explicit rules'.[619] Expert systems contain a database of hierarchical rules and variables and constants that are applied to determine a solution to a given problem. Greinke suggests that there are four essential components of a fully functional expert system:[620]

(a) the knowledge acquisition model;

(b) the knowledge base;

(c) the inference engine; and

(d) the user interface.

13.14 Knowledge acquisition is the process of extracting knowledge from relevant experts. The knowledge base is a storehouse of information about a subject that contains symbolic representations of experts' knowledge, definitions of terms, interconnections between components and the cause-effect relationships between components of the system.[621] In legal terms, the knowledge base would consist of formalised rules obtained from statute and case law and other secondary sources such as knowledge obtained from textbooks, practitioner's handbooks and internal memos within law firms.

13.15 The inference engine is the key to the system as it consists of the reasoning and search procedures that allow the system to find answers. As discussed below, while

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618 R Susskind, *Experts Systems in Law: A Jurisprudential Inquiry*, Clarendon press, Oxford, 1987, p. 44.

619 M Aikenhead, 'The Uses and Abuses of Neural Networks in Law' (1996) 12 *Santa Clara Computer and High Technology Law Journal* 31, p. 33.

620 A Greinke, 'Legal Expert Systems: A Humanistic Critique of Mechanical Legal Inference', www.murdoch.edu.au/elaw/issues/v1nd/greinke.txt.

621 A Greinke, 'Legal Expert Systems: A Humanistic Critique of Mechanical Legal Inference', www.murdoch.edu.au/elaw/issues/v1nd/greinke.txt.

systems to date have used 'logic programming' to extract answers from the database created, more sophisticated tools, such as neural networks and case-based reasoning are being developed. The user interface is critical to the success of a system, as it must be capable of enabling people with no expertise to interact with the system easily.

13.16 Legal expert systems can be categorised into four identifiable classes: diagnostic systems, planning systems, intelligent checklists, and document assembly systems.[622] Diagnostic systems in law are like those used in medicine which produce a diagnosis based on the symptoms presented to the system. They offer solutions based on the facts extracted by the system from the user.[623] Planning systems operate in the reverse as they are given a desired outcome and the machine identifies scenarios that justify the preferred end.[624] The knowledge base within a planning system can be very similar to that in a diagnostic system but the application of the knowledge differs. Planning systems have been successfully developed by large accountancy and consulting firms and can be used for example, to advise on how best a taxpayer should arrange their affairs to minimise their liability.[625]

13.17 Intelligent checklists are basically procedural guides that can assist with complex and extended procedures or basic queries from the public.[626] They can also help in reviewing compliance with regulations. Document assembly systems are a computer-assisted approach to legal drafting.[627] They store templates established by legal experts and by asking questions or seeking relevant input from the user can generate legal documents.[628] This area of expert systems has been the most successful to date and continues to gain popularity possibly due to the obvious benefits it holds for practising lawyers.

Current Commercial Systems: Logic Programming

13.18 Current commercial systems in most part use a fairly standard technology called logic programming. Logic programming systems in law would enable a programmer to put in the constituent parts of a legal rule in a symbolic language and specify logical relationships. Legal rules drawn from statute or case law are written in symbolic language that can be manipulated to produce a solution. A set of 'if

622 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 121.

623 ibid.

624 ibid, p. 122.

625 Ibid, p. 122.

626 ibid.

627 ibid, p.123.

628 ibid.

condition, then action' rules are compared against a set of facts to reach a logical conclusion. For example, the legal rule of if you drive while drunk you will lose your licence becomes 'drink & drive →licence loss'. This representation of the rule can be put into a computer system. The system would ask the user questions based on legal definitions of 'drink' and 'drive' and advise the user on the status of their licence.[629] These sort of expert systems that utilise logic programming to manipulate rules are also known as 'rule-based' expert systems.

13.19 Expert system 'shells' are also commercially available whereby a non-specialist can insert the relevant knowledge. The inference sub-system is contained in the shell, which means that the programming aspects of the system are satisfied and the legal expert does not have to design or write code for their system. However, to date:[630]

> commercial shells have not proven to be reliable, in that they come and go from the market, and if they are not maintained by the software company, the system cannot be maintained, but must be re-created in a different shell or written in a suitable program language.

Furthermore, the notion of a generic expert system shell (regardless of the discipline involved) is problematic, because it does not capture the particular reasoning and problem solving methodology used in law. Susskind suggests that rather than dismissing expert shells altogether, 'domain-specific' shells should be designed so that there are legal expert shells.[631]

13.20 One of the earliest and most controversial examples of a rule-based expert system in law was the Imperial College Project on the British Nationality Act 1981. The project involved taking the British Nationality Act which had just been introduced and had yet to attract any case law and using logic programming to create a system that would advise on whether in a particular instance, an individual was or was not a citizen.[632] The project has attracted some criticism for its assumptions about the law and lack of understanding of legal reasoning.[633] However, those involved with the project believe that their system demonstrated the 'feasibility of constructing

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629 D Hunter, *Minutes of Evidence*, 1 Mar. 1999, p. 293

630 J Smith, 'An Introduction to Artificial Intelligence and Law: or, Can Machines be Made to think like Lawyers?' www.flair.law.ubc.ca/jcsmith/logos/noos/machine.html, p. 13.

631 R Susskind, 'Expert Systems in Law – Out of the Research Laboratory and into the Marketplace' (1987) *Proceedings of the first International Conference on Artificial Intelligence and the La*w 1, p. 5.

632 M Sergot, F Sadri, R Kowalski, F Kriwaczek, P. Hammond and H Cory, 'The British Nationality Act as a Logic Program' 29 *Communication of the ACM* 370.

633 See B Moles, 'Logic Programming: An Assessment of its Potential for Artificial Intelligence Applications in Law' (1991) 2 *Journal of Law and Information Science* 137; B Moles, 'There is More to Life than Logic' (1992) 3 Journal of Law and Information Science' 188; A Greinke, 'Legal Expert Systems: A Humanistic Critique of Mechanical Legal Inference', www.murdoch.edu.au/elaw/issues/v1nd/greinke.txt.

similar programs in many areas of administrative law'.[634] They do not claim that it could be used in its present form to solve real problems as it did not use any legal expertise in developing the system. The system was experimental and designed to test computational feasibility of the approach rather than to construct a complete useable system.

13.21 A further example of a rule-based expert system was the Oxford Project initiated in 1983 by Richard Susskind and David Gold to design, develop and implement an expert system in Scottish divorce law.[635] The program held knowledge of the Scottish Divorce Act 1976, relevant judicial precedents and some secondary legal rules. The system asked the user a series of questions to elicit the facts and then advised them on whether they had grounds for divorce.

13.22 The first successful commercial expert system appears to be one called the Latent Damage System developed by Richard Susskind and Phillip Capper.[636] The Latent Damage Act 1986 was passed in England and was an extremely complex piece of legislation that would have ramifications for the manufacturing, construction and supply industries. The system was designed for lawyers to be guided easily through the law in the context of tort, contract and product liability laws.[637] The system assists and identifies in latent damage cases when a breach of duty occurred, the date a cause of action accrued and when the aggrieved party will be taken to have had knowledge of the loss suffered.[638] While it would have taken a competent lawyer many hours to familiarise himself or herself with the Act and apply it to the relevant facts, the system enabled the same lawyer to get an answer in a matter of five to ten minutes.[639] Susskind believes that while the system clearly demonstrates that it 'is technically possible and jurisprudentially feasible' to develop diagnostic systems in law, the real issues are the cultural acceptability and commercial viability of expert systems.[640]

13.23 Similar rule-based diagnostic tools have been developed by Blake Dawson Waldron to advise middle managers without legal expertise on legal requirements that they need to be aware of in running their business. Their current products

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634 R Kowalski and M Sergot, 'The Use of Logical Models in Legal Problem Solving' (1990) 3 *Ratio Juris* 201, p. 206.

635 For a fuller description of the projects and the results obtained see R Susskind, *Experts Systems in Law: A Jurisprudential Inquiry*, Clarendon press, Oxford, 1987.

636 R Susskind, *The Future of Law: Facing the Challenges of Information Technology*, Clarendon Press, Oxford, 1998, p. 121.

637 ibid, p. 200

638 ibid.

639 ibid.

640 ibid, p. 201.

include multimedia applications that assist with insurance and superannuation compliance and general legal training for middle managers. [641]

13.24 Logic programming systems have also been utilised as drafting aids for legislation in a number of American states to prevent ambiguities in legislation. These 'normalisation systems' allow you to look at a legal clause or statutory term drafted by a lawyer to see whether there are any syntactic ambiguities.

Limitations of Rule-Based Expert Systems

13.25 The consensus amongst writers in the field is that current expert systems in law are extremely time-consuming to build, expensive to create and very difficult to maintain.[642] Any change to the law requires time-consuming reprogramming of the system. However, it is conceivable that all of these limitations will be overcome with the increasing sophistication of technology and new programming techniques.

13.26 On a theoretical level, some commentators argue that rule-based systems fail to recognise the complexity of law and jurisprudence and cannot adequately reflect the social context within which the law operates. These arguments fundamentally revolve around the jurisprudential question of how you characterise law. If law is seen as a determinate set of rules, the operation and function of expert systems is easily justifiable.[643] However, if law is seen as indeterminate, as critical legal theorists have argued, the representation of law as a set of rules at the very least over simplifies the nature of law. Furthermore, law even in its simplest statute form has to be interpreted and the adversarial system of justice by nature elicits different interpretations of the same piece of legislation. Reducing case law to rules also requires interpretation and the weighing up of the important findings. Law is ultimately embedded in a social and political context that cannot easily be reduced into neatly compartmentalised rules.

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641 http://www.bdw.com.au/scripts/tech-index.asp.

642 J C Smith, 'An Introduction to Artificial Intelligence and Law: or, Can Machines be Made to think like Lawyers?' www.flair.law.ubc.ca/jcsmith/logos/noos/machine.html p. 13;

643 The notion that law is a set of rules with a 'core of certainty' was expounded by the legal theorist HLA Hart. See HLA Hart, 'Positivism and the Separation of Law and Morality' (1958) 79 Harvard Law Review 593; HLA Hart, Essays in Jurisprudence and Philosophy Clarendon Press, Oxford, 1983.
Richard Susskind adopts Hart's conception of the law. He suggests that law is not an abstract system of concepts and entities distinct from the 'marks on paper' that are the material symbols of it. He believes that the difference between scientific and legal expert systems is that scientific laws are to be discovered in the empirical world while legal rules can be extracted from formal legal sources.

13.27 While the jurisprudential debate that continues to rage over the use of expert systems may seem like purely academic endeavour, the importance of legal theory in an area like artificial intelligence should not be underestimated. Expert systems necessarily make assumptions about the nature of law and legal reasoning. Susskind argues that jurisprudence is relevant to legal knowledge engineers because:[644]

> it can be used as an invaluable source of sound, practical guidance for those constructing expert systems in law. Secondly, through jurisprudential argumentation, the latent theoretical presuppositions of existing systems can be articulated and in so doing the potential, as well as the jurisprudential and practical limitations of these systems can be identified.'

13.28 The Committee agrees with this view and believes that jurisprudence should inform the development of any expert system. The Committee also believes that despite the complexity in a number of areas of law, there are areas of law that are appropriate for the development of expert systems. The Committee recognises that rule-based systems will not work well at higher levels of legal disputes but believes that they can provide very basic guidance to the public in the current absence of easily accessible legal information. Such systems do not have to replace the decision maker, but can act as a guide to a decision maker, to the lay person or the lawyer who is required to advise on an area with which they are unfamiliar. The Committee also believes that the increasing sophistication in technology will answer some of the criticism levelled at expert systems in law.

Future Systems

Induction Systems

13.29 Induction systems use a type of artificial intelligence that takes cases and turns them into rules. These systems use what is called 'machine learning' and mirror human inductive reasoning processes by generalising a rule based on repeated examples.[645] The technology takes a series of cases and classifies them to produce the rules for the expert system. Law is seen as an ideal discipline for such systems because of the reliance on case law. However, this technology is still in its research stage and has yet to prove applicable in all legal cases.[646]

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644 R Susskind, 'Expert Systems in Law – Out of the Research Laboratory and into the Marketplace' (1987) *Proceedings of the first International Conference on Artificial Intelligence and the Law* 1, pp. 1- 2.

645 D Hunter, *Minutes of Evidence*, 1 Mar. 1999, p. 297.

646 ibid, p. 298.

Case-Based Reasoning

13.30 Case-based reasoning tries to 'represent and reason with prior experience to analyse or solve new problems'.[647] The use of precedents and analogy in law to argue issues and find solutions makes law a perfect area for such an approach. This approach is different from the induction model because it leaves the task of classification to the user. When utilised in law, it requires retrieving the relevant cases in an area and putting them into a database specifying how and why the cases are similar or not similar. When presented with a new case for decision the system will attempt to match the case in consideration with the examples in its database to extract the most similar cases and will predict the outcome of the new case on this basis.

13.31 SHYSTER, a legal expert system designed by James Popple utilises a case based approach to provide advice based upon an investigation of the differences and similarities between cases and focuses on the quality of legal argument and prediction.[648]

Neural Networks

> Neural nets are computer models inspired by the structure of biological neural systems.[649]

13.32 Neural networks are seen as being the hottest area of AI and its application is proving successful in a number of disciplines such as voice recognition and natural – language processing. Neural networks basically attempt to imitate the way a human brain works. 'Rather than using a digital model, in which all computations manipulate zeros and ones, a neural network works by creating connections between processing elements, the computer equivalent to neurons.'[650]

13.33 Neural networks are classically effective at predicting events when there is a large database of prior examples to draw on. This makes law, with its reliance on precedents, a perfect area of application for neural networks. While logic programming systems require time consuming updating, neural networks learn their knowledge, which provides a further attraction for their use in law.[651] Neural

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647 ibid, p. 301.

648 www.law.usyd.edu.au/~alan/jkbs88.html.

649 M Aikenhead, 'The Uses and Abuses of Neural networks in Law' (1996) 12 *Santa Clara Computer and High Technology Law Journal* 31, p. 34.

650 www.webopedia.internet.com/TERM/n/neural_network.html.

651 M Aikenhead, 'The Uses and Abuses of Neural networks in Law' (1996) 12 *Santa Clara Computer and High Technology Law Journal* 31, p. 52.

networks use statistical reasoning. The network is 'trained' by repeated exposure to examples of the problem they must solve and by learning the significance or weight of each of the relevant aspects used in decision making.[652]

13.34 The 'Split-Up' system developed by Dr John Zeleznikow and Mr Andrew Stanieri of La Trobe University provides advice upon the distribution of property following divorce in Australia. The system integrates a rule-based system with neural networks. The determination of what property a Family Court judge would distribute is seen as rule-based. A hierarchy of 94 factors relevant to a property settlement was identified by experts, the combinations of which were learnt by machine learning algorithms or neural networks. Based on answers to questions posed by the system, 'Split-Up' provides an estimation of the percentage split between partners if the matter was determined by a court. As neural networks are not capable of providing reasons for a decision, the system uses a knowledge representation technique, which gives the user a basic rationalisation for its decision.

13.35 The 'Split-Up' system has been trialed by Family Court judges, registrars, mediators and practitioners. At present it is a research prototype, which contains data from 103 unreported cases that deal specifically with property division. The developers of the system recognise that if the system were to be widely used in the legal system they would need to add many more recent commonplace cases to the system. Some critics have argued that the system is skewed because it relies on the 5 per cent of family law cases that are litigated in court. However, the developers of the system are currently working with many Victorian family law firms to aid in comparing the results obtained from the system to the outcome in negotiated cases.

13.36 The Committee has trialed the Split-Up system and was impressed with its advice. The Committee believes that the system has the potential to provide a realistic indication of property division for would-be litigants. It also could be used as a tool by mediators or lawyers in getting their clients to understand the factors taken into account in a decision. It potentially provides an 'objective' estimated result in an area of law that is often emotionally charged.

13.37 Committee members have witnessed the reaction of some family lawyers to the system and have been surprised at their total reluctance to see any benefit in the system.[653] However, an accredited family law specialist has made a submission to the

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652 J Zeleznikow and A Stanieri, 'Split Up: An Intelligent Decision Support System Which Provides Advice upon Property Division Following Divorce', paper provided by authors for the information of the Committee, 1998.

653 The Committee noted such a reaction at the 1997 Legal Convention when Dr Zeleznikow demonstrated his system.

Australian Law Reform Committee suggesting that a computer system be developed to deal with the whole range of property division issues including child maintenance and support.[654] The submission contends that all possible permutations have been dealt with by courts and any experienced family lawyer could advise as to the likely settlement in a case. Thus to achieve the desire of parties for certainty and consistency, the submission advocates the use of a computer based system by practitioners to aid in advising clients on their entitlements.[655] The Committee concurs with this view and believes that in an area such as property division in family law, which largely involves mathematical splits of agreed property and financial entitlements to maintenance and child support, computerised systems like 'Split-Up' can be useful to lawyers, clients and mediators.

13.38 A further example of the use of neural networks in law is seen in the SCALIR system of legal information retrieval created by Daniel Rose and Richard Belew.[656] While computers have long been used to automate legal information retrieval, they usually rely on crude keyword searches. SCALIR however can perform impressive document retrieval because of its network of term associations that combines with its neural network. For example, it can retrieve a copyright case using a term that does not appear in the case. SCALIR also has the ability to learn from its interaction with users and modifies the weights on links within the neural networks depending on the type of searches performed by users.[657] Rose and Belew believe that over time the system can adopt new terms and 'the changing importance of cases and statutes'.[658] Aikenhead believes that the particular combination contained in the neural networks of SCALIR is a 'powerful and flexible method of emulating the finding of similarity required in legal reasoning' and sees the techniques embodied in the system as capable of wider application in legal expert systems.[659]

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654 J O'Callaghan Submission 89, Submission to the Australian Law Reform Commission on the Inquiry into the Review of the Adversarial System of Litigation. See ALRC,*Technology – what it means for federal dispute resolution*, IP 23, 1998, p. 103.

655 ibid.

656 D Rose and R Belew, 'A Connectionist and Symbolic Hybrid for Improving Legal Research', (1991) 35 *International Journal of Man-Machine Studies* 1.

657 M Aikenhead, 'The Uses and Abuses of Neural Networks in Law' (1996) 12 *Santa Clara Computer and High Technology Law Journal* 31, p. 54.

658 D Rose and R Belew, 'A Connectionist and Symbolic Hybrid for Improving Legal Research', (1991) 35 *International Journal of Man-Machine Studies* 1, p. 22.

659 M Aikenhead, 'The Uses and Abuses of Neural Networks in Law' (1996) 12 *Santa Clara Computer and High Technology Law Journal* 31, p. 54.

Committee's Vision for AI and Law

13.39 The Committee has consulted widely on the use of AI in law. It has noted that AI generally is a controversial area that attracts vehement critics and strong proponents. However, as Benjamin Kuipers, Chairman of the Computer Science Department at the University of Texas in Austin, and a leader in AI notes:[660]

> AI has made a lot of progress in the last 10 years. But most of it is obscure to the public, because this progress has been absorbed into other fields of programming. I personally think that AI is one of the greatest half-dozen scientific challenges we have today. It's important for us to investigate the fundamental problem of what the mind is. We have an imperative to investigate this subject, as human beings.

13.40 Despite AI failing to achieve early predictions, the Committee believes it is an important area of research that needs to be encouraged, especially in its applications to the legal system. The Committee believes that as it is a rapidly evolving area, it needs to be constantly monitored and new products and prototypes evaluated.

13.41 The Committee believes that research into AI and law can potentially aid in improving the administration of justice and provide easier access to justice. AI can help with legislative drafting, intelligent checklists can facilitate accurate electronic lodgement of legal documents, and a range of decision support and legal information retrieval systems. In the absence of affordable access to legal information, expert systems can provide basic information and advice on everyday legal problems.[661] The Committee believes that advances in technology will increase the sophistication of these systems, thereby reducing the maintenance, cost and time required to develop expert systems.

13.42 The Committee is not advocating the replacement of people with machines nor does it believe that it is desirable to remove the humanity and compassion that human decision-makers bring to the legal system. Rather, we believe that AI can **aid** in providing consistent, equitable and affordable justice. As with all aspects of technology, it is not an end in itself but rather should be used as an enabler or tool to achieve the desired ends of an accessible and efficient legal system.

13.43 The Committee agrees with Professor Smith's assessment:[662]

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660 G Chapman, 'Digital Nation: Are Computers on a Pathway to Replace the Human Species?' *Los Angeles Times*, Monday 13 March 1999.

661 Chapter 12 discusses public access to legal information in detail. It deals with kiosks and other forms of electronic delivery of basic legal information and advice.

662 J C Smith, 'An Introduction to Artificial Intelligence and Law: or, Can Machines be Made to think like Lawyers?' www.flair.law.ubc.ca/jcsmith/logos/noos/machine.html, p. 14.

> The challenge for the field of artificial intelligence and law remains. It is to bring the technology to the lawyer rather than forcing the lawyer to come to the technology.

13.44 As noted elsewhere in this report, the legal profession has generally been slow to adopt new technologies. To assist in 'bringing the technology to the lawyer', the Committee believes that the field of AI and law needs to be encouraged by government and private industry. It also believes that there needs to be a concerted effort to keep abreast of new developments in the area, publicise these developments to the legal community and engage in pilots and evaluation processes of prototypes built by researchers to further the field.

Recommendation 43

The Victorian Government in conjunction with the law and technology information clearinghouse once established should encourage further research and applications of artificial intelligence including expert systems and natural language systems in law.

Recommendation 44

The law and technology clearinghouse once established should perform a monitoring and evaluating role in relation to new and emerging projects on artificial intelligence, including expert systems and natural language systems. The clearinghouse should coordinate trials of artificial intelligence systems (including expert systems and natural language systems) with various participants in the legal system.

Recommendation 45

The Attorney-General should refer the legal issues raised by new and emerging technologies and their implication for the State of Victoria to a parliamentary committee for inquiry. Such Inquiry should focus on:

- ***(a) intellectual property and the Internet as it impacts on Victoria and its citizens;***
- ***(b) legal liability for negligent information and advice provided by an artificially intelligent system;***
- ***(c) legal liability in relation to negligent and/or criminal conduct arising out of the application of expert and artificial intelligence systems; and***
- ***(d) legal issues in relation to cloning and other bio-medical applications of modern technologies.***

APPENDIX A LIST OF SUBMISSIONS

No.	*Date of Submission*	*Name*	*Affiliation*
1	18 December 1997	The Hon. Chief Justice Alastair Nicholson, AO RFD	Family Court of Australia
2	12 January 1998	Mr D. Beanland MLA	Attorney-General and Minister for Justice, Qld
3	27 January 1998	Ms K. Ransome	Administrative Appeals Tribunal, NSW
4	28 January 1998	Ms L. Glanfield	Attorney-General's Department, NSW
5	5 February 1998	Mr P. Adamson	Minister for Communications and Advanced Technology
6	5 February 1998	The Hon. K Trevor Griffin, LL.M,MLC	Attorney-General and Minister for Justice, SA
7	11 February 1998	The Hon. Peter Foss, QC,MLC	Attorney-General and Minister for Justice, WA
8	4 March 1998	Mr N. Pengelley	Library, Monash University, Victoria
9	6 March 1998	Mr B. Dyer	Law Faculty, Monash University, Victoria
10	10 March 1998	Mr C. Lowndes	Chairman, Auckland Central Electorate, NZ
11	24 April 1998	Mr D. Hall	Dept of Justice, Victoria
12	7 April 1998	Ms R. McInnes	Adelaide Magistrates' Court
13	25 November 1998	Mr A. Foster	Law Institute of Victoria
14	26 November 1998	Mr P. Tobin	Office of Public Prosecutions, Victoria

APPENDIX B LIST OF WITNESSES

No.	*Date of Hearing*	*Witness*	*Affiliation*
1	1 December 1997	Ms A. Wallace	Deputy Director Australian Institute of Judicial Administration
2 3	23 December 1997	Mr M. Thomas } Mr J. Dinsdale }	Director, Business Improvements Team Leader, Courts Department of Justice
4		Dr L. Trudzik	Partner, KPMG
5	6 April 1998	Ms S. Drakeford	Global Solutions Manager Integrated Justice, IBM Australia
6	11 May 1998	Ms Caroline Knaggs	Acting Library Manager, Arthur Robinson Hedderwicks
7		Mr James Butler	Librarian, Supreme Court
8		Ms Nicki McLaurin Smith	Librarian, Corrs Chambers Westgarth
9		Ms Ruth Bird	Law Librarian, University of Melbourne
10		Mr Nick Pengelley	Law Librarian, Monash University
11		Ms A. Wootton	Library Manager, Mallesons Stephen Jaques
12	25 November 1998	Mr J. Charleson	Executive Director, Corporate Management, Department of Justice
13		Mr D. Hall	Director, Courts, Tribunals and Registries
14		Mr M. Delaney	Acting Manager, Applications Solutions, Information Systems & Technology Directorate Department of Justice
15 16		Mr B. McLean } Mr A. Smout }	Chief Executive Officer IT Manager Supreme Court of Victoria

No.	*Date of Hearing*	*Witness*	*Affiliation*
17 18		Mr R. Allen } Ms W. Atkins }	Acting Chief Executive Officer Technology Coordinator County Court
19 20		Mr P. Armstrong } Mr C. Balfour }	Chief Executive Officer IT Manager Magistrates Court of Victoria
21		Mr J. Ardlie }	Chief Executive Officer
22		Mr P. Anderson }	Technology Coordinator Victorian Civil and Administrative Tribunal
23		Mr M. Francis	General Manager, Victorian Government Reporting Service
24 25		Prof. P. Sallmann } Mr R. Wright }	Director Associate Director Civil Justice Review Project
26		Mr R. Beazley	Victorian Government Solicitor
27		Mr R. Cornall	Managing Director, Victoria Legal Aid
28		Mr A. Foster	Partner, Foster Heart
29 30		Mr R. Smith } Mr A. George }	Consultant Partner Stary George
31 32		Mr D. Fitzgerald } Mr M. Smith }	Solicitor General Manager Law Institute of Victoria
33 34 35	26 November 1998	Mr C. Humphreys } Mr M. Thomas } Mr J. Dinsdale }	Director, Enforcement Management Unit Director of Business Improvements, Project Pathfinder Courts Representative, Project Pathfinder Department of Justice
36		Mr M. Rozenes, QC	Criminal Bar Association of Victoria

No.	*Date of Hearing*	*Witness*	*Affiliation*
37 38		Mr P. Tobin } Mr J. Jancar }	Manager, Legal Support Manager, IT Section Office of Public Prosecutions
39 40 41 42		Mr C. Oates } Mr P. Donelly } Chief Insp. L. Snowball } Chief Supnt. P. McDonald}	Strategic Projects Manager Strategic Development Department Information Services Division Victoria Police
43		Mr T. O'Donoghue	Acting Commissioner, Correctional Services, Office of the Correctional Services Commissioner
44		Mr P. Delphine	Director, Prison Services, The Public Correctional Enterprise
45		Ms H. Vorrath	Consultant, Senior Consultant, SMS Consulting Group
46		Mr P. Thorne	Reader in Computer Science, University of Melbourne
47		Mr I. L. Harrison	Ballarat
48		Mr M. Herron	Director, Victoria Law Foundation
49		Mr P. Faris, QC	Barrister
50		Mr R. L. Straw	Deputy Director, Multimedia Victoria
51	22 February 1999	Mr J. Sussman	Delphi Consulting Australasia
52		Mr P. Searle } Mr G. Searle }	Netjustice
53	1 March 1999	Mr D. Hunter	Senior Lecturer, Law School, University of Melbourne
54 55	19 April 1999	Mr S. Biondo Ms A. Markham	Community Development Officer Publications Administrator Fitzroy Legal Service

APPENDIX C LIST OF OVERSEAS MEETINGS

No.	*Date of Meeting*	*Representative*	*Affiliation*
1	8 July 1998 Los Angeles	Ms Joy Sorsenson, Deputy Executive Officer Ms Robin Lee Cunning, Chief, Court Services Liason Gloria Gomez, Division Chief, Juror Services, Judy Mendicina, Assistant Division Chief, Juror Services Juanita Blankenship, Administrator, Litigation Support and other officers of the Court.	Los Angeles County Superior Court
2		Hon Veronica S. McBeth, Presiding Judge, Hon Ray L. Hart, Assistant Presiding Judge, Hon Judge Soussan Bruguera, Chair Technology Committee, Hon Judge Kenneth Chotiner, Mr Frederick Ohlrich, Court Administrator and Mr Earl Bradley, Deputy Court Administrator	Municipal Court, Los Angeles Judicial District
3	9 July 1998 Santa Ana	Hon Kathleen O'Leary, Presiding Judge, Alan Slater, Executive Officer, Louise Napoli, Assistant Executive Officer, Richard A. Droll, Assistant Executive Officer – Court Technology Services, Mary Malk, Assistant Director – Family Law / Probate Operations, Nancy Hawkins, ACMS Project Manager, Linda Martinez, Supervising Probate Attorney, Debbie Russell, Probate Supervisor	Orange County Superior Court

No.	*Date of Meeting*	*Representative*	*Affiliation*
4	10 July 1998 Tuscon	Professor Winton Woods, Director, Courtroom of the Future Project, Glenn Stoneman, Solutions Specialist Integrated Technologies, Norstan Communications Inc., Van Sarkiss, Vice President, Performance HiTech	University of Arizona, College of Law, Tucson
5		Professor Winton Woods, Bill, Registry Clerk	Superior Court, Tuscon Arizona
6	13 July 1998 San Antonio	Mr Bob Roper, Director Integrated Information Services	Colorado Judicial Branch
7	8 July 1998 San Francisco	Mr Raymond O'Compo, Executive Director	Berkeley Centre for Law and Technology, University of California, Berkeley
8		Hon Thomas M. Cecil, Presiding Judge and Chair Court Technology Committee Ms Patricia Yerian, Director of Information Systems, Victor Rowley, Manager, Technology Policy and Planning, Mark Dusman, Manager Information Systems Development and Support, Karen Cannata, Manager Information and Records Management, Gavin Lane, Manager, Education Division Audio-Visual Services, Robert Lowney, Program Attorney, Education Division, Jane Evans, Business Systems Analyst, Information Systems, Nelson Wong, Web Services Analyst.	Sacramento County, Superior Court Administrative Office of the Courts, California Courts
9	9 July 1998 San Francisco	Mr Peter Menell	Berkeley Centre for Law and Technology, University of California, Berkeley
10	10 July 1998 New York	Richard Zorza, Vice President	Fund for the City of New York
11		Mr Eric Lee, Deputy Director Ms Patricia Henry, Counsel to the Admin Judge	Centre for Court Innovation, Midtown Community Court Criminal Court of the City of New York

No.	*Date of Meeting*	*Representative*	*Affiliation*
12	13 July 1998 Baltimore	Barbara King John C. Wyatt, Senior Consultant Public Safety, Justice & Identification, Global Government Industry, Dave Fox	Baltimore Arrest Booking Facility IBM
13	14 July, 1998 Williamsburg	James E. McMillan, Director, Court Technology Laboratory	National Centre for State Courts
14	14 July 1998 Williamsburg	Professor Frederic Lederer, Director Courtroom 21, April Artesian James E. McMillan, Director, Court Technology Laboratory Philip Kaufman, Director	William and Mary College, School of Law National Centre for State Courts Audioscribe Inc
15	16 July 1998 Washington, DC	Hon Judge Rya Zobel, Director, Mark Aydelotte, Publications and Media, Ted Coleman, General Administration, Heather Jones, Publications and Media, Hai Le, General Administration, Matthew Nixon, General Administration, Sylvan Sobel, Director, Publications and Media, David Wilharm, General Administration Pamela White, Assistant Director, Office of Information Technology, Mary Stickney, Special Assistant, Office of Court Programs	The Federal Judicial Center Administrative Office of the United States Courts
16		Stephen Colgate, Assistant Attorney General for Administration, Justice Management Division, Dr Mark A. Boster, Deputy Assistant Attorney General, Information Resources Management, James Gallagher, Robert Diegelmann, Jeanette Plant	United States Department of Justice
17	17 July 1998 Washington, DC	Janet Caldow, Director, Institute for Electronic Government, Kent Blossom, North America Segment Manager, Public Safety & Justice, John C. Wyatt, Senior Consultant, Public Saftey & Justice, Bill Shaw, Program & Solutions Manager, Institute for Electronic Government	IBM Institute for Electronic Government, Global Government Industry

No.	*Date of Meeting*	*Representative*	*Affiliation*
18		H.E. Hon. Andrew Peacock, AO	Australian Ambassador to the US
19	20 July 1998 London	Rt Hon Lord Justice Henry Brooke, Chairman, Judges' Standing Committee on Information Technology	Court of Appeal, Royal Courts of Justice
		Hon Mr Justice Nicholas Pomphrey	High Court of Judicature, Chancery Division
		Prof. Richard Susskind, Information Technology Adviser to the Lord Chief Justice	
20		Prof. Ronald Stamper, professor of Information Management, Telematics & EDI	Faculty of Technology Management, University of Twente
		Peter Duschinsky, Managing Consultant	IT World Consultants
		Kecheng Liu, Reader & Director	School of Computing, Staffordshire University
21		Philip I. Henry, Assistant Director, Mike Hainey, Head of Computer Operations	Serious Fraud Office
22		Betty Moxon, Head Sentencing and Offences Unit, Stephen ?, Legal Advisor, Criminal Policy Directorate	Home Office
23	21 July 1998 London	Dr Marek Sergot, Reader, Department of Computing	Imperial College
24		Ian Burns, Director-General Policy	Lord Chancellor's Department
		Andy Maultby, Information Policy Officer	The Court Service
		Peter Jacob, Director of Civil and Family Operations	
25		Mr Geoffrey Hoon, MP, Parliamentary Secretary to the	Lord Chancellor's Department
		Prof. Richard Suskind, IT Advisor to Mr Hoon	

No.	*Date of Meeting*	*Representative*	*Affiliation*
26	22 July 1998 Paris	John Dryden, Head of Information, Computer and Communications Policy, Terresa M. Peters	Department for Science, Technology and Information, OECD
27		Jean-Louis Pérol, Philippe Lemaire	Ministry of Justice
		Anna Nemanic, Research Officer	Australian Embassy in France
28	24 July 1998 Brussels	Wilfred Verrezen, Director, Guido Dierckx, Information Technology Coordinator, Frieda Bollaert, Information Technology Coordinator, Vincent Cambier, Joint Advisor, Bark de Ryck, IT Officer	Ministry of Justice
		Patrick Van Eecke, Director, Paul Lambert, Legal Telecommunications Researcher, Liesbet Godts, Research Assistant	Interdisciplinary Institute for Law and Information Technology, Catholic University of Leuven
29	27 July Vienna	Dr Helmut Auer, Head of Unit, Directorate for Central Administration and Coordination, Dr Ruth Straganz, Civil Procedures, Magister Peter Bauer, Deputy Director IT Department 5, Magister Eva Hummel	Ministry of Justice
		Magister Christian Adorjan	Austrian Federal Computing Centre
		Ing. Thomas Göttlicher, Project Manager	IBM
30		Mr Rudolf Prohaska, Chief Executive Officer, Mrs Moscher, Head of Department 40C	First Judicial District Court, Vienna
31	23 July1998 Coventry	Dr Abdul Paliwala	Law Technology Centre, University of Warrick
33	24 July Durham	Michael Aikenhead, Tom Allen, Robin Widdison	University of Durham Law and Computing Centre
34	27 July Glasgow	Cyrus Tata	Centre for Law, Computers and Technology, University of Strathclyde

No.	*Date of Meeting*	*Representative*	*Affiliation*
35		John Orr, Chief Constable Hugh Ferry, Chief Superintendent Brian Gorman, Superintendent	Scottish Criminal Records Office

APPENDIX D LIST OF INTERSTATE MEETINGS

No.	*Date of Meeting*	*Representative*	*Affiliation*
1	3 February 1998	Chief Judge Campbell }	Registry Manager
		Ms Susanne Allan }	Principal Courts Administrator
	Sydney	Ms Giulia Inga }	Information Technology Manager
		Mr Peter Tierney }	
			NSW Compensation Court - Phoenix System
2		Mr Daniel Petrie	PBL Online
		Mr Richard Ackland	Justinian
3		Mr David Spence }	Managing Director
		Mr John butterworth }	General Manager Business Services
			Company Solicitor
		Ms Mary Jane Salier }	Head of Ozemail Corporate
		Mr Mike Farrell }	Product Manager E-Commerce
		Mr Joe Kennedy }	Producer, Lawnet
		Mr Rob Appel }	
			Ozemail Pty Ltd
		Mr Gerard Neideitsch	Director of Ringtail Solutions
4		Mr Graham Greenleaf }	
		Mr Philip Chung }	AustLII
		Mr Andrew Mowbray }	
		Ms Sandra Davey	NSW Law Foundation
5	4 February 1998	Mr Miro Percic }	Director IT Services
		Mr Bruce Kelly }	Assistant Director, Strategic Services
	Sydney		
			NSW Attorney General's Department
6		Ms Pam Gray	Artificial Intelligence Academic

No.	*Date of Meeting*	*Representative*	*Affiliation*
7	4 February 1998 Sydney	Mr Alan Rose } Mr David Edwards } Dr Catherine Cronin } Mr Michael Barnett } Dr Tania Souridin } Mr Miiko Kumar } Ms Toula Louvaris }	Australian Law Reform Commission
8	5 February 1998 Brisbane	Ms Diane Hotchkins } Mr Peter Hasted } Mr Derek Bell } Ms Robyn Megson } Mr John Boyce }	Courts Modernisation Project Video & Audio Link Technology Policy & Legislation Division DPP Attorney-General's Department, Queensland
9		Ms Joanne Serman Ms Allison Stanfield	Queensland Law Foundation Technology Services, THEMIS
10	6 February 1998 Brisbane	Mr Gary Robinson	Court Administrator, Supreme Court of Queensland
11		Mr John Hodgins } Mr Paul Cockburn }	CEO Computer Services Manager Queensland Legal Aid
12	30 March 1998 Canberra	Mr Peter Coroneos	Executive Director, Internet Industry Association
13		Mr Chris Doogan } Mr Lex Howard } Mr Tony de la Fosse }	CEO Marshall Deputy Marshall High Court of Australia, Canberra
14		Dr Bob Moles } Mr David Grainger } Mr Brian Dooley } Mr Gary Tamsitt }	Network Knowledge SCALEplus ANU Director, Legal Workshop Australian National University

No.	*Date of Meeting*	*Representative*	*Affiliation*
15		Hon. Darryl Williams Q.C. & Staff, Attorney-General's Department	Commonwealth Attorney-General
16	31 March 1998 Canberra	Ms Mariam Ferguson	Consultant, ACT Government on e-licensing registrations & permission on line
17		Mr Brian Stewart	Assistant Secretary NOIE
18		Ms Glenys Roper	Chief Government Information Officer
19	14 April 1998 Perth	Mr Alan Piper } Mr Giles Nunis } Mr Paul Wilkins } Mr Peter Rapaic } Ms Terry McAdam } Ms Floris Gout } Mr Tony Sutherland }	Ministry of Justice Director, Court Services Director, IT Services Manager, Client Services Manager Court Recording Manager Data Administration ESS Consulting Department of Justice WA
20		Mr Peter Smith } Justice Robert French }	IT Manager President of the Tribunal National Native Title Tribunal WA
21	15 April 1998 Perth	Mr Stephen Collins	Director, Office of Information & Communications
22	16 April 1998 Adelaide	Ms Julie Baker } Mr Greg Lehman } Mr Hank Prunckun } Mr Des Milne } Mr Peter Washington } Justice Trevor Olsson }	Acting Director SA Courts Authority
23		Ms Margaret Price } Mr Alan Cunningham }	General Manager, Strategic Planning & Policy Project Director, Internet Publishing Services SA Office of Government Information & Communications

No.	*Date of Meeting*	*Representative*	*Affiliation*
24	9 June 1998 Sydney	Ms Murray Hamilton } Mr Evan Predavac }	Butterworths
25		Mr Andrew James Ms Heather Ruddock & Others	CCH
26		Ms Catherine Fifield & Others	LBC
27	10 June 1998 Sydney	Mr Ernie Schmidt Mr Murali Sagi	Director IT Manager Judicial Commission of NSW
28		Mr Nigel Hamilton	Hamilton Information Technology
29		Ms Elisabeth Broderick	Blake Dawson Waldron
30	7 May 1999 Sydney	Mr Philip Argy	Partner, Mallesons Stephen Jacques
31		Mr Gary Stanton Ms Heather Ruddock Mr Randall Leeb-du Toit	CCH
32		Mr Ian Chivers	Systematics
33		Mr Graham Greenleaf Mr Phillip Chung	AustLII