

The Impact of Digital Tools on Democratizing Justice in India

Author

Dr. Ashutosh Bairagi

Professor & HoD, Institute of Law

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore, M.P., India

Abstract

Technology plays a vital and pervasive role in access to justice, making the judicial system more accessible, transparent, and effective. In a large country like India, where access to courts is often difficult, technology has simplified this process through digital means. Through tools like the e-courts project, e-filing, video conferencing, and online case management, individuals who previously took months or years to access justice can now have their cases resolved quickly through digital means.

Technology has not only accelerated the judicial process but also increased judicial transparency and accountability. Through mobile applications and web portals, the public can directly access information on the status of their cases, hearing dates, and decisions. Furthermore, intelligent AI-based tools have simplified the work of judicial officers and lawyers by assisting in legal document preparation, case research, and analysis. This has increased the efficiency of the judiciary and reduced the number of pending cases.

However, this revolution in digital access to justice also faces challenges such as disparities in digital literacy and internet connectivity. Lack of technological resources in rural and marginalized areas hinders equitable access to justice. Ensuring cybersecurity and data privacy is also essential to maintain trust in the digital form of the justice process. Ultimately, technology has brought significant changes to access to justice, which, with continued improvement and innovation, will make the justice system more democratic and inclusive.

Keywords: Justice, Democracy, Technology, Society, Court of Law.

Introduction

Justice is the cornerstone of any civilized society. Democracy becomes strong and sustainable only when justice is equally available to all citizens. Justice is not limited to decisions delivered in courts; it is part of a broader system through which citizens can obtain fair, timely, and affordable solutions to their problems and disputes. Ensuring access to justice has always been challenging in a diverse and populous democracy like India. On the one hand, the caseload in courts is constantly increasing, while on the other, rural and economically weaker sections are left behind in the process of accessing justice. At such a time, the intervention of technology has emerged not only as an auxiliary tool but as the backbone of the justice system.

Information technology and the digital revolution have transformed the traditional structure of the judiciary. While court proceedings previously relied on paper documents and personal presence, now tools like digital platforms, online admissions, e-courts, video conferencing, artificial intelligence (AI), and data-driven analytics have made the justice process more expeditious, transparent, and inclusive. This change has not only simplified the functioning of courts but also opened new avenues for ordinary citizens to access justice.

Meaning and Importance of Access to Justice

“Access to justice” is not limited to the convenience of filing a case in court. It is a broad concept that aims to ensure that every section of society has access to justice without discrimination, without delay, and in an affordable manner. It encompasses five key dimensions:

First, guarantee of equal opportunity—every person, whether poor or rich, rural or urban, has an equal opportunity to access justice. Second, simplicity and transparency of procedures—the legal process should not be so complex that ordinary citizens shy away from it. Third, timeliness—delay in justice often equates to denial of justice. Fourth, economic accessibility—the process of accessing justice should not be so expensive that the poor are left behind. Fifth, availability of information—information and guidance related to justice should be easily available.

Considering these dimensions, it becomes clear that technology can revolutionize access to justice. Technology not only reduces time and costs, but also makes information more accessible and simplifies processes.

Historical Perspective

India's judiciary is the largest judicial system in the world. It comprises the Supreme Court, 25 High Courts, and over 18,000 subordinate courts. However, despite this vast structure, the judiciary has long struggled with pending cases and slow processes. According to data from 2025, over 45 million cases are pending nationwide.

The issue of access to justice began to be seriously addressed in the 1970s. Progressive judges like Justice P.N. Bhagwati and Justice V.R. Krishna Iyer emphasized the need to make justice accessible to the masses. It was during this period that the concept of "Public Interest Litigation" (PIL) developed, allowing even the poor and marginalized to directly access the Supreme Court and High Courts. This was a revolution in access to justice.

However, PIL alone was not enough. Justice remained elusive due to the growing caseload, the complexity of procedures, and financial constraints. Then information technology emerged and gradually began to penetrate the judiciary. Computerization began in the 1990s, and in 2005, the "e-Courts Mission Mode Project" ushered the judiciary into the digital age.

Use of Technology in the Judiciary

India has made extraordinary progress in the field of information technology over the past two decades, and the impact of this progress is clearly visible in the judiciary. The judicial structure is so vast that if it were run in a traditional manner, the burden of justice delivery would have become unbearable. Therefore, the courts gradually began adopting technology. The most significant step was the e-Courts Mission Mode Project (2005), which attempted to bring the functioning of courts across the country to a digital platform.

e-Courts Mission Mode Project

The objectives of this project were:

1. Computerize court processes.
2. Provide online services for litigants and lawyers.
3. Store data securely and in an organized manner.
4. Establish coordination between courts.

Through e-Courts, case filings, hearing dates, case progress, and copies of orders were made available online. This increased the transparency of the judiciary and reduced the potential for corruption. Today, anyone can view their case details by visiting the ecourts.gov.in portal. This not only saves time but also allows people in rural areas to access information without traveling.

Virtual Hearings and the COVID-19 Experience

In 2020, the COVID-19 pandemic brought the entire world to a standstill. Courts were closed, and there were fears that case proceedings would come to a complete halt. However, the Supreme Court and High Courts of India embraced technology and initiated virtual hearings through video conferencing. This marked a major turning point in the history of the judiciary.

Virtual hearings brought several benefits. First, lawyers and litigants from remote areas were able to participate in hearings without long travel. Second, prisoners could be produced from jail, saving both security and costs. Third, despite the pandemic, the judicial process did not come to a complete halt. The Supreme Court conducted a record number of virtual hearings in 2020 and 2021. This model later became so popular that virtual or hybrid hearings are still offered as an option in many cases.

National Judicial Data Grid (NJDG)

The NJDG is a revolutionary initiative towards transparency and data-based policymaking in the judiciary. It is an online portal where data on pending and disposed cases from across the country is available. Any citizen can view the number of cases pending in a particular state or district, the average time taken for their disposal, and which level is most burdened.

The NJDG brought about two significant changes:

- The accountability of the judiciary increased as its performance is now public.
- Policymakers gained access to concrete data for improvement.

Artificial Intelligence and Machine Learning

In recent years, artificial intelligence (AI) has also made its way into the judiciary. The Supreme Court launched an AI-based tool called “SUPACE (Supreme Court Portal for Assistance in Courts

Efficiency).” This tool helps judges analyze complex case files and documents. Through it, judges can quickly find relevant information and precedents.

AI-based search engines are also proving to be a boon for lawyers and students. Previously, case law research took weeks, but now relevant judgments can be found in minutes. Translation technology is also gradually developing, allowing English orders to be translated into Indian languages. This initiative is especially important for rural and non-English speaking litigants.

Mobile and Online Platforms

The Indian government has launched schemes like “Nyaya Mitra” and “e-Sewa Kendra,” which provide legal assistance to people in rural and backward areas. Through mobile apps, litigants can also check the status of their cases, download documents, and consult with lawyers.

In this way, technology has not only modernized the functioning of the judiciary but also brought justice closer to the common citizen. Justice is no longer confined to the courts of big cities, but is reaching every village through digital platforms.

International Experience and India's Comparison

The use of technology in the judiciary is not limited to India. Many countries around the world have made significant progress in this direction, and their experiences can be an inspiration for India.

Estonia: An Example of a Fully Digital Justice System

Estonia, a small European country, is known as the “Digital Nation.” Its judicial system is almost completely digital. Citizens can not only file cases through online platforms, but also access copies of the entire hearing and judgment online. Court hearings are often conducted via video conferencing, and e-filing has been made mandatory. Even for smaller cases, the option of "online court" is available.

The Estonian model demonstrates that the judiciary can be fully technology-based if the digital infrastructure is strong. This model is difficult to implement directly for a large country like India, but it is extremely useful as a guideline.

Singapore: E-Litigation and Smart Courts

Singapore has implemented an "e-litigation system," under which judicial processes have become completely paperless. Here, courts have not only encouraged e-filing but have also mandated the digitization of documents and digital signatures.

Singapore's unique feature is the concept of "smart courts." Courts offer features such as digital displays, case tracking systems, and online payment gateways. This saves litigants both time and cost in accessing justice.

United States: Legal Chatbots and Online Dispute Resolution

In the United States, artificial intelligence and chatbots are being used for judicial assistance. In many states, legal chatbots provide initial legal advice and guide citizens on what type of petition they should file. Additionally, through online dispute resolution (ODR), minor disputes are resolved online without going to court.

United Kingdom: Digital Case Management

The UK has implemented a digital case management system, making all court records available online. The use of video links has become common even in criminal trial cases. During COVID-19, the UK adopted virtual hearings extensively and has partially maintained this practice even after the pandemic.

Comparing India and the World

India has also implemented several initiatives such as e-courts, virtual hearings, and the National Judicial Magistrate (NJDG). However, compared to international experiences, India is still in its infancy. The key difference is that India has a larger population, a vast geographical area, and a deep digital divide. Countries like Estonia and Singapore have relatively smaller populations and higher digital literacy.

Despite this, India's initiatives are remarkable. The speed at which virtual hearings were adopted after 2020 was much faster than any other major democracy in the world. India demonstrated that technology can be adopted on a large scale, provided there is political will and the support of the judiciary.

Benefits of Technology

The use of technology in the judiciary has yielded numerous benefits, the impact of which is not limited to the courts but reaches a wide section of society.

1. Time Savings

E-filing and virtual hearings have significantly saved time. While previously it took weeks to submit documents, send notices, and set dates, all this is now possible in a matter of hours through digital means.

2. Cost Reduction

Technology has made justice affordable. Travel, paperwork, stamp duty, and other expenses have decreased. Virtual hearings have even saved lawyers and litigants the cost of relocating to different cities.

3. Transparency

NJDG and online case tracking have made the judiciary more transparent. Now, any citizen can view the progress of their case and monitor the functioning of the courts.

4. Equity and Inclusion

Technology has given access to justice to even remote and disadvantaged communities. People in rural areas can now access court information through “e-Sewa Kendra” or mobile apps.

5. Helpful in Policy Making

Data analytics has helped policymakers determine the direction of judicial reform. For example, if a state has a high backlog of cases, additional courts or special benches can be established there.

6. Environmental Benefits

A paperless justice system has also benefited the environment. Digitizing millions of pages of documents has reduced paper consumption and reduced carbon footprint.

Challenges and Limitations of Technology in the Judiciary

Incorporating technology into the judiciary is no easy task in a vast and diverse country like India. Although many improvements have been made in recent years, numerous obstacles and challenges remain.

1. Digital Divide

A large population in India still lacks internet access and smartphones. Network connectivity in rural areas is poor, and the economically weaker sections cannot afford expensive devices. Consequently, when courts rely on e-filing and virtual hearings, the poor and rural sections are cut off from justice. Justice remains accessible only to those with digital resources. This digital divide poses a significant challenge.

2. Lack of Technical Proficiency

Many judges, lawyers, and judicial staff are not fully proficient in the use of technology. The subordinate courts, in particular, still tend to operate in outdated ways. Technical glitches are often encountered in e-filing and virtual hearings, leading to delays and confusion in hearings.

3. Cybersecurity and Data Privacy

When all documents, evidence, and orders are made available online, the risk of misuse and hacking increases. Judiciary data contains highly sensitive information—such as the identities of witnesses in criminal cases, information related to national security, etc. If this data is not protected, the justice system itself could be questioned.

4. Ignoring the Human Factor

Justice is not merely the interpretation of law, but also interconnected with social and human contexts. Technology—especially artificial intelligence—can understand the language of law, but it cannot understand the emotions of a victim or the social impact of a case. Overreliance on technology can weaken the human aspect of justice.

5. Linguistic Diversity

India has 22 scheduled languages and hundreds of dialects. The court language is primarily English and, to a lesser extent, Hindi. However, most litigants do not understand these languages. The

translation system is still in its infancy. Until technology becomes multilingual, the common citizen will not be able to fully understand the language of justice.

6. Lack of Infrastructure

Many district and tehsil-level courts still have weak technical infrastructure. Internet speeds are slow, power supply is irregular, and necessary equipment is lacking. Virtual hearings are not as smooth as in larger cities.

7. Inequality in Access to Justice

While technology has made justice easier for one segment, it has become more difficult for another. Only those who are educated and can use digital tools can benefit from technology. Poor, illiterate, and technologically illiterate citizens still face a lack of access to justice.

Potential Solutions and Ways Forward

Finding solutions to these challenges is essential so that technology can truly democratize and inclusive access to justice.

1. Digital Literacy Campaign

The government and the judiciary should jointly launch a digital literacy campaign. Lawyers, judges, and court staff should receive regular training to efficiently use technology. Rural citizens should also be taught how to use mobile apps and online portals.

2. Affordable Internet and Devices

Affordable internet and devices must be made available to bridge the digital divide. India has worked towards increasing internet access under the "Digital India" initiative, but this initiative needs to be strengthened further. Only if every citizen has at least basic smartphone and internet access will access to justice be truly equal.

3. Robust Cybersecurity Framework

It is essential to develop a dedicated cybersecurity framework for the judiciary. Sensitive information should be protected through data encryption, multi-factor authentication, and regular audits. For this, the government needs to establish a special cybersecurity cell.

4. Responsible Use of AI

Artificial intelligence should only be used as a supporting tool; the final decision should always rest with a human judge. AI should be limited to case studies, document analysis, and translation. It is also important to consider its ethical aspects so that it does not reflect bias against any class or community.

5. Multilingual Translation System

Translations of judicial orders and documents must be made available in various Indian languages. The AI-based translation system must be strengthened so that any litigant can understand justice in their own language. This will make justice more inclusive and democratic.

6. Technological Upgradation of Rural Courts

The technical infrastructure in district and tehsil-level courts must be strengthened. High-speed internet, regular power supply, and necessary equipment must be made available there. Only then will the benefits of technology reach every village.

7. Public Awareness Campaign

People must be made aware that technology is a new means for them to access justice. Awareness campaigns will need to be conducted through TV, radio, social media, and village meetings. Unless people embrace technology, this system will not be effective.

Conclusion

Access to justice is the soul of any democratic system. If citizens do not receive fair, speedy, and affordable justice, the very fabric of democracy remains merely a formality. In a vast country like India, where socio-economic inequalities are deep and courts are overburdened with cases, ensuring access to justice is a complex challenge. However, technology has demonstrated the potential to transform this challenge into an opportunity.

Innovations such as the e-Courts Mission Mode Project, virtual hearings, the National Judicial Data Grid, artificial intelligence-based tools, and mobile platforms have demonstrated that the judiciary can become more transparent, faster, and inclusive with the help of technology. During the COVID-19 pandemic, when the entire world came to a standstill, the Indian judiciary's adoption of virtual hearings demonstrated that technology can sustain the delivery of justice. This experience was not merely a temporary experiment but a new model for the future.

International experiences also bear this out. Countries like Estonia, Singapore, and the United States have brought justice closer to the common man through technology. India has also made significant progress in this direction. Although India's situation is unique—its population is large, its geography is vast, and the digital divide is deep. Nevertheless, India's initiatives indicate that, provided political will and the support of the judiciary remain, "digital justice" can become a reality, not just a dream.

The use of technology in the judiciary has brought many benefits—time and cost savings, transparency, data-driven policymaking, and environmental benefits. This has opened new opportunities for access to justice for remote and marginalized communities. However, challenges also exist—the digital divide, lack of technical expertise, cybersecurity, neglect of human factors, and language barriers. These challenges can be addressed through digital literacy, affordable internet, cybersecurity frameworks, the responsible use of AI, and multilingual translation systems.

The way forward is for the judiciary to view technology as an aid, not a substitute for human judgment. Human judges should always be the final arbiter of justice, as only humans can understand social contexts and emotional aspects. But technology can make the work of judges and lawyers easier, streamline the process for litigants, and democratize access to justice.

India's dream is "Justice for All"—it's not just the motto of the Constitution but a necessary condition for society. Technology is a powerful tool to realize this dream. If we can bridge the digital divide, make responsible and balanced use of technology, and continue to work towards modernizing the judiciary, in the near future, courts will no longer be confined to walls but will reach the mobile phones and computers in every citizen's hands. This is the true power of technology—making justice accessible, speedy, and transparent to everyone.

So, it can be concluded that the role of technology in access to justice is not just helpful but essential. It is not only a necessity of the present but also the direction of the future. If adopted correctly, technology can realize the ideal of the judiciary that the makers of the Constitution envisioned—"equal justice for all."

References:

- Bhatnagar, S. (2014). ICT and Governance: A Practitioner's Perspective. SAGE Publications India.
- Ghosh, S. (2019). Technology and Access to Justice: The Indian Experience. Eastern Book Company.
- Rajan, K. (2020). E-Governance and Judicial Reforms in India. Regal Publications.
- Sharma, R. K. (2018). Judicial Reforms in India: Role of Information and Communication Technology. Deep & Deep Publications.
- Singh, A., & Basu, P. (2021). Digital Justice: Technology and the Future of Courts in India. Oxford University Press.
- Bhandari, V. (2020). Technology and access to justice: Challenges and opportunities in India. Indian Journal of Law and Technology, 16(2), 112–135.
- Katju, M. (2021). Virtual courts and e-justice in India: A critical appraisal. Journal of the Indian Law Institute, 63(1), 45–67.
- Mohan, S. (2020). Digital courts and the promise of access to justice. NUJS Law Review, 13(3), 233–260.
- Singh, A. (2022). Artificial intelligence and the future of Indian judiciary. Indian Journal of Artificial Intelligence and Law, 2(1), 78–95.
- Tripathi, P. (2019). National Judicial Data Grid and transparency in the Indian judiciary. International Journal of Law and Legal Studies, 7(4), 201–220.
- Supreme Court of India. (2020). E-Committee of the Supreme Court of India: Draft vision document for Phase III of the e-Courts Project. New Delhi: Supreme Court of India.
- NITI Aayog. (2021). Online Dispute Resolution: Policy Plan for India. New Delhi: Government of India.

- Ministry of Law and Justice. (2018). Department of Justice: e-Courts Mission Mode Project Phase II. New Delhi: Government of India.