Comments on Draft Vision document of Phase III of eCourts Project

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Preliminary

The Centre for Internet and Society (CIS) is a non-profit organisation that undertakes interdisciplinary research on internet and digital technologies from policy and academic perspectives. The areas of focus include digital accessibility for persons with disabilities, access to knowledge, intellectual property rights, openness (including open data, free and open source software, open standards, open access, open educational resources, and open video), internet governance, telecommunication reform, digital privacy, and cyber-security. The academic research at CIS seeks to understand the reconfiguration of social processes and structures through the internet and digital media technologies, and vice versa.

CIS had also submitted its comments on the Draft report on Online Dispute Resolution(ODR) policy, which can be accessed [here](https://cis-india.org/internet-governance/cis_odr-report_11-11-20) (https://cis-india.org/internet-governance/cis_odr-report_11-11-20)

Executive Summary

This submission is a response by the researchers at CIS to the Supreme Court E-committee's draft vision document of phase III of the E-courts project.

We have put forward the following comments and recommendations based on our analysis of the draft report:

A. General Comments

1. The report must place greater emphasis and take into consideration the digital divide between the urban and rural population as well as the the gender divide that exists amongst Indian citizens
2. There is a lack of clarity on how the data will be collected and shared between the different systems within the ICJS and for how long will the data be retained.
3. There is a lack of clarity on the rules and regulations surrounding storage of data collected under this project
4. There are a number of key limitations of the proposed technologies (automated courts, virtual courtrooms and online dispute resolution mechanisms) that will limit their effectiveness
5. Increased technological integration would require dedicated efforts to foster public trust in the judicial process.

B. International Comparison

We have comparatively analysed the integration of digital technology into the judiciary in both South Asia and Africa. Having identified their implementation in both these regions we have identified the following trends:

1. While South Asian countries like Philippines and Thailand are constantly developing strong systems to handle most cases online and transitioning to an e-court system, countries like Vietnam and Indonesia have introduced limited systems for exchange of documents before hearings.

2. The issues reported with the functioning of the e-court system in South Asian nations include insufficient infrastructure and equipment, inadequate training of court personnel, limited IT support, and staff shortages that constrain data encoding and updating of court records.

3. Countries like China and Singapore undertook a deliberative slow uptake process, applying eCourts and technology to judicial hearings sectorally in the beginning to test their effectiveness. Thereafter large-scale implementation of virtual or digital courts and new technologies like - data analytics for caseload prediction in Singapore and China's e-evidence platform based on blockchain technology - have proved to serve the intended purpose of efficient and effective judicial process with the aid of digital technologies.

4. African countries such as Kenya and Libya have seamlessly transitioned to virtual court systems and e-filings along with other e-services for justice delivery. However, challenges with implementation persist, mainly relating to -

   - Low internet penetration rates creating a digital divide mainly between the urban and rural areas of Africa.
   - Power outages, mainly in rural areas of Africa thus creating an impediment to access to justice with respect to virtual hearings in rural areas without electricity backup.
   - Lack of skills for operating digital judicial systems requiring effective and continuous user-training to operate technologies like Kenya's Electronic Case Management System (ECMS).
   - Challenges with complicated digital systems where continuous user platform development is required to simplify processes to access and use systems like online-filing or access to judicial websites so as to make it easy to use for all stakeholders involved.
   - Need for a singular legislative and regulatory framework prior to adoption, whereby different rules on similar cases in different virtual courts across states causes inter-state judicial splits, an impediment to access to justice.

C. Recommendations:

1. Dedicated programs must be identified and supported to ensure that citizen focused digitisation takes place so as to not leave any people out of the scope of the judiciary

2. A dedicated regulatory and administrative framework must be published as soon as possible that takes into consideration questions of data storage, data protection and purpose limitation among other considerations. Such a framework must also explicitly call out the limited use cases of technologies like virtual courts.

3. The MHA to codify and specify the regulations with regard to the processing of data through the systems under the ICJS and clear directives on the nature and scope of integration of judicial infrastructure with the ICJS must be provided

4. Studies to be conducted to identify the challenges that may arise when implementing proposals such as virtual or automated courts, virtual courtrooms that use audio visual software and online dispute resolution mechanisms. Such studies would allow for policies to be effectively identified prior to widespread implementation and would significantly reduce the possibility of unintended harms.

5. Identifying measures to improve public trust in the integration of technology within the judiciary through judicial education schemes, etc.

6. Due to varying precedents provided by High Courts and the Supreme Court of the country, there is a requirement for uniform and clear guidelines/directives with respect to the process of electronic evidence management and preservation in India.

General Comments

1. Digital Divide

The vision document proposes to adopt an 'ecosystem' approach where systems interact with each other. While it envisages digital developments for e-courts based on *'an intelligent system that enables data-based decision making for judges and registries'* and the system *'combines the vast body of judicial data to foster legal literacy'*, the digital divide between India's population needs to be addressed so as to not result in denial of access to justice. The term 'digital divide' refers to the lack of infrastructure, lack of access, lack of information, and inability to leverage information[1]. Various factors such as gender, social and income inequality, geography and illiteracy contribute to digital exclusion independently and interdependently. For the purpose of our submission we focus on two factors: geography and gender.

According to IAMAI's 'Digital in India' Report 2019[2], there were 227 million active internet users in rural India, which is 10% more than urban India's which was about 205 million, and rural India achieved greater penetration of the Internet in 2019, which is a positive sign. However, the report points out that there is still headroom for growth as about 70% of the rural population does not access the Internet. While the total internet subscription per 100 population is 58.51 million, there is a substantial divide between the urban and rural base. The urban subscribers per 100 population is 103.98, the rural internet subscribers per 100 population is 34.60.[3]

Moreover, female Internet users face greater challenges in using the Internet as compared to the male Internet users. According to GSMA Mobile Gender Gap Report 2020 [4], the female internet population is half of that of the male internet population; that is only 21% women go online as compared to 42% men. This divide is higher in the rural areas, where the proportion of male Internet users is more than double than female Internet users. The National Family Health Survey (NFHS-5)[5] reveals a wide gap between the percentage of male population and female population who have ever accessed the internet, especially in states such as Bihar (20.6%), Andhra Pradesh (21%), and Tripura

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[1] Digital Empowerment Foundation, "Exclusion from Digital Infrastructure and Access", May 4, 2021, available at https://defindia.org/wp-content/uploads/2017/09/India-Exclusive-Report_DEF-Chapter.pdf

[2] Internet and Mobile Association of India, "Digital In India Report 2019", May 3 2021, available at https://cms.iamai.in/Content/ResearchPapers/2286f4d7-424f-4bde-be88-6415fe5021d5.pdf

[3] Telecom Regulatory Authority of India Report "Indian Telecom Services Performance Indicator Report" for the Quarter ending October-December, 2020', April 27, 2021, available at https://www.trai.gov.in/sites/default/files/PR_No.26of2021.pdf

[4] Global System for Mobile Communications Association, "The Mobile Gender Gap Report 2020", May 3, 2021, available at https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2020/05/GSMA-The-Mobile-Gender-Gap-Report-2020.pdf

[5] Ministry of Health and Family Welfare, "National Family Health Survey (NFHS-5)", May 4, 2021, available at http://rchiips.org/NFHS/NFHS-5_FCTS/NFHS-5%20State%20Factsheet%20Compendium_Phase-I.pdf

(22.9%), where the female internet users (who have ever accessed the internet) are half in number.

In order to implement the vision of e-Courts in India, there is also a need to address the divide in digital infrastructure. The minimum requirements for the adoption of e-Courts would be smartphones, computer devices, and a stable internet connection. However, there exists a wide disparity in terms of lack of ,and inaccessibility to digital infrastructure. There is a huge difference between devices used to access the Internet. According to the 2019 report by IAMAI, there is a prominent use of mobile phones to access the Internet, both in urban and rural areas, due to their affordability and availability of cheaper data plans. In 2019, there were approximately 500 million smartphone users[6], and out of the total existing internet subscribers, 97.02% subscribers accessed the internet using mobile devices[7]. Therefore, it becomes important to introduce platforms which are mobile-friendly. There is also a need to consider non-Internet options such as voice-only participation, which can be accessed via a toll-free number, for parties that have no access to the Internet and/or smartphones.

2. Interoperable Criminal Justice System (ICJS)

The ICJS, an initiative of the eCourts Committee is an extension of the Crime and Criminal Tracking System (CCTNS). It is regulated by the Ministry of Home Affairs (MHA) through the National Crime Record Bureau (NCRB). The main objective of the ICJS is to interconnect and ensure transfer of information between the police, the courts and the prison authorities. Though it was launched and also implemented in certain states in the previous phases, the data has so far not been completely interoperable. In this phase, one of the objectives is to ensure 'seamless exchange of live data between the different arms of the criminal justice system.' As per the draft vision document *"Allowing elements of the criminal justice system to "talk" to each other, will allow for seamless tracking and prioritisation of processes"*.

Currently, the systems under ICJS are (i) CCTNS, (ii) prisons (e-prison), and (iii) Courts. Some states have also added systems such as missing children and vahan data under ICJS. As per the NCRB[8], systems such as the National Automated Fingerprint Identification System, the Automated Facial Recognition System, Sexual Offenders Registry, Antecedent Verification will also be covered within the ICJS. These systems are also regulated by the MHA.

The draft vision document does not provide any information on how the data will be collected and shared between the courts and the different systems populated within the ICJS and for how long will the data be retained. In the absence of a data protection law

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[6] India Cellular & Electronics Association, "Contribution of Smartphones to Digital Governance in India", May 3, 2021, available at
https://icea.org.in/wp-content/uploads/2020/07/Contribution-of-Smartphones-to-Digital-Governance-in-India-09072020.pdf

[7] Telecom Regulatory Authority of India Report "Yearly Performance Indicators of Indian Telecom Sector-2019", May 3, 2021, available at https://www.trai.gov.in/sites/default/files/YIR_25112020_0.pdf

[8] NCRB Journal 2019 available at https://ncrb.gov.in/sites/default/files/NCRB_Journal_October_2019.pdf

or any law regulating surveillance, such large scale collection and sharing of personal data could permit investigative agencies to undertake surveillance[9].

This is also of concern as the draft vision document does not specify or indicate how it intends to limit the purposes for which the collected data will be used or how and when the data will be shared between the different systems under the ICJS.

3. **Lack of clarity on storage of the data and the time period for which the data will be retained**

The draft vision document has recognised that ensuring privacy and security of data is a critical part of building the necessary digital infrastructure, and has therefore recommended certain principles for the establishment of codified regulations for the judiciary. These include principles such as (i) data minimisation, (ii) creating a tier based access to data; and (iii) designating categories of data based on the harm that may be caused if the data was made public. However, these principles do not provide any information or clarity on how long the data submitted has to be stored or any mechanisms/principles to determine the time period for storage of data.

Further, such codified regulations will only be applicable to the judiciary and will not be extended to the other systems which come within the ambit of the ICJS We recommend that the draft vision should insert a provision recommending the relevant authority, namely the MHA to codify and specify the regulations with regard to the processing of data through the other systems under the ICJS. Such a codified regulation should take into account the privacy principles and the concerns emanating from surveillance in the absence of any data protection law and/or laws regulating surveillance.

4. **Challenges in Managing electronic evidence**

The draft vision document has envisaged presentation of evidence through online and audio visual media, it however fails to address management of electronic evidence. Even though technological developments and solutions are readily accessible, failure to properly manage preservation and collection of digital evidence may lead to unfavourable outcomes in legal proceedings. India must gauge such crucial issues and put in place evidence management systems for preservation and collection of digital evidence. Since electronic evidence, as compared to conventional or traditional evidence, requires specialised and expert training in the field of cyberspace, the method used to investigate and analyse the data maintained on or retrieved from electronic media for the purposes of presentation in a court of law is of prime importance.

Section 65A of the Indian Evidence Act provides that the contents of electronic records may be proved in accordance with the provisions of Section 65B of the Evidence Act. The requirement of a certificate to admit electronic evidence being mandatory has been decided in the affirmative by the Supreme Court in the case of *Anwar PV v PK Basheer*

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[9] Internet Freedom Foundation; 'Buffering Justice: A Call for greater participation in the Draft Vision Document for Judicial Digitisation', April 13, 2021, available at https://internetfreedom.in/digitization-of-indian-judiciary-phase-iii/

and Others[10] Thus, any documentary evidence by way of an electronic record can be proved only in accordance with the procedure prescribed under Section 65B of the Evidence Act. Various High Courts, such as the Delhi High Court in *Kundan Singh v The State* 2015 SCC OnLine Del 13647 has held that the certificate under Section 65B of the Evidence Act can be filed subsequently and does not mandatorily have to be filed alongside the reproduction of the data. Furthermore, in *Shafhi Mohammed v. State of Himachal Pradesh*[11] the Supreme Court has held that the applicability of procedural requirement under Section 65B(4) of the Evidence Act for furnishing certificate is to be applied only when such electronic evidence is produced by a person who is in a position to produce such certificate being in control of the said device and Court may relax such requirement, wherever interest of justice so justifies.

While India may have come a long way in using electronic means and evidence in judicial proceedings, despite various judicial precedents stressing on the importance of the certificate, the certificate has become a mere formality. There is thus a need for uniformity and greater clarity with respect to the process of electronic evidence management and preservation in the country. With the continuous evolution of cyberspace it would be apposite that the courts keep up with the changes, to promote certainty in the use of such electronic records, while taking into account all practical aspects so as to properly implement the vision document for eCourts in India.

5. Need to address key limitations associated with services proposed under phase III

The draft vision document outlines a number of key digital services that are to be integrated within the judicial system moving forward. These services aim to address both the administrative and decision making process that must be undertaken in courts. However, while the vision document takes into consideration the potential benefits of such technologies, it does little to address the concerns that must be negated in order for them to be effective. These concerns are:

A. Virtual Courts

The report makes explicit reference to the use of automated or virtual courts in specific circumstances "that take up judicial time but where only certain stages necessitate application of judicial mind."[12] Proposed applications include: "payment of challans (such as in traffic rule violations), probate proceedings where no objectors enter appearance, small cause money claims and mutual consent divorce pleas (building in the possibility of mediation)"[13]

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[10] (2014) 10 SCC 473

[11] 2018 (2) SCALE 235

[12] Pg 44, E-committee Supreme Court of India, "Digital Courts - Vision & Roadmap: Phase III of the ECourts Project," Draft (Supreme Court of India, 2021).

[13] Ibid

While virtual courts may possess a number of potential benefits, there also exist the following challenges that must be resolved in order for them to be successful:

I. <u>Limitations on appropriate use Templates and algorithms in the decision making process</u>

The draft vision document has proposed the creation of a template for judgements/orders. As per the draft vision document, the template will be based to analyse certain inputs and past judgments and the templates' usage patterns. Creating and using a template could help in disposing of certain matters such as traffic challan cases which occupy a substantial part of judicial time and manpower time and therefore could lead to a speedy disposal of cases.

However, it is also important to ensure that such templates do not not lead to a complete mechanical application of mind and that such templates are then not used in more complex cases wherein a judicial and through application of mind is required rather than a mere automation of the judgement. A similar statement was made by the Chief Justice of India at a virtual event recently where he stated that " *Where we rely on any technology to aid the judicial decision-making process it must be subject.... to the final consideration of a huma*n"[14]

We recommend that the draft vision document indicate the instances for which a template of the judgement will be provided to the judges. Further, the template should be limited to civil cases and not be extended to criminal cases, due to the potential grievous impact on civil liberties and human rights. It is also important to provide judges with adequate and necessary training prior to large scale deployment of such templates. It is also important to note that introduction of templates or any other automation mechanisms for writing judgements may require amendments to the procedural laws.

Furthermore, the introduction of virtual courts for small scale disputes that do not possess a clear adversarial element raises concerns around the future expansion of such technology and its use in the algorithm decision making process. As previously mentioned, the CJI has specified the need for limited use of algorithms in the decision making process. However we suggest that there be clear legislative and regulatory mechanisms in place that formalise the limitations of algorithms in the judicial decision making process.

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[14] Lydia Suzanne Thomas, "Use Of Artificial Intelligence Should Align With Our Constitutional Morality: Chief Justice SA Bobde," *LiveLaw* (blog), April 21, 2021, https://www.livelaw.in/top-stories/artificial-intelligence-constitutional-morality-chief-justice-bobde-vidhi-report-172879.

B. Audio Visual Software and Virtual Courtrooms

One of the most significant changes caused due to the COVID-19 pandemic was the shift from physical courtrooms to virtual courtrooms using Audio-Visual software such as Zoom. While this has been effective in ensuring that the judiciary has been able to function during the pandemic, it is not without its complications. And if virtual courtrooms are to be adopted beyond the end of the pandemic then it is essential that these complications be identified and solved.

I. <u>Appropriate policies are required to ensure that trials are open and fair</u>

The right to a fair trial is one of the fundamental principles of access to justice[15]. The principle of a fair trial requires that the procedure for trial should include trial in an open court or a public hearing. Courts have a duty to facilitate attendance by all members of the public and no limitation shall provide for attendance by only a category of members in a hearing where merits of a case are being examined.[16]

While there are security concerns surrounding virtual hearings, there is an indispensable requirement to enable public access to such hearings which must be done with guidelines, directives and if required a legislation so as to provide uniformity to the process - mention of which is missing in the vision document.

The draft vision document does mention live streaming of hearings or where that is not possible, making records of the proceedings freely accessible to ensure courts retain the 'open courts' principle, however, it does not provide guidelines as to how this will be achieved in terms of - data privacy and security concerns, link to virtual hearing availability, process for access or infrastructure impediments like internet access or digital literacy, especially in rural areas. Since Section 129 of the Code of Civil Procedure confers on the High Court power to frame rules to regulate the procedure on its Original Civil Side and Clause 37 of Letters Patent confers power on the High Courts to make rules for the purpose of regulating all civil proceedings before it, which must, as a matter of plain language, include proceedings both on the Original Side as well as the Appellate Side of the High Court, we recommend that ideally the different High Courts should amend their rules to ensure uniformity or an amendment needs to be made to the Civil Procedure Code to specify the cases which can be heard virtually.

II. <u>Impact on judicial fairness and challenges faced by judges in virtual courtrooms</u>

Recently published research on the effect of virtual courtrooms on judges in Australia has highlighted a number of potential sociological concerns that must be taken into consideration as virtual courts become the norm rather than the exception. These challenges are twofold - firstly, the nature of interaction

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[15] Article 10 of the Universal Declaration of Human Rights (UDHR)

[16] Naresh Shridhar Mirajkar And Ors vs State Of Maharashtra And Anr 1 1966 SCR (3) 744

between judges and participants using mediums such as zoom or skype fundamentally complicates the ability of the judge to manage the courtroom and to project the authority of the court.[17] Secondly, such mediums could promote informal conversations and other such communication between judges and counsels that could cause issues of judicial impartiality.[18]

While both these issues have been identified in the context of the Australian judicial system, it is imperative that such studies be replicated in the Indian context so as to determine whether such concerns exist and how they can be effectively minimised.

III.   Design challenges associated with virtual courtrooms

Any discussion on the implementation of virtual courtrooms moving forward must also pay attention to the design, ritual and symbolic aspects that are associated with physical courts.[19] These aspects can include the nature of a physical courtroom as a civic space, the seating of participants within the courtroom and even the furniture within it. Sociologists theorise that these aspects have an intangible and cumulative effect on the way in which not only courtrooms are viewed, but in fact also on whether the participants see the judicial process as being fair and deserving of respect.[20] And with the wider implementation of virtual courtrooms many of these aspects stand to be lost and would as such have a significant (if not immediately quantifiable) impact on the judicial system.

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[17] Meredith Rossner, David Tait, and Martha McCurdy, "Justice Reimagined: Challenges and Opportunities with Implementing Virtual Courts," *Current Issues in Criminal Justice* 0, no. 0 (January 17, 2021): 1–17, https://doi.org/10.1080/10345329.2020.1859968.

[18] Emma Rowden and Anne Wallace, "Remote Judging: The Impact of Video Links on the Image and the Role of the Judge," *International Journal of Law in Context* 14, no. 4 (December 2018): 504–24, https://doi.org/10.1017/S1744552318000216.
Meredith Rossner, David Tait, and Martha McCurdy, "Justice Reimagined: Challenges and Opportunities with Implementing Virtual Courts," *Current Issues in Criminal Justice* 0, no. 0 (January 17, 2021): 1–17, https://doi.org/10.1080/10345329.2020.1859968.

[19] Christian Licoppe and Maud Verdier, "Courtroom Interaction as a Multimedia Event: The Work of Producing Relevant Videoconference Frames in French Pre-Trial Hearings," *The Electronic Journal of Communication* 23, no. 1 (2013), http://www.cios.org/EJCPUBLIC/023/1/023125.HTML.
[20] Emma Rowden, "Distributed Courts and Legitimacy: What Do We Lose When We Lose the Courthouse?," *Law, Culture and the Humanities* 14, no. 2 (June 1, 2018): 263–81, https://doi.org/10.1177/1743872115612966.
Guest Post, "Remote Justice: A Family Perspective | The Transparency Project," accessed May 3, 2021, http://www.transparencyproject.org.uk/remote-justice-a-family-perspective/.
Meredith Rossner, David Tait, and Martha McCurdy, "Justice Reimagined: Challenges and Opportunities with Implementing Virtual Courts," *Current Issues in Criminal Justice* 0, no. 0 (January 17, 2021): 1–17, https://doi.org/10.1080/10345329.2020.1859968.

C. Online Dispute Resolution (ODR)

Another key component of the E-courts project is the widespread adoption and acceptance of Online Dispute Resolution (ODR). CIS had previously submitted its comments[21] on the report prepared by the NITI Aayog Expert Committee on ODR. In it, we have outlined a number of key concerns and considerations that are associated with the technology. These concerns must be adequately addressed prior to the adoption of ODR at a national level. They include:

i. Structural considerations with ODR itself
    The first of these considerations is that ODR must not be viewed as a monolith but rather as a set of separate but interconnected technologies that require a multitude of governing approaches. Secondly, there are a number of functional limitations associated with ODR such as the inability for the technology to account for nuance effectively, algorithmic limitations and system vulnerabilities. Thirdly, there are a number of psychological limitations related to communication, perception and preferences of parties that use these systems.

ii. Socio-Economic and governance issues with ODR
    ODR is also plagued with issues of digital accessibility, while also being subject to a lack of clearly mandated standards. Furthermore there is a lack of clear legal and administrative regulation over ODR due to the absence of any specific legislation or dedicated oversight body.

6. Need for dedicated programs to focus on establishing citizen trust in the case of new technologies

The E-committee's report refers to increasing citizen trust in the judicial system as being one of the core values of digital courts[22]. however it does little to adequately outline the limitations associated with digitisation that would affect public trust, and fails to prescribe a framework for dealing with these limitations.

Digitisation of judicial systems can lead to a number of criticisms from citizens such as[23] hesitation of citizens to utilise a previously untested mechanism, distrust of technology in general, lack of trust arising from a lack of technological understanding of the system

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[21] Aman Nair and Pallavi Bedi, "CIS Comments on the Draft Online Dispute Resolution (ODR) Policy," Government Submission (Centre for Internet and Society, November 11, 2020), https://cis-india.org/internet-governance/blog/cis_odr-report_11-11-20.

[22] Pg 24, E-committee Supreme Court of India, "Digital Courts - Vision & Roadmap: Phase III of the ECourts Project," Draft (Supreme Court of India, 2021).

[23] Brian Pappas, "Online Court: Online Dispute Resolution & the Future of Small Claims," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, August 1, 2008), https://papers.ssrn.com/abstract=2266516 *cited in* Anjanette Raymond and Scott Shackelford, "Technology, Ethics and Access to Justice: Should an Algorithm Be Deciding Your Case?," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, August 12, 2013), https://doi.org/10.2139/ssrn.2309052.

and concerns over data security. The existence of these criticisms will significantly limit the efficacy of the E-courts project.

The report seemingly seeks to solve the problem of citizen trust through the promotion of transparency and the utilisation of 'open technologies' and by opening access of judicial data to citizens. While this approach may help alleviate certain fears over the technologies, it would do little to promote trust among citizens that either do not have adequate digital and judicial literacy, as well as among groups that may have been historically discriminated against.

Fostering public trust in virtual courts, is therefore, a process that extends beyond the confines of the courtroom. It involves significant plans on improving judicial and digital literacy among the public - something which the current report has failed to incorporate.

E-court implementation – Comparison with African and South Asian countries

In terms of replicable best practices, African and certain South Asian nations provide the best use case when it comes to virtual courts. Additionally, the nature of the challenges they face, from an infrastructural and even cultural point of view, provide a similar lens from which to analyse virtual courts and their implementation with respect to India and the draft vision document.

1. South Asian Countries

Courts in South Asian countries have been moving towards adoption of e-filing and virtual hearings by establishing e-courts and requisite systems in varying measures. While countries like Philippines and Thailand are constantly developing strong systems to handle most cases online and transitioning to an e-court system, Vietnam and Indonesia have introduced limited systems for exchange of documents before hearings.[24] On the other hand countries like Singapore and China started the transition to virtual courts in the early 2000s and thus now have a well developed technological infrastructure to expand the virtual judicial system across most of the country today. Analysed below are three specific South Asian countries - Philippines, Singapore and China - as to the development of their virtual court systems and how that may be replicated to a certain extent in line with India's e-court vision document.

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[24] "E-filings and hearings in Courts in South East Asia", Edmund Baranda, Peeraya Thammasurajit, Tania Lovita, Yen Vu (Published on 10 July 2020), https://rouse.com/insights/news/2020/e-filings-and-hearings-in-courts-in-south-east-asia (last accessed 02/05/2021).

A. Philippines

In 2013, the Philippine Supreme Court ('the SC') launched a pilot run of the electronic Court (eCourt) system. Its key features were to encourage speed in court processes, eliminate possible sources of corruption, and provide greater transparency. As of 2017, over 300 courts in the country have adopted the eCourt system. On questions of whether the implementation of the e-court system and e-case management systems have led to the intended purpose, studies have found that the eCourt system had no significant impact on the disposition rate and clearance rate using a two-year range from the date of rollout. There is a statistically significant difference in the clearance rate only during the first year of implementation. At the case level, there is no significant impact on the case duration during the first year of implementation. However, the estimation results show that in the second year, courts with the eCourt system registered an average case duration of 103 days fewer than courts without it.[25]

The issues reported with the functioning of the e-court system in Philippines include insufficient infrastructure and equipment, inadequate training of court personnel, limited IT support, and staff shortages that constrain data encoding and updating of court records. Furthermore, it has been identified that there is a need to consult with the end-users on how the eCourt system can be tailored to better fit their needs while modifying existing features and developing new ones.

B. Singapore

Singapore represents the earliest use of virtual courts, as they began setting for this transition as early as 2002. The widespread use of virtual courts began in 2017, and ever since then over 30,000 cases have been filed using virtual court systems, representing an increasing trust among the citizens.[26] Victims of sexual harassment do not need to go to a physical court and can instead use their mobile phones to file for protective measures and on the side of alternative justice, the courts are currently in the process of making innovations specifically geared towards the resolution of traffic matters.[27]

Singapore applied a slow and deliberative uptake process which has resulted in specialised uses of virtual court systems, specifically the development of a data analytics model. Singapore's State Courts use data analytics to allocate resources effectively by predicting the expected caseload so that it can be prepared for upcoming trials. Further, a justice scorecard tracks the performance of the courts including wait times, and appeal and mediation success rates. The measurement process is automated

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[25] Orbeta, Aniceto, Paqueo, Vicente and Sidiqqi, Bilal, Impacts of electronic case management systems on court congestion in the Philippines, 3ie Series Report 133 10.23846/PWPIE133, 2021.

[26] Allsop, J. (2019). Technology and the Future of the Courts. U. Queensland LJ, 38.

[27] https://govinsider.asia/digital-gov/inside-singapores-move-to-virtual-court-hearings/(last accessed 01/05/2021)

and allows management to review and analyse the courts' performance and alignment to its goals.[28]

Singapore is also proposing a new customer relationship management system for its judicial system so as to understand user needs and improve service delivery. This will help identify their unmet justice needs and potential areas where the use of remote communication technology would provide the greatest benefits. Using such models would be a welcome sight for Indian courts, due to the paucity of resources available to some judiciaries, allowing them to utilize a more efficient method of operation.

C. China

The concept of 'Smart Courts' was first proposed by China's top court, the Supreme People's Court (SPC), in 2015.[29] The SPC has since been directing courts at all levels to create Smart Courts thereby providing uniform implementation of measures across the Chinese judicial system. In recent years, Chinese courts have seen rapid developments in online dispute resolution platforms, specialized Internet courts, and the wide use of AI tools across case management and adjudication processes in civil and criminal proceedings.[30] Other novel technologies such as distributed ledgers, blockchain and smart contracts solutions are currently being developed and rolled out in several local and specialised courts.[31] An important aspect of these developments is making trial data resources online. As of February 2020, there were over 81.5 million judgments and other judicial documents on the SPC's China Judgments Online, representing the world's largest digital repository of judicial information. This is made possible by the SPC's centralised big data management and service platform, which connects every court in China (which includes around 3,520 courts, 9,277 tribunals and 39 maritime courts).

India may learn from the implementation exercise for eCourts undertaken by China in terms of their sectoral use.The three courts in Hangzhou, Beijing and Guangzhou were the first in which cases could fully be conducted online, all the way from the filing to the rendering of the ruling. These courts were established in 2017 and were only used for a small range of cases. However, with time, the utility of these courts expanded as the judges and legal practitioners grew more comfortable with them. Trial and error over a period of time lead to success down the road This sectoral implementation can lead to

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[28] Toh Yung Cheong (2020). Inside Singapore's move to virtual court hearings.

[29] Islam, M. S. (2020). Judicial Reforms in China: The Way of Strengthening Judicial Independence. Diponegoro Law Review, 5(01).

[30] . Chen, Issues and return of "cloud trial" in criminal cases. Shanghai Law Society (11 June 2020) Available at: <http://www.shanxilawsociety.org.cn/newsshow/6382.html> (last accessed 03/05/2021).

[31] J. Aki, 'Chinese Internet Court Uses Blockchain To Combat Online Plagiarism', (Online article, 19 December 2018) Available at:
<https://au.finance.yahoo.com/news/chinese-internet-court-uses-blockchain-055508526.html> (Last accessed 28 April 2021).

efficient use of eCourts and better implementation of processes across districts and ultimately states of India.

Similarly, experimenting virtual courts with AI tools to assist with the adjudication of basic, non-complex cases, real-time recording and transcription of trial proceedings as well as the provision of legal information to the parties can lead to reducing the backlog of courts. To illustrate this, the Beijing Internet Court developed bots that provides the parties with some basic but important legal information, including the question of whether the court is the appropriate jurisdiction. While privacy and security concerns continue to surround these issues, India can implement certain measures on a trial basis to gauge the effectiveness and need before rolling out measures for courts all across the country. With respect to evidence storage, China has established a national e-evidence platform based on blockchain technology, linking courts in 22 provinces and municipalities which is worth replicating. It is well known that China has a draconian surveillance regime which potentially enables this infrastructure as a tool of state surveillance. To function effectively and avoid this, India must urgently reform its state surveillance regime in line with constitutional principles.

As seen from experiences of South Asian countries, in the initial stages of the virtual courts, the numbers of people utilizing them was rather small, leading to a case backlog where people preferred in-person court services in courts where said services were no longer available. While this could lead to potential backlogs in various judiciaries, sound planning and use of contingency measures would prove to be a useful tool in ensuring the backlog remains a solvable issue as India plans to transition to digital courtrooms.

2. Africa

African countries have seamlessly transitioned to virtual court systems and e-filings along with other e-services for justice delivery. However, implementation of these digital services in the judicial landscape has not been completely smooth-sailing. Challenges faced upon implementation that may be relevant to the Indian landscape for e-courts are captured below:

1. Low Internet Penetration Rates

Unreliable internet connectivity and provision is prevalent in remote localities. Without stable internet connectivity, virtual courts remain beyond reach for the rural and marginalized communities in Africa. While States like Kenya and Libya, with the highest internet penetration rate of 87.2% and 74.2% respectively are recorded to have seamlessly adopted virtual courts and e-filing systems, States with the lowest internet penetration rates in Africa of below 15% like Eritrea, Burundi, Central African Republic, Chad, Congo, Guinea Bissau, Madagascar,Niger, Sierra Leone and South Sudan have not been able to adopt the virtual court system resulting in a digital divide for the purposes of justice and judicial efficiency in the continent[32].

Similarly, high cost of the internet is a challenge resulting in most of the population living in rural areas having no access to the internet. Virtual settings in Africa seems like

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[32] Finucan, L. (2018). Smart Courts: Roadmap for Digital Transformation of Justice in Africa.

a possibility to widen the gap on access to justice for the poor in Africa as a result of the high costs of the internet. Additionally, people living in rural Africa have no access to smart devices that can enable them to attend virtual court sessions further increasing the gap between *haves* and *have-nots* in an increasingly digital world.

These issues are almost identical to the challenges that can be predicted to arise in India with respect to implementation of e-courts and digital systems and will have to be tackled accordingly looking at the implementation of Phase I and Phase II of e-courts in India.

2. **Power Outages**

   Electricity blackouts with no power backup especially during virtual court proceedings interrupt hearings and consequently affect service delivery. Africa has low electricity connectivity especially in the rural areas[33] which impacts access to virtual courts for citizens living in such areas.

3. **Lack of skills for operating the systems**

   Citizens, clerks at court and the legal fraternity have reported being unable to effectively operate Electronic Case Management Systems because of a lack of user skills. Lesotho for example has recorded a notable user inexperience of their ECMS. This can however be rectified with effective user training. While the eCourt draft vision document of India states the requirement of training, such training will need to be recurring to enforce digital literacy for usage in judicial systems. In this endeavour, schemes like the Tele-Law initiated by the Department of Justice, Government of India in partnership with National and State Legal Service Authorities (NALSA/SALSA) through Common Service Centres (CSC) can come in handy. Currently Tele-Law facilitates delivery of legal advice through a panel of lawyers and initiates to connect citizens with lawyers through video conferencing facilities. As it expands its functioning throughout the country, especially 'aspirational districts' where technology has not penetrated the judicial system as much as the rest of the country, the platform provided by Tele-Law can be used to enforce digital literacy and training for e-systems for judicial functioning through NALSA and SALSA being made available at CSCs.

4. **Complicated Systems**

   In Africa, even though judicial systems have enacted immense training on effective usage of Electronic Case Management Systems, some systems are too technical to use. For example, online filing has been and continues to be a challenge for many legal practitioners and clerks in Kenyan courts. Thus, taking a cue from such challenges, Indian courts should simplify the processes on the ECMS that can be achieved by continuous platform development updates and testing backed up by comprehensive user training. If the user interface is simplified, along with training being provided and

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[33] Falchetta, G., Pachauri, S., Parkinson, S., & Byers, E. (2019). A high-resolution gridded dataset to assess electrification in sub-Saharan Africa. Scientific data, 6(1), 1-9.

continuous platform development, usage of digital platforms will be seamless and less challenging for practitioners and citizens alike.

5. **Need for a singular legislative and regulatory framework prior to adoption**

   While the draft vision document does mention the need for transparency in virtual court hearings by stating that the principle of 'open courts' is at the core of the functioning of our judicial system, it has been observed that countries with no specific legislation or directives on running virtual courts lack uniformity in handling court proceedings, as may be seen in the functioning of virtual courts in different countries of the African continent. For instance, 22 African countries have implemented virtual courts, with Kenya, Nigeria and Ghana implementing their separate individual directions for e-case management systems, and other e-services[34]. However, no single directive for implementation has lead to issues with respect to functioning of the virtual courts like - citizens and court clerks being unable to access and use the ECMS leading to impediment to justice, and Ghana complaining of lack of ICT equipment in comparison to other African countries required for the functioning of virtual courts. Using different rules on similar cases in different virtual courts across states causes inter-state judicial splits, an impediment to access to justice.

Recommendations

1. Dedicated programs must be identified and supported to ensure that citizen focused digitisation takes place so as to not leave any people out of the scope of the judiciary
2. A dedicated regulatory and administrative framework must be published as soon as possible that takes into consideration questions of data storage, data protection and purpose limitation among other considerations.
3. Clear directives on the nature and scope of integration of judicial infrastructure with the ICJS must be provided
4. We recommend that a number of studies be conducted to identify the challenges that may arise when implementing proposals such as virtual or automated courts, virtual courtrooms that use audio visual software and online dispute resolution mechanisms. Such studies would allow for policies to be effectively identified prior to widespread implementation and would significantly reduce the possibility of unintended harms.
5. Identifying measures to improve public trust in the integration of technology within the judiciary through judicial education schemes, etc.
6. Due to varying precedents provided by High Courts and the Supreme Court of the country, there is a requirement for uniform and clear guidelines/directives with respect to the process of electronic evidence management and preservation in India.

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[34] Ghana Judicial Services ECMS, 2019; Kenya government's gazette ECMS Practice Directions 2020; Nigerian Supreme Court's verdict on Virtual Court hearings being valid under S.36 (3) and (4) of the Nigerain Constitution.