Exporting Australian Court Technologies to the Developing World – Help or Hindrance?

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Abstract

Australian courts are participating more and more in donor-funded projects in developing countries, often involving the introduction of new court technologies - but is Australian experience in developing and using new court technologies appropriate for developing countries, such as most of our near neighbours? What kinds of court technologies can Australians offer that are sustainable in countries that often lack access to modern industrial and social infrastructure?

In this paper we examine the potential for Australian courts to extend their successes in using new information and communications technology (ICT) to developing countries. We will describe the similarity of problems faced by court systems in most developing countries that aspire to modernising their systems of justice. We also evaluate the lessons that are still being learned, allude to the mistakes that are often repeated and suggest ways Australian court personnel may assist court systems of developing countries to gain durable benefits from new technology.

Developing the ICT capacities of courts

From the perspective of Australia and New Zealand the nearest countries that offer a semblance of possessing a well developed system of court administration are Singapore and Japan to our north. To the east it would be the USA and Canada, and to the west it would probably be a range of EU countries. Virtually the whole of the rest of the world could readily be classified as having underdeveloped systems of court administration when considered against a range of factors. One of those factors is the capacity of a national court system to consistently and reliably use information and communications technology (ICT) to augment processes of transparent and equitable case adjudication and case disposal. A map of the yet-to-be-developed court systems in this sense takes in the vast majority of countries in Africa and Asia. It also includes China, India and Latin America. There is a long way to go before most countries acquire well developed systems for using ICT in their courts.

If you looked at what has been happening in Australian courts over the last 30 years or so you would notice that many of the efficiencies of courts have flowed, or are about to flow, from the use of new ICT. The reason for this is that judicial processes have always been purely concerned with information processing. Courts of justice have no tangible product other than information; and they consume few raw materials other than information. So the availability of new technology offers courts ready opportunities to substitute ICT innovations for the paper information processes that courts have used for centuries. We emphasise the word "substitute" because many ICT innovations in courts are vulnerable to the risk of duplicating, rather than substituting new technology for paper processes. A success criterion for new ICT in courts ought to be that it must substantially replace a process with something that is superior in terms of both efficiency and effectiveness. If a court is not willing to allow well designed new technology to retire old paper processes, then the intended benefits used to justify investing in new technology can often be squandered.

Evolution of ICT usage in Australian courts

The history of ICT development in Australian courts is not a tale of rapid modernization. While e-commerce and commercial use of web technology has expanded exponentially and become somewhat ubiquitous today, the use of new information technology in courts is patchy, to say the least. Just go to any of the public websites of the courts around Australia and try to find evidence of business processes or services that are predominantly reliant on web technology or impact on more than a tiny percentage of court caseloads. In cases where some courts have actually succeeded in

introducing useful ICT innovations, it is sometimes difficult to see how their investment in those technologies might be justified by the benefits. Nonetheless, Australian courts have done some impressive things in using ICT which have helped earn themselves a reputation for being among the most innovative in the world. So what kinds of things have Australian courts done with ICT that are worth considering for export to other countries? And what ICT innovations might rank as the best contributors to the effective management of courts in Australia?

Word processing

As obvious as it may seem it is important to mention firstly that the universal adoption of word processing remains, in our view, the single greatest contributor to the effectiveness of courts and the legal profession. Word processing was introduced in the 1970s. At first it was an exceptional task, normally relegated to what were then sometimes referred to as typing pools or the office secretary. It was not until the 1990s following quite radical workplace reforms within court bureaucracies that courts adopted the personal computer as an essential tool for virtually everyone to use, even by senior court administrators and judges. For a long time the use of a word processor in court administration was limited because not everyone had one. There were few practical ways of actually reading a word processed document unless it was printed on paper. Nonetheless, the advantage was in reducing the cost of producing printed documents, not in avoiding the need to print. But even before courts began to network their word processors, the

advantages were there, particularly as the legal profession and the community in general did the same. The dominant place of word processing as the greatest technological contributor to court system effectiveness in Australia is hard to dispute and still deserves recognition.

Sound recording

Audio tape recordings of oral court proceedings were introduced in Australian courts in the 1970s as a substitute for real time speed typing or shorthand stenography. Analogue tape technology gave way to digital recording from the 1990s. But it was not the recording technology that had the most significant effect. Rather, it was the impact on the skill sets required of court staff in recording what happened in a courtroom. Instead of typing oral proceedings in real time, or using a highly skilled shorthand stenographer to handwrite and type out a transcript, sound recording enabled these functions to be performed by others. It introduced division of labour in transcript production that enabled the cost of both recording the proceedings and later reproducing it to be made at consistently lower cost than under a system in which a fewer number of highly skilled staff administer the whole process. Its impact was immediate and pervasive. While in some systems it took decades for this technology to be accepted at all levels of courts, the advantages it offers still endure. In our view, near universal sound recording of court proceedings ranks as the second most significant technology innovation adopted by Australian courts.

Networks

In the late 1970s the idea that courts might make use of computer networks really gained momentum. This heralded the reality that computer usage did not make much sense in a workplace, except perhaps as a kind of proxy typewriter, until computers were connected to each other. The real value of networks is that they enable communication with and within courts that does not require paper, and the appurtenant inefficiencies of paper dependency. Networks were the enabler for widespread use of databases, word processing, email and, by the late 1990s, the world wide web. Finally in the opening years of the twenty first century, and some 20 years after it was first foreseen by many information management gurus of the 1980s, the wherewithal to actually achieve a "paperless office" came within reach by means of the electronic networking of, most Australian courts. The reality, of course, remains elusive for most.

Paperless courts

Try to find any court in Australia today that has liberated itself from reliance on original paper for any of its core processes. It is true that internal processes, such as the publishing of court hearing schedules and other word processed documents have been rendered predominantly paperless. Systems for processing traffic infringements electronically have produced wonders in terms of cost efficiency, consistency of product and speed of service. Court judgments can now be distributed throughout the world without printing a single page. But when it comes to the basic activities of judges and magistrates in their courtrooms and chambers only a

minority of courts can claim that most of their essential tasks are now paperless.

Many courts may be satisfied with systems they have pioneered, such as the use of in-court evidence presentation, audio and video conferencing and real time transcript production. But the proportion of trials and other hearings that can take advantage of these technologies remain tiny in comparison with overall caseloads. Furthermore, by reason of the fact that in Australia there are sustained high settlement rates in civil cases, and high plea rates in criminal cases, the proportion of case disposals that would benefit from well equipped e-courtrooms remains a small minority. How many e-trials are run each year in Australia? The answer is, very few in numerical terms because most trial case hearings do not need to go to an e-trial. Although having access to high technology courtrooms is a major public priority for Australian courts, much of the capital investment in that kind of technology in Australia is substantially underutilised. Truly paperless courts operating on a large scale, on the other hand, would rank as the third most significant use of ICT by Australian courts, if only it had been achieved.

E-filing

How many successful e-filing projects have been implemented in Australian courts? Of those that were successful, what impact did they have on the general productive capacities of the courts they operate within? We are not sure that anyone can answer those questions, or would want to, as often the goals of new e-filing projects tend to shift by the time the results are in. Success criteria

for e-filing programs ought to pursue the goal of achieving, exclusively by electronic means, a majority of filings in a majority of cases. Commonly the actual achievements of Australian court e-filing programs is to affect a majority of filings only by a minority of participants or only in a minority of cases. While e-filing systems undoubtedly have a future in Australia, it would appear that no Australian court can be said to have yet made it by realising e-filing to its full potential. None, it would seem, are ready to offer their e-filing systems, such as they may be, as models which other countries might follow. Setting aside the question of whether e-filing projects are measurable successes on their own terms, it is doubtful that e-filing will ever rank among the top contributors to successful ICT development by Australian courts. We say this because, while e-filing can reduce the cost and speed of filing or sending documents, it is unlikely to significantly improve the quality or speed of case settlement and judicial case adjudication. Filing or delivering a document is only a very small step in a far more complex process even in cases that eventually settle. The efficiency dividend from an e-fling system is destined to remain disappointing no matter how efficient or widespread it may eventually become.

E-mail

As with word processing and e-filing the advent of widely accessible email to court personnel and legal practitioners has enabled them to augment their capacities to communicate by paper. In most contexts in Australian courts the use of email by judges, court officials and legal practitioners has not replaced the need to write and

issue letters or to dispense with reliance on printed documents for core processes. Email, to the extent it is used by Australian courts, is used predominantly as a supplement to telephone calls and letter delivery services, rather than as a substitute. The printed word remains unchallenged by the advent of email technology.

Databases

Australian courts have used databases since the 1960s, beginning modestly with payroll administration. Mainframe systems developed to manage court case information were introduced in the 1970s, but the functionality they provided were limited, the capital cost was high and there was only a short supply of affordable ICT expertise available to the public sector. The early systems provided only the most basic functions of case tracking, hearing scheduling and the production of a limited range of standard documents. Even statistics were hard to extract from such systems. With the advent of the personal computer in the 1980s substantially better and cheaper database options became available. However, the actual development of them for courts was not rapid.

The innovative use of new software and hardware options was impeded in Australia by the changes then happening in public sector management that impacted on workplace relations and the management of courts. Most courts were distracted by the sometimes dramatic changes affecting the management of their personnel, funding options and internal administrative competencies. In some systems a series of programs aimed at major ICT redevelopment in courts floundered or failed utterly, due to less than diligent planning or because of deficient

project management expertise, a lack of reliable funding and, in some cases, bureaucratic politics. This stymied the emergence of any major innovations in court database development until the end of the 1990s and beyond.

From 2000 onwards, relying on the high level of ICT infrastructure that had by then become commonplace, different Australian courts began to succeed in modest ways in introducing databases that were able to achieve significantly more functionality than the mainframe systems of the 1970s. But even now in 2008 the degree of sophistication of new court databases delivers only modest levels of new functionality in practice. Workflow management is hardly used to its full potential. Document production and storage is enhanced, but seldom in tandem with reforms that remove the need to store and read paper versions of documents. Also, the capacity of courts to collect and analyse management information via new databases is greatly enhanced, but seldom used, largely due to the need for more effort in data collection. Setting aside the improvements in ease of use, accessibility and cost and speed of development, the functional capacities of databases used by Australian courts today are not much greater than the modest functionality of mainframes in the 1970s. The point needs to be repeated, we believe, that until courts abandon their paper dependencies and apparent prejudices, the productive impact of new ICT is bound to disappoint.

Australian courts' ICT excellence

So on this brief analysis, how can it be said that Australian courts might aspire to exporting their ICT

successes to the court systems of other countries in the region? We think the answer is that despite the modesty of the gains in Australia, the achievements in other countries are not much better. Even if you look at the ICT achievements in the USA, Canada and Europe, it will still be hard to find examples of enduring ICT improvements in courts that are consistently used across all courts within their home systems. There are boutique successes especially in smaller court systems that are well funded. The successes also tend to be disproportionately in courts that administer specialized, rather than general, caseloads. Appellate courts, special tribunals and a range of narrow jurisdiction federal courts have produced some good systems in Australia and elsewhere. But the record of normalizing those successes and transferring them to the general civil and criminal trial courts is very recent, if it occurs at all. Nonetheless, although the track record of successful ICT innovation in courts is short and insubstantial when measured against high standards, it is still there. We think it nudges ahead of the pack when compared with progress being made in most other countries. We say this because Australian courts have the advantage of being few in number and relatively well resourced and managed. Also, in the spirit of friendly competition within its national borders, Australian courts are probably more likely to take note of, and adopt, the ideas and successes of each other. And as a consequence of these qualities Australian courts are arguably more willing to take on risks in ICT development than perhaps courts in most other countries, including the eclectic range of court systems of the USA. One might say that when it comes to know-how in ICT development,

Australian courts are seasoned by the wisdom and expertise that only trial and error over many years can bring.

The Hazards of Exporting

Considering the description just offered, what may lie in store for an Australian court that perhaps wants to help a neighbouring developing country use ICT to improve its court system? The answer is to be found, we believe, by considering the factors that affect the capacity of Australian courts to use ICT to good effect, and to determine whether those or similar factors are present in the destination court system. The following is a digest of factors which we believe will exist in most court systems in the Asia Pacific region and beyond. We invite you to consider whether those factors apply to Australian courts.

Capital funding poverty

Very often the funding to develop ICT systems of any kind in a recipient country is deficient or is not sustained. Donors may be the principal or only source of funding and donor policies seldom permit them to underwrite recurrent costs in any recipient country. Of course, the availability of healthy levels of recurrent revenues, rather than capital funding, is normally what makes IT contract developers motivated. Capital deficiencies are liable to lead to decisions to acquire substandard or poorly supported hardware systems. Worse still, capital shortages often lead to decisions to provide ICT infrastructure to only a minority of courts in a system often under the label of "pilot courts", creating shortages which complicate and weaken the prospects of successful implementation. Would a computer system be worth

developing in an Australian system if it could only realistically be provided to a minority of courts? In most cases, probably not.

Recurrent funding poverty

Most court systems in developing countries that benefit from donor programs have personnel systems and manual work procedures that have changed little since the Second World War. These systems are typically under-funded, as may be evidenced by low salary rates for staff, sustained understaffing against formal approved establishment numbers and deficient or non-existent funding programs for building maintenance and essentials like electricity and telephone services. These kinds of deficiencies often produce consequential effects that accelerate the problem, such as high rates of down time and absenteeism, poor workplace discipline and accountability and low level corruption. How can new ICT be installed and used in a court that is under recurrent funding duress? The Australian experience over the last 30 years suggests that without reforms to ensure there is adequate provision for sustaining new technology, the benefits of its introduction are unlikely to be sustained.

Public infrastructure deficiencies

Most developing countries do not have reliable electricity, telephone systems or public transport systems, even in capital cities. The history of ICT development and use in Australia and other well developed systems was in a climate of sustained reliability of these services. Despite the opportunities offered by new wireless technology options, which can potentially allow these deficiencies to be by-passed,

currently few if any developing countries use these alternatives in lieu of traditional infrastructure services for their main business processes. Mobile or wireless computing is yet to be the mainstay of court systems in any country, much like the "paperless office" prognostications of the 1980s.

Specialist skills deficiencies

Australian court systems along with other parts of our economy endure skill shortages in maintaining their computer systems. They always have. Skills in change management and business process redesign are even harder to acquire in Australia and in other well developed countries, and more so in developing countries. Court systems in Australia, USA, Canada, New Zealand, Singapore and Western Europe continue to outsource and contract-in the high cost expertise they need either to support existing systems or to develop new ones. In developing countries the cost of reliable expertise is often dramatically higher still and in some countries the in-country expertise does not yet exist in sufficient numbers to make them reasonably accessible to an under-funded public sector.

Frontline staff skills deficiencies

Even the skills required to operate computers and to use computers in the context of particular business systems of courts are hard to acquire and maintain in Australia. Most front line staff in court systems of developing countries are extremely junior, poorly paid and supervised, and with only basic education. A large proportion of court staff are often trained in performing only a single task such

as writing entries in a book or delivering files.

Since at least the 1980s Australian court staff who were unable or unwilling to work with ICT-enabled systems were redeployed or ceased to be recruited over time. In most destination countries, in contrast, there are no equitable mechanisms for formal redundancy, developmental transfers or for merit based selection of junior staff officers. The political leadership of many countries believe that overstaffing of government offices, even by very poorly paid and neglected staff, is an essential factor in containing high rates of unemployment and in placating the expectations of various political constituencies. The labour market flexibility that has often been considered the key to business and economic reforms in Australia exists in few other places.

This creates the managerial dilemma of having to decide what to do when a large proportion of court staff are permanently unable to use new technology, where technology can by-pass most of those involved. This kind of problem is something outside the experience of Australian courts which were only able to acquire the momentum for adopting new technology by reducing staffing levels gradually over many years and using the savings to remunerate fewer, but better skilled staff. The drivers for making Australian courts more technology-friendly emerged reactively from the need to cope with gradually diminishing staff numbers and demands from governments that productivity standards be met using more technology and fewer people. In most developing economies, in contrast, those kinds of incentives

are largely absent. Consequently it would be quite impractical to take the view that in a developing country the participation of only a minority of court staff could be sufficient to assure the adoption and sustained use of new technology when that leaves the majority to carry on the old ways.

Office governance

Courts in Australia and other well developed systems usually have transparent and recently reformed systems for managing their staff offices, such as court registries or enforcement bureau. There are hierarchies and there is distribution of roles and skills aimed at matching people to the work to be done and the need for adequate levels of supervision. Leadership and accountability attitudes are usually well entrenched. In developing countries, in contrast, formal structures and relationships are often compromised by conflicting *informal* relationships and social agendas, such as consistently absent or neglectful supervisors, nepotism, institutional secrecy, workplace discrimination, over staffing and general low level corrupt conduct in dealings with the public. These factors can be made much sharper when the country is emerging from civil or military conflict. And these stresses can significantly compound the difficulties for those who seek to introduce new technology to the workplace.

Systems integration

Software developers often assume that systems integration involves the tweaking of field names and step processes that a new software user needs. In developing countries this integration process ordinarily demands radical changes to staffing structures, general skills

and methods of working, including relationships with court clients. Integrating software to local conditions usually requires substantial redesign of some elements of the software or for the manual systems to be replaced or augmented. Without a willingness to do this, the process of integration is likely to be eroded by the reluctance of staff to use it. Systems integration is consequently a far more challenging role in a developing country than it is in Australia. In our view it is the most challenging, irrespective of how well developed a piece of software may be.

Training

In the mind of the trainee, a training program for the use of new technology often represents a long held desire to learn how to use computers, even to learn to touch type. Such is the extent of the skills gap in many developing countries. Even members of the younger Internet-savvy generation, who may be accustomed to using web browsers and email at school or via Internet cafes, are likely to have only limited skills in managing file structures, typing or working to a routine mandated by new automated workflow procedures. This means that training personnel in the use of new software systems will entail far more effort and time for operational staff in a destination country than for their counterparts in a source country. Courts in Australia usually do not employ people who cannot or will not cheerfully use computers. That is usually not a consideration in a destination country and a training program in a destination country can absorb more effort in providing basic computer usage skills than is required to merely

instruct operators on the features of new court system software.

Change sponsorship

The sponsoring of change programs concerned with introducing new technology to developing courts can be quite fickle, especially those funded by foreign donors. Very often a donor sponsored ICT program will only fund basic capital costs with only cursory attention to the change management processes associated with introducing and sustaining that investment. A narrow project scope can lead to short term decisions about project leadership and control. It is not uncommon for the local counterpart manager who may be responsible for facilitating ICT change to be quite unskilled and even indifferent to making the project a success. This is in contrast to the unity of command and accountability standards normally expected of project managers in Australian courts. While change is difficult in Australian courts, it is doubly difficult in a court in a developing country that is reliant on donor sponsorship.

The good news

So what is the upside to this question? Can Australian courts help or should they leave it alone?

In our view the answer requires recognition of the need to focus on people, rather than normal hardware/software project management considerations. Australian court experts and donor organizations need to accept that technology is only valuable in an applied sense. An innovation in an Australian court can only be said to be successful if it is used to the satisfaction of the people who

work within that court. It cannot be assumed that a successful ICT court innovation developed in one Australian court will necessarily work in another Australian court, let alone a court of a foreign country.

The emphasis, we believe, should be to *adapt* new technology, rather than *install* it. Development of court systems in this sense implies a need to heavily revise how a piece of software could be used to best effect in the context of a particular court system, and having regard to the human factors that may impede its acceptance.

Given that developing court systems usually suffer from poverty of funds, infrastructure, skills and consistent leadership, it is necessary to offer them solutions which bring about gradual and manageable improvements, rather than the mere promise of frame breaking change with computers. In our view, Australian courts, which took up to 30 years to achieve what they have today, need to assume that, as with most litigation, quality of outcomes in ICT development are hard to achieve quickly or cheaply.