A Critical Analysis of the Significance of the eCourts Information Systems in Indian Courts

Abstract: Technological developments and scientific innovations have enhanced the way people live and work. Courts are places where people seek justice and millions of cases across the globe are examined every day, and judgments are delivered. The courts system in India is on a vast and complex scale. The application and dissemination of information in India has been spreading at a faster pace over the past few decades. This has set the stage for the computerisation of courts to enhance transparency and efficiency in the Indian judicial system. The Indian sub-continent is a highly populated nation and from 2007 the government of India began implementing the eCourts Project as a citizen-centric initiative for expeditious and affordable justice delivery. This article analyses the various dimensions involved in the eCourts process and explains its significance in the justice delivery system in India. In also looks at the various challenges of implementing such a vast system across judicial system of India.

Key Words: courts; court administration; information technology; eCourts; India

INTRODUCTION

The eCourts Project was conceptualized from the 'National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary – 2005' as submitted by the eCommittee of the Supreme Court of India with its vision to transform the Indian Judiciary by the ICT enablement of Courts.[1] Phase I of the project began in 2007 and concluded in 2015 with a second phase continuing afterwards.[2] The project is therefore ongoing.

This paper describes some key practical elements of the eCourts Project and looks at some of the challenges of implementing such a huge electronic and digital system across a country the size of India. The vastness of the court system is highlighted by the number of pending cases in the High Court which, at a recent view on the 'Citizen Centric Service' website, numbered 4.62 million In the District and Taluka Court complexes it totalled some 31.79 million.[3]

Courts have relied upon the availability of documents which are filed on paper, as well as in electronic form, in order to carry out their regular operations. The developments in technology has very significantly improved the way documents are produced, stored, shared and retrieved electronically. However, the management of information in the modern era has posed challenges to courts and their stakeholders. Digitization has drastically changed the way in which documents are made available for access by stakeholders. The increasing prevalence of information technology in the justice domain has brought about significant changes in the way court information is categorized, organized, stored, accessed, maintained, distributed, secured, preserved and disseminated. These technological changes in the judicial information domain are challenging traditional information management practices and facilitating the shift towards paperless courts. The Honourable e-Committee of The Supreme Court of India, the Department of Justice, the National Informatics Centre, the courts and other government institutions have played a significant role in implementing the eCourts Project described here.

THE NEED FOR ELECTRONIC INFORMATION MANAGEMENT IN COURTS

There is a necessity for appropriate information management in this context and that approach can be summarized around the following ten key elements and drivers for the project:

■ **The promotion of paperless courts**, by minimizing paper records and converting them into digital records, is essential;

■ **Cost efficiency** as transfer of documents from one stakeholder to another is achieved through electronic

means which incurs less cost when compared with the cost involved in transferring paper documents;

- **Time-saving** as documents in electronic mode are transferred at a faster pace when compared to the traditional paper-based mode;

- **Space management improved** whereby courts need not have record rooms to preserve court documentation and thus facilitating better space management;

- **A 360 degree facilitative approach** which caters for the needs of judicial officers, legal counsels, court personnel and litigants;

- **Transparency**: the whole system can make delivery of justice a more transparent process, increaseing the level of accountability and limiting the need for human conversation which can then be kept to a minimum;

- **Facilitating effective court management and case management**;

- **Effective judicial decision-making** through the online analytical processing and business intelligence tools which organize multiple databases into tables with summarized reports.

- **The Judicial Management Information System** facilitates adjudication pattern analysis and impact analysis of any variation in the governing factors relating to law, amendments, jurisdiction, and so on.

- **Judicial performance enhancing measure:** eCourts serve as a judicial performance enhancing measure for policy-makers and enables the decision support system.

INFORMATION SYSTEMS IN INDIAN COURTS

The eCommittee is a body constituted by the Government of India in pursuance of a proposal received from the Hon'ble the Chief Justice of India to assist in formulating a national policy for the computerization of the Indian Judiciary and to provide advice on technological communication and management-related changes.

Overall the main objectives of the e-Court Project have been to:

- To automate the judicial process to enhance transparency of information access to its stakeholders.

- To offer efficient and time-bound citizen-centric service delivery.

- To develop, install and implement decision support systems in courts.

- To improve judicial productivity both qualitatively and quantitatively.

- To make the justice delivery system cost effective and transparent, and more easily accessible.

PRIME FOCUS OF ECOURTS

The prime focuses of e-Courts are mentioned as:

- **ICT (Information and Communication Technology) Infrastructure**

- **Delivery of Digital Court Services**

- **Change Management**

ICT INFRASTRUCTURE

Where the ICT infrastructure is concerned, enabling the existing court structure to implement the eCourts project is the most important task and requires substantial investment. The practical factors that have to be overcome and resourced, at considerable budgetary cost, across the entire Indian sub-continent relate to the implementation of infrastructure such as: computers with the appropriate configuration with: the necessary hardware; a wide area network (WAN); a local area network (LAN); reliable internet connectivity with adequate speed; information kiosks; and power generators to support power backup and an uninterrupted power supply (UPS). These infrastructural facilities are extended to legal services authorities in various districts as well to judicial academies across the country.

In addition, the Government of India has set up video conferencing facilities between the courts and jails. This has been seen as a significant move with regard to judicial process whereby a court can have more direct access to prisoners. This improvement has addressed several issues such as the time-consuming procedure of bringing a jail inmate to court and the security measures that are involved in commuting a jail inmate to the court.

SERVICES OFFERED BY ECOURTS

eCourts aim to deliver the services of courts in the following ways, through different platforms.

Web portal

The website www.ecourts.gov.in has been designed which gives access to anyone throughout the world in order that they can understand the stage that a case has reached or where the judgement has been delivered. One requirement is to have the 'Case Number Record' (CNR), which is the number which is assigned to a litigant at the time of filing the case. Every district across India has been assigned a website. If the case number is not known, it is possible to search by legal counsel name, name of the parties, an FIR (First Information Report) number which is given by a police station, by the 'Case Code' or with an 'Act name'. These portals also provide orders passed by the courts, copies of the deposition and 'cause list' on a daily basis.
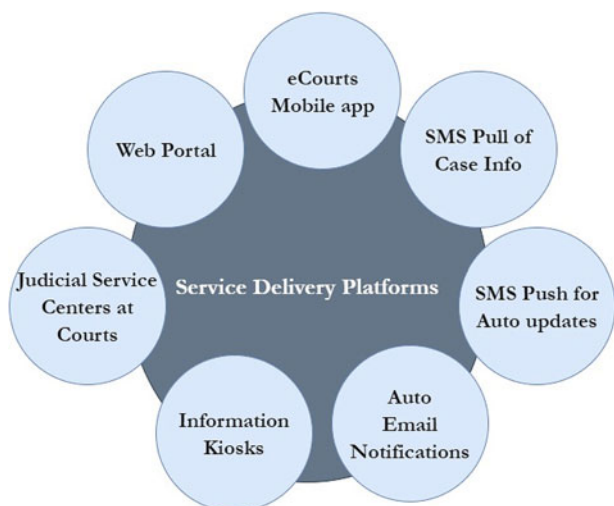
Figure 1: Service delivery platforms.

eCourts services mobile applications (eCourts services app)

The eCourts services that are offered as a website facility are made available for mobile technology too. All that an information seeker has to do is install the eCourts services mobile application from the Google Play Store and all the services are available.

Short Message Services (SMS): pull & push

An information seeker can get information about their case by sending the Case Number Record (CNR) to the mobile number assigned by the Government which is +91-9766899899. SMS Push services are offered to the litigants and counsels who have registered their mobile numbers during the case filing process.

Automated email notifications

A litigant or the legal counsel who have been registered in a case with a judicial service centre, would receive email notifications whenever an update is made in that case. They would also receive the soft copy of the judgment once it has been pronounced.

Information KIOSKS

eKiosks enable public litigants, the legal counsel or any interested party to obtain information on a case by self-service. The same facility offered by a web portal and through a mobile application is available via eKiosks which are placed inside every court complex across the country.

Judicial Service Centres

As a helpdesk for public litigants and legal counsels, Judicial Service Centres have been set up in court complexes to facilitate the dissemination of case information. Individuals who do not have access to the internet, or who are less technically literate, can use this service to get information about their cases. The Service Centres facilitate e-filing of cases, act as helpdesks and addresses the queries of the public and legal counsels. The Judicial Service Centres are staffed with technically sound personnel and are similar to the Customer Care Centres in a corporate environment.

SIGNIFICANCE OF ECOURT SERVICES TO VARIOUS STAKEHOLDERS

eCourt services provide a variety of facilities which are considered significant to the judicial officers, litigants, legal counsels and policy-makers. Figure 2 gives a summary of the services offered by eCourts:

CHANGE MANAGEMENT

Moving from a traditional paper management operation to a digital system requires a 'change management' approach. For this, the focus is on the following aspects:

- Changes in infrastructure.
- Changes in the judicial processes.

Figure 2: Services to litigants and legal counsels and services for judicial officers.

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- Changes in mindset of the stakeholders.
- Training the process owners and stakeholders.

Apart from the huge budget allocation required to convert the nature of the operation to digital, there also needs to be a paradigm shift in the mindset of all stakeholders. An awareness and understanding of the strengths and advantages of the new system is crucial. Adequate training for the stakeholders is required to equip them to adapt to the new system. Under the eCourts project, 488 Master Trainers and District System Administrators (DSA) have been trained in aspects of 'change management'. These trainers have then worked with officers and staff members to ensure that the appropriate level of instruction has been delivered to allow the change management programmes to be carried out. These programmes have been scheduled at regular intervals.

RECENT TRENDS IN ECOURT SERVICES

National Services and Tracking of Electronic Processes (NSTEP)

The NSTEP facility helps courts to serve the court summons to the parties through both electronic and semi-electronic applications. The bailiff or the process server will be given GPS enabled electronic gadgets to execute the process (summons). Courts would receive real time updates on the summons process which curbs any delays in the service. All the stakeholders in a case would be able to track the summons. This facility is backed by GPS connectivity which makes the task more transparent and efficient with improved quality of service.

The approach that is taken is *process generation* in *Case Information Software* and which is published in the NSTEP web application and as well as the NSTEP mobile application. The bailiff who is the person responsible for serving the process summons has the mobile application installed in his mobile, can view the summons to be served and is able to visit the site of the incident or crime and is able to take any necessary photographs of the scene. The latitude and longitude coordinates of the site are logged accordingly. Once the process summons is served, the status of the process gets updated on the web and the mobile application. The courts then have a clear picture of the status of the case, as do the litigants and counsels. This is considered to be a an important tool for the Nazir establishments in the courts; these are the responsible departments of a court which execute the service of process summons.

E- Payment

This facility is a user-friendly interface that enables online court payments to be made, such as court fees, judicial deposits, fine and penalties with reference to courts. The payer will get an acknowledgement once the transaction has been completed, which serves as a record for further court proceedings.

The major advantages of the facility are:

- Convenient and faster service for facilitating court payments;
- The user-friendly interface which is simple and relatively hassle-free;
- The security of the e-payment system. The one-time password authentication provides a safer transaction;
- Payment records are stored online which aids the tracking of court payments;
- The litigants and legal counsels no longer have to queue up in order to make payments and card payments are available in the system.

E- Filing

Civil and criminal cases can be filed before both the High Court and District Courts using the e-filing system. The main objective of this system is to a promote paperless
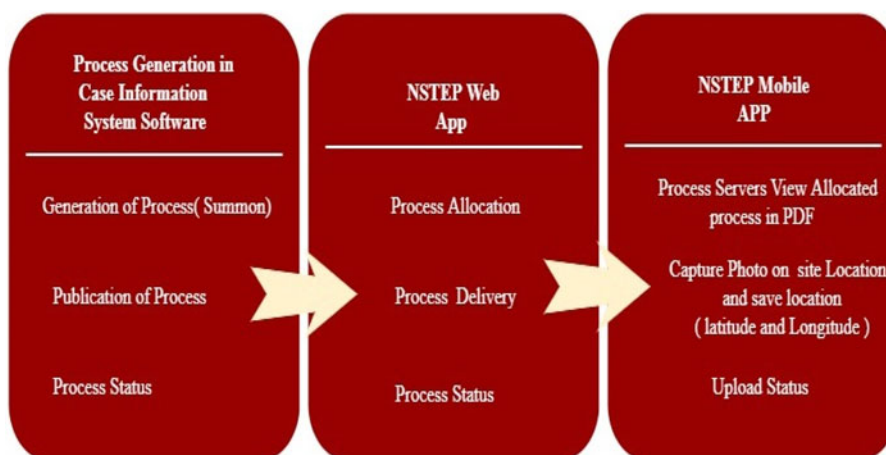

Figure 3: NSTEP processes.

Figure 4: The e-filing system.

operation and to make filing a less time consuming and be a more economical process as a result of adopting the latest technologies available. Citizens can file a case online and receive replies with either no, or very limited, need for a visit to the court registry. The system is integrated with standard application software (the Case Information System) which is available across all districts and the subordinate courts in India. A user must have access to a personal computer, running a Linux or Windows, or a Macintosh, with internet access, a web browser such as Mozilla Firefox or Google Chrome, Adobe Acrobat Reader 11 software and a scanner to scan documents. Documents can only be submitted in PDF format for the purposes of e-filing. When paper documents are scanned, the resolution must be set to 200 DPI. Currently, the maximum size a document that can be uploaded is 25MB per document pages for a .doc or a .docx format. The following diagram shows the process adopted in e-Filing System:

Options are available for payment of deficit court fees – miscellaneous documents after the cases are filed.

E-sign

This is a free facility which is included with the online filing and can be used by litigants and legal counsels. It allows citizens to sign any document to be submitted to the court from a remote location.

CHALLENGES FACED BY THE ECOURT SYSTEM

There are several challenges that relate to any eCourt system. The key ones are:

- A need for a huge budget for infrastructural facilities;
- Training on eCourts systems;
- Challenges with online security measures;
- Careful dissemination of sensitive information;
- Handling information on national interest and national security.

A need for a huge budget for infrastructural facilities

India is one of the most populated counties of the world and has 3,201 court complexes with 6,967 court establishments. All these courts have to be equipped with adequate infrastructure facilities to implement this project – servers, computers, UPS machines, air conditioned server rooms, technical personnel, internet

connectivity, and so on. In the past much of this infrastructure has been lacking, or of low quality provision. Lack of IT knowledge among users has been a particular obstacle. The required budget to achieve the transformation of the Indian Judiciary is enormous.

Training on eCourts systems

All the stakeholders of the project should be trained in the functionality of the system. Judicial officers, lawyers, legal consultants, staff of the courts, government pleaders and public prosecutors all need to be trained on the concepts and procedures of the new eCourts system. Adequate numbers of Master Trainers are required. Online tutorials should be made available to all the stakeholders. The expenditure incurred for these training programmes also needs a significant budget and the selection of 'Master Trainers' from among the judicial officers is problematic as many of them are experts in the legal field but may not be as proficient with technology.

Challenges with online security measures

Technological advancements have increased cyber threats. With reference to digital data assets, state court systems have a considerable responsibility, in a similar way to the sectors of corporate business organizations, financial institutions and other government organizations. The data can represent a high-value target for hackers and cyber-offenders. There is a vulnerability and the level of responsibility to the public is high where the state court systems are concerned. Escalating cyber threats have meant that the courts system has needed to operate with efficient data management, and has pursued effective coordination with investigation agencies dealing with cyber crimes, such as police departments and executive and legislative departments of the state. Cyber security aims to protect computers and information systems from theft, damage or disruption. Cyber offenders seek undetected access to target database information systems and try to sabotage data integrity and information systems, which damage an organization's operations and credibility. The eCourts system should establish cyber security departments exclusively to track the usage of the eCourts database and monitor security threats.

Dissemination of sensitive information

Courts are custodians of sensitive data of individuals and organizations, and safeguarding this information is one of the prime duties of the records and archive departments of every court. Governing sensitive data as an operation requires a proper understanding of (i). the human resources involved in accessing data, (ii).

the data storage technologies that analyse data flow processes and (iii). the necessary data security systems. The development of technology has allowed for a significant increase in data storage. There are multiple vulnerable entry points for data breaches in courts. Some of these weaknesses can be listed as the case management systems; the intranets; the servers; the database management system; data storage; software programs; the wifi systems; the computers situated at courts; and the devices of employees including their personal computers, laptops, smart phones and tablets which are used for official purposes by court staff and judicial officers.

Even though most of the court records are non-confidential, there is an ample amount of information which is legally secured and protected from public access. Apart from the damaging consequences of disrupting court operations, cybercriminals may still find ways to intrude on the sensitive and confidential information preserved in court systems. Examples of the kinds of sensitive information held includes: AADHAR numbers (the number used for identity purposes in India), bank account numbers, details of financial transactions of offenders, information on money laundering, investments of victims in foreign countries, details of sexual offences, and information concerning victims in domestic violence and sexual assault cases. Other sensitive information could pertain to video files and records, details of confidential informants, search warrants in criminal cases, witness reports, medical and psychological reports, production formulae, intellectual property information, trade secrets (which are kept in sealed digital forms) and information on military transactions.

Courts have a responsibility to keep these records safe and secure from cyber criminals and their activities involving hacking and manipulation of court data. Such activity has the potential to damage the credibility of the judicial system. A collaborative approach has been taken to ensure that preventative measures are taken by the judiciary, the cyber security investigation departments of government, government administration, and technical staff. The legislative section of the government is responsible for regulating information technology practices, implementing laws on cybercrime and making available funding for enhanced security measures.

Protection of confidential court records remains an indispensable act of protecting the rights and liberties of individuals and organizations. Naturally, investing in precautionary security measures can save more money than recovering assets and covering losses.

Handling information on national interest and national security

Sometimes courts have to handle information of national interest and national security eg. military plans and operations, foreign government information,

information on intelligence activities, terrorist organizations, illegal financial transactions, financial sources and methods of terrorism, data and strategy on foreign relations, and so. Courts should ensure that these sensitive databases are highly protected and specially preserved. Advanced antivirus systems, threat detecting software and specialized database storage for this highly sensitive information can reduce the risk of leakage of information. The eCourts system should take care of all these aspects, though it may incur significant expenditure in the form of infrastructure and the employment of highly specialized cyber experts in order to protect national interest.

CONCLUSION

The eCourts project implemented by the Government of India is a very significant initiative and an operation that has reached its second phase. The project aims to serve millions of litigants and related stakeholders of the courts. The extent of service offered is immeasurable in the context of the population of the country. Already a huge budget has been spent on the project with the intention of better serving the people of the country. This project stands as a clear example that India is moving as a digital nation and as a state which is driving technology for the welfare of the citizens.

Footnotes

[1] https://ecourts.gov.in/ecourts_home/static/about-us.php accessed 19/02/2020
[2] Ibid
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