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The AIJA is an incorporated association affiliated with the University of Melbourne. Its main functions are the conduct of professional skills courses and seminars for judicial officers and others involved in the administration of the justice system, research into various aspects of judicial administration, and the collection of information on judicial administration. Its members include judges, magistrates, barristers and solicitors, court administrators, academic lawyers and other individuals and bodies interested in improving the operation of the justice system.

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Secretary Mr Stephen Skenill, in providing seed funding for the project and assisting with the constitution of the Project Steering Committee. Thanks are also due to the convenor and members of that Committee for their many and varied contributions through their professional expertise and advice, facilitating access to people, products and information, in promoting and advancing the project and assisting with the conference presentations themselves. A list of the committee's members appears as Appendix A to this report.

Thanks are also due to AustLII who hosted the project Website, and to the individual courts, departments, agencies and personnel who assisted with the review process and the conference presentations.

This report was written for the Project Steering Committee by Mr Jeff Leeuwenburg, Information Technology Consultant and Ms Anne Wallace, Deputy Executive Director of the AIJA.

This report should be read in conjunction with the presentation material on the *Technology for Justice Conference Presentations*, CD-ROM, which is enclosed in the envelope at the back of this report booklet. These materials comprise many hundreds of pages of text, graphics, audio, mini-web sites, and working links to relevant web sites.

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outcome of the project was the *Technology for Justice Conference*, held in Melbourne between 23-25 March 1998, and the publication of a CD ROM of the conference presentations.¹

The project had its origins in a Special Meeting of the Standing Committee of Attorneys-General ('SCAG') in Melbourne in August 1992, held to consider complex fraud trials. At the conclusion of that meeting SCAG referred a number of matters to the AIJA for research and investigation including:

- the desirability and feasibility of developing and implementing compatible computerised investigative, litigation support and court presentation systems for complex fraud cases; and
- the desirability and feasibility of establishing a national co-ordinating body for information technology in the judicial system.

The AIJA report by Graham Greenleaf and Andrew Mowbray *Information Technology in Complex Criminal Trials*, published in 1993 was a result of that reference.² That report's recommendations were subsequently considered by the AIJA and by SCAG. They were also considered, by the courts, court departments and agencies, prosecution and investigation authorities and the broader legal profession.

The AIJA sought and was granted funding by the Commonwealth Attorney-General's Department to conduct this project in an attempt to advance some of the report's recommendations. It was particularly concerned with those relating to the potential to use common systems and the development of standards and common interfaces.

¹ *Technology for Justice Conference Presentations*, Australian Institute of Judicial Administration, (CD ROM), (1998).

² Graham Greenleaf and Andrew Mowbray, *Information Technology in Complex Criminal Trials*, (1993)

throughout Australia; and

- Secondly, the development and conduct of a conference to promote the most effective use of information technology in those areas.

As a first step in the process the Institute engaged an experienced information technology consultant, Mr Jeff Leeuwenburg, to undertake the review and to assist the project's Steering Committee in the development and conduct of the conference.

The Steering Committee, established to take responsibility for the overall conduct of the project, included representatives of the AIJA, the judiciary, the legal profession, court administrators and law enforcement agencies. A list of the Steering Committee members appears as Appendix A to this report. The Committee set the guidelines and general direction for the review and played an invaluable role in providing leads and contacts for the consultant to pursue. It was initially convened by The Hon Paul Seaman QC and later by Justice Bernard Teague.

Review of Court technology

The process

As part of the review process the consultant was required to:

- report on current developments and achievements, identify examples of excellence, note emerging uses of new technology and provide an overview of the benefits achieved by the application of new technology; and
- identify issues to be addressed at the proposed conference, including the potential to use common systems, development of standards, and agreement on common interfaces.

In terms of its overall emphasis, the review was not intended to result in a census of current practices, but rather to identify examples of high quality,

made in Melbourne, Sydney, Adelaide, Perth and Brisbane. The contact net included court and tribunal administrators, judges, magistrates, information technology specialists, the legal profession, legal librarians, academics and contacts from law enforcement agencies, police and prisons. While the focus was on Australian systems, international contacts were made, with presentations at the conference from the United States, Singapore, New Zealand and the United Kingdom.

The response to the consultations was very strong, and strongest from court and tribunal administrators and the judiciary. Attempts were made to target the wider legal environment, including investigation and prosecution agencies and law firms. While these attempts were moderately successful there would be scope to target these areas in more detail if the exercise was repeated.

Themes and Directions

From the outset it was recognised that, with such a vast area of the judicial system to cover and such a wide range of real and potential technologies there was a need to refine the scope of the review. Initial responses to the consultations and calls for comment were presented to the Steering Committee for confirmation on suggested directions. The Steering Committee agreed on the following broad themes:

- Electronic courts and virtual courts;
- Court management and support;
- Judicial support, investigation support and litigation support;
- Systems planning for courts;
- Transcripts;
- Electronic appeals;
- Video-conferencing;

presentations at the conference and the review process was, in large measure, directed towards them. The review did however make observations in relation to a number of other areas and these will be touched on in its findings.

The findings

As previously stated, the review did not set out to make a detailed census of current practice. It did however, provide a very useful opportunity to make a broad assessment of the use of technology in the areas it addressed.

Electronic courts

Australia has an international reputation in this area, mostly on account of the Royal Commission into the NSW Police, Estate Mortgage, Bond, Rothwells, ProImage and Compass Airlines cases.³ The most recent of those, the Estate Mortgage case, was highlighted at the conference.

The business case issues are well known. In summary, they are expensive to establish, but worth it in terms of the advantages in speed, accuracy, and reduction of delays.⁴ The expertise is widely available in Australia to build Court systems. Hardware and software costs have dropped, and software has become better as well as cheaper, so the threshold for using this technology is dropping.

The future issues in this area revolve around, firstly, the extent to which such systems might be used more widely, and in smaller environments. The Australian Law Reform Commission noted that four types of cases had been identified that would benefit from its use:

³ Australian Law Reform Commission, *Technology - what it means for Federal Dispute Resolution* Issues Paper No 23 (1998), [5.42-5.49].

⁴ For a list of suggested benefits, see Australian Law Reform Commission, above n 3, [5.33].

- 'Template' cases — these are cases where lawyers handle the same type of cases that have similar document needs.⁵

These categories may encompass medium sized, as well as large, cases⁶ and matters dealt with in other levels of the courts system, for example, coronial proceedings and planning inquiries.

Another important issue involves ensuring that court premises have the basic wiring, power supply, air conditioning and layout to enable the necessary equipment to be set up. It might be expected that these needs would simply be incorporated as part of the normal planning process for the construction of new court buildings. However, much of Australia's stock of existing court houses would require significant modification to enable the installation of electronic courtrooms. Many of the examples of those courtrooms that have been previously referred to have had to be installed in premises specially acquired for those reasons. In other cases, costly modifications to existing courthouses have been required.

Court management and support/systems planning for courts

Aside from standard office software like word-processing, finance and accounting applications, the area of court management and support was the first to see the application of information technology in courts and tribunals in Australia.

The implementation of case management systems in Australian courts from the mid 1980s required the introduction of automated process techniques to record, process and manage data relating to case files and their progress

⁵ Ibid [5.19] (footnote omitted).

⁶ As has been predicted in the United Kingdom, see Lord Chancellor's Department, 'Resolving and Avoiding Disputes in the Information Age. A Lord Chancellor's Department Consultation Paper' September 1998, <www.open.gov.uk/lcd/consult/itstrat/> as at 30 October 1998

generic, multi-level court system for a major state is likely to cost between \$12-\$20 million to develop and implement.

While many of the earlier main-frame systems are being re-engineered, the practice in Australia is still generally to develop systems ‘in house’ to meet the needs of a specific court or tribunal. However, a number of jurisdictions are working on specifications for an integrated system to link various levels of operations (for example, the Pathfinder project in Victoria).

The two modern examples put forward for the conference were the Phoenix system implemented in the New South Wales Compensation Court and the High Court of Australia’s new case management system. They point to a number of interesting trends in this area and it will be worth monitoring both systems closely over the next few years.

The High Court system was implemented recently. It is interesting because it uses a shrink-wrapped package, namely Lotus Notes, on a PC platform. This means development has been quick, costs have been kept low and interfacing with it is easy. This is a good approach for an application which has relatively low search levels, extensive use of electronic documents and a need to interface with other courts. It will be handling a fairly light load of about 3000 cases per year, so it will be hard to generalise about how this approach might cope with much heavier loads and user bases.

The Phoenix system is interesting because it addresses a high volume environment, with many cases to track, and high search volumes. It uses Sybase as the database engine, and Powerbuilder for the user interface. These tools have been effectively used, resulting in a system that is fast even under load, with flexibility in interface design. It is capable of considerable expansion in volume of work and in functionality.

Both these systems have broken new ground, and are good benchmarks for other courts to compare themselves with.

The issues arising when planning large systems were part of the background to a special conference workshop session (Session 3-B. The Benefits of Hindsight). This workshop came up with many conclusions. Most notably it was found that for court systems to work there is a need for a team approach between court administrators, information technology experts and the judiciary, with the judiciary providing the driving vision. Adequate infrastructure needs to be provided by government and proper planning processes put in place. Big projects have the highest risk of delay and cost blow-out. It should be noted that the courts are not alone in having problems producing big systems. The issues involved relate to planning and project management rather than technology. The technology needed is already there.

One clue to the best planning directions is that any system that intends to integrate connections across several user groups, such as law firms, private individuals, courts, fines collection agencies, solicitors, law firms, and police, will not be able to insist on rigid standards. It will have to allow different forms of interfacing, with Internet browser interfaces being one of these. Browser interfaces allow integration of applications at the workstation level.

Some comments by delegates from the United States of America at the conference included:

- the US courts make more use of commercial packages than their Australian counterparts.
- use of front-end integration software such as Powerbuilder, Visual Basic for Windows, and Browser interfaces is widespread in the US.

Australia has not yet seen the development of commercial packages and there has not been any move to take up and adapt any of the US packages. It would seem unlikely that this situation will change much in the foreseeable future.

The use of Browser interfaces is something that is likely to be adopted in Australia. The review identified the emerging use of Internet technology as a

support systems began in Australia in the early 1980s, largely as a result of the need to manage voluminous documentation associated with complex white collar crime trials. Regulatory, investigative and prosecution agencies such as the Australian Securities Commission, the National Crime Authority and the Office of the Commonwealth Director of Public Prosecutions took the lead in their development. In more recent years, similar systems have been developed for use in Commissions of Inquiry and complex civil litigation. Today, these systems include a number of integrated components, including sophisticated organisation, storage, searching, retrieval and presentation capabilities. The most recent example and probably the most sophisticated to date was that developed for the Estate Mortgage case, which was the subject of a presentation at the Conference and is discussed in more detail later in this report.

Many jurisdictions have developed judicial support systems which provide access over an intranet system to primary research materials, such as cases and legislation augmented by a variety of other material including sentencing information, bench books and other publications. The most well known of these is probably the Judicial Information Research System (JIRS) developed by the Judicial Commission of New South Wales which contains a highly developed Sentencing Information System.⁷

For the future, it should be noted that the applications software and cheaper hardware have recently reduced the cost threshold of providing these services. The emerging use of Internet technology may make it far easier for courts to share resources in this regard; a particular example may be the possibility of Federal courts making electronic bench books available to State courts exercising Federal jurisdiction.

⁷ Ernie Schmitt, 'Judicial Information Research System (JIRS) - A new and integrated approach to the provision of electronic information services for the judiciary' (August 1996) Vol 8 No 7 *Judicial Officers Bulletin* 1.

Transcripts

Transcripts are a topic of particular interest. They are a special responsibility of the courts community, who must take the lead in setting the pace of development in this area. The technology is both well-known and gaining a new lease of life.

Realtime transcripts, which appear to be at the leading edge of transcript use, have been provided for fifteen years or more, but have recently been given a new lease of life in two ways. Firstly, they can be fed directly into computer packages and indexed immediately, then at once used to help index or annotate evidence, or as a vehicle for annotations. Secondly, they can be used to enable remote participation in virtual courts. The use of Intranet technology to enable parties outside the court to access realtime transcript in the Estate Mortgage case is a successful example of this development.

Alternatives to court-reporter transcripts, such as audio transcripts and creating transcripts remotely from video or audio sources were investigated during the review and demonstrated at the conference. The keynote speaker, Professor Lederer, mentioned a form of transcript technology which may make a come-back This is the Transcript mask, where a reporter in court repeats the words of whoever is speaking, using a mask to reduce the sound, utilising voice recognition software trained to their voice to produce a computer record.

An area for attention in the future, or even as a special research project, is the issue of standards for machine-readable transcripts and establishing the means of importing and exporting transcripts. While importing and exporting transcript files is widely done already, there are issues of fine detail to be resolved, such as:

- Retention of accurate line numbering when importing and exporting between word processing packages and full text packages.

The review disclosed that this is now a mature and manageable technology. It was initially adopted as a means of taking evidence from children, or other vulnerable parties. As was demonstrated at the conference, its use has since been extended to cover a wide variety of circumstances. These include situations where it is necessary to take evidence from overseas, where a witness or party is in custody, to hear expert evidence, as an alternative to circuit hearings, to conduct directions hearings, or pre-trial conferences, to hear chamber applications and applications for special leave to appeal, for appeal hearings, for a variety of internal administrative purposes, and even to bring a magistrate 'on-line' to a country court house to overcome difficulties caused by the absence of a country magistrate. The tyranny of distance may have much to do with the reasons why Australian courts have taken the lead in exploring new uses for this technology.

In the future, it seems likely that increased and extensive use will be made of digitised video, for such things as expert testimony, forensic material and even video transcript. The tools for digitising video are available now, however the area has been held back by the lack of low-cost, high performance storage media. This is in the process of change, with the emerging CD-DVD optical disk option, which has just become available. CD-DVD has 6-7 times the capacity of existing CD-ROM storage capacity.

Desk-top video conferencing is also available now, and the extension of video applications to a more widespread network can be anticipated, especially in conjunction with the ability to make a digitised video record of the calls.

The examples selected for presentation at the conference demonstrate the potential of these developments, including the concept of the 'virtual court'.

Electronic Appeals

The application of electronic technology to the work of appellate courts has been one of the major areas of focus in Australia during the last few years.

liaison with the consultant working on the Electronic Appeals project and with the assistance of members of that project's Working Party those arrangements were put in place.

As a result, a presentation on this project was given to the Conference, as a preliminary to the final report which was approved by CCJ in May 1998.⁸ This has been an extremely significant project in terms of its potential, not only for the development of electronic appeals, but for the development of uniform standards across jurisdictions with regard to the way courts receive, process and issue documentation electronically.

Law firm systems

The review was concerned to examine technology trends in law firms and to see whether there was divergence or convergence with the courts. It appears a lot of emphasis is going into strengthening infrastructures within law firms, such as the general availability of personal computers, common use of email, electronic documents and improved tools for the litigation cycle.

Also of primary significance in the law firm environment is the prevailing opinion that full use of technology is now a mandatory element in supporting a client's needs. Rather than being an occasional tactical option firms now consider that they would be neglecting their professional obligations if they did not at least draw their clients' attention to the potential value of technology.

The benefits of using the Intranet for large cases, especially ones with international aspects were described by two speakers at the conference. In a large due diligence exercise, where a major international company was selling off subsidiaries, a pool of information was made available to bidders all around the world using this technology. Intranet technologies, providing for cheap

⁸ Jo Sherman and Allison Stanfield, 'Council of Chief Justices of Australia and New Zealand Electronic Appeals Project - Final Report May 1998' (May 1998).

Legal information

Both statute law and judgments are widely available in Australia in electronic form. Sources include freely available internet services such as AustLII and SCALEPlus and products supplied by commercial Publishers via CD ROM services or Internet sites where access is available upon subscription.

It has been said that:

Australia has an international reputation in the provision of electronic and publicly accessible law. Nowhere in the world do you see a more progressive and coordinated approach to the electronic provision of legal information.⁹

The Legal Information session looked at innovations in the computerisation of material such as Acts, judgments, sentencing, transcripts, and appeals. The Internet was discussed, with the caution that while it is a rich resource, attention needs to be given to the depth of on-line material, and approaches to indexing and to structures and standards. Key areas requiring - and receiving - attention include media-neutral citations (such as using paragraph numbering in judgments rather than page numbering), and standards for archiving and reusing transcripts. While these issues might appear prosaic, they are the key to building databases with consistent mechanisms for adding new material and conducting searches with confidence.

Issues and Ethics

In setting the thematic directions for the review and the conference, the Steering Committee was aware of the work of a number of bodies who were examining issues relating to the use of technology in courts. These included

⁹ Sandra Davey, 'Managing the Magic - Standards for Australian Electronic Legal Information', (August 1998) 36 *Computers and Law* 21, 25-26.

use of technology. Most of the discussion, however, turned more to the public benefits of the wider access to information provided by the Internet and to mechanisms for making access even easier.

An additional theme was that in remote or badly equipped courts, Internet access allows magistrates and judges quick access to rich information resources which are beneficial to their quality of work.

Internet, Intranets and Extranets

These three modes of networks use essentially the same tools. Internet generally refers to the widely available public services; Intranet refers to using the same tools, but within a single organisation; and an Extranet likewise uses the same tools, with access limited to specified organisations. The differences between them are blurred, particularly when Intranets or Extranets piggy-back on Internet, with special mechanisms for authorised users to log on.

The creative advantage of using Internet approaches and tools is gained from the vast level of investment around the world being put into improvements. The review identified several examples of the use of this type of technology in Australia which were highlighted at the conference. These included the Estate Mortgage Case, the Clayton-Utz Due Diligence case, Roseanne McInnes S.M., the National Native Title Tribunal, Themis and the Victorian Residential Tenancies Tribunal System (in development).

In concept the Residential Tenancies Tribunal is one of the most interesting, as it is intended to allow parties external to the Victorian Department of Justice - estate agents - to connect to the Tribunal system and do direct data entry into the system, as the first step in potential disputes. The specific application is

¹⁰ Australian Law Reform Commission, *Technology - what it means for Federal Dispute Resolution* Issues Paper No 23 (1998), Victorian Law Reform Committee, 'Reference for an Examination of Technology and the Law' at <http://avoca.vicnet.net.au/~lawref/tech/welcome.html>

Agents low and the potential for easy access high.

Through the review it was evident that much of the most creative work was being done using software and hardware tools created for the Internet and adapted to the specific requirements of different legal environments, such as security, controlled access and confidentiality. These tools make questions about platforms largely irrelevant, because of the multi-platform nature of Internet.

Lotus Notes, essentially messaging and document management software, has been used to produce some extraordinarily good applications, with a reasonable investment and not many stories of failure or cost surprises. Lotus Notes is used by the High Court, Themis, the National Native Title Tribunal and the Western Australian family of applications in judicial support and unreported judgments. Lotus Notes has an Internet interface, known as Lotus Domino. Microsoft have a competitive product, Microsoft Express, but this has not appeared on the legal scene as yet.

The Conference

Conference Statistics

The Technology for Justice conference was held on the 23-25th March 1998 in Melbourne. It was attended by 338 delegates, including judges, magistrates, courts administrators, tribunal representatives, representatives from prosecution and investigation agencies, academics, law reform organisations and the private legal profession. All Australian jurisdictions were represented as were a number of overseas countries, including New Zealand, Malaysia, Singapore, Tonga, the United Kingdom and the United States of America.

While the conference did not seek sponsorship, it was accompanied by a trade display of the latest in court technology which attracted considerable interest. A record of proceedings, in the form of a CD-ROM of conference presentations was completed in June 1998.

The Conference programme

As mentioned, the conference was structured around 11 broad thematic areas which formed the basis of the sessions. There were some omissions from the program, for various reasons:

Other gaps in the program occurred because, while an emerging technology was available that could have had relevance, there were no good examples of applications offered.

Some of these included:

- Extensive use of digitised video for the management, indexing and recall of video material.
- Use of voice recognition.

There were two regrets at presentations which were sought, but could not be finalised, notably from the Yugoslavian War Crimes Tribunal and the South African Truth and Reconciliation Commission. The Yugoslavian War Crimes Tribunal in particular makes heavy use of Internet and Intranet technologies, using the Web to publicly present background material, charges, graphics, proceedings, transcripts, and outcomes.

Showcases and Benchmarks

Of the more than thirty presentations, eight merit special mention, as they exemplify a number of the underlying themes of the review:

1 & 2. Courtroom 21 and Court 26 (Keynote Address, and Session One. Professor Fred Lederer, and Mr Foo Chee Hock)

These two presentations involved live videolink sessions from the auditorium to courts in the US and Singapore.

As well as giving a demonstration of the uses of video technology, both of these illustrated how far the Virtual Court has progressed. The presentation of Court 26 in Singapore involved a link from the conference auditorium to a live sitting of Court 26 and via that court, into a Singapore jail, as part of a bail application hearing.

3. ***The Estate Mortgage case (Session One: Presented by Justice Tim Smith and by Ian Chivers.)***

The Estate Mortgage civil case used an electronic courtroom, which built on the experiences gained in other cases such as the Royal Commission into the NSW Police, ProImage, Bond and Rothwells. Estate Mortgage went past its predecessors in a number of respects, including especially:

- enabling a level of remote but active participation by providing dial-in access to the real-time transcript feed, and other court information, as well as the email services. This meant solicitors not in court could view the transcripts on screen, and make email comments to their colleagues when appropriate.
- building a multi-platform Intranet for all parties to the case, including transcript, email, and common access to key data such as pleadings or documents.

4. ***Electronic Appeals Project***

The Conference was fortunate to have the benefit of a presentation on this project which included a preview of the report's recommendations and a demonstration of the prototype Electronic Appeal Book, developed by the project.¹¹

The project has been designed to overcome a number of the problems associated with the traditional production of hard copy appeal books. While the project had the appellate stage as its primary focus, much of its attention, necessarily was focused on the processes at trial level which result in the production of documents which form part of appeal books. Of its 13 recommendations, six refer to matters to be addressed at the trial stage or

¹¹ Sherman and Stanfield, above n 8. The Prototype Electronic Appeal Book was developed using a web browser interface and can be viewed at the CCJ website: <http://www.ccj.org>

The Due Diligence system, which in technical terms could be called "Son of Estate Mortgage", involved a global, large scale exercise in relation to a major international company selling off a series of subsidiaries. The old-fashioned process for valuing and selling these subsidiaries would typically involve establishing a single document room somewhere in the world, and for prospective purchasers to travel there for analysis. The Clayton Utz approach was to provide access to the documents online, globally, 24 hours a day, 7 days a week, by using an Intranet available over Internet. The case comprised 250,000 documents.

This case illustrates how Internet in particular has facilitated a global approach to information access.

¹² Ibid. They are:

- Each court should establish its own electronic judgments database, accessible to the judges within that court.
- Courts should make arrangements with the relevant transcript preparation agencies for transcript to be stored electronically for either an indefinite period or at least for five years. (To cover those situations whether leave may be given to lodge an appeal out of time.)
- Courts should move to a system of paragraph numbering for their judgments, to ensure quick reference to part of a judgment when it is being referred to in electronic form. This overcomes the problems occasioned by the fact that electronic documents often lose the format, including the page numbering, that appears on the printed copy of the document.
- Court should adopt medium neutral citations for their judgments.
- There should be consistency in the preparation and production of the electronic version of judgments and quality control mechanisms should be established by each court.
- The electronic version of court transcripts should be prepared and produced in a consistent format.
- Court should consider the introduction of electronic filing to facilitate the movement of electronic appeal material.

This session, while not breaking any technical new ground, did serve as reassurance that this is now a mature and manageable technology and has been used successfully in specific legal applications. It also provided a useful opportunity to discuss issues relating to the ways in which courts can use this type of technology and the type of policies and procedures that need to be considered with regard to its development and implementation.

7. *Bordertown and the globalisation of Justice (Session 8-B. Roseanne McInnes, SM)*

The Bordertown presentation, included on the CD-ROM, does not introduce new technology, but shows how laptop-and-modem tools can be imaginatively used by a magistrate in a number of ways. This includes communication with peers, education, legal information, office automation, simple digitised video applications, and managing case study material.

8. *The National Native Title Tribunal (Session 9. The Hon Paul Seaman, QC and Mr Peter Bennington)*

The National Native Title Tribunal ('NNTT') and the New South Wales Compensation Court systems, which were both the subject of presentations at the conference, were considered to be the best current Australian examples of modern court or tribunal systems. The NNTT system has some advantages in terms of functionality, as by its nature it has more varied demands on it and the computer system is exceptional, especially with respect to:

- its virtual nature, which enables Tribunal members to dial-in from anywhere, and with two-way replication have their portable systems updated, or conversely, update the master system from the portable.
- the relationship between the Internet (public) information and the Intranet (confidential material).

The Website

THE FUTURE

Predictions

In its recent Issues Paper, the Australian Law Reform Commission referred to a series of predictions about the future use of technology in Australian courts, made by Justice Trevor Olsson and Mr Ian Rhode.¹³

This report has attempted to take those predictions and up-date them in the light of the findings of the review. What follows is a summarised list of those predictions with the report's comments in italics.

Justice Olsson and Ian Rhode forecast:

- Electronic commerce will become prevalent.

This is undoubtedly the case. With financial institutions, retailers, utilities, and others setting the pace, the legal world can let others do the development, and adapt the technology as it matures.

- Voice recognition software will improve and become more widespread.

This may be the case, but there are very few examples around and plenty of anecdotes about having to use American accents to get software to work half decently. It is suggested that this technology may still have some time to mature before it is of much practical utility in courts.

- Video conferencing will become standard.

¹³ Australian Law Reform Commission, above n 3, Chapter 8.

Flat screens have arrived, up to 22 inches. They are expensive, but should gradually replace the bulky existing monitors. With quieter PCs, the courtroom equipment can now be less obtrusive, noisy and hot. However, there are still issues that need to be considered relating to cabling and power supply issues. There is plenty of demand for this technology and computerised courts are emerging everywhere.

- Computer graphics and reconstructions will improve.

Again, the review's recommendations would support that prediction. However the technology is expensive and there are not many examples available at this time.

- Software compatibility and interfacing will improve.

This is already the case and the development of the Internet and the use of Web Browser technology and flexible front-end packages has helped a lot. The problems in this area lie more in the area of policy and management practices, rather than software or technical issues.

- Use of computers in analysing issues and implications will increase.

The review did not have the opportunity to explore this area in any great detail. There is a considerable amount of work being done in this area and the technology has a great deal of potential.

- Costs will come down.

The review supported this prediction and significant cost reductions in a number of areas have occurred recently.

- Online communications between justice sector, law firms, courts and other agencies will improve.

The results of the review support this prediction, however developments in this area appear to be slower than should be the case. Meaningful dialogue between courts and law firms appears minimal.

This would appear to be a logical development, however there is not much evidence that it is becoming widespread. There have been some failed attempts to introduce this and it would seem to require closer work with the parties concerned, for example, police and solicitors.

- Outcomes of proceedings, such as orders, fines or rulings will be achieved through in-court data management.

The current state of development of court systems should mean that this is happening now.

- All courtrooms will ultimately be computerised.

It is certainly arguable that this should be the case. There is however a long way to go to achieve the necessary "paradigm shift" in Professor Lederer's terms. Certainly the use of laptops with modem Internet access by judges and magistrates should soon be widespread. Any new court should have provision for cabling, power, monitor space, as part of its standard planning specifications.

- All courtroom staff will be computer literate.

This is a necessity and courts need to devise ways of providing training that suit their particular environment and the differing needs of users.

- All appeals will be electronic.

The Electronic Appeals project progress report was a key presentation at the conference, and it is hoped that the acceptance and implementation of this will encourage a top-down approach to standards. It is suggested that there may be a need to set a timeframe on a court by court basis. Implementation within 3 years may be a feasible goal.

- All transcripts and exhibits will be accessible by hyperlinking.

provided by the Commonwealth Attorney-General's Department. The grant also provided seed funding for the conference; however the conference budget was drawn on the basis that the event would, in the final result, be self-funding. This proved to be the case and in fact the event generated a substantial profit.

The Institute intends to apply those funds to continue the project and to seek approval to retain the balance of the original grant funds for that purpose as well. The intention is to up-date the review and to run another conference in the Year 2000. This report has identified a number of themes and issues that would merit further investigation and discussion and these will be picked up as part of the preparatory work for the next conference.

The Institute is currently re-constituting the Steering Committee for the project with a view to setting directions for that work. The AIJA is also examining a number of other ways in which it might be able to continue to assist Australian courts and tribunals to keep abreast of developments in the area of information technology. Information about that will be made available to all courts and tribunals as the project progresses and will also be notified on the Institute's Website at <<http://www.aija.org.au>>.

We welcome comments and feedback on this report and the project itself, these can be directed to the AIJA Secretariat, 103-105 Barry St., CARLTON SOUTH VIC 3053.

Justice Bernard Teague, Supreme Court of Victoria

Justice James Wood, Supreme Court of New South Wales

Judge Barnett and Judge McInerney, County Court of Victoria

Mr John Broome, Chairperson, National Crime Authority

Mr Michael Rozenes, QC, Barrister, Victoria

Mr Richard Foster, Executive Director, Courts, Ministry of Justice, Western Australia

Mr Bob Tomkins, First Assistant Commissioner, Australian Taxation Office

Mr John Witham, State Courts Administrator, South Australia

Mr Warwick Soden, Registrar, Federal Court of Australia

Mr Laurie Glanfield, Director-General, Attorney-General's Department, New South Wales

Mr Garry Gladman, Information Technology Group, Commonwealth Attorney-General's Department

Ms Stela Walker, Senior Executive Resource Management, Office of the Commonwealth Director of Public Prosecutions

Mr Philip Argy, Partner, Mallesons Stephen Jaques

Ms Carolyn Wyatt, Information Technology Group, Commonwealth Attorney-General's Department