2001

Introducing Technology in Tasmanian Law: Acceptance of IT in the Courtroom Environment

Su Spencer  
*University of Tasmania*, su.spencer@utas.edu.au

Tobias Strube  
*University of Tasmania*

Follow this and additional works at: [http://aisel.aisnet.org/acis2001](http://aisel.aisnet.org/acis2001)

Recommended Citation  
[http://aisel.aisnet.org/acis2001/71](http://aisel.aisnet.org/acis2001/71)

This material is brought to you by the Australasian (ACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ACIS 2001 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
Introducing Technology in Tasmanian Law: Acceptance of IT in the Courtroom Environment

Su Spencer and Tobias Strube
School of Information Systems
University of Tasmania, Hobart, Australia
su.spencer@utas.edu.au

Abstract
The Tasmanian legal fraternity has been assumed to be technologically conservative and resistant to major IT-enabled change. When electronic courtrooms were set up in Hobart for specific legal hearings, it was expected that participants would have a range of issues in accepting the technology. The degree of acceptance of the courtroom technologies, despite its intrusiveness, ineffective training and a lack of user preparation, suggests effective approaches to introducing change in the legal community.

Keywords
Legal IS, User Attitudes, IS Implementation, Organizational Culture

INTRODUCTION
Introduction of technology to the law is a worldwide development with a number of interesting aspects to the management of the change it involves. Richard Susskind, in a wide-ranging discussion of future directions for technology in the law predicted that

"the electronic creation and transmission of digitally stored information will be at the heart of the future of the law" (Susskind, 1996, p46)

However, small law firms are like other small to medium enterprises – they have so much to focus on in their daily business that they are rarely in a position to plan strategically for major technological changes. The Tasmanian legal community in particular is relatively small and somewhat isolated from many of the commercial drivers of other jurisdictions. For example there are few major businesses headquartered in Tasmania. Pressure for introduction of technology to the law in Tasmania comes primarily from government and courts, seeking efficiencies to alleviate resource constraints while maintaining effectiveness.

One such initiative, which still has a unique status in Australia, is the Tasmanian EnAct system for drafting and publishing legislation. The project to create this system was a technologically aggressive one, and it resulted in Tasmania becoming the first state in Australia to make an electronic database the authoritative repository of legislation (Arnold-Moore and Clemes, 2000). However, the system it introduced was assessed to have significant problems, principally because it required re-engineering of the legislative drafting process (PCONZ, 1998). Much of the analysis of the systems development involved in EnAct has emphasised the conservative nature of the drafters, operating as independent professionals (Hocking, 1998).

There is little local public visibility of the use of technology by legal practitioners in Tasmania. The Tasmanian Bar Association has a web site that has a comprehensive set of links to legislation, judgements and more general sources (http://www.tasbar.trump.net.au). It contains a very brief news letter which in its April/May 2001 version advises barristers that it is now possible to subscribe to free email notification of the daily lists for the Supreme Court of Tasmania, the Federal Court, the AAT and selected other Courts and Tribunals. The subscription service is provided by http://www.lawfoundation.net.au, which is the site of the Law and Justice Foundation of NSW.

The Tasmanian Law Society also has a web site (http://www.taslawsociety.asn.au) in which it provides basic information about the society. It lists its subcommittees and main areas of activity, none of which relate directly to the implementation of technology within legal practice. Other law society sites, accessible through the Law Council of Australia (http://www.lawcouncil.asn.au/) include discussion papers, notification of online referral services and various signs of increasing awareness of technology.
EnAct SYSTEM

The business drivers and technical basis of the EnAct system were systematically described by Arnold-Moore and Clemes (2000). The problem that faced the Tasmanian government was management of consolidation of legislation – the process by which amendments are applied to the original text to arrive at the effective final wording. An example provided by Arnold-Moore and Clemes (2000) is the Racing and Gaming Act 1952, which was consolidated in 1978 but since then has had more than 400 individual amendments through more than 50 amending Acts. Obtaining an up-to-date copy of the Racing and Gaming Act would involve purchasing from the Printing Authority of Tasmania the 1978 consolidation, plus each of the 50 amending Acts, and setting to work with scissors and paste or coloured pens to note the effects of the various amendments.

The EnAct project was initiated in 1992. The last full consolidation of the statute book had been in 1959. The government group that was responsible for legislative drafting, the Office of the Parliamentary Counsel (OPC), could not resource regular consolidation processes on top of its workload of new drafting. Nor was there commercial interest in producing consolidations for the relatively small legal community of Tasmania.

The EnAct system has four areas of innovation:

- Legislation was converted to an SGML format, using the highly structured nature of legislation to maintain each Act as a set of marked-up fragments from which legislation could be assembled as required for publication
- An electronic drafting environment was introduced, which created an amending Act as SGML-marked up fragments which could then be applied to the original legislation in a process of automatic consolidation
- Public and professional access to Tasmanian legislation, consolidated at a nominated point in time, is through web inquires
- The Legislation Publication Act 1996 established a database (maintained by the Chief Parliamentary Counsel) as the authoritative version of Tasmanian legislation.

There is some debate as to the need to maintain legislation in SGML format (Chung et al, 2000). However, this standardisation is becoming increasingly attractive to other jurisdictions, as is an integrated drafting process rather than a separate mark-up process (Brightwell and Dixon Hughes, 1999).

At the end of their description of EnAct, Arnold-Moore and Clemes (2000) refer to ongoing work with the workflow (drafting) system to move some of the tasks outside the Office of the Parliamentary Counsel, removing non-drafting activities from that Office. This refers to the area of the EnAct system that was the most controversial. A discussion paper on public access to legislation prepared by the Parliamentary Counsel Office of New Zealand (PCONZ, 1998) noted that EnAct required Tasmanian drafters to follow a complex series of steps that made them less productive, especially as most of the drafters were being introduced to computers for the first time. Brightwell and Dixon Hughes (1999) referred to the same problem when they noted “… in situations where legislative drafters have been using word processing in a relatively unstructured way, they may find it difficult to adapt to a more structured drafting regime”

System Development and Implementation Issues

The development and implementation project that produced EnAct was extensively studied and described by Hocking (1998), who observed closely the interaction between the development team and the staff of the OPC. The development team identified several aspects of the OPC workplace that differed from their own culture. Drafters had a legal, non-technical background. They worked independently of each other rather than in teams and saw drafting as a personal, creative process. There was strong differentiation between the roles (and status) of the drafters and of the administrative and support staff. Many OPC work practices and procedures were highly formalised. Hocking (1998, p80) summarises the style of the OPC as “a stable bureaucratic organisation with individuals prepared to take a dialectical approach to issues”; a description which might be applied to other legal groups.

The OPC staff was also perceived by the developers to distrust computerised technology and to be highly conservative when faced with change. Hocking (1998) notes that the drafters required technology that was “correct” and would fit into their work practices. They did not accept rough prototypes and broad concepts. Cultural differences between legislative drafters and system developers exacerbated issues of acceptance of technology by OPC staff and made it more difficult to negotiate suitable system designs.

This is not to say that aspects of the EnAct system, and in particular the legislative drafting workflow component, did not have technical problems and problems of usability which were more real than “cultural”. Some of those problems may well have been resolved if user participation in the design of the system had been
more active and more effective. However, this history of problems with the EnAct system, due in no small part to the difference between the legal and technocratic cultures, strongly suggested that other projects to introduce technology to the Tasmanian legal fraternity carry a high risk of rejection or strong criticism by users.

**ELECTRONIC COURTROOMS**

There are projects in place to significantly enhance the use of electronic formats for summary justice procedures (Tasmanian Magistrates Court, 2001), Video-conferencing is being used to receive evidence and submissions where it would be expensive, inconvenient or otherwise not desirable for a person to attend a Court in person. (Tasmanian Courts, 2000) However, Tasmania does not currently have any courtrooms that are set up to facilitate electronic management and presentation of evidence.

In 2000 there were two hearings in Tasmania for which electronic courtrooms were created. One of the authors of this paper was at the time employed by the Tasmanian Department of Justice and Industrial Relations in an IT support role and was therefore in a fortunate position to observe and interact with key participants in both hearings. This was a valuable opportunity to research the reactions of local lawyers to an unsolicited imposition of technology into their working environment.

Each of the two matters is outlined here, together with a description of the technology that was introduced to the courtroom. Interviews with several different participants, with different roles in the two hearings, were conducted shortly after the hearings were completed. The initial analysis of the interview transcripts by the second author focused on the impact of technology on witnesses, possible effects on outcomes, and drivers – such as efficiency gains – for continuing use of technology in the courtroom environment. This paper takes a different approach and considers the response of participants to imposed technological change.

**Fisheries Trial**

The first matter was a committal proceeding, prosecuted by the Commonwealth Department of Public Prosecutions (DPP) before a Magistrate in a court in Hobart. The technology and the system used were completely controlled by the DPP, which installed the computer systems, scanned all documents, managed the document database and CDs, controlled the presentation of the material and operated the system in the courtroom.

In the courtroom the Magistrate and Counsel all had access to computer screens, although some Counsel had to share screens, which were 19” CRT monitors sitting on desk- and bench-tops. The witness had a 19” flat screen monitor. The screens were attached to individual PCs, linked through a Local Area Network (LAN), but no keyboards or mice were provided for individuals – even the Magistrate – to control their own terminals.

Documents managed through this system were bar-coded by the prosecution team and scanned to image (TIFF) files. The prosecution created a general description for each document, and a simple index was created to facilitate retrieval either by bar code or by description. In court a technician who was part of the DPP team operated the presentation system. When a document was required, the technician would retrieve it and display it on all screens in the court simultaneously. If a particular part of the document was required to be highlighted or zoomed in on, this would be done by the court technician and the same view would appear on all screens.

In addition to courtroom presentation of documents, Counsel were provided with copies of the exhibits on CDs that were prepared and distributed by the prosecution. This allowed all parties to access the documentation in their own chambers in their own time. The Magistrate’s access was restricted to material which had been presented in court; but Counsel were given access to additional material, which was made available to them well before the hearing started.

To accommodate the number of Counsel, and the technology, the courtroom had to be rearranged. The bar table was dismantled and seating was rearranged into what the Magistrate described as “almost a classroom situation”, rows of benches on top of which the large monitors were placed.

**Gilewicz Inquiry**

The Commission of Inquiry into the Death of Joseph Gilewicz was conducted in the Federal Court building in Hobart. Joseph Gilewicz was a Vietnam veteran who had been shot dead by police in 1991 during a siege outside Hobart. At the time the coronial inquiry determined that the police had acted properly, but subsequently several witnesses suggested there were problems with the evidence presented to the coroner. The Gilewicz Inquiry was established to determine

- “Whether, in the light of material presently available but not received by the coronial inquiry, the coronial inquiry into the death of Joseph Gilewicz was likely to be misled by the evidence tendered to it;
- If the coronial inquiry was likely to have been misled, to what extent is that likely to have impacted upon the finding of the coroner” (Gilewicz Inquiry, 2000)

The Tasmanian Department of Justice and Industrial Relations was responsible for setting up the Inquiry, and supplied many of the staff who worked for it as well as the technology it used. They engaged consultants from Sydney to set up the electronic courtroom, using commercial software. The consultants specified the software and hardware, installed the software, trained Inquiry staff in tasks related to the systems and operated the technology in the courtroom for nearly half of the sitting days. Systems were set up in both the Commission’s offices (in a nearby office building) and the courtroom itself.

Commission Offices

The offices of the Commission were equipped with a LAN of computers for all Commission staff, a server, printers, scanners (both black and white and colour) and CD writers. Internet access and email were available through a firewall. There was also a network connection to the courtroom. Software available to the Commission comprised standard office applications and Ringtail™ Casebook legal database software. The software developers, Ringtail Solutions Pty Ltd, are a Melbourne-based company that specialises in Intranet based legal and justice applications. Their software products and case studies can be accessed at http://www.ringtail.com.au/

Documents used by the Commission were individually bar coded, on a page-by-page basis, and scanned to TIFF files before being added to the Casebook database using the Casebook import wizard. Each one was given a general description. Adobe Acrobat was also used to make a PDF file for each document. The database also included transcripts from the original coronial inquiry, and from the Gilewicz Inquiry as it proceeded. Internet Explorer was used for browser interface to Casebook. Inquiry staff, initially under supervision of the consultants, prepared and processed documents.

Courtroom

Once again the courtroom to be used was not designed to accommodate much technology. Tables were moved around, extra benches added, 19” computer monitors placed on top of the benches along with keyboards and mice, and a temporary LAN was set up. Wiring for the network was run under the carpet, which on three occasions resulted in part of the network being disconnected when someone tripped on network cables. The server for the LAN, and a router, were located under the court clerk’s bench at the feet of the court operator. In addition to the monitors for the Commissioner and Counsel, there was a flat screen monitor for the witness, and an additional monitor located in an adjacent public gallery. A large wall screen was situated to the left of and above the witness, and this screen could be used for projection from a document camera. A printer was installed in the courtroom. The monitors on the desktops were separated by only 10-15cm – just enough room for mouse pads between keyboards.

Access to documents in the courtroom was provided from another database application, Ringtail™ Courtbook, to which documents to be used in court were imported from the Casebook database. The Courtbook application provided a “public view” that presented the evidence currently being discussed, which was retrieved and published by the court operator. Computers on “public view”, and the wall screen, displayed this common view, similar to the Fisheries Trial common display. However, other users within the courtroom could choose to access different documents from the Courtbook on their own workstations.

Also unlike the Fisheries Trial, individual users – Counsel within the courtroom and members of the public in the public gallery – controlled scrolling, rotating and zooming on documents. By comparison with the Fisheries Trial, Counsel in the Gilewicz Inquiry had more control over the material that they could view within the courtroom; but they also had to take a more active role in managing their view of documents. CDs were produced and distributed to Counsel involved in the Gilewicz Inquiry, both before the Inquiry began and then as additional documents were introduced, weekly or (if an important piece of evidence was required by all Counsel) at the end of the day.

A further difference between the Fisheries Trial and the Gilewicz Inquiry was that the latter made available daily transcripts from each sitting day, published on the Inquiry web site each afternoon.

**RESPONSES TO IMPOSED TECHNOLOGY**

**Fisheries Trial**

The Magistrate for the Fisheries Trial was interviewed during the period in which she was preparing her decision. This is a complex process following the hearing itself, involving extensive checking and review of the documents presented during the hearing, and in this case the Magistrate was continuing to use the technology employed in the courtroom to manage and access documentation.
The Magistrate had no previous experience with electronic courtrooms and considered herself “…computer illiterate” and having “… very, very, very few skills on the computer”. She had received no formal computer training, and she was given no training in how to use the computer system in the court. Thus in this case the key individual, who is used to being in charge of the court and what happens within it, was doubly disempowered by the introduction of the technology. Not only was it a part of the proceedings about which she had no advance knowledge, but during the hearing she could only look at what appeared on her screen while the system was operated and controlled by the prosecution.

In spite of this the Magistrate found considerable benefit in the use of the courtroom system, commenting “I’ve come away with a very strong sense of just the huge saving there has been to me in terms of my time out court particularly”. She also reported that she was now “very positive about the use of computers in the courtroom and outside of court.”

Use of the technology was not without issues from a legal procedural point of view. The way in which exhibits were identified had to be interpreted to accommodate the clustering of many documents on a single CD. Views of the prosecution descriptions of documents had to be suppressed (by turning off the machines when the document description appeared), and the court technician was inclined to anticipate references to specific areas of documents in advance of their being identified by witnesses.

The Magistrate observed that there was considerable frustration in the courtroom on the few occasions that the system crashed. The technology quickly became a core part of the operation of the court. People within the court had come to expect efficient and rapid access and were intolerant of any malfunctions or delays.

**Gilewicz Inquiry**

Interviews with Counsel involved in the Gilewicz Inquiry were conducted a few weeks after the hearings finished, while the Commissioner’s report was being prepared. Senior Counsel Assisting the Commission, a second Counsel assisting and two Counsel with leave to appear at the Inquiry on behalf of interested parties were interviewed separately. Of these four, the Senior Counsel was the only one to have been directly involved in advocating the use of electronic courtroom systems for the Commission. He had experience with electronic courtrooms outside Tasmania. It can be argued that of all the interviewees he was the only one not to have had the technology “imposed” on him for the hearings, and he was visiting from another jurisdiction.

The other Counsel assisting was seconded from the Department of Justice and Industrial Relations. He had at first found it very difficult to understand the need for an electronic courtroom, given the expense of equipping the courtroom and engaging the consultants to set it up. He contrasted the resources available normally to the Commissioner and the Senior Counsel, who both came from another and very much larger jurisdiction, with the level of resourcing generally available in Tasmania. This person was initially doubtful about the effectiveness of the courtroom arrangements and the usefulness of the Casebook application. However, once the hearings started and he observed how much time was saved in court – which he estimated as between three and four weeks’ hearing time – he was immediately convinced of the value of the electronic courtroom.

The two Counsel with leave to appear who were interviewed both agreed that a major effect of the technology was to shorten the hearing, even though improved access to the documents did result in greater familiarity with some of the documentation and greater thoroughness in examination of some witnesses. Both Counsel chose to use both the Courtbook application and the CDs that were available for use in chambers. They both changed their pattern of use of computers. One reported that after exposure to computers for several months during the hearing he realised their potential and quite often used a laptop in chambers for casework, which he had never done before. The other stated baldly that he “hates computers” but understands more about what assistance they can offer lawyers; and he declared a determination to learn how to use computers and stay up-to-date with them.

These two Counsel assisting also had the opportunity to interact with other Counsel at the back of the courtroom during the hearings. There was some competition among Counsel to demonstrate their adoption of the technology, bringing laptop computers into court (even if they did not use them) and showing each other items of evidence they had found while searching the Courtbook materials. One interviewee observed other Counsel in the courtroom preparing notes electronically, and cutting and pasting when preparing submissions. He noted that there were several ways in which considerable time could be saved if one had appropriate IT skills. On the other hand Senior Counsel observed that using electronic documents does “… require a bit more effort on the part of Counsel” and that some of the Counsel appearing did not seem to make that extra effort.

The Senior Counsel, with much greater experience and skills, was also more critical of the courtroom facilities, which he described as “inadequate”. The room was too small, and the mass of equipment on the bench tops was intrusive. This was echoed generally by the other Counsel, who found the monitors “obstructive” and “in their way” especially when trying to interact with other people in court, including witnesses.
Like the Fisheries Trial Magistrate, the local Counsel in the Gilewicz Inquiry had limited experience with computers in general, ranging from some word processing and email use to active avoidance. Yet they had all accepted that they had to use computer systems within the courtroom for the Inquiry. They all attended training sessions provided for Counsel before hearings started, but they did not find the training particularly helpful. They adopted individual patterns of use, but they all found the technology appropriate and valuable for an Inquiry of this sort, which involved a significant volume of documentation.

**DISCUSSION**

The Victorian Parliament Law Reform Committee’s report summarised the significance of technology in the law in these terms:

“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 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.” (Victorian Parliament Law Reform Committee, 1999, p.223)

However, in the Tasmanian environment at least there are still many senior legal practitioners, like those involved in the Gilewicz Inquiry, who have only limited experience with IT. Innovations such as electronic courts and online publishing of legislation and judgements represent a major change to their work practices and culture. Given the formality of process, and need to justify and document their work, they might be expected to have serious reservations about the introduction of technology into their workplace, especially when they do not control it or even have any say in where and how it will be introduced. Certainly for the EnAct system’s primary user group, the legislative drafters who also have a legal tradition, the imposition of work process changes was highly disruptive. Negotiation of job re-design was problematic.

Unexpectedly the Magistrate and Counsel exposed to an electronic courtroom in the two hearings described in this paper were remarkably accepting of the technological changes, despite a number of factors which should have made this acceptance unlikely:

- The changes were imposed. There was no discussion with the people who would be most affected of how changes would be introduced, what the effects might be or how to prepare themselves for the forthcoming changes.

- The technology was intrusive and not integrated with the rest of the working environment. The physical arrangements in the courtroom were clearly temporary and unstable (with network cables being kicked out) and the large computer monitors obstructed vision and impaired interpersonal interactions.

- Training either was not provided or was inadequate. Magistrates and Counsel who are used to operating in a courtroom environment that is very familiar to them were faced with technology which they did not know about, and which they were not sure they could use.

Given all of these negatives, why did the people we interviewed after the hearings give such positive responses to the introduction of the electronic document management and presentation technology in the courtrooms for both hearings? We would like to suggest the following possibilities:

- So long as the technology worked properly the legal participants in these hearings did not feel threatened. They were still in their known environment. They still had their accustomed roles and responsibilities. Unlike the legislative drafters in the OPC no one was threatening the basis of their positions and the unique nature of their work.

It is worth noting that when we asked whether the electronic courtroom seemed to present any issues for witnesses, the Counsel from the Gilewicz Inquiry all felt that for witnesses the courtroom technology was to a greater or lesser degree threatening or disconcerting. Counsel either regarded this as an advantage (if they sought to unsettle witnesses) or as something to be overcome (if they were appearing on behalf of those witnesses). The witnesses spend less time and have less power in courtrooms generally, so for them the changes could be more unsettling than for the lawyers who were dealing with only one new factor.

The Magistrate in the Fisheries Trial also highlighted the significant change that occurred when the technology stopped operating as expected. Then the people in the courtroom were helpless and frustrated and responded negatively to the technology environment.
• The working systems installed in the courtrooms were tangible, visible examples of what the technology could achieve. Unlike OPC drafters trying to communicate with system developers talking about a hypothetical system which was outside their experience, those Counsel at the Gilewicz Inquiry who had reservations about the benefits of the system – or their ability to use it – had only to suspend belief for a short time before they could assess the system in the real working environment.

• Finally we would suggest that of the people we interviewed only the Senior Counsel assisting in the Gilewicz Inquiry had any sort of personal commitment to the technical changes being introduced. He was directly involved in advocating the electronic courtroom and selecting the specific technology which was used. He was also the most critical of the physical arrangements, and the way in which Counsel employed the facilities provided. The other participants were relatively passively involved in the introduction of the systems. Counsel appearing at the Gilewicz Inquiry referred to the “novelty” of the computer systems and the interest they had in observing how the systems worked.

Effectively the electronic courtrooms used in these two hearings in Tasmania last year were extensive – and expensive – prototypes that demonstrated the capabilities of a new application and allowed prospective clients to understand the potential for change and how it might affect them. For legal practitioners this degree of completeness of the prototype is almost certainly required for them to have confidence in a new system which impacts on their work under pressure. Anything less is likely to remain unconvincing.

For the EnAct drafter the changes represented a major and presumably permanent change. For the electronic courtroom participants there was no reason to assume that they will have to deal with another similar arrangement in the near future. At the conclusion of the Fisheries Trial the DPP team removed the courtroom systems. Following the Gilewicz Inquiry there was some discussion with the Department of Justice and Industrial Relations of what future the special courtroom had, but eventually it too was dismantled and the equipment was dispersed through the department. The electronic courtrooms could have been a trigger for opportunity-based change (Orlikowski & Hofman, 1997) but so far no one has seized the opportunity.

REFERENCES


