Dory Reiling

Information Technology in the Courts in Europe

In 2011, the Consultative Council of European Judges (CCJE) produced its Opinion 14, on justice and information technologies (IT). It was my privilege to act as the supporting expert. This article is an updated version of the background work for Opinion 14. It includes an evidence-based analysis of the state of IT in courts in Europe, some insights into the opportunities and risks relating to IT in courts, and a critical evaluation of the way IT is changing courts and judiciaries.

Category: Articles
Region: Netherlands
Field of law: Information Technology

Contents

1. Introduction

[Rz 1] At the start of the new millennium, Martin Schneider and I were both members of the Justice and IT subcommission of the Legal Commission of the Council of Europe. The subcommission met regularly in Strasbourg, and it was an effective platform for those in charge of information technology (IT) in the various court systems in Europe. The subcommission lost its funding two years later, to make way for the European Commission for the Efficiency of Justice (CEPEJ). I look back with pleasure on the rich exchanges we had in this important platform. Martin Schneider was working on the Austrian e-filing system for lawyers. For most of us, that was way too advanced. CEPEJ went on to collect data on the effectiveness of courts. From those data, we know that more than ten years later, IT in courts of Europe has advanced steadily. Austria is still ahead of most of us, as we shall see in the overview below.

2. Court IT, Opinion 14 and Article 6 of the European Convention on Human Rights

[Rz 2] In 2011, the Consultative Council of European Judges (CCJE) produced its Opinion 14, on justice and information technologies (IT).[1] It was my privilege to act as the supporting expert. This article looks back on that experience. This version is updated with the latest CEPEJ data, those of 2012.

---

[1] http://www.coe.int/t/dghl/cooperation/ccje/textes/Avis_en.asp; All websites were last visited on October 6, 2013.

[Rz 3] First of all, it is important to note that the CCJE welcomes IT as a means to improve the administration of justice, for its contribution to the improvement of access to justice, case-management and the evaluation of the justice system and for its central role in providing information to judges, lawyers and other stakeholders in the justice system as well as to the public and the media. The Opinion's main normative framework is Article 6 of the European Convention of Human Rights (ECHR). This article provides for access to courts, impartiality and independence of the judge, fairness and reasonable duration of proceedings to everyone. The normative framework also includes earlier CCJE Opinions and the Magna Charta of Judges, adopted in November 2010.[2]

3.   How far have the courts in Europe come with IT?

[Rz 4] Establishing what IT courts in Europe actually use with a certain degree of accuracy is very difficult. In my experience, accurate information is hard to come by, even on the national level. The most accessible sources are the surveys done by the Council of Europe. The CEPEJ evaluation surveys and the CCJE survey preparing Opinion 14 provide an impression of how far the courts in Europe have come with their use of IT in the last ten years.[3] CEPEJ, for the purpose of its evaluation reports, has categorized IT according to the role of the technology in the court process:

[Rz 5] Direct assistance of judges and court clerks. This category includes most office technology, document production and calendaring as well as email and jurisprudence databases. It also includes technologies supporting the work in the courtroom.

[Rz 6] Registration and management of cases encompasses case registration, case and court management systems and systems for financial management.

[Rz 7] Electronic communication and information exchange, communication technology to transmit information within the organisation and to parties and the general public.

[Rz 8] CEPEJ's methodology does not include technologies such as instant messaging, blogs, wikis, and intranet web sites.[4]

[Rz 9] In the 2012 report, CEPEJ has classified the member states of the Council of Europe into four groups with regard to the level of use of information technology in their courts.

- In the highest scoring group, technology for direct support and court management is in place in all courts, and interaction technology is used to communicate externally. There are 9 countries in this group: Austria, Czech Republic, Estonia, Finland, Lithuania, Malta, Portugal, Slovenia and UK-Scotland.
- The second group has mostly implemented direct support and court management technology, but its use of external communication technology is still limited. There are 16 countries in this group: Albania, Azerbaijan, Bosnia and Herzegovina, Croatia, France, Germany, Hungary, Ireland, Italy, Latvia, Luxembourg, Netherlands, Romania, Spain, Turkey, and UK-England and Wales.

---

[2]   Magna Charta of Judges, adopted by CCJE in November 2010, available on the CCJE website at www.coe.int/ccje. The spelling Charta is original.

[3]   The survey methodologies do not enable drawing inferences with great precision.

[4]   CEPEJ 2006, 2008, 2010, 2012, www.coe.int/cepej.

- The third group includes 17 member states: Armenia, Belgium, Bulgaria, Denmark, Georgia, Iceland, Monaco, Montenegro, Norway, Poland, Russian Federation, Serbia, Slovakia, Sweden, Switzerland, The FyroMacedonia and UK-Northern Ireland.
- The last group includes Andorra, Cyprus, Greece, Moldova, San Marino and Ukraine.

4.   The role of IT in administering justice

[Rz 10] The next part of this article discusses the role of IT in various areas of the administration of justice: (1) with regard to access to justice, (2) in court procedures, and (3) with regard to judicial independence and governance. For each topic, it first sets out the standards laid down in Article 6 of the ECHR and CCJE documents. Next, it analyses to what extent courts have implemented IT. This analysis is based on the CCJE and CEPEJ surveys.

5.   Access to justice

[Rz 11] Access to justice is a very general concept that is relevant to judges and courts in different ways. It includes access to courts as laid down in Article 6 ECHR, but also access to legal information.[5]

[Rz 12] In Opinion 14, the CCJE states that full, accurate and up to date information about procedure is a fundamental aspect of the guarantee of access to justice identified in Article 6 of the Convention (ECHR). This should generally include details or requirements necessary to invoke jurisdiction, and information on the operation of the judicial system. Case law, at least landmark decisions, should be made available on in the internet free of charge, in an easily accessible form, and taking account of personal data protection. CCJE welcomes the use of international case-law identifiers like the European Union Case Law Identifier (ECLI) to improve access to foreign case law.[6]

5.1.   Opportunities

[Rz 13] Evidently, in the context of access to justice, communication technology is the first opportunity that comes to mind. In Opinion 6, the CCJE states that technology should be developed for obtaining documents to start a case, get in touch with the court and obtain information on cases.

[Rz 14] Communication technology offers opportunities for such increasingly complex levels of interaction. A much used benchmark was developed by the European Union (EU) for electronic interaction between citizens and government services:

---

[5]   REILING 2009 part 4.

[6]   A new case identification/neutral citation system, a result of the recent Council of the European Union decision, designed to facilitate cross-border access to national case law (whether from courts or tribunals). Council conclusions inviting the introduction of the European Case Law Identifier (ECLI) and a minimum set of uniform metadata for case law Official Journal C 127, 29/04/2011 P. 0001 – 0007.

Stage 1: Information online about public services Stage 2: one-way interaction: downloading of forms Stage 3: two-way interaction: processing of forms (including authentication), e-filing Stage 4: Transaction: case handling, decision and delivery (payment).

5.2.   Access to legal information

[Rz 15] Access to legal information is also a very broad concept that includes access to information of a general nature, and/or to help with preventing or resolving problems that could potentially come before a judge, as well as information specifically on access to courts. Courts and judges have a role in ensuring access to legal information. The Internet can improve access to justice and promote transparency. The idea of on line legal information to aid informal problem solving was advocated by Richard Susskind in the 1990s. Accessible information can lead to out-of-court resolution of problems and disputes[7].

5.3.   Access to courts

[Rz 16] Access to courts is a service to citizens that can improve the individual's chance of a just resolution of a legal problem. When courts publish their own decisions directly for the public, this increases their role as upholders of legal norms and standards, what is known as their shadow function: the wider normative authority of a judicial decision beyond its significance for the parties in the case.

[Rz 17] According to the CCJE survey, courts and court systems increasingly have their own web sites. Less than half of those who responded say all or most courts have their own web sites. Some have portals, a few say they have one site for all courts; a few others have sites only for the Supreme Court. The websites provide general information on the judiciary, the court, its organisation, information for court users and for the media, forms to submit to the courts, and case law.

Facility in all courts	2004	2006	2008	2010
Electronic web forms	13	11	15	21
Special web sites	18	14	20	40
Other electronic communication	12	15	16	21
Source: CEPEJ 2006, p. 69, 2008 p. 86, 2010 p. 93, 2012 p. 111				

Table 1: Electronic communication in courts in Europe

[Rz 18] The CEPEJ surveys did not ask about web sites in general, but they did inquire about the use of special websites, web forms and other forms of electronic communication. From the results, what emerges is that the use of special websites is increasing. In 2004, nearly half reported they used special websites in more than half or all of the courts. In 2010, 40 responded positively.

---

7   REILING 2010.

[Rz 19] What does emerge from the CEPEJ surveys is the development towards stage 2: downloadable forms. In 2004, almost a third reported having electronic web forms. In 2010 it had gone up to nearly half. The same number reported other forms of electronic communication.

[Rz 20] Increasingly, courts also have electronic collections of jurisprudence.

Facility in all courts	2004	2006	2008	2010
Electronic database of jurisprudence	33	33	41	42
Source: CEPEJ 2006, p. 69, 2008 p. 86, 2010 p. 93, 2012 p. 111				

Table 2: Electronic jurisprudence databases in courts in Europe

[Rz 21] These databases may be collections for the use of single courts, for the court system as a whole, or open to the general public. Where courts start to publish their own decisions, the market for legal information changes fundamentally. Traditionally, case law and jurisprudence are provided to publishers by the producers, judiciaries, lawyers or scholars. The publishers then provide them to the consumers, mainly the judiciaries, legal practitioners and educational institutions.
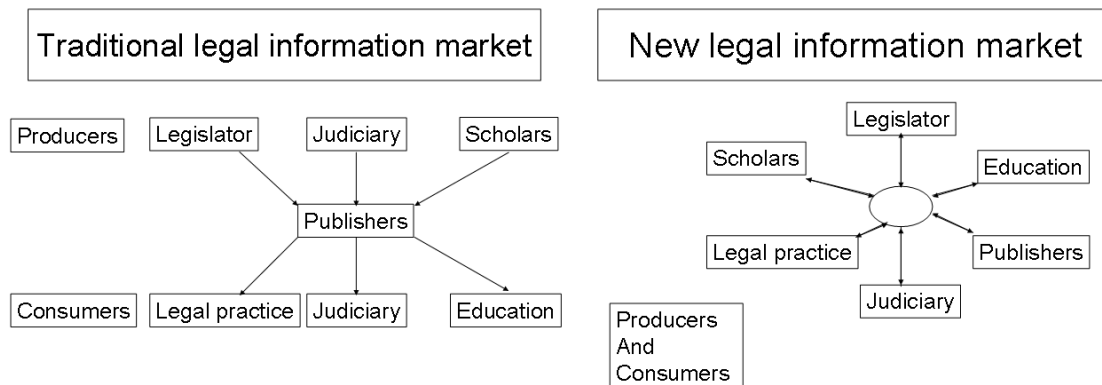
[Rz 22] When the producers start to do their own publishing, the role of the traditional publishers becomes less central. Participants in the legal information market all play both roles as producers and consumers.[8]

5.4.   E-filing

[Rz 23] Electronic filing of court cases has become more prominent in the last few years. Roughly, two models can be distinguished. One is to open the regular court procedure up to electronic filing. This is what Austria did very early on: it opened up its system to electronic filing into the regular court system for a limited group of professionals in 1990. E-filing, as one-way communication, is only stage 2 in the EU Benchmark. In stage 3, there is two-way communication. The other model is to start electronic filing in new procedures dedicated to a specific purpose. The UK-England

---

8   I thank my colleague MARC VAN OPIJNEN for this chart.

and Wales followed this model in Money Claim On Line (MCOL). MCOL and its later relation Possession Claim On Line (PCOL) both support full electronic transactions. This makes them stage 4 processes in the EU Benchmark. They are both accessible for anyone who lives in England or Wales.

[Rz 24] From the CCJE survey, we can see that electronic filing, where legally possible, is still experimental and rare. Legislation enabling e-filing is in force in less than half of the respondents, in 2 it is not yet in force, in 1 it is incomplete, and a large minority say there is no legislation on electronic filing. Almost half say they have no e-filing, less than one third say they have electronic filing, the same number say they have some. The requirements for electronic filing are different: 2 members require an electronic signature, 5 members use a downloadable form and 6 members require a qualified electronic signature. However, it appears that e-filing is on the rise. In 2010, 13 member states, including Austria, reported to CEPEJ that they enable electronic submission of claims in all courts.[9]

[Rz 25] In summary, at present, innovation in access to justice in courts in Europe is mostly in stage 1 (information service) and 2 (web forms) external communication with the users of the courts. E-filing is on the rise.

6. IT in the court procedure

[Rz 26] Right to a fair hearing within a reasonable delay is an essential citizens» right. A fair hearing includes the right to an adversarial hearing before a judge, production of original evidence, having witnesses or experts heart and to present material that is useful for the case. Information processing is central to the judicial procedure. According to European Court of Human Rights case law, a hearing by videoconference should be in conformity with article 6, which includes the possibility of making a statement to the court and of adequate legal representation, and where necessary, provided for by law[10]. CCJE recognizes that IT offers opportunities, but it also stresses that IT should not diminish the procedural safeguards of a fair hearing. The judge must retain, at all times, the power to order the appearance of the parties, to require the production of documents in their original form and the hearing of witnesses. The aids to judicial decision should not be a constraint; they must be designed and seen as an ancillary aid to judicial decision-making.

6.1. Implementation

[Rz 27] IT has now become a pervasive information tool, as opposed to the administrative tool it once was. Courts operate with distinct processes: case disposition, managing cases and courts, knowledge sharing, and court hearings. They all process information in different ways, and therefore require distinct information technologies.

---

[9]   CEPEJ 2012 p. 111.

[10]   ECHR October 5 2006, Marcello Viola c. Italy, no. 45106/04 ; ECHR October 27 2007, Asciutto c. Italy, no. 35795/02.

6.2.   Office technology

[Rz 28] Judges increasingly write their own decisions on computers, according to the CCJE survey results. Courts occasionally communicate electronically with parties and/or lawyers, mostly on an informal basis. All courts still keep and archive paper files. Electronic files and electronic signatures are mostly still experimental.

[Rz 29] In hearings, electronic files and equipment to project documents, audio and video, also to record hearings are used only occasionally. Some courts record hearings in audio, a few make use of video recording. Some courts use videoconferencing to hear witnesses, parties and/or experts.

[Rz 30] The CEPEJ surveys show how word processing has become a pervasive tool in the back office of the courts. Email and internet connections are increasingly becoming a normal tool on the judge's desk.

Facility in all courts	2004	2006	2008	2010
Word processing	40	42	45	45
Email	31	33	41	45
Internet connections	33	33	40	45
electronic jurisprudence databases	33	33	41	42
electronic files	20	18	21	25
Source: CEPEJ 2006, p. 69, 2008 p. 86, 2010 p. 93, 2012 p. 111				

Table 3: Technology on the judge's desk in courts in Europe

[Rz 31] With regard to e-files, in 2004 almost half replied they used electronic files in all courts. In 2006, the number had gone down to 18, only to go back up to 25 in 2010. According to the CCJE survey, use of e-files in courts is rare, and experimental at best, except in Austria. All courts still use paper files. A few use electronic files, a few more experiment with electronic files or use them occasionally.

6.3.   Case law or jurisprudence databases

[Rz 32] Jurisprudence databases deserve some special attention because the functionality and capabilities behind them can be very diverse.[11] A jurisprudence collection is a repository of interesting or innovative decisions for the purpose of developing the law and its application for lawyers. Decisions are supplied on an ad hoc basis. Not every decision goes into the repository. Some infrastructure is needed, but it can be similar to producing the paper version. The purpose of a jurisprudence collection is to present innovative or landmark decisions to aid the development of the rule of law. The process involved can be separate from the regular court process of case disposition. A very different matter is a collection of all decisions in an electronic archive. All decisions need to go in. There is a process in place to ensure they do. This process is part of

---

[11]   REILING 2009 p. 52–53.

the regular business process of the court. In both models, decisions can be published or not. The purpose of publication is also public scrutiny and transparency of the courts.

[Rz 33] According to the CEPEJ surveys, a large majority had jurisprudence databases in all courts. In 2008 nearly all did. In 2010, only 6 member countries reported they did not have jurisprudence databases in all courts. We do not know if these collections are open to the general public.

6.4. Knowledge management

[Rz 34] Electronic jurisprudence databases are used widely, and increasingly. If the courts in member states have electronic access to sources of legal information, what types of information, and what sources do they have access to? The external sources can be state run or private, such as publishers. In the CCJE survey, less than half use both state and private sources, state sources are used in almost half, a few more use private sources. Below is the breakdown according to type of information and source.

content	state sourced only	privately sourced only	both
national legislation	18	7	8
European legislation	8	2	8
national case law	9	5	9
international case law	4	1	4
law eeview articles	4	–	4
Source: CCJE survey on the use of IT in courts			

Table 4: Sources of legal information databases in courts in Europe

[Rz 35] More than half of the respondents have access to state-sourced national legislation, less than half get national legislation from private sources. European legislation, where available, is mostly state-sourced, and so is national case law. Access to international case law and law review articles, from different sources, is much less common.

6.5. Court management and administration

[Rz 36] The CEPEJ surveys include three database systems for managing courts: Case registration systems, court/case management systems, and financial management systems. In 2004, just over half the member states had case registration systems in all courts. In 2008, that had gone up to two-thirds.

[Rz 37] The increase in case registration systems is important, since they facilitate control over the process of case disposition.[12] Case registration systems in particular can improve case and case load management, which helps to reduce the time a case is pending.

[Rz 38] Court and case management systems were available in all courts in half the member states in 2004, and in 2008 the number had increased to a little over half. It is remarkable to see how court

---

12   REILING 2009 part 3.

and case management systems are lagging so far behind, even behind the financial management systems.

Facility in all courts	2004	2006	2008	2010
Case registration	25	26	34	40
Court/case management	17	20	25	27
Financial management	23	26	31	32
Source: CEPEJ 2006, p. 69, 2008 p. 86, 2010 p. 93, 2012 p. 111				

Table 5: Court management technology in courts in Europe XE «Function Information Technology in Courts in Europe»

[Rz 39] The CCJE survey tells us that almost half of the respondents use data in case registration systems for monitoring the length of proceedings, a slightly smaller number do not. A majority use data on each judge for statistical purposes only, not for the purpose of evaluating individual judges» performance.

6.6.   Tools for the hearing

[Rz 40] Tools to support court hearings include electronic case files, equipment to project documents and images, audio and video, tools to record hearings and videoconferencing. CEPEJ reports that the use of videoconferencing is increasing. From the CCJE survey, we can see that they are used only occasionally. In hearings, electronic files and equipment to project documents, audio and video, are used only occasionally. Some courts record hearings in audio, only a few make use of video recording. Some courts use videoconferencing to hear witnesses, parties and/or experts.

7.   IT-governance and judicial independence

[Rz 41] Judicial Impartiality, and the independence which should safeguard it, are necessary for resolving citizens» legal problems in a fair manner. Judicial governance needs to serve the goals of impartiality, independence, fair procedure and reasonable delay. Opinion 14 states that, in order to use the opportunities IT has to offer effectively, judges and courts may need to make major changes in their approach to case management, transparency, governance and their information relations with their environment.

[Rz 42] Across Europe, the issue of judicial independence is debated in different ways, depending on the national context. In some countries, independence stands first of all for the freedom and discretion of individual judges. In other countries, the independence debate is framed more in terms of organising judicial impartiality.[13]

---

13   Reiling 2009 part 5.

[Rz 43] The way courts and judges work should, in the light of the norm in Article 6, be geared towards safeguarding independence and impartiality. When IT is introduced, the way courts work changes. This may entail changes in the way independence and impartiality are safeguarded in the daily work practices of the courts. Therefore, the impact of IT is relevant for independence and impartiality on different levels: the level of the judiciary as a whole, that of the court organisation, and the level of the daily work process.

[Rz 44] The distribution of responsibilities between the legislative, executive and judicial powers as regards the operation of justice is arranged differently across the European states or entities.[14] In a majority of states, the Ministry of Justice is responsible for the management of the overall budget for the courts. This responsibility may, in some cases, be partly delegated to judicial authorities, such as the Council for the Judiciary or the Supreme Court. With respect to the management of courts, it is first of all the court president, or a court (administrative) director who is responsible for the management of the financial resources at the court level.

[Rz 45] Decisions about implementing IT for the entire court system are usually taken at the national level. Decisions about developing and implementing IT in court systems are taken by different authorities, depending on the situation. Across the member states, general and IT governance structures differ. According to the CCJE survey, decisions about IT are taken in almost half the countries by the Judicial Council or the national Court Administration, in less than half by the Ministry of Justice, and in a few cases by the Supreme Court. Judges participate in the IT decision making in less than half of the member states.

[Rz 46] CCJE recognizes that IT-enabled access to information can contribute to a greater autonomy of judges in performing their tasks, and that IT can be an important tool for strengthening transparency and objectivity in distributing cases and fostering case management. Information-based management is an opportunity for developing institutional independence. Data from IT systems can be used in evaluating judges, but not as the sole basis for evaluating an individual judge. Opinion 14 also identified a considerable area of risks with regard to IT implementation limiting judicial freedom to decide and infringing on the judicial process. IT should be used to enhance the independence of judges in every stage of the procedure and not to jeopardize it. IT should not interfere with the powers of the judge and jeopardise the fundamental principles enshrined in the Convention. IT has to be adapted to the needs of judges and other users; it should never infringe guarantees and procedural rights such as that of a fair hearing before a judge. Judges need to be involved in decisions that have consequences in those areas.

[Rz 47] Managing and developing IT presents a challenge for any organisation. For judiciaries, it presents a new and demanding challenge for their governance structures. IT governance should be within the competence of the Council for the judiciary or other equivalent independent body. Regardless of which body is in charge of IT governance, there is the need to ensure that judges are actively involved in decision making on IT in a broad sense. Funding for IT should be based on its contribution to improve court performance, the quality of justice and the level of service to the citizens.

---

14   CEPEJ 2010 p. 291, www.coe.int/cepej.

8.   Critical analysis

[Rz 48] This next section discusses some of the ways in which IT is changing and innovating the administration of justice. It first analyzes the CCJE Opinion. This analysis, brief as it may be, points to some of the highlights of what is prominent in the Opinion, what its main concerns are, and what, in my view, is missing from it. The final paragraph will look ahead, to the future of court innovation.

8.1.   What is prominent?

[Rz 49] Generally, CCJE is enthusiastic about knowledge management systems. An open question is, what courts do to share their own knowledge. Do courts make their own collections of their own case law? Do they use information technology to share knowledge, for instance in a wiki-like application. Do they publish case law themselves? From the discussion in the section on access to justice, we can see how the market for legal services changes when judiciaries become producers, not just consumers of legal information.

[Rz 50] Access to courts using electronic filing and access to case records are regarded as an improved service to the citizen.

8.2.   What are the concerns?

[Rz 51] The CCJE's most pressing concern is the risk IT implementation poses to judicial freedom to determine procedures and to dispose cases. Apparently, IT directly affecting the judicial process evidently causes anxiety, and it may even generate resistance. This may well have to do with the circumstance that, in more than half of the CCJE member states, judges are not involved in decisions about developing IT. Those decisions are, in the majority of cases, taken by governing bodies such as the Judicial Council, the Court Administration, the Ministry of Justice or the Supreme Court, without involving the judges.

[Rz 52] In my earlier work, I concluded that the most salient deficiency in developing court IT is that of strategy: a strategic vision of the processes involved in administering justice, shaped by knowledge and understanding of the role of information in courts. In order for IT innovations in the court processes to actually improve court processes and not detract from them, the judiciary's leadership and the IT function both need to understand how information works in the courts and the implications for IT. From the above, I think the conclusion is justified that judiciaries need to have sufficient control over their own IT, which may also require changes in the governance structure. In some cases, changes in the governance structure may be needed to support strategy and policy formation and to support prioritizing funding and budgeting in accordance with the policies.[15]

---

[15]   REILING 2009 part 2.

8.3. Other issues

[Rz 53] IT is constantly evolving and changing. Therefore, any discussion of IT in courts is going to miss the latest developments. In this instance, that means social media, wiki technology and mobile computing. In courts in Europe, IT tools for the courtroom are an undervalued topic. This is particularly true in comparison to common law systems like the U.S. where IT has been in use for much longer, and where the immediacy of trials have placed more emphasis on what goes on in the courtroom.

[Rz 54] In my opinion, the judiciaries of Europe could benefit from more cooperation and exchanges between member countries with regard to IT. Court systems can learn from each other's experience with IT, precisely because IT is an evolving phenomenon. The results of experimentation are important for innovation. I have long advocated institutionalizing experimentation which can translate the needs of administering justice into IT applications. For example: the requirements for electronic filing are so different, one wonders whether an exchange of experiences on the requirements for e-filing might help its introduction.

9. In conclusion

[Rz 55] In the past ten years, courts in Europe have come to use IT more extensively, and in different ways. IT and its introduction in courts in Europe have affected the way the courts administer justice. These impacts may entail both risks and opportunities. Tasks between judges and clerks have changed in some countries. Judges» access to national and international case law databases and other legal information has improved. More IT-savvy countries experiment with increased electronic communication with court users, in web forms and e-filing. Increased access to information, precision, and transparency of the judicial process has increased public scrutiny of the judiciary. Where courts publish their own case-law and decisions on line, the role of courts as setters of standards, their shadow function, has increased.

[Rz 56] In order for IT to become a strategic tool to improve court performance, judiciaries can learn from each other's experience. The governance of IT is an important issue that may need more attention in some countries, taking into account that judicial independence warrants judges» control over their own IT. Judiciaries need to understand how they use information in their processes, and they need to develop strategies for putting IT to use to improve the quality of their services to the citizens.

10. References

CCJE Opinion 14, Consultative Council of European Judges, Justice and Information Technologies, Opinion 14, on www.coe.int/ccje.

CEPEJ 2006. European Commission for the Efficiency of Justice, European Judicial Systems Edition 2006 (2004 data). www.coe.int/cepej.

CEPEJ 2008. European Commission for the Efficiency of Justice, European Judicial Systems Edition 2008 (2006 data). www.coe.int/cepej.

CEPEJ 2010. European Commission for the Efficiency of Justice, European Judicial Systems Edition 2010 (2008 data). www.coe.int/cepej.

EUROPEAN UNION. Benchmarking e-government projects.

REILING 2006. «Doing justice with information technology.» Information & Communications Technology Law 15 (2006): 189–200.

REILING 2009. Technology for Justice, How Information Technology can Support Judicial Reform, Law, Governance and Technology Series, Leiden University Press, Leiden, 2009. free e-book download on www.doryreiling.com.

REILING 2010. IT and the Access to Justice Crisis, Voxpopulii, blog for the Cornell University Law School Legal Information Institute, August 1, 2010. http://blog.law.cornell.edu/voxpop/2010/08/01/it-and-the-access-to-justice-crisis/.

REILING 2011. Understanding IT for Dispute Resolution, International Journal for Court Administration, April 2011.http://www.iaca.ws/files/UnderstandingITforDisputeResolution-DoryReiling.pdf.

REILING 2012. Information Technology in Courts in Europe, International Journal for Court Administration, June 2012.http://www.iaca.ws/files//journal-eighth_edition/reiling-technology_in_courts_in_europe.pdf.

SUSSKIND RICHARD. 1998. The Future of Law. Oxford University Press.

DORY REILING, mag. iur. Ph.D., is a judge in the first instance court in Amsterdam, The Netherlands. She was the first information manager for The Netherlands» Judiciary, and a senior judicial reform expert at The World Bank. She was a member of the Justice and IT-subcommission of the Legal Commission of the Council of Europe, and chair of the subcommission's working group on digital signatures. She is currently on the editorial board of Computerrecht, the The Hague Journal on the Rule of Law, and the Springer Law, Governance and Technology Series. She chairs the Netherlands Judiciary's knowledge systems user advisory board and is involved in digitalizing court procedures in the Netherlands. She has a weblog in Dutch and an occasional weblog in English, and can be followed on Twitter at @doryontour.