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## Legal, Practical and Ethical Implications of the Use of Technology in European Courtrooms

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# LEGAL, PRACTICAL AND ETHICAL IMPLICATIONS OF THE USE OF TECHNOLOGY IN EUROPEAN COURTROOMS

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## INTRODUCTION

Europe has been slower than the United States in absorbing new forms of technology in the legal sector. Yet, the information technology (IT) "hurricane"<sup>1</sup> has now hit the European continent and technology is creeping into its governments. This is an inexorable phenomenon of modernization. The tail of this hurricane affects even the least technology-prone institutions — the courts. This Article will show that even though technology is not as widespread in Europe as in the United States, European courts are opening themselves to technology and to its various uses in courtrooms. The implications are many. This Article examines the extent of the impact of technology on European courts with a special emphasis on Austria, Italy, the United Kingdom and the Republic of Ireland.

John W. Raine identifies three phases of development of the information technology revolution,<sup>2</sup> which can be well adapted to the current phenomenon of modernization of the justice system. The first and least technologically advanced stage is that of *automation*.<sup>3</sup> During this period the management strategy of the delivery of justice begins its mechanization.<sup>4</sup> The Ministries of Justice and the national court services of each state are the main actors involved in the funding and implementing of automation of existing practices in the most cost-efficient manner. Following the automation stage Raine identifies the phase of *informatisation* at which point the functionality, quality and effectiveness of the delivery of justice are improved.<sup>5</sup> It is at this stage that the evolution of the use of technology in courtrooms commences its creative expansion. New techniques in handling and analyzing different types of information are developed to fulfill the objectives of

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<sup>1</sup> Lord Justice Brooke, Lord Justice of Appeal and Judge in Charge of Modernisation, IT developments in the courts — are solicitors ready for them?, Address at the Law Society Conference (Sept. 26, 2003), available at <http://www.dca.gov.uk/judicial/speeches/speechfr.htm>.

<sup>2</sup> See John W. Raine, *Modernising Courts and Tribunals Through ICTs — Lessons From The London Parking Appeal Service*, 9 INT'L J. L. & INFO. TECH. 115, 116–17 (2001).

<sup>3</sup> *Id.* at 116.

<sup>4</sup> See *id.*

<sup>5</sup> *Id.* at 117.

heightened efficiency.<sup>6</sup> It is no longer sufficient to improve the judicial process with automatic practices; new models specific to the administration of justice are developed.<sup>7</sup> In Raine's latter stage of *transformation*, IT is re-engineered in order to render the judicial process accessible and comprehensible.<sup>8</sup> At present, most courts in the numerous European states stand between the second and third stages, with some states still struggling to complete the first stage.

### I. ETHICAL IMPLICATIONS

There is a fear associated with the use of technology in the courtroom that it may create a bias in the judicial process by affecting the judges or the jurors in their decision-making processes. This fear has been described as a "Hollywood" trial<sup>9</sup> where the solemnity of the courtroom is replaced by special effects, thus diminishing the authoritative power of the courts.<sup>10</sup> These concerns can nevertheless be countered with important consideration of the role of technology in today's courtrooms.

#### A. *Why Do We Need Technology in Courtrooms?*

The question as to whether technology is needed at all in courtrooms can be answered affirmatively in numerous ways. The principal arguments for the use of technology that emerge from a review of the current debate in Europe are: higher efficiency in the administration of justice;<sup>11</sup> shorter time dedicated to each individual case;<sup>12</sup> practical benefits enjoyed by all parties;<sup>13</sup> lower costs associated with the administration of justice;<sup>14</sup> higher access to justice;<sup>15</sup> and responsiveness of the administration of justice to the novel needs of the emerging consumer society.<sup>16</sup>

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<sup>6</sup> *Id.*

<sup>7</sup> *See id.*

<sup>8</sup> *Id.*

<sup>9</sup> Fredric I. Lederer, *Modern Technology in the Courtroom: Possibilities and Implications*, Paper Presented at the Fourth Court Technology Conference, National Center for State Courts (Oct. 1994), available at <http://www.ncsc.dni.us/NCSC/TIS/CTC4ARTS/202.htm>.

<sup>10</sup> Anne Johnson, *Microchip Gaze*, 148 NEW L.J. 1714 (1998).

<sup>11</sup> *See* discussion *infra* Part I.B; James Crowell, *The Electronic Courtroom*, 4 B.U. J. SCI. & TECH. L. 10 (1998). Crowell states that automation is useful in two respects: a) it makes the administration of justice more result oriented by creating easier access for the public; b) a quicker case solution allows for more efficient courts and cheaper justice. *See id.*

<sup>12</sup> *See* discussion *infra* Part I.C.

<sup>13</sup> *See* discussion *infra* Part I.D.

<sup>14</sup> *See* discussion *infra* Part I.E.

<sup>15</sup> *See* discussion *infra* Part I.F.

<sup>16</sup> *See* discussion *infra* Part I.G.

### *B. Efficiency*

The primary reason why technology is an important step forward for the adjudicative system is efficiency. In a constantly modernizing and increasingly hectic society, courts need to be responsive to the changing technologically based culture as well as to an increase in caseload. Technology can become the key to the success of courts, averting the collapse of the judicial system under the pressure of increased workloads and more complex cases. Currently, technology is simply a tool that expedites the work of judges without changing the nature of their duties. This tool is applicable at different levels of the adjudication process: from the filing of the case to the exchange of documents between the parties to the final, and more theatrical, performance during trial.

### *C. Speed*

Technology brings with it the ability to process an enormous amount of information in a relatively short period of time. Hence, parties and judges can instantaneously exchange documents, files and even visual and audio recordings. Lawyers can save voluminous documentation for evidentiary purposes in small and easy-to-carry CD-ROMs and can quickly recall parts of this documentation during trial with a few clicks of the mouse. In English courts, complex and high-profile fraud cases are increasingly argued in courts that provide technical support. The ability to easily handle a huge quantity of documents has cut the hearing time of a case by two-thirds.<sup>17</sup>

### *D. Ample Appeal*

The benefits of technology are not only enjoyed by lawyers and judges, but also by witnesses and jurors. For instance, vulnerable witnesses can be questioned in a remote and safe location without having to suffer the stress of a court appearance.<sup>18</sup> Defendants detained in prisons can give testimony from their cells,

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<sup>17</sup> Telephone Interview with Perry Timms, Stakeholder Manager of Criminal for the E-Delivery Group (Dec. 19, 2003).

<sup>18</sup> For example, consider the provisions of the English Criminal Justice Act of 2003, which regulates *live links* in criminal proceedings:

- (1) A witness (other than the defendant) may, if the court so directs, give evidence through a live link in the following criminal proceedings.
- (2) They are —
  - a. a summary trial,
  - b. an appeal to the Crown Court arising out of such a trial,
  - c. a trial on indictment,

ruling out any possible risk of their escape.<sup>19</sup> Jurors who attend a trial where one of the sides makes recourse to electronic evidence can review that evidence in the deliberation room without having to look through volumes of papers. Jurors may

- 
- d. an appeal to the criminal division of the Court of Appeal,
  - e. the hearing of a reference under section 9 or 11 of the Criminal Appeal Act 1995 (c. 35),
  - f. a hearing before a magistrates' court or the Crown Court which is held after the defendant has entered a plea of guilty, and
  - g. a hearing before the Court of Appeal under section 80 of this Act.
- (3) A direction may be given under this section-
- a. on an application by a party to the proceedings, or
  - b. of the court's own motion.
- (4) But a direction may not be given under this section unless —
- a. the court is satisfied that it is in the interests of the efficient or effective administration of justice for the person concerned to give evidence in the proceedings through a live link,
  - b. it has been notified by the Secretary of State that suitable facilities for receiving evidence through a live link are available in the area in which it appears to the court that the proceedings will take place, and
  - c. that notification has not been withdrawn.
- (5) The withdrawal of such a notification is not to affect a direction given under this section before that withdrawal.
- (6) In deciding whether to give a direction under this section the court must consider all the circumstances of the case.
- (7) Those circumstances include in particular—
- a. the availability of the witness,
  - b. the need for the witness to attend in person,
  - c. the importance of the witness's evidence to the proceedings,
  - d. the views of the witness,
  - e. the suitability of the facilities at the place where the witness would give evidence through a live link,
  - f. whether a direction might tend to inhibit any party to the proceedings from effectively testing the witness's evidence.
- (8) The court must state in open court its reasons for refusing an application for a direction under this section and, if it is a magistrates' court, must cause them to be entered in the register of its proceedings.

Criminal Justice Act, 2003, c.44, § 51 (Eng.). Also consider the Youth Justice and Criminal Evidence Act, 1999, c.23 (Eng.) (addressing vulnerable and intimidated witnesses). Amongst others, the Act effectuates the following measures: evidence by live link, *id.* § 24; video-recorded evidence in chief, *id.* § 27; video-recorded cross-examination or re-examination, *id.* § 28; examination of witnesses through intermediary, *id.* § 29; aids to communication, *id.* § 30.

<sup>19</sup> In England the Courts and Tribunal Modernising Project has already undertaken the Virtual Plea & Directions Hearings in crown courts using videoconferencing to prisons and remand centres. See Perry Timms, Department for Constitutional Affairs- E-delivery Group, Courts & Tribunals Modernising Programme — An Overview (Nov. 23, 2003) (on file with author).

also review witnesses' testimony that has been recorded with audio-video facilities. Jurors, thus, need not rely on scattered notes made during a lengthy trial. This facilitates a higher degree of care by jurors in reaching their final verdict.

### *E. Cheaper Solution*

Technology also has the added advantage of diminishing the costs associated with trials.<sup>20</sup> It is true that there has to be an initial substantial investment to equip courtrooms and court services with state-of-the-art technology. However, once the investment has been made, costs decline, as does the time spent on each case.<sup>21</sup> In some countries, briefs can be deposited electronically, and in fact some judges prefer to receive the case documents via e-mail.<sup>22</sup> This enormously reduces the cost of paper copies and express mail delivery or personal delivery associated with each case.<sup>23</sup>

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<sup>20</sup> Raine, *supra* note 2, at 126. He states that it is a cheaper solution than the recourse to magistrate courts, which is the traditional route for areas not yet served by the new appeal service. *Id.*

<sup>21</sup> *Id.* (claiming that the London Parking Appeal System has become cheaper than Magistrate Courts). The London Parking Appeal was born as an experiment and has developed rapidly into a successful project. It currently exists only in the cities of London and Liverpool, but it is very likely that it will be expanded to the whole national territory. The Parking Appeal Service is described as follows:

The Parking Appeal Service is a relatively new tribunal, formed in 1993 to decide appeals against the imposition by local authorities of penalties for alleged contravention of parking regulations. . . . The result has been the establishment of an adjudicative process that could be said to have 'broken the mould' of traditional administrative and judicial process in the UK in several respects.

*Id.* at 118. Raine identifies the following as the main novelties brought by the new PAS. At the preliminary stage, cases are scrutinised by the local authority prior to the appellant to have leave to the Appeal Service, thus diminishing the chance for frivolous claims. *See id.* Once it is established that the case can move to the appeal, the case is booked according to the format that it will take, in person or by post. *Id.* at 119. The hearings can occur in the traditional form with a person present, for which the PAS will book a date most convenient to the appellant. *See id.* For the unusual postal appeals, the computer automatically schedules a date for its decision. *Id.* at 120. The process of reaching the verdict is more informal than in a regular court of law, with the adjudicator and the appellant sitting at the same table looking, on the same screen, at original evidence scanned in electronic format. *Id.* at 120–21. In the not-so-far future, the postal appeals will also be accessible by way of computer link to a central location. *See id.* at 119–20.

<sup>22</sup> England is now considering the possibilities of e-filing. Austria is ahead of them with a complete electronically based publication of courts decrees. *See* Justiz Ediktsdatei, at <http://www.edikte.justiz.gv.at> (last visited Jan. 25, 2004).

<sup>23</sup> For instance, in Austria the move towards a wholly electronic publication of court decrees in bankruptcy cases has caused the costs of publication to drop from EUR 1,000 to EUR 60, while general enquiries are now completely free of charge. Martin Schneider et al.,

Furthermore, if witnesses are not required to be physically present in court, the costs associated with their testimony decrease. In criminal cases, remote link evidence allows the court and the jury to see and be seen by the defendant while the latter remains in the detention center. Thus, the costs of secure transport of a detainee, not to mention the risks of escape, are completely eliminated.

#### *F. Access to Justice*

Another very important feature of courtroom technology is the enhanced access to justice that technology itself brings. As Professor Susskind argues, the Internet lends itself to a fast and cheap delivery of justice.<sup>24</sup> An array of legal services can be offered online and a heightened level of transparency and accessibility could be reached. "Electronic commerce as applied to court processes is yet to really be established, and only a relatively small number of examples exist."<sup>25</sup> In England, the Money Claim Online (MCOL)<sup>26</sup> is one such example. MCOL is a virtual legal service used for money claims up to 100,000 GBP against no more than two defendants in England and Wales.<sup>27</sup> MCOL allows payment of online court fees by credit or debit card. It also allows English citizens to monitor the progress of claims through an online judgment order application process, which can be enforced by requesting a warrant of execution online.<sup>28</sup> The defendant can defend against the claims or partially admit to them online, as well.<sup>29</sup>

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The new Austrian Court Automation, Presentation for the Bundesministerium für Justiz und IBM, at 15 (Nov. 2003) (transcript on file with author). "The cost of publications [of insolvency proceedings], which have to be paid for by the parties to the proceedings, were able to be reduced by 95% (on average from ATS 15,000 to ATS 800)." European Commission-Grotius Programme, European Seminar on Court Technology, National Report of Austria concerning Court Technology, at 4 (Oct. 2002), available at [http://www.irsig.bo.cnr.it/jedi\\_events.htm](http://www.irsig.bo.cnr.it/jedi_events.htm) [hereinafter Report of Austria].

<sup>24</sup> See generally RICHARD SUSSKIND, *TRANSFORMING THE LAW: ESSAYS ON TECHNOLOGY, JUSTICE AND THE LEGAL MARKETPLACE* (2000).

<sup>25</sup> Dougal McKechnie, *The Use of the Internet by Courts and the Judiciary: Findings from a Study Trip and Supplementary Research*, 11 INT'L J. L. & INFO. TECH. 109, 135 (2003). In his article he briefly describes the New Zealand Fines Online Web site where fines can be paid electronically. *Id.* (discussing NZ Ministry of Justice, Fines Online, at <http://www.fines.govt.nz> (last visited Jan. 25, 2004)).

<sup>26</sup> Moneyclaim Online, at <http://www.moneyclaim.gov.uk/csmco2.indx.jsp> (last visited Feb. 27, 2004).

<sup>27</sup> See Timms, *supra* note 19.

<sup>28</sup> *Id.*

<sup>29</sup> Staff administers MCOL from the County Court Bulk Centre in Northampton. MCOL normally responds within twenty-four hours of submitting a request, the status of the claim can be checked twenty-four hours a day, seven days a week, and instant online validation is provided through a mandatory field preventing erroneous application for judgement by default. *Id.*



In addition, the English Legal Services Commission (LSC) offers an online set of e-Business services.<sup>30</sup> E-Business services offer the interactive service of "SPAN EDP" with the aim of improving the quality and efficiency of the Commission.<sup>31</sup> SPAN EDI allows civil legal service suppliers that are under contract to the LSC to submit data electronically, rather than by the traditional method of sending in returns on paper.<sup>32</sup>

Raine argues that if judicial decisions are more public, there will be a higher number of challenges to them.<sup>33</sup> The more people are able to challenge the courts' decisions, the more legitimacy and authority of the decisions will be undermined. The essence of modern legal systems and their appeals process is, however, based on the central idea that decisions can be challenged until they become *res judicata*. Furthermore, Europe itself is developing towards a higher degree of transparency and the European Court of Justice (ECJ) has been a great supporter of more open administration of justice.<sup>34</sup>

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<sup>30</sup> See Legal Services Commission, eBusiness, at <http://www.legalservices.gov.uk/business/index.htm> (last visited Jan. 25, 2004).

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> Raine, *supra* note 2, at 116.

<sup>34</sup> The ECJ has long published its decisions on its Web page, which is now more user-friendly. See The Court of Justice for the European Communities, at <http://www.curia.eu.int/> (last visited Feb. 21, 2004). The events that culminated with the resignation of the Santer Commission on March 16, 1999 mark the beginning of a proactive search for openness in European history. See generally CAROL HARLOW, ACCOUNTABILITY IN THE EUROPEAN UNION 53-61 (2002). Since 1998 the European Parliament (EP) and the European Commission have been at odds concerning one report from the Budgetary Control Committee for the 1996 budget which highlighted irregularities and even fraud in some Directorates General (DG). See *id.* at 53-54. Other reports had evidenced more fraud and illegal behaviours. The EP had repeatedly called upon the Commission to clarify its position, but the explanations were not satisfactory. *Id.* at 55-56. The Commission stated that if the EP refused to discharge the 1996 budget then a motion of censure ought to be approved. A very thin majority discharged the budget. *Id.* at 53. However, a motion was tabled with the clear intention to censure the two Commissioners (Cresson and Marin) who had come under accusations. The political games of the two dominating parties in the EP turned the "individual" motion into a "collegial" one that was finally defeated in January of 1999. See *id.* at 53. That was not enough to sedate the enraged Members of the European Parliament (MEPs) who could not accept that Commissioners accused of fraud could carry on with their business undisturbed. Thus, the EP and the Commission agreed upon the compromise of setting up a Committee of Independent Experts (which had no standing under the European Treaties), with the Commission's guarantee that it would follow any outcome of the Report. *Id.* at 54. The mandate of the Committee was to "examine the way in which the Commission detects and deals with fraud, mismanagement and nepotism." The Committee of Independent Experts, First Report on Allegations Regarding Fraud, Mismanagement and Nepotism in the European Commission, § 1.1.1 (Mar. 15 1999), available at [http://www.europarl.eu.int/experts/report1\\_en.htm](http://www.europarl.eu.int/experts/report1_en.htm).

*G. Responsiveness to New Social Standards*

Aside from the above models of justice online, courts themselves must be responsive to the cultural changes of the present consumer society. Courts are invested with the role of administering justice and, therefore, form the link between the makers of laws and the citizens. It is crucial that the citizens maintain trust and confidence in the courts because in them is vested the public expectations of fairness, impartiality, and effectiveness.<sup>35</sup> It is exactly this revolutionary effectiveness, a more ultimate user-friendly justice, which technology is offering.<sup>36</sup> If it is true that with technology the administration of justice may lose part of its solemnity, it is equally correct that it is not the solemnity, but its effectiveness, that makes justice so important.

The informality of the judicial process is not a prerequisite for technological courtrooms. Automated courtrooms still rely on the role of the main three characters of a trial: lawyers, witnesses and judges. Their roles are still intrinsic to the nature of the judicial process. Having computers that assist attorneys and judges will not alter their roles. Computerization affects the presentation and management of the trial, not the substantive decisions of the participants.<sup>37</sup>

In addition, courts are also responding to the changing societal expectations. This is far from the first time courts have faced significant changes. A clear example in England was the birth of the courts of equity. When the Sovereign could no longer satisfy the requests of challenges of decisions of courts of law, the Lord Chancellor was given the duty to review such decisions and reach "equitable results". Thus, the Chancery courts started their expansion and "equity" began a realm of law that ran parallel to the existing "black letter" law. The advent of courts of equity was much more of a revolution than the advent of technology in courtrooms today, although the future implications are still unknown.

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The Report found many irregularities, in some cases amounting to fraud, and concluded with the oft-quoted statement that "it is becoming difficult to find anyone [in the Commission] with the slightest sense of responsibility. However, that sense of responsibility is essential." *Id.* § 9.4.25. The Commissioners singled out refused to resign and consequently the whole Commission had to capitulate.

Since then the EU has been striving to achieve openness and transparency and technology has been the main tool citizens have been given to obtain quick and direct access to information. The Union Web page provides useful information and links. *See generally* Europarl, Welcome the European Parliament, at [http://www.europarl.eu.int/home/default\\_en.htm](http://www.europarl.eu.int/home/default_en.htm) (last visited Feb. 21, 2004). Its example has now been followed by many Member States who have created numerous forms of e-government services.

<sup>35</sup> Raine, *supra* note 2, at 130.

<sup>36</sup> *Id.* at 131.

<sup>37</sup> *See id.*

### *H. Last Ethical Remarks*

Technology brings with it untold possibilities for improving the current administration of justice. The fears of the total mechanization of the judicial decision-making process are exaggerated. "[I]mproving access to information about, and emanating from, the Courts, will vastly improve community confidence in the justice system, reduce costs for the legal profession and other users, and support improved knowledge and understanding of the Courts."<sup>38</sup>

The ethical questions created by computers and the more extensive use of technology in courtrooms, however, will increase as the use of technology expands. There are policy vacuums in the realm of technology and the law. As Professor James Moor anticipates, new applications of high-tech equipment will require these vacuums to be filled with good policies supported by reasonable justifications,<sup>39</sup> and it is in *fora* like Courtroom 21<sup>40</sup> that the strengths and weaknesses of the policies are discussed.

## II. PRACTICAL IMPLICATIONS

The incredible advances in technology imply that today an ample variety of "gadgets" could be used in the context of a courtroom. Yet, it takes very little to radically change an old-fashioned court into a modern and swift one. Judicial systems in Europe are presently trying to assess the technology needed to revolutionize the administration of justice and balance that against the costs. Not every case tried in court requires the same extent of technology, and, in some instances, the technology may even be invisible to the eye of the layperson.

IT can be used in a courtroom at three different levels: during pre-trial proceedings, during the trial itself, and during the final stage of the production of the judgment.<sup>41</sup> At the inception of the case, technology can be used at the time of filing a case. The mechanization that has been introduced in many legal systems allows the court staff to electronically control the calendar of the courts to quickly find an available date and courtroom for a particular case.

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<sup>38</sup> McKechnie, *supra* note 25, at 148.

<sup>39</sup> James H. Moor, *The future of computer ethics: You ain't seen nothin' yet!*, 3 ETHICS & INFO. TECH. 89, 89 (2001).

<sup>40</sup> Created in 1993, the Courtroom 21 Project is an ongoing international demonstration and experimental effort which seeks to determine how technology can best improve all components of the legal system. See Courtroom 21 Project, at <http://www.courtroom21.net> (last visited Feb. 21, 2004).

<sup>41</sup> See I.R. Scott, *Computers in the Official Referees' Court*, NEW L.J. 139, 259 (1989).

At trial, technology can serve the purpose of "storage and presentation of large quantities of information."<sup>42</sup> Such information can then easily be recalled during trial by each party or by the witnesses. In the course of the trial, the information stored can be presented as evidence. Technology provides the means to record and reassess such information prior to the rendering of a decision.<sup>43</sup> Hence, technology makes information easy to store, easy to retrieve and minimizes the time taken at trial.

Finally, the judgment itself can be made available to the public in an electronic format. This emphasizes the idea that the judgment is a public document since it becomes easily accessible to everyone, not simply to those in the business of the administration of justice.

#### *A. What Kind of Technology Are We Talking About?*

The European Member States are trying to move in a similar direction regarding the use of technology in the general legal system and in particular in courtrooms. A brief outline of the most common types of technology includes: more efficient (automated) court services, electronic filing, remote live link for witnesses, audio-video recording, and electronic legal databases of judgments, codes and other legal documents.

#### *B. Court Services*

At present, most European Member States are in the process of automating the system that supports the judiciary. Efforts in Austria, Italy, England, and Ireland serve as examples of this trend.

##### *1. Austria*

In Austria, the automation of the courts began in the early 1980s with the objective of speeding up the creation of a more modern service for individual citizens.<sup>44</sup> This modernizing system was gradually expanded to all types of legal actions, but it became very complicated and hugely difficult to maintain. Thus, the Redesign Project was created.<sup>45</sup> The Redesign Project, completed in 2002, aimed to create one consistent application for all forty types of legal actions.<sup>46</sup>

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<sup>42</sup> *Id.*

<sup>43</sup> Crowell, *supra* note 11.

<sup>44</sup> Report of Austria, *supra* note 23, at 2.

<sup>45</sup> *Id.* at 2.

<sup>46</sup> *Id.* at 3.

The Project can be summarized as follows:

Because of the size and complexity of the task, the system will be developed in 3 releases. Release 1 incorporates all common technical services, administration of courts, prosecution offices, departments and users and the automation of the probate court proceedings, which has been used as pilot.

Release 2 will implement automation for civil and criminal cases.

While Release 3 will implement enforcement, bankruptcy, family and appeal cases and all the rest of other court proceedings.<sup>47</sup>

Thus, the Austrian legal system is presently making strides to adopt technology into its proceedings.

## 2. Italy

In Italy, the Re.Ge. criminal case management system has been an important technological development:

The most important application, both for diffusion and history, is the Re.Ge. criminal case management system that comprises all the relevant information of the criminal proceeding:

- Name and address of the indicted
- Particulars of the *notitia criminis*
- Offence qualification
- Relevant judicial measures
- Result

The register automation is an integrated support system for the public prosecutor, the judge for preliminary investigation and the trial judge.<sup>48</sup>

Another information system has been developed in Italy that coordinates the country's anti-mafia efforts:

The second support information system in use at the moment in the criminal area is the information system for National and District

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<sup>47</sup> *Id.* at 3. Note that at the time the report was submitted Release 2 had just been initiated, while Release 3 has now been completed. Unfortunately, the scarcity of detail in English in this area makes it difficult to properly judge the development of Release 3. Nevertheless, according to the Austrian Federal Ministry of Justice, it is possible to state that currently Release 3 is completed and is successfully delivering the results expected.

<sup>48</sup> Davide Carnevali and Maria Cristina Di Cocco, Information Technology in the Italian Judicial System, Presentation at the European Seminar on Court Technology, at 11 (1st ed. Aug. 2000), available at [http://www.irsig.bo.cnr.it/jedi\\_events.htm](http://www.irsig.bo.cnr.it/jedi_events.htm).

Anti-mafia departments. . . .

The relevant information system (S.I.DNA/DDA) is based on a centralised database containing data and information on organised crime. The aim of such a system is to share information among all specialised public prosecutors' offices . . . .

. . . .

The information system functions are:

- Data integration of all criminal information systems (register, archives, office automation) . . . .
- Data exchange with other information systems (at the moment with 12 external databases); . . .
- Unified methodology and work tools to cope with the high mobility of involved personnel (magistrates and judiciary police).<sup>49</sup>

However, the main problem seems to be the lack of consistent updates due to the high level of secrecy that allows access only to very limited personnel.<sup>50</sup> There are numerous other projects under development<sup>51</sup> for improving the case management systems, but Italy still has no plans to unify the system completely as in Austria.

### 3. United Kingdom

The reform of the English Legal Services and Courts was initiated by the Labour Government with the publication of a White Paper in 1998 titled "Modernising Justice," presented to Parliament by the Lord High Chancellor by Command of Her Majesty in December 1998.<sup>52</sup> The principal aim of the White Paper was to implement "a radical programme of reform for the whole country. The justice system cannot be left out. We want a clearer, fairer, better system, that will make justice available to all the people."<sup>53</sup> The Government's aims were to "bring about a significant increase in access to justice," and to "obtain the best value for the taxpayers' money spent on legal services and the courts."<sup>54</sup> Of the many

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<sup>49</sup> *Id.* at 12.

<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at 16. The report also lists nine different case management systems under development. *Id.*

<sup>52</sup> See Lord High Chancellor, *Modernizing Justice: The Government's plan for reforming legal services and the courts* (1998) (White Paper presented to Parliament by command of Her Majesty), available at <http://www.dca.gov.uk/pubs/white.htm> (last visited Jan. 25, 2004).

<sup>53</sup> *Id.*

<sup>54</sup> *Id.* at 7.

existing obstacles, the White Paper identified in particular the difficulty and expensive nature of obtaining legal advice.<sup>55</sup> It described what would become the Legal Services Commission<sup>56</sup> which is "an executive non-departmental public body created under the Access to Justice Act 1999 to replace the Legal Aid Board."<sup>57</sup>

The Court Services in the United Kingdom have been very active in providing the technology to courts. They have worked hard to convince the Treasury of the crucial importance of investments in this field, achieving successful results. Among their many useful initiatives are the Court Service Information Kiosk<sup>58</sup> and the CJS Online<sup>59</sup> that aim to bring courts and citizens more closely together. Even though "[t]here is no access for the general public to court records relating to individual cases,"<sup>60</sup> the Court Services are planning to develop a pilot project called the Flexible Plea & Directions Hearings in Crown Courts that will allow e-filing by way of secure Internet access.<sup>61</sup>

Another very important initiative is XHIBIT, a pilot program consisting of a Web-based information system to distribute court lists and results electronically to all Criminal Justice Organizations.<sup>62</sup> Currently, however, XHIBIT is still limited to Essex courts and Crown Courts in Chelmsford, Basildon and Southend.<sup>63</sup>

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<sup>55</sup> *Id.* at 13.

<sup>56</sup> *Id.* at 15–17.

<sup>57</sup> Legal Services Commission, at <http://www.legalservices.gov.uk/> (last visited Feb. 21, 2004).

<sup>58</sup> The kiosk is based in a public library and is an information system accessed via the use of touchscreen technology. It contains electronic versions of civil forms & leaflets currently issued by courts — presented on-screen to the kiosk user. If necessary those forms and leaflets can be printed and taken away. Kiosk users unfamiliar with legal terminology can also search using an A–Z index facility. The kiosk will also play the Court Service's General Information audiotape that can be accompanied by onscreen text, and the "Jury" video for those selected for jury service at a nearby Crown Court. Information is also available at the touch of an on-screen button concerning the Court's Charter (describing service standards for court users), tribunals, the family jurisdiction, the High Court and appeals.

Richard Woolfson & Perry Timms, European Commission — Grotius Programme, European Seminar on Court Technology, National Report of the United Kingdom, at 4–5 (Oct. 2002), available at [http://www.irsig.bo.cnr.it/jedi\\_events.htm](http://www.irsig.bo.cnr.it/jedi_events.htm).

<sup>59</sup> *Id.* at 6. The CJS Online allows the public to take virtual tours of Crown Court centers. See CJS Online Web site, at <http://www.juror.cjsonline.org> (last visited Feb. 21 2004).

<sup>60</sup> Woolfson & Timms, *supra* note 58, at 7.

<sup>61</sup> Timms, *supra* note 19.

<sup>62</sup> *Id.*

<sup>63</sup> See Court Service, Daily Court Status, at <http://www.courtservice.gov.uk/xhibit/pilot1.htm> (last modified Jan. 29, 2004).

England is also making serious efforts to provide e-diaries and planners in civil courts.<sup>64</sup> Access is currently given to court staff and judges, even though it will probably be extended to the parties on the Web.<sup>65</sup>

#### 4. Republic of Ireland

In Ireland, the Courts Service has undergone a long process of modernization and automation. Currently, there are different projects that are being developed in both the civil and criminal systems. The Integrated Civil Case Management system is used to "track and trace civil proceedings across all Court jurisdictions together with added functionality to support the processing of family law proceedings and the work associated with a number of statutory offices within the aegis of the Courts Service."<sup>66</sup>

The Criminal Case Management System is divided in to two phases. The first phase is concentrated on the Road Traffic prosecutions in the District Courts of Dublin and Limerick, while the second one will be more largely developed.

The Criminal Case Management System as currently implemented, records details of all prosecutions initiated in the District Court, provides for the scheduling of cases, records details of all Court hearings and results associated with a case and provides for the production of Court documents and the processing associated with appeals. Caseload statistics and management reports are also available.<sup>67</sup>

Other types of technology infrastructures also exist in Ireland:

All Judges in Ireland have been provided with laptop computers which enable them to access a secure Judges Intranet. Judges through the Intranet have access to a number of Legal databases e.g. LexisNexis. . . . Judges have access to a number of bench books and other material specific to the Irish Judicial System. . . . Judges have access to all material in the Courtroom through the Intranet and have recently been provided with Internet mail.<sup>68</sup>

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<sup>64</sup> See Timms, *supra* note 19.

<sup>65</sup> *Id.*

<sup>66</sup> John Coyle, European Commission — Grotius Programme, European Seminar on Court Technology, National Report of Ireland, § 2.1 (Oct. 2002), *available at* [http://www.irsig.bo.cnr.it/jedi\\_events.htm](http://www.irsig.bo.cnr.it/jedi_events.htm).

<sup>67</sup> *Id.* § 3.1.

<sup>68</sup> *Id.* § 3.2.



The Legal Diary, also open to lawyers and other parties involved in the administration of justice, is a calendar containing all the scheduled hearings in electronic format that can be downloaded from the Court Service's Web page and is updated daily.<sup>69</sup>

### III. ONLINE ELECTRONIC DATABASES

The big American database providers, such as LexisNexis and WestLaw, are being used more often on the European continent. Contrary to what has taken place in the U.S., however, there is a strong movement of making such services free for all citizens. The supporting argument is that judgments are public documents that should be easily accessible at no cost to the public. The Court of Justice of the European Communities and the Court of First Instance encourage this position, by publishing all their judgments and related public notices on their newly re-designed and user-friendly Web page.<sup>70</sup> Naturally, this argument does not apply to legal literature, whose access should rightly be confined to paying databases unless the author wishes otherwise.

[The Internet] will change the way information workers, or those that work predominantly with and through information, will operate. It is important to understand that the practice of the law and the delivery of justice is principally and primarily an information activity. This is a critical issue, because one of the key determinants of the Internet and information revolution is that it will drastically affect the operations of information based industries.<sup>71</sup>

Some States, however, are still well behind the rest of Europe. In Italy, for instance, only a handful of decisions over the past three years of the Supreme Court of Cassation, the highest appellate court, are available for free online.<sup>72</sup> Contrary to many other countries that provide a translation in English, the page of the Italian Ministry of Justice is very difficult to navigate for non-Italian speakers.

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<sup>69</sup> Court Service, Legal Diary, at <http://www.courts.ie/betadiary.nsf/index?OpenPage> (last visited Feb. 22, 2004).

<sup>70</sup> The Court of Justice for the European Communities, *supra* note 34.

<sup>71</sup> Tony Sutherland, The Internet and Beyond: A New Order for Justice?, Presentation at the Australian Institute of Judicial Administration for Justice (Oct. 2000), available at <http://www.aija.org.au/tech2/presentations/tsutherland/>.

<sup>72</sup> The Electronic Documentation Centre of the Italian Court of Cassation is a powerful database that is still only available for free for judges, prosecutors and lawyers, the Constitutional bodies, and the public administration. See Ministero della Giustizia, at <http://www.giustizia.it/> (last visited Feb. 22, 2004).

## IV. SOME EXAMPLES OF INDIVIDUAL STATES

*A. Austria*

Austria began the automation of the legal system in the early 1980s with land registry and completed the REDESIGN project in 2002.<sup>73</sup> The goal of the REDESIGN project was to increase the speed of court and prosecution proceedings nationwide and to create one consistent application of automated judicial proceedings for all forty types of proceedings.<sup>74</sup> The New Austrian Court Automation System aims at developing some innovative functions, such as electronic legal communication and court publications over the Internet.

## 1. Electronic Legal Communication

The Austrian Government plans to achieve paperless communication of structured data among lawyers, banks and other governmental institutions. These communications are the legal equivalent to conventional filing of actions and motions. The documents sent to courts comprise monetary claims, requests for enforcement in civil matters and other miscellaneous documents to any Austrian court. Courts themselves can send electronic information on new case numbers, confirmation of approved payment orders, approved warrants of enforcement and other documents, such as summons.<sup>75</sup>

As of the year 2002, eighty-five percent of civil cases and sixty percent of civil enforcement actions went through the electronic filing process.<sup>76</sup> Once a filing is commenced by lawyers, banks or other governmental institutions, it is sent to a Clearing House,<sup>77</sup> then on to the Federal Computing Service,<sup>78</sup> and is then directed to the appropriate court. In 2001, the Austrian Electronic Legal Communication System was the recipient of the eGovernment-Label awarded by the European Commission.<sup>79</sup>

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<sup>73</sup> Schneider et al., *supra* note 23, at 4.

<sup>74</sup> *Id.* at 7. These include inheritance cases, court fees, prosecution and criminal proceedings at court, civil proceedings, enforcement of civil legal titles, family cases and all "minor" case types. *Id.*

<sup>75</sup> *Id.* at 10.

<sup>76</sup> *Id.*

<sup>77</sup> *Id.* at 11.

<sup>78</sup> The Federal Computing Service has also been training and developing personnel on the new techniques. *Id.* at 17.

<sup>79</sup> *Id.* at 12.

## 2. Court Publications

Austrian courts can now publish decrees on the Internet<sup>80</sup> that have full legal effect and completely replace paper-based publication.<sup>81</sup> This possibility has reduced the time associated with legal actions — it has decreased the costs for the state and other parties and has put Austrian courts ahead of many of their counterparts in Europe.

## 3. Electronic Databases

The Austrian Federal Government has developed the Legal Information System (LIS) operated by the Office of the Federal Chancellor. This database allows quick “searches of court decisions, predominantly within the framework of the documentation of court practice, but also to locate sources of the law and literature . . . . Important parts of the LIS — such as legislation — are already freely available to the public on the Internet ([www.ris.bka.gv.at](http://www.ris.bka.gv.at)).”<sup>82</sup>

The Austrian system has also created an Insolvency Database/Public Announcement (Edicts) Database. “As from [January 1, 2000,] insolvencies . . . are being publicized on the Internet exclusively and with legally binding effect. Every Internet user can have access to the latest data on the Internet ([www.edikte.justiz.gv.at](http://www.edikte.justiz.gv.at)).”<sup>83</sup>

## 4. Live Link

Austria is also in the process of beginning a new project, which includes:

the examination of remand prisoners within the regional high penal courts. There will be installed a videoconferencing system for each of these courts, that will give the judge the possibility to do the questioning within his office about an installed screen without the necessity of a direct (vis-a-vis) examination (legal change necessary).<sup>84</sup>

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<sup>80</sup> These vary from announcements in bankruptcy cases to actions on real property or on movable property.

<sup>81</sup> Schneider et al., *supra* note 23, at 15.

<sup>82</sup> Report of Austria, *supra* note 23, at 4.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.* at 10.

*B. Italy*

Italy has not invested for a long period of time in the use of technology in courtrooms. "There are not standardised systems for managing and presenting evidence during a trial (e.g. computer simulation, animation or multimedia presentations)."<sup>85</sup> Judges have a personal computer (PC) on their bench, which they may use for taking notes, but "[t]here are not PCs connected to the case management systems for online data input. Every computer based activity is performed after the hearing, obviously causing a backlog of work and time dilation."<sup>86</sup>

*1. Live Link*

When the need arises in criminal proceedings, Italian courts can rely on the use of live link for questioning vulnerable witnesses or defendants in prisons.

At the moment, the national system is composed of 136 protected remote stations, distributed in selected prisons, and of 157 courtroom stations. All stations are equipped with a video communication system, a telephone exchange for private conversations between lawyer and client, and a technical facility for assistance. The system is managed by the Prison Department and, through an outsourcing contract, to a private telecommunication company (Telecom Italia). . . .

The system can manage 30 trials and 15 stations simultaneously. It has been working for two years and during that period there have been 13.306 videoconferencing hearings.<sup>87</sup>

*2. Audio-Video Recording*

Currently there are three recording systems that may be used simultaneously in courts. The first system comprises two video recorders, microphones for all the parties, and a computer for the management of up to seven cameras.<sup>88</sup> The second is an audio system created with passage reproduction facilities.<sup>89</sup> The third system, which is connected to the first, is to transcribe the proceedings electronically.<sup>90</sup>

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<sup>85</sup> Carnevali & Di Cocco, *supra* note 48, at 18.

<sup>86</sup> *Id.* at 18.

<sup>87</sup> *Id.* at 21.

<sup>88</sup> *Id.* at 17.

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

These facilities are more commonly used in criminal trials because civil trials tend to be decided mainly on the basis of the written documents presented to the court.<sup>91</sup>

### 3. Electronic Databases

In Italy, the most powerful electronic database is the Electronic Documentation Centre of the Italian Court of Cassation. It offers access to forty-two databases containing over four million documents.<sup>92</sup> Currently, it is only freely available for judges, prosecutors and lawyers, the Constitutional bodies, and the public administration. "It is important to outline that the retrieval complexity discourages the online access, also for the experienced users. Therefore the administration has prepared CD ROM [sic] containing the Court of Cassation jurisprudence."<sup>93</sup>

#### *C. The United Kingdom: England and Wales*

Lord Justice Brooke has recently said, "[I]maginative, well-planned use of IT was now absolutely central to the efficient and economic delivery of legal services."<sup>94</sup> After a long period of apathy from the private practice and the Government, the Treasury has allocated £300 million (more than \$523 million) to be spent on the modernization of courts in the next three years, of which approximately £200 million will go to the IT development in Crown Courts, approximately £75 million to the e-enablement of the civil and family courts and another £10 million for other initiatives.<sup>95</sup> This represents the largest investment ever in IT for English courts.<sup>96</sup>

#### 1. E-Justice

Civil proceedings can be issued electronically only if under the jurisdiction of the County Court Bulk Center or Moneyclaim Online.<sup>97</sup> The Bulk Center consists of:

- The Claims Production Centre, which issues half of all county court "specified amount" claims. . . . After processing, the case data is sent electronically to the court(s) selected by the claimant.

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<sup>91</sup> *Id.* at 17–18.

<sup>92</sup> Carnevali & Di Cocco, *supra* note 48, at 13.

<sup>93</sup> *Id.*

<sup>94</sup> Brooke, *supra* note 1.

<sup>95</sup> *Id.*

<sup>96</sup> Timms, *supra* note 19.

<sup>97</sup> See *supra* notes 26–29 and accompanying text.

Electronic transfer between the Bulk Centre and solicitors' firms, finance houses, banks, water companies and other claimants went live in August 2000 following a successful pilot. Electronic transfer allows requests for claims for money, judgments and warrants to be sent electronically to the Bulk Centre. . . .

- The County Court Bulk Center, which deals with most Claim Production Center cases. Where a hearing is required, the claim is transferred to the defendant's local court. Judgment requests and requests to issue warrants of execution are received in computer-readable form;
- Centralized Attachment of Earnings Payments, which monitors and processes payments on all single attachment of earnings orders. There are around 150,000 cases on the system. On average, CAPS receives 12,000 payments a week;
- Parking Enforcement Center, which receives an average of 10,000 weekly registrations from local authorities.<sup>98</sup>

Lord Justice Brooke anticipated the recourse to e-filing in criminal proceedings as well, although the emphasis is currently on civil litigation.<sup>99</sup>

## 2. Pilot Programs

There are a series of very interesting pilot programs that are being arranged across the country. For instance, the Electronic Presentation of Evidence (EPE) is much praised by Lord Justice Brooke, as it saves time and facilitates the recall of evidence at trial.<sup>100</sup> It is more likely to be seen in criminal courts than in civil courts.<sup>101</sup>

Despite the huge investments undertaken by the Treasury, very little has been set aside for digital audio recording (DAR). Lord Justice Brooke expressed his disappointment at the current lack of funds for DAR; yet his view remains that DAR

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<sup>98</sup> Woolfson & Timms, *supra* note 58, at 8–9.

<sup>99</sup> Brooke, *supra* note 1. However, Lord Justice Brooke also stresses criminal courts are also being invested with technology under the LINK project that deals with the installation of modern IT in Crown Courts. It will take three years and will cost £160 million (about \$280 million) which is just a part of the wider £1.1 billion (about \$1.9 billion) invested by the Treasury. Lord Justice Brooke, *The use of technology in the Courts* (May 28, 2003), available at <http://www.dca.gov.uk/judicial/speeches/speechfr.htm> [hereinafter *The use of technology in the Courts*].

<sup>100</sup> *The use of technology in the Courts*, *supra* note 99.

<sup>101</sup> *Id.*

will be part of the court of the future.<sup>102</sup> In fact, it is a cheap and efficient type of technology with enormous advantages in terms of simultaneous court transcripts, quick searches through the transcripts, and prevention of errors in sentencing and reporting.<sup>103</sup>

### 3. Live Link

Also in the United Kingdom, the recourse to remote live witnesses' testimony is increasing. Live link is principally used for witnesses from detention centers, for children, for seriously disabled witnesses, for witnesses who reside abroad (in criminal fraud), and for vulnerable witnesses.<sup>104</sup> Nevertheless, some judges have complained that the remoteness of evidence may result in lack of immediacy and that juries will acquit instead of convicting.<sup>105</sup> The recourse to video-conferencing facilities is currently being considered in civil and family courts.<sup>106</sup>

### 4. Electronic Databases

In the United Kingdom, the most discussed electronic database is the British and Irish Legal Information Institute (BAILII). BAILII provides access to the most comprehensive free and up-to-date collection of British and Irish primary legal materials. The system contains around one gigabyte of legal materials and well over 100,000 searchable documents with about 2.5 million hypertext links. BAILII has been developed through cooperation between the Australasian Legal Information Institute (AustLII) and organizations in the United Kingdom and Ireland (in particular, the UK Society for Computers and Law and University College, Cork).<sup>107</sup>

The databases on BAILII comprise primary legal material from Britain and Ireland. "Most databases are taken from published and unpublished CD-ROMs or are provided directly by relevant courts and government departments. All of the data has been converted into a consistent format and a generalized set of search and hypertext facilities has been added."<sup>108</sup>

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<sup>102</sup> *Id.*

<sup>103</sup> *Id.*

<sup>104</sup> *See, e.g.,* The Protection of Children and Vulnerable Adults and Care Standards Tribunal Regulations, 2002, § 17(5)(a) (Eng.) allow testimony to be given by video link.

<sup>105</sup> *See* The use of technology in the Courts, *supra* note 99.

<sup>106</sup> *Id.*

<sup>107</sup> Woolfson & Timms, *supra* note 58, at 5.

<sup>108</sup> *Id.*

### *D. Republic of Ireland*

The main feature of the Irish system is its heavy commitment to efficiency and technology. The Courts Service has worked hard to provide a user-friendly Web page that serves not only the judiciary, but also the public. Court forms and the calendar of hearings are available online free of charge.

#### 1. Electronic Filing

"The Courts Service are [sic] committed to the development of electronic filing systems and the use of digital signature technology as part of its overall strategic objective of delivering electronic services to the citizen and those organizations and individuals who regularly transact business with the Courts."<sup>109</sup> Concurrently, the Court Service is also working towards an electronic integration of the Criminal Justice System. This is only part of the more encompassing and ambitious project of creating a government portal that can easily and inexpensively provide e-services to citizens, regardless of their physical location.

#### 2. Live Link

The Criminal Evidence Act of 1992 protects young and vulnerable witnesses<sup>110</sup> from the stress of the courtroom by giving them the opportunity to testify at trial by way of remote connection.<sup>111</sup> "The monitors for the Judge, Prosecutor and defense counsel are each fitted with a camera which displays on the witnesses monitor depending on who is addressing the witness. The trial Judge controls the system and can deactivate the system at any stage in the proceedings . . ."<sup>112</sup> Most of the live link appearances take place from a remote and safe room by way of closed-circuit television, but newer cases have allowed for testimony by witnesses out of the jurisdiction via an ISDN link.<sup>113</sup>

### V. CONCLUSIONS

It is safe to conclude that technology is quickly infiltrating European courtrooms. Although the European States are in different stages of the IT revolution,<sup>114</sup> the movement towards the assimilation of technology is inexorable.

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<sup>109</sup> Coyle, *supra* note 66, at § 3.4.

<sup>110</sup> Generally, mentally impaired adults.

<sup>111</sup> Criminal Evidence Act, 1992, § 13 (Ir.).

<sup>112</sup> Coyle, *supra* note 66, at § 3.4.

<sup>113</sup> *Id.*

<sup>114</sup> See *supra* note 2 and accompanying text.



The advantages are clear and uncontested: quick, inexpensive trials that may no longer require the concurrent presence of all the parties in the same physical location. Access to justice is also well served by technology because it allows more dialogue between the citizens and public institutions. Importantly, technology makes courts more aware of the reality that surrounds them.

There remain complex problems, however, particularly the costs associated with technological enhancement. IT has become less expensive, but it still requires enormous funding from the state. Modernization takes time and training. Some commentators suggest a system whereby state funding is supported by contributions from the private parties creating a "pay as you go" system or a consumer (i.e., client or attorney) fee.<sup>115</sup> On the whole, however, the European tendency has been to leave the initial funding to the central government without excluding a potential request for contributions from the private sector at a later stage.<sup>116</sup>

As the study on Austria, Italy, the United Kingdom and the Republic of Ireland shows, the most widely expanding type of technology remains the Internet. Internet-accessible electronic databases, electronic judgments, and even court calendars signal the beginning of a new era that will render the administration of justice a less formal, but more effective, process.

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<sup>115</sup> See Crowell, *supra* note 11, at para. 16–17.

<sup>116</sup> See Brooke, *supra* note 1.