



12th BILETA Conference

The Future of Legal Education and Practice

Monday, March 24th & Tuesday, March 25th, 1997

Collingwood College, University of Durham

Beyond Woolf: The Virtual Courthouse

Robin Widdison, University of Durham

Keywords

The Woolf Report - Information technology - administration of justice - preparation for trial - evidence - juries - the courthouse of the future

Abstract

The purpose of this paper is to anticipate how information technology will change key aspects of the administration of justice over the next quarter of a century. The discussion explores three areas - preparation for trial, the trial itself and juries. The Woolf Report examines in detail the effect of information technology on pre-trial preparation. This paper attempts to project the impact of his detailed short term proposals further into the future. The piece then looks at an area that Lord Woolf's remit prevented him from exploring fully - information technology in the courtroom itself. Finally, the paper considers some of the particular difficulties that arise in relation to the jury trials of the future.

Introduction

Lord Woolf's ground-breaking Access to Justice: Final Report(1) contains important and detailed recommendations designed in the short term to modernise and streamline the civil justice system in this country. For this reason, it has justifiably generated a great deal of interest and debate not to mention the endorsement of the Lord Chancellor.(2) However, if the report is to be influential in the longer term, it will be because it gives unequivocal recognition at the highest level to the crucial role that information technology (IT) will play in the future administration of justice both civil and criminal. Lord Woolf himself writes:

"IT will not only assist in streamlining and improving our existing systems and process; it is also likely, in due course, itself to be a catalyst for radical change as well."(3)

Lord Woolf's key task has been to address a central cause of what Susskind calls the alienation of law(4) - to find ways to get our antiquated, expensive and delay ridden civil justice system back into something like working order. There is wide consensus that this task must be achieved as quickly as possible before public confidence in the administration of justice evaporates. For this reason, understandably, the main thrust of the Report addresses the question of what needs to be done now and within the next five years. Unfortunately but inevitably, Lord Woolf's remit prevented him from engaging in a detailed discussion about the more distant future. The purpose of this piece is to take a longer term perspective and to anticipate how IT might change the justice system over, say, the next quarter of a century.

Our discussion will look at three aspects of the administration of justice - preparation for trial, the trial itself and juries. Lord Woolf examines in detail the effect of IT on pre-trial preparation. Here, we will simply project the impact of his detailed short term proposals further into the future. Having done this, we shall turn our attention to an area that the urgency of his task prevented Lord Woolf from exploring fully - IT in the courtroom itself. Finally, we shall consider some of the particular difficulties that arise in relation to the jury trials of the future.

Information technology is already, of course, no stranger in the courtroom. There are two distinct ways in which it has effected trial proceedings directly. Firstly, for more than twenty years, courts and tribunals have had to wrestle with the problems brought up by computer generated evidence. Is it hearsay? Is it admissible? Is it reliable?(5) Secondly, for at least ten years, judges and juries have frequently consented to accept traditional evidence and argument presented in court via the medium or with the aid of IT.(6) Our principle interest here, however, is not to explore still further these existing uses of the IT in court. Rather, we will focus on the court process itself taking place through the medium of the technology. In essence, our concern is the virtual courtroom of the future.

Preparation for Trial

Our discussion of the role of IT in trial preparation focuses on two areas - pre-trial administration by the court office and the use of litigation support systems by lawyers. Turning first to pre-trial administration, in one sense, IT will inevitably make the court office more remote. In the post-geographical era there will probably be no solid, tangible court building that we can physically visit. In another sense, though, technology will give the court office the quality of omnipresence. Computer kiosks in public places in the very near future and access via the Internet in the slightly longer term, will provide easy, instant access to the court administrators.(7) Increasingly, communication between the court staff on the one hand and both lawyers and lay people on the other will be by electronic mail (email) for the transmission of documents and by video mail for face-to-face communications. Advice from court officials will be obtained, forms will be acquired and returned, pleadings lodged, fees, fines or judgment debts paid and court lists consulted electronically and remotely.

However, IT will not merely facilitate communication between humans. A number of simple legal tasks will be undertaken by the technology itself. It will be able to assist a lay person, for instance, to file for an undefended divorce, to commence small claims proceedings, or to apply for enforcement of a judgment debt.(8) These types of tasks are, in fact, already undertaken by computers located in public kiosks in the state of Arizona.(9) Twenty five years on from now we can predict more sophisticated, yet friendlier technology accessible from the home as well as from public places and offering a much wider range of services to the public.

IT brings about the dematerialisation of the written word.(10) Old paper-based documents are being digitised and new documents are increasingly going through their life cycle of generation, communication, storage and destruction without ever finding their way onto paper. The courts own case files will mirror this development. Lord Woolf himself notes and enthuses about this development. He observes that case load management systems will greatly facilitate the allocation of the resources within courts, including the scheduling of judges workloads, the allocation of court rooms, and the timetabling and listing of cases.(11)

However, the potential benefits of dematerialisation are not just reserved for court administration. Lord Woolf also sees great advantages for the judiciary too, especially in view of his proposal to enhance their role in the management of individual cases. He observes that, in the short term, case flow management systems will allow judges, wherever they may be located - in London, on circuit, or at home - to gain access to up-to-date information about the status each case. (12) Case tracking will be achieved through electronic facilities such as progress reports, lists of outstanding tasks and notice of who has responsibility for taking the next. By this means, IT will support judges in fulfilling their new duties concerning the supervision and control of cases, from initial filing through to final disposal. In the longer term, Lord Woolf looks forward not only to readily available electronic case histories but also to quick, inexpensive and infallible access to case files and to all the digitised documents that they contain.

Lord Woolf also sees systems based on electronic case files as providing a key additional benefit. Such systems can informate.(13) This means that they create, as a valuable by-product, management information about trends, case-types, costs and administrative bottlenecks. Of this benefit, he comments that such systems, by gathering statistical information about the flow of cases through courts and tribunals, will provide the raw data with which the court administration, armed with logistical planning and management tools, can achieve the fairest, cheapest and most efficient allocation of time and resources possible.

Moving to the preparation for trial by the parties, litigation support systems - IT used to collect, store and manage documentary evidence(14) - have already become an established technology in many law offices. Lord Woolf himself is very keen to encourage many more lawyers to familiarise themselves with, and to make extensive use of, this manifestation of IT.(15) Even today, the process of dematerialisation of the commercial paperwork generated by businesses is well on its way. As we have already noted, more and more documents and messages are generated, communicated and stored in digitised form, never passing through a paper stage at all. It, therefore, seems safe to predict that more advanced successors of today's litigation support systems will, in future, play an ever greater role not only in the management of evidence but also in its collection and presentation at the court or tribunal hearing.(16)

The Trial

Lord Woolf discusses a variety of ways in which, he believes, IT will be used within the courtroom itself. In the near future, he sees an increase in the use of technology based management and presentation of documentary evidence at the hearing. He also predicts a star role for instantaneous, computer aided transcription of spoken evidence. However, he has relatively little to say about what must unquestionably be the most exciting and controversial development over the next quarter of a century - the dematerialisation of the courtroom itself. The only relevant area that he does discuss is the possibility of conducting case management hearings - pre-trial reviews and the like - by means of video conferencing. (17) Lord Woolf anticipates that removing the need for all participants to be present in one physical location at one and the same time can give rise to faster, cheaper, more accessible case management hearings.

But, why stop at case management hearings? What, other than tradition and cultural conditioning, ultimately stands in the

way of dematerialising, say, appeal hearings? As an appeal hearing, other than an appeal by way of a rehearing, takes the form of the presentation of written or spoken argument by lawyers followed by decision, is there any compelling reason why such activities cannot be conducted fairly and efficiently by video conferencing and by email? If, in a few cases, it can be demonstrated that such a hearing requires the physical presence of all the participants, is it not sufficient to give the court or tribunal in question a residual power to order an old style, face-to-face hearing of some or all of the submissions?

We can go even further. If, as has been claimed above, case management hearings and appeals can be dealt with remotely using IT, why not first instance hearings - and appeals by way of a rehearing - whether civil or criminal? We can anticipate that, if there is any objection to the idea of holding other types of hearings electronically and remotely, resistance to the notion of conducting trials by this means will be a great deal stronger. But what is the essential difference between case management hearings and normal appeals on the one hand, and trials on the other? It is, of course, the presentation of evidence. At present, it is perfectly reasonable to doubt whether fact and expert opinion can be satisfactorily presented, tested and assessed when witness, advocates, judge and jury members are widely distributed around region, country, continent, or globe. However, do these doubts stand up to closer scrutiny?

In considering this question, let us look at the three main classes of evidence: documentary evidence; witness testimony; and real evidence. Turning first to documentary evidence, we can already see a rapid move towards acceptance of electronic documents as valid evidence in courts and tribunals. Provided safeguards are adopted to ensure the authentication of electronic documents - as they already are in respect of documents in traditional form - there is no reason to distinguish between the validity of evidence recorded in digital form and that on paper. Furthermore, as Lord Woolf himself points out, computerised management of documentary evidence - litigation support systems - particularly where hearings involve the presentation of large bundles of documents, can result in faster, cheaper and most strikingly fairer trials. Interestingly, the benefits of dematerialising documentary evidence do not end there. Presentation of documents on screen in such a way as to enable them to be inspected, enlarged, highlighted, or otherwise electronically enhanced and manipulated by witnesses, advocates, judges or jury members can produce gains that were simply not available before the technology was introduced.¹⁸

Let us now turn to the examination of witnesses. It is important, as Lord Woolf himself does, to distinguish between witnesses of fact on the one hand and expert witnesses such as doctors, scientists, engineers and accountants on the other. The evidence of an expert typically comprises dispassionate, professional observation and opinion. Normally, albeit not invariably, the issue at stake more likely to be the soundness of the experts findings and opinions rather than his/her integrity. For this reason, we may suppose that receipt of disputed testimony via a live video conferencing link and undisputed testimony via a video recording will become the norm within the next quarter of a century. Occasionally, where the opinions of an expert witness are unusually controversial or where that witness's integrity can be validly called into question, the court or tribunal may wish to exercise its reserve powers to hold a face-to-face hearing of that part of the evidence. However, for reasons that will be discussed below, we can anticipate that it will be rare for such powers to be used.

What of witnesses of fact? Here issues of accuracy, honesty and integrity are, as a rule, much more to the fore than they are with expert witnesses. Of course, the law has already been amended to permit some witnesses, such as children, to give evidence via a live video link in special circumstances.⁽¹⁹⁾ However, how can it be argued that this exception will become a future norm? How can adequate examination and cross examination ever take place when advocate and witness are not in the same physical location? Surely, advocates, judge and jury members will be deprived of the best opportunity to observe closely the responses and demeanour of a key witness as he or she is being subjected to hostile cross examination?

Surprisingly perhaps, IT can actually enhance our ability to assess the credibility of testimony. Witness reaction and demeanour will, in future, be much more effectively monitored via an electronic link than at some physical distance away in the indifferently lit courtrooms of today. A video image of a witness responding to questions with high quality sound reproduction of the actual testimony, together with textual subtitles drawn from the computer generated transcript, all may give a far better impression of whether the witness in question is being truthful or not. Couple this gain with the ready availability of action replays of testimony, the opportunity to view the witness from different angles and the ability to enlarge the image of the witness to wall size, and our initial gain is greatly magnified. What if we add in the Orwellian possibilities of: electronic confirmation of identity by finger prints, DNA prints and face scans; instantaneous computer analysis of a witness's voice patterns; and remote sensing of skin moisture, pulse rate and heart beat? Soon our problem becomes one of too much information - and, perhaps, too much intrusion - rather than too little.

The third type of evidence to be considered is that of real evidence - the blood-stained murder weapon, the discarded leather glove, or for the purposes of this discussion, the scene of the crime itself. To some extent, existing technologies are already in use to transport images of these things into the court room. Photographs and even videos of locations and relevant items are commonplace in the courts of today. Furthermore, it is by no means unknown for parties to prepare and present virtual reality simulations in court. American judges and juries in both civil and criminal cases have already been given the opportunity to move into and around three dimensional electronic images of scenes and to reach out,

touch and handle objects that they find there.(20) However, despite these current developments, it must be accepted that, even a quarter of a century from now, real reality will still be afforded much greater evidential value than virtual reality. (21) For this reason, the court or tribunal will undoubtedly need to make some use of its reserve powers to provide for physical site visits and opportunities for trial participants to inspect, handle and analyse relevant objects, regardless of any resultant cost, delay or other inconvenience.

Juries

The last area for discussion in this paper is that of the virtual jury. In Britain, juries continue to play a major role in one part of the criminal justice system - in first instance trials of serious criminal charges in the Crown Court. They also still have a residual role to play in the civil system. What problems arise in relation to the management of a jury which is not present in a single, geographical location? There are, perhaps, three major concerns. Firstly, how can the judge control the quantity and quality of evidence and argument that is received by each juror? Secondly, how can the jury be protected from intimidation and bribery? Thirdly, how will juries be able to deliberate on their verdict together and in private?

Turning first to the management of evidence and argument, in the court of the future, a judge could, of course, maintain considerable control over the nature, quality and quantity of information transmitted to the jury. However, the judge could not so easily control information - perhaps highly prejudicial information - that was received by a juror from other unofficial sources. Having said that, the position will probably be no different from the situation that exists today. The modern judge cannot be expected to monitor all the information that might come the way of each jury member when the jury is out of the court house during a recess. The present system relies heavily on the honesty and integrity of the juror to bring irregularities to the attention of the judge. A future system might also reasonably rely on these qualities. The jury system is not, generally, portrayed as perfect. Surely, its attraction lies in it being the least of possible evils.

What happens when, instead of a jury member receiving additional, irrelevant or prejudicial information, s/he receives too little owing to illness, tiredness or simply lack of attention? In a physical courtroom, we can suppose that these problems might easily be spotted by the judge or by the lawyers taking part in the trial. However, just as IT can be used to enhance the receipt of witness testimony, so too, video monitoring of a juror located at some remote site might be an equally effective method of assessing whether s/he is paying full attention to the proceedings. Video monitoring might be as far as such control needs go, though. Use of the more intrusive methods of monitoring that we have examined above - e.g. electronic identity checks, computer analysis of voice patterns and remote physiological sensing - whilst controversial in the context of witnesses of fact, arguably might be completely unacceptable in the context of an ordinary member of the public performing his/her social duty.

Let us now consider of the problem of threats and bribes aimed at jurors. Juries in serious criminal cases are especially vulnerable to such activities particularly from defendants who have a monumental stake in the verdict. How can an each isolated, unsupervised virtual juror be protected effectively from this risk? We should, of course, be wary of unthinkingly demanding a far higher level of protection from a future justice system than that which is available today. Away from the courtroom itself, how are jurors protected now? Normally, by no more than those laws that severely punish anyone who intimidates or suborns jurors.(22) Only rarely, at present, are jurors afforded a higher level of security in the form of, for example, being kept at some secret location during their deliberations, or being given individual police protection at home or, *in extremis* being kept out of harms way for the whole course of a trial and beyond.

Turning again to the virtual trials of the future, why shouldnt the first line of defence against juror interference - criminal offences with draconian penalties - continue to be the main line of defence in the case of run-of-the-mill criminal trials? It may be argued that, because jurors who are remotely distributed are vulnerable more of the time than those that are physically gathered together under the watchful eye of the judge, there is a general need for more extensive protective measures in future. Technologically guaranteed juror anonymity may be the answer. Such protection could be readily achieved by e.g. ensuring that communications to and from jury members were routed through official anonymous remailers - services that strip out any information that identifies the source of electronic communications and then forwards them to the addressee. The fact that jury members might themselves be distributed over a very wide area could then become a source of enhanced security rather than increased vulnerability. Ultimately, the main difficulty with juror anonymity would, surely, be the possibility of grave disadvantage to the defendant. The defendant and his/her lawyers might reasonably demand information about, or access to, the members of the jury in order to be able to determine such matters as the possibility of prejudice or the effect of a piece of evidence or an argument on the mind of each juror. Achieving adequate protection of the jury whilst continuing to allow the defendant as much benefit as possible from his/her constitutional right to jury trial will clearly involve a difficult balancing act.

The third and last issue to examine on the topic of virtual juries is whether it will be possible for jury members to continue to deliberate over their verdict together and in private. This question is, in fact, the easiest of the three to answer. Video conferencing technology is perfectly capable, even today, of permitting instantaneous face-to-face group discussion. Secrecy, however, remains an unresolved problem. Clearly, linking jurors by means of a private dedicated data network is one solution albeit almost certainly too impractical and too expensive to justify where jurors are

geographically remote from each other. More likely, the solution will lie in the use of existing hardware - including public domain data lines -with communications protected by suitably secure encryption. Foolproof encryption of digitised data still remains, as of today, something of a holy grail.

Conclusion

At its simplest, the term dematerialisation describes the process by which information can be seen to migrate from the physical world to the electronic world. Information has in fact been travelling in this direction for most of the post-war period. However, until the advent of personal computing in the 1970s, the move was slow and piecemeal. Through the 1980s and 1990s, however, more and more information has either originated in electronic form or been captured from paper originals. The increasing emphasis on the use of the Internet as a prime medium for communication trigger a massive acceleration in this process, bringing us ever closer to the critical mass that heralds the arrival of the paperless society.

Dematerialisation of information, however, amounts to only one aspect of the technological revolution that we are going through. Another aspect is the dematerialisation of physical places. Just as the informational contents of the workplace are increasingly likely to exist in electronic rather than physical form, so too we can observe that workplaces themselves are beginning to dematerialise. In the post-geographical era which we are now entering, though, this process is not confined to our workplaces. Before our eyes, other important institutions - banks, building societies, shops, schools, colleges, libraries, governmental institutions, even, court offices - are all showing early signs of migration into the electronic domain. Culturally, we already think of many of these institutions more as abstract, disembodied concepts rather than as concrete entities. Sooner rather than later, this wave of institutional dematerialisation will undoubtedly begin to dissolve the courtroom itself.

Lord Woolf was required to address the current crisis of confidence in the justice system and to recommend urgent or at least short term solutions. However, these very practical limitations placed on Lord Woolf should not - indeed, must not - dissuade or discourage us in any way from looking beyond Access to Justice in order to obtain a glimpse of the future that awaits us.

Notes

- 1 Lord Woolf MR, *Access to Justice: Final Report* (London: HMSO, 1996).
- 2 *Access to Justice: The Way Forward* (London: Lord Chancellor's Department, 1996)
- 3 *Ibid*, chapter 21 para 1.
- 4 Susskind R, *The Future of Law* (Oxford: Oxford University Press, 1996) pp35-40.
- 5 Tapper C, *Reform of the Law of Evidence in Relation to the Output from Computers* (1995) 3 *International Journal of Law and Information Technology* 79; Hoey A, *Analysis of the Police and Criminal Evidence Act s 69 - Computer Generated Evidence* (1996) 1 *Web Journal of Current Legal Issues* at <http://www.ncl.ac.uk/~nlawwww/1996/issue1/hoey1.html>
- 6 Tantam M, *Computers in Court: The Story So Far*, (1989) 86(1) *Law Societys Gazette* p2; Plotnikoff J and Woolfson R, *Replacing the Judges Pen? Evaluation of a Real-time Transcription System* (1993) 1 *International Journal of Law and Information Technology* p90; O'Flaherty D, *Computer-Generated Displays in the Courtroom: For Better or Worse?* (1996) 4 *Web Journal of Current Legal Issues* at <http://www.ncl.ac.uk/~nlawwww/1996/contents4.html>
- 7 Woolf, note 1 above, chapter 21 para 9.
- 8 *Ibid*, chapter 21 paras 13-20.
- 9 Predavec I, *The Automatic Justice Machine?* (1995) 5(5) *Computers and Law* p18.
- 10 For a full and stimulating discussion of this phenomenon see Katsh ME, *Law in a Digital World* (Oxford: Oxford University Press: 1995) chapter 2.
- 11 Woolf, note 1 above, chapter 21 paras 13-14.
- 12 *Ibid*, chapter 21 paras 13 and 15.
- 13 Zuboff S, *In the Age of the Smart Machine: The Future of Work and Power* (New York: Basic Books, 1988).
- 14 See the description and discussion in Mital V and Johnson L, *Advanced Information Systems for Lawyers* (London: Chapman & Hall, 1992) p167.
- 15 Woolf, note 1 above, chapter 21 para 6.
- 16 Susskind R, *The Future of Law* (Oxford: Oxford University Press, 1996) pp166-174.
- 17 *Ibid*, chapter 21 paragraphs pp21-22.
- 18 See the description of the use of litigation support technology in the Adelaja case discussed in Tantam M, *Computers in Court: The Story So Far*, (1989) 86(1) *Law Societys Gazette* p12.
- 19 s 32 *Criminal Justice Act 1988* as amended.
- 20 O'Flaherty D, *Computer-Generated Displays in the Courtroom: For Better or Worse?* (1996) 4 *Web Journal of Current Legal Issues* at <http://www.ncl.ac.uk/~nlawwww/1996/contents4.html>
- 21 Stoll C, *Silicon Snake Oil* (London: Pan, 1996) pp147-150.
- 22 See, for example, s 51 *Criminal Justice and Public Order Act 1994* which provides that anyone who intimidates a juror is liable, on indictment, to a maximum of five years imprisonment and an unlimited fine.