

E-JUSTICE:
TOWARDS A STRATEGIC USE OF ICT IN JUDICIAL REFORM

BY

WALEED H. MALIK
THE WORLD BANK

MARRAKECH CONFERENCE
STRATEGIES FOR THE MODERNIZATION OF JUSTICE IN ARAB COUNTRIES
ORGANIZED BY POGAR, UNDP/WB/MOJ MOROCCO
MARCH 15-17, 2002

E-Justice: Towards a Strategic Use of ICT in Judicial Reform

By

Waleed Haider Malik¹

“the capabilities of information and communication technologies, together with a rising sense among people all over the world that they are entitled to participation openly in government and society, offer enormous potential for advances that can be of great and lasting benefit to all people of the world..... and particularly to the poorest people of the world.”

James D. Wolfensohn, President, The World Bank

“Without the protection of human and property rights, and a comprehensive framework of laws, no equitable development is possible.”

James D. Wolfensohn, President, The World Bank

¹ Senior Public Sector Management Specialist, manages judicial reform projects in Latin America and the Caribbean Region of the World Bank. The findings and conclusions expressed in this paper are those of the author to promote discussion and should not be in any manner attributed to the Bank, to its affiliated organizations, or to its Board of Executive Directors or the countries they represent. The author would like to thank David Gray, Cándido Pérez Contreras, Ricardo Jiménez, Zulfiqar Ahmed, Jose Benquis Cambi, Fulvio Carbonaro, Carlos Mario Velosso, Rene Hernandez Valiente, Baldo Alejandro Luna, María Dakolias, Leonardo Alam da Costa, Roberto Panzardi, Max Argueta, Maria Novoa, Felippo Vagnoni, Laura Louza, David Martinez, Farooq Malik, Claudia Monzon, Karine Abdelnoor, Nina Ohman, Alexandra Habershon, Khaula Malik and others for data, suggestions and comments. This paper is adapted from earlier manuscripts under publications in Spanish and English.

“Harnessing global knowledge is essential to devise strategies and programs of legal and judicial development.....and interconnected societies provide opportunities to learn and build partnerships to achieve these goals.”

Ko-Yung Tung, General Counsel, the World Bank

Introduction

The globalization of the economy, social trends and other factors present new demands on judiciaries internationally, while at the same time technological and communicational advances offer opportunities to judicial policy makers to make justice more accessible, transparent and effective. In Latin American countries, the use of information technology is not very new. However, the experience in introducing technology in justice sector institutions there has been mixed. Some have had successful applications that have helped promote the rule of law. Others, however, have invested heavily with little improvement in the performance and accessibility of judicial sector institutions. These uneven returns result from several factors and considerations. The purpose of this paper is to explore some of these broad challenges that “policy makers” face in harnessing new technologies in developing countries and taking strategic decisions to make the justice sector more service-oriented and effective.

The Impetus of judicial reform

Democratization forces and pressures for more market-oriented economies have made judicial reform a priority for modernizing the machinery of government in Latin American and Caribbean countries. This is equally true for countries rooted in European civil law or English common law traditions.² The reformers’ vision is for the judiciary to deliver more equitable, expeditious and transparent services to citizens, economic agents and the state. They wish for an effective judiciary—capable of enforcing the rule of law—to be strong and independent, consistent in high quality operations, adequate in size, dignified and efficient. They hope it will foster an enabling

² The judicial system comprises the courts, prosecutor offices, public defenders and other institutions and actors that operate under a set of rules and processes. For an extensive description and analysis see, *Judicial Challenges in the New Millennium*, eds. Andres Rigo and Waleed Malik, World Bank Technical Paper no 450, 1999; *The Challenge of Judicial Reform* by Linn Hambergren and Richard Messick, Chapter 6 in *Beyond the Washington Consensus Institutions Matter*, Shahid Javed Burki and Guillermo Perry, World Bank Latin

legal and judicial environment that is conducive to trade, financing and investment and promotes social peace and trust.

To achieve these purposes judicial reform—improvement in the quality and efficiency of the administration of justice—typically involves: simplifying and rationalizing laws and procedures; strengthening the independence of judges; improving the administration of the courts; balancing the costs of justice; upgrading the physical facilities of the courts; improving legal education, training, and user perception of the legal system; expanding access to justice for the poor and other disadvantaged groups; enhancing the quality of the legal profession; providing alternative dispute resolution mechanisms; and strengthening the impact of court decisions on society at large. All these elements are interrelated, multidimensional and need attention over the medium and long term. The administration of justice is essentially a service delivered by the state to the community in order to preserve social peace and facilitate economic development through the resolution of disputes, the enforcement of criminal justice, and the determination of laws.

Against this backdrop, Latin American judiciaries are at a crossroads entering the new millennium. Indicators of inefficient and ineffective administration of justice include lengthy case delays; extensive backlogs of cases; limited access to justice; a lack of transparency and predictability in court decisions; a shortage of financial, physical and other resources; and weak public confidence in the judicial system. Similarly, such forces as population growth, globalization, crime, urbanization, labor migration, poverty, gender bias, human rights, economic failures, peace accords, indigenous rights, technological advances, and citizen demands are making the pursuit of judicial reform complex on the one hand, but important and opportune on the other. There is a need to restore traditional demand and supply balance of court services in certain countries (e.g. Chile) while in others there is a need to create and expand (e.g. El Salvador) access to court services from scratch or ab initio. In others there is the need to make courts more efficient, transparent, modern and independent (e.g. Venezuela). Others need to expand coverage, streamline traditional means of justice and citizen participation and build trust (e.g. Guatemala). Overall, these challenges offer opportunities as well since judicial reform benefits everyone--the public sector, the private sector, and civil society at large; and Latin American democracies are perhaps more likely to pursue initiatives that might benefit the

American and Caribbean Studies, 1998; and *Judicial Reform in Latin America and the Caribbean*, eds. Malcolm Rowat, Waleed Malik and Maria Dakolias, Technical Paper no 280, 1995.

populations at large. In some places, the conditions are so severe that there are no other alternatives but to move towards reform.

Judicial reform strategy and its challenges.

Reviews indicate that many countries in LAC are confronting these challenges with improvement programs that target the aforementioned deficiencies. Although experience is mixed, indications are that there is a general trend towards improvements and awareness of the importance of judicial reform. As mentioned above, the ingredients of judicial reform are many, multi-dimensional and interrelated, as judicial reform can be looked at from different perspective (e.g. legal, organizational, physical, human resources, user access, economic and financial). The relationships between these factors are neither always clear nor certain. For example, when looking from a legal perspective, the focus is on different legal codes and procedures such as the civil code, penal code, labor code, bankruptcy laws, and tax laws. From an organizational perspective, attention is on institutional functions, hierarchy, coverage, judicial statistics and administrative and judicial efficiency. From a human resources perspective, the focus is on incentive systems, salary regimes, training, promotion, discipline and working conditions. From an economic perspective, the major focus could be on the costs of the poor performance of the courts, the mismatch between the demand and supply of court services, cost-benefits and sustainability of reforms, and the complexity of business transactions and impact of court costs on transaction costs. From a users' perspective, the focus would be on fairness, efficiency, access and confidence in the system. From a public finance perspective, it is on the adequacy of resource use, transparency and timely execution, and justification for competition for scarce public resources. From a policy perspective, attention needs to be given to vested interests, leadership, equity, fairness, fiduciary responsibilities, future vision and the setting of realistic targets and transparency, appetite for reform, commitment and trust. And finally, from an information and communication technology (ICT) perspective, the target is knowledge sharing, change promotion, communication networks, libraries, databases and case management systems, administration and business or corporate functional systems (on which I will say more).

Knowledge about sequencing, timing, and costs of reform measures is limited. More needs to be learned about their prerequisites, about preparedness for reform and successful implementation strategies. However, broad experience suggests that a comprehensive or holistic strategy that includes the involvement of judges and users, and participatory approaches reduces risk, builds

consensus, and promotes reform and results on the ground. It likewise indicates that many reforms in LAC are taking a procedural, organizational and technological focus that presupposes or requires a minimum level of infrastructure for their success. Unfortunately, however, most countries are either unprepared or only beginning to develop these facilities so as to actually benefit from these reforms. For example, oral transparent procedures are being introduced in courts that require hearing rooms where the public can observe court processes (e.g. Guatemala, El Salvador). Oral procedures help reduce corruption and enhance user confidence in the system. As these procedural reforms require a different type of court design and space distribution, physical and ICT facilities are increasingly playing a greater role in anti-corruption measures as well. New Judicial Councils are being created (e.g. Argentina, Bolivia) or reorganized (e.g. El Salvador) where new facilities are needed for the performance of a different role to traditional public office functions. Training rooms, common services such as notification centers, case distribution centers, and record facilities are being modernized, and this is raising standards for the quality and security of facilities. Crime and violence against judges, judicial staff and law enforcement officials have increased awareness regarding building security and access. Peace accords and social and political reconciliation movements in countries are requiring extensions of court services in rural and far-flung areas traditionally cut off from public services, such as court rooms for justices of the peace and public defender offices. Many countries that started implementing these reforms and did not plan for physical and ICT ingredients for reform ran into problems, which in some cases compromised improvements or delayed them. These have caused loss of confidence in the reform process and reduced popular morale.

Framework for the use of information and communication technology

As noted, judicial reform has several elements which are intertwined and interrelated. Experience has shown that technological advances can assist in improving institutional reforms and enhancing their impacts. Based on the recently concluded and very successful court technology conference organized by the National Center for State Court in Williamsburg Virginia USA, and Global Judicial Reform Conference and meeting of the Chief Justices for the Judges Knowledge Sharing Network IUDICIS organized by the World Bank in partnership with other development finance institutions in June 2000, several good practice examples are available.

These notably include the strategic use of information and communication technologies in improving access to justice, resource utilization and planning, administration, efficiency and

transparency of the system. Some of the most salient experiences occurred in Singapore, Australia, USA (e.g. Arizona state court, US Federal Courts), Brazil (e.g. Federal Supreme Court), Spain (e.g. Pais Vasco) and Canada (e.g. Ontario, and Quebec). After examining these examples, I believe that there are several key lessons to be drawn. One of them is that IT use should be “strategic”. Large computerization programs that are not well integrated into other judicial reform priorities and attention to users are usually counterproductive. They will not enable policy makers to see “positive results” that promote reform. Also, culture change which is induced by IT use takes long, piecemeal approaches that do not work. Change requires constant effort, and unless attitudes and behavior are improved, reform sustainability is jeopardized. Training, open communications, clear incentives and other activities that promote participation help address this need. Judicial reform needs to be developed with local culture and traditions in mind, and activities need to be sequenced with benchmarks to show demonstrable quick results. Early results are essential to strengthen consensus, permit learning and to take on more difficult tasks.

Policy makers need to address several “areas” in order to introduce appropriate technologies for the enhanced performance of the justice system. These include:

- **Business systems for overall justice sector governance.** Judicial institutions are managed in different organizational settings. Courts, for example, are administratively managed by the Supreme Court in many countries, while in others Ministries of Justice or Judicial Councils run the administration of the courts. However, the basic functions of planning; budgeting; payroll; audit; inventory management; facilities and real estate management; human resource management and administration; public information and publication are areas that need to be supported through ICT. There are several programs and applications in this area which provide examples in the private and public sector institutions that can be easily adapted for use in the justice sector business services. Their underlying purposes are to improve resource utilization, planning and functional effectiveness, and employee and public access to information. Similar systems can be installed in line ministries or agencies of the executive branch that are responsible for the enforcement of court decisions and perform other tasks (e.g. prosecution services, public defenders, police, legal aid agencies, law ministries etc.) which require the attention of policy makers in the allocation of resources and the development of appropriate improvement strategies that have or rely on the use of information and communication technologies. Some examples of these systems include:

integrated systems for coordination among criminal justice institutions for crime control, combating traffic problems and family violence matters; statistical systems for the publication of annual reports, and carrying out studies and developing crime prevention policies.

- **Operation systems for Courts.** The main function of the courts is to provide a fair and effective dispute resolution machinery for the enforcement of court decisions. These areas of legal operations of the courts have several potential applications as well. Case filing and management, case distribution, record keeping, archiving, court management, statistical systems, court fee system, video links for bail bond hearing, the recording of witness testimony, equipment for the presentation of evidence, systems for jury selection, and court reporting are some examples. This area has received a lot of attention in the last few years in Latin America where several countries have invested in the development of case-management systems for criminal, civil, electoral and other courts along with their operation manuals and training. The investments have been at the higher court levels as well as the lower courts. Many of these systems are being developed to support reorganized and or reengineered court organizational structures. For example, for the provision of common court services such as central case notification and document centers and public information offices. State-of-the-art court support systems are also gaining importance such as the “Court Room 21” set up by the NCSC and Williams and Mary law School. These are used for actual trials as well as for training and knowledge sharing.
- **Operation systems for judges and other key professionals.** Judges are the most important resource in a court system. Many systems have been developed around the world to help improve their judicial/adjudication work. Databases of court decisions and legislation (both local and foreign) are the most common and the fastest growing in view of globalization, EU integration, NAFTA, anti-corruption efforts, drug and law enforcement, human rights concerns and other international needs. The other growing area is that of electronic “Work Bench” and legal information systems, electronic data interchange and other systems that help judges and other legal professionals improve their core legal work (e.g. decision writing). Internal communication systems for email contact and coordination are also widely used in modern judiciaries. “Knowledge sharing” and distance learning through internet and video conferencing are gaining importance and applications. Internet based or PC based continuing education courses for judges and other staff are also being used. Some established judicial schools are converting existing courses in judicial and court administration areas into

internet or PC based modules for increased coverage and cost economies within countries and across the region (e.g. Costa Rica and Brazil). Also, human rights courses and coordination systems are being developed for public defenders, prosecutors and court administrators. Programs are also being developed to assist mediators in mediating cases.

- **Systems that promote “user access” and linkages.** Increased public awareness and participation are hallmarks of democratic societies, and ingredients for the successful rule of law. Systems that facilitate public access to court information in the form of KIOSKS, internet web-sites and other tools help improve the justice system. Legislation and court decision databases for public information and research do so as well. Many countries are using such tools to enhance the transparency of the system and instill user confidence. Also, internet based public information notices about court matters and civic responsibilities are increasingly being promoted in view of the information explosion. Certain court operation systems are being offered access through the internet for improving access to justice. Examples include “a paperless court” initiative of the Singapore Supreme Court, where electronic filing helps cut costs and improve efficiency. US Federal Courts are implementing electronic filing that would streamline the process and enhance effectiveness. Also, the filing of small claims through web based systems helps save money and time, as is the case in the Singapore Subordinate Courts. This is particularly useful in countries or cities where internet connectivity is high.
- **Technical features, training plans and related prerequisites.** Capital investment plans’ technical analysis needs to be carefully carried out while policy makers assign priorities and prepare for ICT investment decisions. While working out hardware and software needs for the core functional and application areas for court and administrative use, several aspects need to be considered under normal economies of scale criteria. These should include areas such as: technology standards; the market availability of systems; obsolescence; security; the availability of basic infrastructure, including cabling, servers, workstations, mainframe or PC, different networks, digital, voice and video capabilities, and communication equipment etc. There is also a need to review the in-house technical resources and know-how to plan and implement systems. And there is also a major need to assess training requirements and implement plans. Good “internal capacity” to plan and think through some of these areas is critical to successful implementation. Some countries have set up high-level multi-disciplinary teams to address these needs. Some others have created new departments (also

established chief information officers) to plan and channel ICT investments. While building in-house basic ICT infrastructure is a critical element of the hardware part of the analysis, issues of in-house software development versus off-the-shelf purchase and/or out-sourcing also need to be analyzed. For some functions, software applications such as payroll, accounting etc may be readily available. But others may have to be developed from scratch, depending on the legal codes and specific legislative variations. There is also the need to review past experiences and draw lessons from them. Many countries have taken the approach of developing master ICT plans to address technical, legal and “institutional” change and reform needs in order to manage and minimize implementation risks (e.g. Venezuela).

- There is also another important factor that needs to be considered when introducing technologies in court: that is the availability and quality of **court buildings**. Many countries have rented or depleted facilities which makes it very difficult to make investments, or makes it impracticable to provide the minimum safety, environmental and technical needs. For example, the introduction of communication technology through video conferences may be impractical where building space is not connected with the adequate “bandwidth.” Some locations may have the space, but rented; asking telecommunication companies to provide connections may not be in the best interest of the courts. There are developing countries where weather conditions (e.g. severe hot weather or constant rainy conditions) also need to be considered while planning ICT investments. However, in countries where the physical buildings are in short supply, or where the courts are needed quickly, or where demand of courts is cyclical, remote connection or innovative ways may be used. These include wireless technology, KIOSKS and portable court houses to help improve access to justice without heavy capital investment and loss of time (e.g. in Brazil small claims courts are operating through the use of internet technologies and portable minivans; KIOSKS are set up in public places for users to pay traffic fines in Singapore.) Another key area is the rapid pace of technological change. As the cost of technology is going down, obsolescence and related factors are becoming more important.

Problems and lessons of ICT initiatives

As I mentioned at the beginning, despite the long list of IT applications in Latin American justice sector institutions, the results seem to be mixed. After some false starts and failures, some

countries are beginning to adopt technological measures (coupled with other initiatives) that promote the rule of law and strengthen democratic principles. (*See Annex.*) Brazil has successfully introduced technologies in the Supreme Court, electoral courts, small claim courts and many state courts to improve efficiency. Also efforts are in hand to leverage technology in “de-bureaucratizing tasks,” expanding the initial experiences and promoting activities at the federal and state levels. Venezuela’s highest court (Supreme Tribunal of Justice) has launched internal networks and web-based applications that provide integrated solutions for court governance, the operations of court chambers, systems that support the work of justices and decision preparation, the publication of court decisions, administrative management and perhaps most importantly applications for user information centers. At the lower court levels, based on a comprehensive ICT plan, pilot programs are being implemented in the cities of *Barquesimeto* and *Barcelona* to support the implementation of new court organizational structures for all courts and new criminal procedures and family codes. These have been under testing for the last one year, where oral procedures have been introduced and have begun to show positive results in terms of court efficiency and flexibility to accommodate other features of access to justice. (e.g. public access to information, transparent case distribution and notification). Guatemala recently started testing internet based distance learning for judges and staff. Argentina and Mexico are adopting major programs to update legislation databases and information on reform initiatives and studies. In Mexico, a national conference was held in June 1999 for the purpose of sharing information on the use of ICT in the Judiciaries of each of the Mexican States. The results of a national survey on the current use of ICT applications were published at the conference, thus enabling judicial officials to assess the use of applications in other States, to benefit from lessons learned, and to plan for the future. Chile has built up criminal justice information systems for coordination and control, and is applying and upgrading systems in order to meet modern needs and to harness technological advances. El Salvador is developing a forward-looking master plan for introducing technologies in courthouses to take advantage of the telecommunication reform in the country. Argentina, Colombia, Dominican Republic, Costa Rica and other countries are investing in building basic IT infrastructure and upgrading existing systems. The above-noted initiatives are funded by national governments, bilateral donors such as USAID, World Bank, IDB, UNDP and other agencies³.

³ In Latin America, the World Bank-supported programs and studies are in Argentina, Bolivia, Colombia, Ecuador, El Salvador, Guatemala, Mexico and Venezuela. The overall lending and grants for different reform activities (including ICT support) totals about US\$135 million. For more information and programs in other parts of the world see, *Initiatives in Legal and Judicial Reform*, The World Bank, May 2000.

Some of the “problems” which are interconnected have eroded the “full impact” of technological advances in judicial systems, but offer useful lessons for future initiatives:

1. Disconnect between judicial reform mission and ICT investments. Early initiatives to introduce IT technologies were purely focused on the computerization of activities not necessarily interwoven (no interconnectivity) with the larger judicial reform agenda, or did not directly impact judicial performance from the “users’ perspective.” For example, historical court records were computerized using microfiche technology that improved court records but did not address the real problems of the system such as access to justice or court fees. Thus, there was a disconnect between the real issues and investment targets. Also, when computerization was believed to be the final solution, too much was promised without the realization of the need to pay due attention to the cultural “change process.” The result was the undermining of any benefits of a continued effort which depended upon new funds allocated by key decision makers. Also, many efforts were linked to reorganizations, legal reforms and reengineering efforts that were not necessarily successful, thus casting a shadow on the value of IT investment as an element of sustainable change. Also there was a lack of a sufficient level of investments. Since IT investment are costly, especially in countries that do not have any basic IT-infrastructure, inadequate resources were allocated to meet real needs (both for building up the minimum support infrastructure and that of applications systems). This lack of funding resulted in patchy work, and quick fixes, thereby wasting time and creating unfulfillable expectations. Also, the judicial reform agenda that has evolved demonstrates increased awareness that IT systems provide greater support for different initiatives rather than a solution by themselves. Also there is a realization that greater reforms are now possible because of creative, flexible internet type advances.
2. Weak institutional capacities and wrong priorities. In justice sector institutions--whether the courts, ministries or other agencies--deficient organizational arrangements for the planning and implementation of ICT investments are among the main weaknesses. There is also a lack of planning mechanisms, poor arrangements for discharging responsibilities, a lack of opportunities for systematic learning by justice sector staff, and a general shortage of skilled IT professionals. The absence of basic infrastructure has affected the possibility of leveraging the use of information technologies. As a result, many investments were “vender driven” rather than well thought through by the institution in terms of its capabilities and priorities. Some countries ended up with a large in-house staff for software development which became

a burden on the institution, defeating the goals of greater efficiency and effectiveness. Attracting qualified people is a problem, in particular in developing countries where remuneration systems are not competitive. Since capital investment require large budget provisions, there are instances when lack of cost-benefit or other economic analyses have not supported correct decisions and projects have been cancelled or delayed. Cumbersome procurement procedures and the special nature of computer technology are not well understood, and their harmonization are often not well reflected in procurement policies and practices in developing countries.

3. Lack of knowledge of senior policy makers and judges on the importance of ICT and their commitment to modernize. Benefits and opportunities available with ICT to improve business processes and core judicial operations are not well articulated. Efforts to improve access to justice, citizen participation and communications that can be “leveraged” through the introduction of technologies, have generally not been targeted to appropriate levels of decision makers. Too many of the initiatives are handled at low levels that have functional rather than decision-making authority and clout. This has at times resulted in funding cut-offs and shelved projects. Managerial turnover, and communications problems across cultures and languages also have impaired the pace and success of the projects.
4. Lack of donor coordination. Projects in developing countries have likewise been weakened by failures to integrate aid from different sources, resulting in disparate equipment and software specifications, and business processes that cannot “talk to one another.” This problem is usually severe in countries where institutional capacities are weak.
5. Lack of stakeholder involvement and training which undermines change. Another flaw has been inadequate consultation with the concerned stakeholders, especially on their perceptions of, and readiness to implement ICT induced changes. As ICT programs often result in new work methods and behavior, the participation and education of employees and users is fundamental. Programs that overlook factors of resistance to change almost invariably fail sooner or later.

What does the future hold?

Several “**opportunities**” exist that need to be exploited for the development of a “strategic framework” for ICT use in justice systems in developing countries. Some of these are:

- Increased policy attention to “poverty alleviation” and “rule of law” by development institutions which offers hope and resources to countries. This focus should have the impact of increased education and welfare of the world population. Legal frameworks, and the judiciary administering them will have to tailor themselves in response. For example, the World Bank through its *Comprehensive Development Framework* (CDF) and *Voice of the Poor* study seeks to provide integral solutions to fight poverty and improve governance and justice services. Also, *World Development Reports* (WDR) has highlighted the importance of technology in the social and economic development of countries. Regional and international meetings have been organized by many institutions (e.g. UNDP, IDB) and governments in Latin America and elsewhere to promote ICT investments. It is expected that increased policy attention would translate into concrete actions and impacts; some of which are being noticed in pilot countries.
- World infrastructure for communication (and technologies) is exponentially improving. This may offer cost-effective solutions to access to justice, training and coordination problems. It may also help jump-start judicial development in countries where traditional means of communication are lagging behind, and major capital investment resources are not available. This could be achieved through the use of wireless communication technologies or distance learning.
- Citizen awareness, internet literacy, e-commerce, e-government are on the rise in many countries. Public awareness and culture is demanding that legal systems be more open and approachable. School education and legal professional institutions are revising curricula to incorporate training and understanding of technological advancements and opportunities. Many law schools are educating lawyers in managing and using modern tools, and are imparting skills to master the legal intricacies and benefits of--for example--on-line legal services and research potential with the internet. Students are learning internet technologies very early in life that will help in culture changes in judicial institutions as they progressively join them and take functional and decision-making responsibilities. Many judges in some countries today have no computer hook-up (e.g. internet access) at the court, but rely on their children and other family members to communicate with other colleagues and carry out legal

research. Age barriers, the digital divide and gender bias are being addressed through education and literary programs. E-commerce has taken on a totally new dimension, affecting the economy, judicial institutions and social culture. E-government initiatives are also growing, and this will change the way governments operate. Although judicial culture is typically more inward looking and resists change, the above noted factors should have a favorable impact on the environment in which judicial reforms are developed and implemented.

- There is a large body of judicial knowledge (including ICT experiences) that offers unique learning experiences. Technology is being accepted as a key force of change in judicial sector institutions. Many good practice locations (in EU and elsewhere) have several years of very valuable ICT and other experience which should be shared. Experience has shown that judge-to-judge and administrator-to-administrator learning is most effective, since the institutional culture of the justice sector does not generally accept traditional consultants and teaching methodologies. Meetings like these provide an excellent forum for knowledge sharing. But more needs to be done as information on the lessons learnt is not complete, particularly in Latin America. Countries are more likely to develop change programs that are “in-synch” with other legal and judicial reform ingredients.

Conclusion: How a strategic focus can be achieved through learning?

Learning context. Developments in Information and Communication Technology (ICT) have transformed the nature of business operations over a relatively short period of time, affecting the private and the public sectors alike. This transformation could arguably be described as the most far-reaching paradigm shift in management and business culture to date. Judicial institutions worldwide have been faced with the challenge of harnessing these technological and communicational advances, whilst also adapting to the new economic and social trends of globalization. There is no question that the new technologies offer opportunities for judicial policy makers to render justice more accessible, transparent, and effective. What remains to be determined, however, is how best to implement technological change. Experiences worldwide will help provide an answer to that question.

The use of Information Technology in Latin America is not a new phenomenon. There, as in Europe and elsewhere, general technological progress has been reflected in the organizational and

procedural management of public sector institutions. Europe and Latin America inevitably share similar motivations and objectives for the integration of technology into the management of justice; but their experiences diverge when it comes to the particular hurdles they face in the successful implementation of change: The prevailing institutional culture, political and juridical context, existing infrastructures and available resources provide unique challenges and determine a unique set of priorities. Although Europe enjoys far greater stability in the organization and structure of its public institutions; experiences obtained there, and perhaps more crucially in Central Europe as well, will undoubtedly prove to be a source of productive wisdom for IT projects in Latin America. By the same token, Latin America may well provide important insights into the many approaches, and the many contexts, of technological reform in the Judicial Sector.

In summary, in this paper I have tried to briefly review (i) the motivation, elements and challenges of judicial reform in Latin America, (ii) a potential framework for technology application in justice services for governance, court operation, judge performance and adjudication support, and user access; (iii) examples of ICT applications in best-practice countries and some emerging activities in Latin America; (iv) potential problems that have undermined the effectiveness of ICT applications to strengthen the rule of law; and (v) potential opportunities. I have also attempted to point out the clear need among justice sector institutions to develop a more strategic focus for harnessing the benefits of technological investment in the process of judicial reform, based on past experience and opportunities.

With a more holistic attention to “culture change” aspects, developing countries can develop ICT investments that are comprehensive, in-line with reform objectives for access or effectiveness, or a combination of policy direction objectives. The strategic vision should have a clear mission of the role and the model of technology to be used in the realization of these objectives, and it should maximize the use of these forces in a framework that has a clear “user focus” and that relies heavily on upstream and in-process activities to promote and support change.

The key is that a “*strategic focus*” needs to be adopted in leveraging ICT into justice institutions, that will make the system more accessible, transparent, effective and will promote change. This could be achieved with the careful preparation of master plans that look at the judicial reform priorities for improving the service for “users”; with reviews of incentive systems and stakeholder perspectives, organizational capacities, technical capabilities and change factors. Most of all, the

need is to develop a culture-change process that underpins ICT investment and sets a proper foundation for technological benefits.

This could be achieved through the leveraging of opportunities that currently exist.

- One way is to promote **knowledge-sharing networks** among policy makers, judges and other professional in regions and all over the world as technology is now a global phenomenon—there are no boundaries. For example, with World Bank and other support, the Iberoamerican countries' supreme courts have launched a web based network “IUDICIS”(Latin for Court) to facilitate communication and learning among judges. This initiative is spearheaded by a group of countries including Spain, Costa Rica, Colombia, Argentina, Panama, Guatemala, The Dominican Republic, El Salvador and Brazil, and is facilitated by the Venezuela Supreme Tribunal of Justice. The prototype is under testing and has modules in Spanish, English and Portuguese. Many countries in other parts of the world (e.g. Singapore, Pakistan, South Africa, Canada, the United States) have expressed interest in participating and supporting this effort.
- Also, the organization of **e-seminars** and **workshops** on topics that are considered key in the development of innovative internet based solutions such as those for access to justice for disadvantaged groups--women and children or persons with language difficulties, so that economies of scale could be achieved through multi-country and/or multi-institution partnerships.
- The organization of **technical interchange among experts** (heads of IT departments, chief financial officers, judges and court administrators responsible for coordinating projects) from good practice locations and those who are developing ICT plans and initiatives. This cross-fertilization of experiences and *in-situ* training could be funded through grant resources made available to the Bank by member countries to develop assistance programs in less developed and post-conflict countries (e.g. Central America, Africa, Asia, Middle East, East Timor, Kosovo). This activity would help build institutional capacities of justice institutions and promote partnerships.
- The development of strategic **guidelines for a model ICT Master Plan** to serve as a tool for developed and developing countries. This should include policy frameworks, diagnosis

checklists, quality and monitoring standards, stakeholder perspectives and assessments of potential benefits and risks.

- The preparation of **videos on good practices**, technology supported judicial programs (or studies) to first identify and later disseminate these initiatives to interested institutions, both locally and internationally. This should motivate and instill a sense of leadership among policy makers, technical managers and others. For example, Brazil recently prepared a short seven minute video on its small claims court experience which has generated a lot of interest in Central America. Efforts are in hand in Guatemala to develop similar models and to address the problem of access to justice. EU experience in ICT is of special interest to Latin American countries because of historical cultural and legal ties and its advanced ICT infrastructure and experience. Many developed (EU and elsewhere) and developing countries around the globe would benefit from Latin American experience as only “now” at the beginning of the new millennium are they starting to leverage institutional performance using ICT.

ANNEX

The following countries demonstrate varied experience within a common framework of Information and Communication Technology (ICT) applications in judicial systems.

Argentina

The application of information technology in the judiciary began in 1981, with the installation of a system to distribute cases among judges in the civil appeals court. The current case-distribution software has a sophisticated, computerized method for balancing caseloads. The computer program equalizes the distribution of cases among the judges. The program also ensures that the computer assigns related cases to the same judge or court by searching for related information in the data bank.

The Supreme Court and all national and federal courts are connected to an internal and external on-line network that has 500 terminals connected to a central server, in addition to provincial outlets. The system provides information on the cover page of the file, the names of the parties, the court it was assigned to and its connection with prior cases by the same parties. It operates in the courts of appeal where lawyers initially file their cases. It also provides for an on-line follow-up of cases with information on the status of the file. The Supreme Court also has a data processing service with a thesaurus in Spanish and abstracts of the most relevant Supreme Court decisions, which are available on-line for all members of the network. The Judicial Directory is an electronic database kept by the Judicial Management Office, recording all offices and the names of judges and their staff. In general, the administrative management of the Supreme Court is now automated. Electronic mail is also available for members of this network. Similar technological improvements have been implemented in provincial courts, together with the Argentine System of Juridical Information (SAIJ) which includes both national and provincial legislation, court decisions, scholarly opinions, and regulations and decisions issued by administrative entities. The SAIJ is connected throughout the country and is accessible via the internet. Pilot programs for electronic and automated filing and follow-up of cases have been implemented in different jurisdictions. New information systems have been installed in the commercial courts to provide access to judicial decisions and, a case tracking system has been implemented in the civil courts.

Many administrative activities now being performed in the court, may be replaced by an automated system which will most likely necessitate a reduction in many administrative positions. If these changes take effect, service should improve and become less costly. At present, two programs are being implemented. One deals with the automation of the civil courts, and the other with the replacement of existing equipment of the Supreme Court and some jurisdictions around the country. For the civil courts, the Supreme Court contracted out provision of computer servers, including hardware and software especially designed for the courts. Presently, also efforts are in hand to review past experiences and develop model courts so as to create and test monitoring systems and statistics. The purpose is to serve as the basis for enhanced technical standards and capabilities and help better plan investments.

Brazil

Federal and state court systems have used technology in the last years but the experience and coverage is mixed. In early 1990s one of the major initiatives of the federal judiciary has been the computerization of electoral courts. This experience and other reforms have motivated some states judiciaries to advance court automation in different jurisdictions, in aspects such as public information, case management, and document archiving. Studies indicate that the needs for ICT use are rising as many state court systems lag behind in investments.

The modernization of the documentary archives of the federal judiciary is a fairly recent initiative that has been motivated by a growing concern for the preservation of the country's historical archive, and by the need to manage the exponential growth of current archives. Paper archives constitute an enormous investment in terms of time and space, documents deteriorate or are lost, and information retrieval can be laborious. The modernization of archives involves not only the rationalization of existing resources and collections, but also the introduction of new technologies for the electronic storage and retrieval of current documents.

In May 1998, the Supreme Federal Tribunal initiated a project of reform, and in early 2000 carried out a survey to identify the problem areas relating to infrastructure, access, archiving policy, training and management strategies. The survey results constitute an important first step in the development of a long-term technical and administrative policy for the management of judicial archives. Follow on work has so far collected information from all the archive-holding judicial institutions in the area of the capital, Brasilia. It has been established that within those institutions there are currently 351,610 linear meters of documents (of which 3,000,404 are judicial and 51,206 are administrative documents); with the oldest document on record dating from January 1st, 1655. Over 99% of existing documents are stored in paper archives; the other 1% is stored in a variety of formats, including microfiche, microfilm, audio and video cassettes, and in a few cases diskette and CD-ROM. There are on average 4 archivists per institution, which means one archivist for every 751 meters of documents. The technical equipment is for the most part antiquated, with only 37% of archives equipped with computer terminals. Most of the judicial archives do not, therefore, have either the technical or personnel resources necessary for the efficient management, storage and retrieval of documents. Moreover, the policies that govern the selection of documents to be stored or eliminated tend to be ad hoc or inconsistent: The most energetic elimination of documents, for example, tends to take place in the institutions where space is at a particularly high premium. Based on the survey results, it has been determined that the modernization of the historical archives will need to include the rationalization and renovation of storage spaces (with the introduction of sliding shelves for example,) electronic indexing, and coherent policies for document preservation or elimination.

With regard to the processing and warehousing of current documents, the potential for IT applications is far greater. Many areas of operation in the Judiciary are already computerized; for example: access to justice via the Internet, jurisprudence databases, computerized procedures and—increasingly—the computerization of records have all enhanced the performance of judicial functions. The Supreme Court, for example, now uses bar codes in the records of its procedures, thus facilitating the warehousing and recuperation of archive documents, and optimizing the use of time and space. However, only 19% of the institutions surveyed have established policy guidelines that regulate the reproduction and computerization of documentary records. There is therefore an urgent need for consistent and integrated management

policies. There is much left to be done to transform both the existing historical archives and the current judicial records into efficient and user-friendly centers of juridical information.

Based on the survey results, the Supreme Court has published recommendations for a long-term modernization process. The first priority is to develop Document Management Programs and coherent and comprehensive institutional policies in order to optimize the support that documentary archives provide to the Justice System. Other recommendations include: greater investment in archival equipment and personnel, as well as the creation of professional and technical accreditation for newly trained archivists; efforts by the courts to come up with efficient solutions for the electronic treatment of court documents; feasibility studies into the cost of electronic warehousing and document management; further periodic surveys; and the implementation of policies for the protection and preservation of Brazil's documentary heritage.

Chile

The objective of ICT development in the judicial sector is to support the jurisdictional and administrative functions of the civil, criminal, labor and juvenile courts. Studies carried out by the judiciary have shown that the optimization of human and physical resources in the courts' performance of their judicial duties is best realized with ICT tools. They have also shown that a stock of accumulated experience and the effective formulation and evaluation of new projects have provided support for the implementation of broad gauged computer systems. In 1987, an ICT system for the case records, processing documents, and for the Records of the Courts' Current Account was implemented in the Labor Courts. In 1989, the Civil Courts were grouped together, and the ICT support for their 30 courts was integrated. These projects constitute the support base of the civil and labor court jurisdictions.

Overall the development of ICT systems consisted of the following: (i) The implementation of jurisdictional and administrative management systems. (ii) Development of Juridical databases for Legislation, Jurisprudence and Doctrine. (iii) the interconnection of internal and external judicial institutions. Broadly speaking, the objectives of the ICT Model were to provide integrated support to judicial and administrative functions, and to develop a medium for monitoring and control so as to improve efficiency and rationalize resources.

Presently in the capital city, the components of judicial ICT consist of *ICT Management and Document Systems*. ICT management consists in developing the Judicial Management Support system for the criminal courts. ICT Document Systems consist in the creation of jurisprudence and legislation databases. The applications of the latter are: the Management and Monitoring System, which includes the Records System, which records all the documents, appeals, cases and memoranda that pass through the courts; the Case Distribution System; the Record of Court Decisions, the Case and Procedural Monitoring System; the Reference System, which includes the database of the Civil and Labor Courts and the judicial Court-Files database; the Text Processing System, which operates in the Appellate Court in Santiago, the Civil Courts, the Labor and Juvenile Courts, and the Courts of First Instance and Mixed Jurisdiction; other management systems include the Current Account and the monitoring of criminal cases; and the Administrative Information System. Development policies were designed strategically in line with the priorities of Central Planning, Administration, Financing, Systems Development and User Support.

Chile's initial experience showed that solutions to Justice Administration problems could assist in the modernization of procedural norms; training; alternative conflict resolutions; administrative management and the apportionment of physical and financial resources. However, the current systems need to be consolidated for the systems to be expanded nationally. They need to be made compatible with the needs of judicial institutions, current procedural norms, and the available technology. A number of targets have already been reached for the development and application of systems. The rationalization of the management of court operations has been enhanced. There is an efficient exchange of information among all those involved in judicial processes. Compilation and monitoring of statistical information have been improved; print-outs and reports for monitoring tasks and planning studies are more efficiently obtained and circulated. The impact of the ICT systems on the management of the courts has not been evaluated as such. But analyses of and observations on a number of aspects of the daily operations of the courts confirm

the success and the roll-on effect of ICT as a vital technological tool for the effective administration of justice. There are plans to update and expand these systems so as to have a national coverage of ICT solutions.

El Salvador

The success of a transition process depends on abandoning obsolete practices and juridical cultures, and taking up new standards to create an organizational structure with the vision necessary to guarantee a genuine State of Law. The Case Streamlining Center is the first measure that was undertaken on a national level in El Salvador to deal with judicial delays and to create a more timely judicial process in. The second measure was the establishment of mechanisms by an external agent in order to register and monitor judicial processes. The introduction of computer terminals in the Criminal Courts has made it possible to keep efficient records of information and to create databases which, in the short term, generates feedback of judicial processes, which can be referenced and recorded in the Case Monitoring System.

In 1993, a survey was undertaken of the active files in the Judicial System for the purpose of gathering statistics on the cases that remained pending or unresolved. In 1994, the Review and Streamlining Center—now called the Case Streamlining Center—was created with a remit to efficiently clear up the pending case-load. 70% of the cases that enter the streamlining system are cases with an absent defendant. The 30% of cases with defendants present take up 80% of the time and labor of the courts, in order to comply with the deadlines that apply when an individual is detained. In order to facilitate and optimize the use of human resources, every operator in the streamlining process has the use of an on line PC, connected to the terminals of their respective supervisors. In 1996, a “Quality Control” platform was set up in order to establish working standards in the creation of databases. The long-term goal is the complete computerization of the criminal courts nationwide. This system serves as an efficient tool for gathering reliable data and for producing a structured output of information. The system was then expanded to include Family and Juvenile cases.

Mexico

The use of Information Technology began in the early 1980s, and its Mainframe and P.C. applications have since been developed across the Federal and State Systems. A survey, undertaken by the National Council of the High Courts of Justice in 1999, gathered information on the respective stages of computerization of the Judiciaries of each of the Mexican States. The data obtained was collated and published for a National Conference held in Chihuahua in June of that year.

Although results and targets inevitably varied from State to State, the National Conference nonetheless identified a common ground of general technological competence achieved by the majority of Mexican States. For instance, almost all the Mexican judiciaries (federal and state) have established a web-based network that enables them to share information and resources; they have benefited from the resources of the Internet (specifically email and web pages,) and they have used ICT to provide a wide range of information to Judicial Personnel. This includes information relating to matters of jurisprudence, excerpts from Supreme Court decisions, Federal Legislation, and the Official Gazette of Mexico. Some records of court proceedings have also been made available in this way. The Survey results made it possible for judicial officials to take stock of technical advances to date, and to examine the detailed results achieved in other States.

In the State of Chihuahua, for example, where ITC projects began in September 1991, the Judiciary now has over 600 computer terminals, of which 265 are equipped with Pentium processors, 224 with 486 processors, and 128 with 386 processors. Three of its 14 Judicial Districts are currently connected by Internet, and there are plans underway to connect the head offices of every district by WAN. The web server systems currently in operation are Novell 4.1 and Windows NT 4.0. The State has also implemented the following systems: an integrated database system for gathering statistics on judicial activities, as well as systems for monitoring appeals; and recording decisions handed down by the Full Court; criminal, civil and family court proceedings; and criminal records.

The State experiences, and the lessons from these have served to help identify two areas of particular importance for the prioritization of future ICT developments: the enhancement of the institutional capacity to plan, develop and implement initiatives; and the development of creative means for improving user access to the system. Activities designed for enhancing institutional capacity will include: the identification of new juridical applications of the client/server ambit, the creation of electronic proceedings or processes and the creation of archive databases. User access will be improved by means of initiatives such as the identification of documents by bar code, the creation of passwords for trial lawyers, and training to broaden user understanding of the potential of ICT applications.

Venezuela

During the last few years, the Venezuelan State has taken steps towards the modernization of the Justice Administration System in order to improve the quality, efficiency and effectiveness of the management of judicial processes. Traditionally, courts have operated with little or no technological support but now all is changing at a rapid pace. The focus of the reform effort includes legal changes, transparency enhancement, organizational efficiency and user access which has a seamless integration of ICT applications. The ICT measures are both directed at the supreme court and lower court levels in jurisdictional and administrative areas. Initiatives have included development of ICT master plan, full automation of the highest court in Caracas in 2000 and its interface with users, including on-line publication of decisions, judicial statistics and case status reports. Also financial and human resource management systems have been installed. Civil society related activities are also disseminated through web based applications (see at www.tsj.gov.ve) and onsite centers, including Center for Document Information and Citizen Orientation Office.

In July 1999, the judiciary implemented a new Organizational Model and an integrated ICT Management System, *Juris 2000*, in Pilot Courts (first instance and appeal jurisdictions) in the cities of *Barquisimeto* and *Barcelona*. The medium-term objective is to apply them nationwide. The new Organizational Model, and the institution of new and improved working methods, imply a thorough cultural transformation of the Justice Administration System. The conceptual framework behind this 'culture change' is a tight link between organizational reform and technological advances. The IT management system is considered first and foremost a support tool for the Organizational Model. The Pilot Project therefore includes provision for sufficient institutional and personnel capacity to support and administrate newly integrated computerized processes.

Juris 2000 has a number of specific functions. It serves as an aid to case processing by facilitating the production of interactive documents, the automatic integration of information stored in databases, as well as feedback to the databases of new information. It allows for the automatic "capture" of information once it has been entered into the System, thus avoiding the need for multiple or repeat data entries. *Juris 2000* also supports the judicial decision process as system serves as a warehouse of information on legislation, doctrine and jurisprudence, including information produced in other parts of the judiciary. The documentary database permits a rapid compilation of documents using various sources and/or information captured from databases. Also, *Juris 2000* has an integrated warning system that alerts judicial administrators about case delay. It also provides information on the current case-load, allowing for a better rationalized distribution of cases. *Juris 2000* enables public access to judicial information that is in the public domain, either by remote access or *in situ*. Information can also be sent between judicial offices and institutions. Finally, the System can produce statistical or other reports in a variety of formats. It is also designed to accommodate future information needs. The plan is for it to be replicated the experience in all judicial districts nationwide. Salient technical features of the *Juris 2000* are its: (i) integrated capability where every office of judicial support has its own IT module within the single entity of the system; (ii) adaptability whereby the system can be used for a single court or a group of courts, and is adjustable to legislative reforms without need for system changes; (iii) visual interface and user friendly screen operation that allows staff with little or no training run the system; (iv) consistency in ensuring homogeneity in judicial procedures, within and across the courts; (v) self-sufficiency as information can be entered directly and immediately into the System, without need for further steps.

The *Juris 2000* has various levels of security for dealing with different types of information. Users, likewise, have different levels of access. Security reviews and technical check-ups of the System can be

undertaken remotely, and maintenance checks are therefore easier to carry out. Assessments and consultations with judges and staff have indicated efficiency improvements and enhanced transparency of the judicial process since the implementation of *Juris 2000*. Plans are underway to extend the system to other cities as part of the on-going judicial reform program.