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CENTRING MARGINALISATION IN THE DEVELOPMENT OF DIGITAL COURTS: REFLECTIONS FROM ARGENTINA, INDIA, KENYA, AND MALAYSIA

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Abstract: *This paper presents a multi-jurisdictional analysis of digitalisation of justice and the perceived role of courts as public institutions upholding the rule of law and ensuring access to justice to all. Using selected examples from Argentina, India, Kenya and Malaysia, it examines the impact of digitalisation efforts of these countries on their citizens, marginalised populations, the State and private sector. We propose to design an approach to digital justice that centres people on the margins of digital transformation of courts. This includes three elements – first, engagement with people centered perspectives; second, focus on disadvantage and addressing socio-technical factors; and third, building digital solutions in public interest.*

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I. INTRODUCTION: DIGITALISATION PATHWAYS BY COURTS

The paths to digitalisation by courts are marked by a need to build new infrastructures, and technologies, while at the same time securing policies that ensure that digital transformations are effective, inclusive and people centric.[1] In practical terms, digitalisation around the judiciary has included developing e-court systems, case management systems, and increasingly the use of Artificial Intelligence ('AI') for decision making including in some cases for sentencing.[2] The digitalisation of courts in general is motivated by factors such as improving the efficiency, speed, and productivity of the judiciary,[3] with digitalisation being treated as an instrument which can enable innovation.

This does not account for the fact that the digitalisation process and technology itself are not neutral but embedded in their socio-political context.[4] It is well established that digitalisation can lead to different kinds of exclusions, whether it is related to digital divides, for instance, on account of lack of access to the internet or internet infrastructure; bias and discrimination based on issues with historical

[1] OECD, *OECD Framework and Good Practice Principles for People-Centred Justice* (OECD 2021) <https://www.oecd-ilibrary.org/governance/oecd-framework-and-good-practice-principles-for-people-centred-justice_cdc3bde7-en> accessed 4 June 2024.
[2] Julia Angwin and others, 'Machine Bias' (*ProPublica*, 23 May 2016) <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> accessed 16 February 2018.
[3] Siddharth Peter de Souza, 'AI and the Indian Judiciary: The Need for a Rights-Based Approach' (2024) <https://www.thehinducentre.com/incoming/ai-and-the-indian-judiciary-the-need-for-a-rights-based-approach-html-version/article68917505.ece> accessed 8 January 2025.
[4] Melvin Kranzberg, 'Technology and History: "Kranzberg's Laws"' (1986) 27 Technology and Culture 544.Will Knight, 'Biased Algorithms Are Everywhere, and No One Seems to Care' (*MIT Technology Review*) <https://www.technologyreview.com/s/608248/biased-algorithms-are-everywhere-and-no-one-seems-to-care/> accessed 16 February 2018.

data;[5] or a lack of participation based on low legal literacy, to name a few.[6] The process of digitalisation, while often argued as enabling access, can also therefore be seen as facilitating marginalisation in varied ways.

In this paper, we are interested in how courts can further digital justice. We take digital justice to include engaging with questions of access, participation, common ownership, and engaged and healthy communities. [7] In doing so, we focus on what an approach that centres people on the margins of digital transformation of courts could look like.[8] The margin, in this instance refers to people and groups who are at law's edge[9] or limit,[10] represents the provisional and revisable,[11] of being confined to a 'peripheral space'.[12] The edge not just separates the space where the marginalised are held from society ('marginalised space') but includes where they are subjected to legal procedures and processes.[13] Marginality under the law shows properties of 'alienation, the borderline and disaccommodation of subjects of legal relations to the meanings and values of law',[14] by the powerful.

We discuss instances of how people have been marginalised due to digitalisation of courts on account of their intersectional identities[15] and explore examples from four jurisdictions: Argentina, India, Kenya and Malaysia. Our focus on countries in the Global Majority[16] helps to pluralise cases on digitalisation of courts which are typically different from the Global Minority and draw on experiences of the author team who are from these locations. We define the Global Majority not just as a

[5] Ameya Bokil and others, 'Settled Habits, New Tricks: Casteist Policing Meets Big Tech in India' (*Longreads*) <https://longreads.tni.org/stateofpower/settled-habits-new-tricks-casteist-policing-meets-big-tech-in-india> accessed 30 May 2021.
[6] 'What Does It Mean to Leave No One Behind?' (*UNDP*) <https://www.undp.org/publications/what-does-it-mean-leave-no-one-behind> accessed 6 May 2024.
[7] 'Detroit Digital Justice Coalition Principles' (*Detroit Digital Justice Coalition*) <https://www.detroitdjc.org/principles> accessed 13 October 2024.
[8] See also the work of the Digital empowerment foundation and their mission "To empower marginalised communities in information dark regions to access, consume and produce information online using digital interventions and ICT tools." 'Our Belief' (*Digital Empowerment Foundation, DEF*) <https://www.defindia.org/our-belief/> accessed 23 March 2025.
[9] Ben Hightower and Kirsten Anker (2015) '(Re)Imagining Law: Marginalised Bodies/Indigenous Spaces' Int J Semiot Law (2016) 29:1- 8, p.1
[10] Robert K. Barnhart and Sol Steinmetz (2010) Chambers Dictionary of Etymology. London: Chambers.
[11] Alexey Borisovich Lebedev, Raviya Faritovna Stepanenko, German Nikolaevich Stepanenko and Elena Vladislavovna Kuzmina, 'Marginality in the Socio-Philosophical and Juridical Dimensions: The Experience of an Interdisciplinary Approach' [2019] 34 Revista San Gregorio Special Issue November 6-13
[12] David Gurnham, 'Introduction: marginalisation in law, policy and society' [2022] 18 International Journal of Law in Context 6.
[13] Alexey Lebedev et.al (n 11)
[14] Ibid, p. 8
[15] Anita Chan, *Networking Peripheries: Technological Futures and the Myth of Digital Universalism* (MIT Press 2013).
[16] Sareeta Amrute, Ranjit Singh and Rigoberto Lara Guzman, 'A Primer on AI in/from the Majority World' <https://datasociety.net/library/a-primer-on-ai-in-from-the-majority-world/> accessed 23 April 2023.

geographical space but as an analytic construct which reflects the politics, epistemic values and cultural ambivalences that such regions bring.[17] By referring to these four jurisdictions, our intentions are not to be comprehensive, but to unsettle assumptions of the digitalisation processes around courts. This is to ensure that we are able to have a more heterogeneous take on how digitalisation takes place, and also to be able to offer comparative lessons different from the dominant view on digitalisation in the Global Minority, which is that digitalisation is a precursor to a more effective judicial process, a narrative that aligns debates of modernity and innovation with digitalisation.

We have zeroed in on these countries because of considerable developments they have made towards digitalisation in a relatively short period of time. For example, beginning from 2001, Argentina saw an increase in the use of technology in the justice system, both for dispute resolution and for the administration of justice. The National Laws of 2001 and 2011 authorized use of electronic files, digital signatures, digital certificates, licensed certifiers etc. in judicial and administrative proceedings before the National Judicial Branch. From 2011, the Argentinian Supreme Court promoted the system of electronic notifications through the issuance of several decisions, the system finally became mandatory for all files and stages of the process simultaneously with the use of digital files from May 2015. The Ministry of Justice launched the National Programme of Artificial Intelligence in Justice, an initiative aimed at modernising and optimising judicial processes and administrative procedures through the incorporation of innovative technologies.[18]

In India, several digitalisation initiatives including the e-Courts project and the National Judicial Data Grid were initiated on aspects related to improved filing of court documents, provision of information on court proceedings, and access to data on the functioning of court systems. [19] Initiatives to ensure the digitisation of court records and e-payments have been implemented and Online Dispute Resolution is becoming increasingly popular and gaining favour with sector regulators for its purported advantages of scale, speed, and resolution at low cost, over traditional dispute resolution methods.[20] Live streaming of court proceedings is underway.[21] AI tools-backed intelligent systems are being mooted for

[17] Tobias Berger, 'The "Global South" as a Relational Category – Global Hierarchies in the Production of Law and Legal Pluralism' (2020) 0 Third World Quarterly 1.
[18] Resolution 2024-111-APN-MJ, published 12 April 2024.
[19] Supreme Court of India, e-Committee, 'E-Courts Mission Mode Project' <https://ecommitteesci.gov.in/project/brief-overview-of-e-courts-project/> accessed 4 June 2024.
[20] Niti Aayog, 'Designing the future of dispute resolution: The ODR Policy Plan for India' (October 2021) <https://www.niti.gov.in/sites/default/files/2023-03/Designing-The-Future-of-Dispute-Resolution-The-ODR-Policy-Plan-for-India.pdf> accessed 4 June 2024.
[21] See for instance, Supreme Court of India's live streaming portal at <https://www.sci.gov.in/live-streaming/>

case scheduling/matter management by court registries and automated delivery of court summons using the National Serving and Tracking of Electronic Processes ('NSTEP') to support lawyers and litigants.[22]

Kenya's e-judiciary has implemented a variety of systems including facilities for electronic filing, virtual hearings, electronic Case Management System ('CMS'), Case Tracking System ('CTS') and Court Recording and Transcription Services ('CRTS'). [23]

The Malaysian judiciary has been digitalising its processes from as early as 2009 with an e-Filing System (EFS), Queue Management System (QMS)[24] and similar systems, and has experimented with using AI for sentencing recommendation. [25]

In the context of these developments, this piece is an exercise in collaborative writing, the authors are legal practitioners, policy professionals and academics from each of the countries mentioned who met online in June 2022 at Radboud University and presented their findings at a workshop on 'The Role of Courts and Access to Justice in the Digital Era'.[26] In the process of writing this paper, the authors examined the following questions:

(1) What is the meaning of digitalisation of the justice system for: citizens, vulnerable populations, the State and private sector?
(2) What are the manifestations of digitalisation in each country?
(3) What are the motivations behind the move to rapidly digitalise the justice system in each country?
(4) Are there important distinctions among the countries on their efforts to digitalise?
(5) Who are the stakeholders most affected by digitalisation efforts?

Based on these questions, we have consolidated different findings into intersecting themes, which highlight how marginalisation is taking place, as well as offer pathways on how to address them in

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[22] Supreme Court of India, e-Committee, "Future Initiatives/Work in Progress: NSTEP" <https://ecommitteesci.gov.in/nstep/#:~:text=NSTEP%20is%20a%20centralised%20process,and%20summons%20in%20real%2Dtime> accessed 13 May 2025

[23] E-filing is the solution to efficient Judiciary, Official judiciary website <https://judiciary.go.ke/e-filling-is-the-solution-to-efficient-judiciary/> accessed 4 June 2024.

[24] The Right Hon. Chief Justice of Malaysia, Tun Tengku Maimun Binti Tuan Mat. 'Navigating the Present, Exploring the Future', Opening Address for 'Exploring the future of the Judiciary with Technology' The International Malaysia Law Conference 2023. 10 July 2023.

[25] Sanghvi, H., Ling, J. S. W., Tay, E. S., & Kuek, C. Y. (2022, December). Digitalisation of Judiciary in Malaysia: Application of Artificial Intelligence in the Sentencing Process. In International Conference on Law and Digitalization (ICLD 2022) (pp. 91-97). Atlantis Press.

[26] <https://www.sectorplandls.nl/wordpress/conference-the-role-of-courts-and-access-to-justice-in-the-digital-era/> accessed 4 June 2024.

building visions for digitalisation of courts. This includes a framework that foregrounds the need for courts to digitalise through a focus on the margins. The order of the paper is as follows. The second section of the paper discusses how aspects of marginalisation emerge through digitalisation of courts. The third section offers an approach to think about digitalisation from the margins, and the last section offers a conclusion.

II. MARGINALISATION AND THE DIGITALISATION OF COURTS

In this paper, we take marginalisation, as attached to identity markers - age, ethnicity, nationality, gender, ability, etc. or a combination of these.[27] Marginalisation can lead to discrimination and inequality to those who are considered as failing or refusing to conform to normal or ideal societal standards.[28] Marginality can depend on dimensions including demography, religion, culture and social structure consisting of caste, ethnicity, hierarchy, gender, religion etc; economics and politics that determine access to resources by individuals and groups.[29] Studies also show that marginalisation occurs spatially, as a consequence of the uneven geographical impact of globalisation and economic development, government policies leading to dispersal and dislocation of populations, historic removal and resettlement of native populations in colonised lands, confinement by imprisonment of prisoners and detainees and their families, detention in places such as migrant detention centres, hospitals, care homes etc which then become sites of marginalisation.[30] The State, through its systems, can cause marginalisation for instance by the exclusion of specific communities from citizenship and involvement in public life and office using legal and constitutional arrangements.[31] Gurnham points to 'marginalisation as a gateway to, or even a synonym for concepts of disadvantage, discrimination, disempowerment, exclusion, inequality, silencing, stigmatisation, victimisation, etc.,' 'implying a sense of a keeping out and holding down, of voices not being listened to, needs not met and interests not furthered'.[32] Adopting similar framing, we now outline different aspects of how marginalization occurs in the digitalisation of courts with illustrations from Argentina, India, Kenya and Malaysia.

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[27] Elizabeth Mills, 'Gender, sexuality and the limits of the law' [2018] 8 Global Discourse 473-484.
[28] Kevin Albertson and others, Marketisation and Privatisation in Criminal Justice (1st edn, Bristol: Policy Press 2020).
[29] Ghana S. Gurung and Michael Kollmair, 'Marginality: Concepts and their Limitations' [2007] 12 NCCR North-South Dialogue 11.
[30] David Gurnham, 'Introduction: marginalisation in law, policy and society' [2022] 18 International Journal of Law in Context 1-9.
[31] Nadia Ben-Youssef and Sandra Samaan Tamari, 'Enshrining discrimination: Israel's nation-state law' [2018] 48(1) Journal of Palestine Studies 73-87; Henrik Vigh, Displaced Without Moving: Loyalism and Democratic Haunting in Northern Ireland. in Augusteijn and others (eds), Historical Perspectives on Democracies and Their Adversaries (London: Palgrave Springer 2019) 215-235.
[32] David Gurnham, 'Introduction: marginalisation in law, policy and society' [2022] 18 International Journal of Law in Context 6.

A. Marginalisation, Disadvantage and Inequality

Marginalisation is strongly related to the notion of disadvantage and inequality. In Kenya for instance, the existing judicial system was transplanted upon an online platform for case management, information, recording and transcription services.[33] Litigants were required to file court documents online and pay court fees using *mPesa* services.[34] This system, however, is geared for hi-speed wireless internet when most rural areas in Kenya have poor connectivity and thus virtual hearings are not convenient.[35] The telecommunication infrastructure is not efficient for a full hearing to be conducted. The claims that each household has a mobile phone and can therefore access the e-judiciary does not stand reason, since the bandwidth on their mobiles is not enough to access zoom or the other video conferencing platforms.[36] These infrastructural requirements create differentiations and result in lack of a fair playing field to access the judicial system.

During the COVID-19 pandemic, 15 Latin American countries accelerated the process of incorporating information and communication technologies to its judiciary, half of them adopted a differential approach to reduce the digital divide. Argentina did not. Since 2001, Argentina had already taken firm steps towards digitalisation of justice services, using digital signatures, authorising the use of electronic files, documents, signatures and communications in all judicial and administrative proceedings before the National Judicial Branch. It also reformed its Civil Code in 2015, allowing forms of electronic contracting. So, while processing of trials became almost 100% digital, digital divide remained. Official data from the country's National Institute of Statistics and Census ('INDEC') for 2023 suggests that 93.4% of urban households have internet access and 89.2% of the population uses the internet. However, internet services are unevenly distributed, so 71% of all households with fixed connectivity are in the richer and bigger regions like Buenos Aires City which enjoys 100% internet connectivity,[37] as well as the provinces of Buenos Aires, Mendoza, Santa Fe and Córdoba, while provinces like Formosa, San Juan and Santa Cruz have internet access rates of 32% and 37% only. In

[33] Leo K. Kemboi, 'Economics of Court Automation in Kenya' Institute of Economic Affairs, <https://ieakenya.or.ke/blog/economics-of-court-automation-in-kenya/> accessed 1 June 2024.
[34] 'E-filing is the solution to efficient Judiciary', Official judiciary website <https://judiciary.go.ke/e-filling-is-the-solution-to-efficient-judiciary/> accessed 1 June 2024.
[35] Maureen Wanyonyi, 'Leveraging on Digital Technology in Administration of Justice' KIPPRA, <https://kippra.or.ke/leveraging-on-digital-technology-in-administration-of-justice/> accessed 1 June 2024
[36] Catherine Kyalo, 'State of Internet Coverage in Kenya' KICTANET, <https://www.kictanet.or.ke/state-of-internet-penetration-in-kenya/> accessed 1 June 2024.
[37] iProfesional, 'Lento crecimiento: el 32% de los hogares no tiene conexión a internet fija en la Argentina' (iProfesional, 10 June 2021) <https://www.iprofesional.com/tecnologia/341040-que-provincias-tienen-mas-y-menos-conexion-a-internet-fija> accessed 28 October 2021.

fact, the pandemic worsened the situation in Argentina's provinces such as Chaco where even with access to the internet, many people did not have the minimum digital training to be able to obtain circulation permits or carry out bureaucratic procedures online through the province's platform.[38] All of this has resulted in differentiated abilities of users to participate in online court processes. The INDEC data also shows huge variation in internet usage by age across the country, with the highest use registered in age groups of 18-29 years (96.7%), and between 13 and 17 years old (96.4%), whereas in older adults, this drops to 69.9%.

The differentiation in access exists despite the presence of support systems such as a dedicated website with tutorials explaining the litigation system which has been operational in Argentina since 2015,[39] training programs for the implementation of technological innovation policies offered by the Secretary of Innovation, Science and Technology[40] and easy availability of free online[41] and in-person courses.[42] This has demonstrated that thinking about how to bridge digital divides requires to also account for how support systems are being implemented for effecting change.

In India, while the eCourts Integrated Mission Mode Project ('eCourts project') was implemented in 2005, and two phases of this project were nearly complete by 2020, it was COVID-19 pandemic that hastened the country's efforts to digitise the courts system. This move was not without its difficulties.[43] Litigants suffered from denial of equitable access on account of the deep digital divide caused by the overall low internet connectivity and lack of access to hardware devices, as well as chronic problems such as legal illiteracy and procedural complexity of laws. They 'found it difficult to connect and navigate online hearings', 'complained about the poor quality of video transmission' in local video conferencing software applications like *Vidyo* which were being promoted for use by the courts themselves. Litigants could not see the judge at all during hearings and were unable to ascertain if their arguments were audible

[38] iProfesional, 'Lento crecimiento: el 32% de los hogares no tiene conexión a internet fija en la Argentina' (iProfesional, 10 June 2021) <https://www.iprofesional.com/tecnologia/341040-que-provincias-tienen-mas-y-menos-conexion-a-internet-fija> accessed 28 October 2021.
See ACIJ, 'Acceso a la Justicia en Latinoamerica: Reporte de resultados de la encuesta sobre la situación de acceso a la justicia en contexto de pandemia, desde la perspeciva de organizaciones y activistas' (November, 2020) <https://acij.org.ar/wp-content/uploads/2020/11/version-11-11-20-Informe-Encuesta-REGIONAL-situacion-de-acceso-a-la-justicia-covid-19.docx-1.pdf> accessed 25 October 2021.
[39] Poder Judicial de la Nación Argentina, 'Tutoriales' <https://www.pjn.gov.ar/tutoriales> accessed 7 July 2025
[40] Gobierno de Argentina, 'Capacitaciones TI' <https://www.argentina.gob.ar/jefatura/innovacion-ciencia-y-tecnologia/capacitacionesTI> accessed 7 July 2025
[41] Gobierno de Argentina, 'Plataforma de Cursos' <https://cursos.argentina.gob.ar/> accessed 7 July 2025
[42] Gobierno de Argentina, 'Talleres TI' <https://www.argentina.gob.ar/talleres-ti>
[43] Varsha Aithala and Siddharth Peter de Souza, 'Administering Virtual Justice in Times of Suffering During COVID-19' in Anindita Pattanayak and others (eds), Constitutional Ideals – Development and Realisation Through Court-led Justice (Oak Bridge Publishing Pvt Ltd 2023); Anubha Rastogi, Tanima Kishore, Surabhi Singh and Shreya Kanauj "An analysis of accessing high courts during Covid Lockdown" (Live Law, April 1, 2021) accessed 13 May 2025

to the judge. They were forced to use the call feature on WhatsApp to attend online hearings as they often faced difficulties in joining the videoconferencing links sent to them by their lawyers,[44] to which access was strictly controlled.

Lawyers also faced difficulties during the pandemic and consequent lockdowns. While the better resourced, mainly urban lawyers, could switch to virtual court proceedings with ease, a majority of practising advocates in India, who were less economically secure to make the transition, lost their livelihoods. The shutting down of physical courts and the court's internal prioritisation for hearing only 'extremely urgent' matters online was based on a flawed assumption that all lawyers possessed stable and secure internet connectivity, high quality electronic infrastructure and digital skills required to navigate these processes as well as the physical space in their homes to focus on the hearings. A majority of the advocates, particularly those practising in subordinate courts and in smaller towns, lacked the basic computer infrastructure and digital literacy required to conduct cases and to adapt to the court's sudden shift to the eCourts system. India's efforts to administer virtual justice during the pandemic were therefore characterised by arbitrariness and exacerbated pre-existing exclusions and discrimination.[45]

Without engaging with how people are disadvantaged, digitalisation of courts will not be able to ascertain the real needs of users in the design and roll out of this system. Digitalisation requires not just a reliance on traditional legal processes and technical procedures typically designed for use exclusively by lawyers and legal counsel, to operate for all ~~e~~, but rather systems that are accommodative of diverse needs of litigants.

B. Marginalisation and Exclusion

The societal context in which a digital system has been implemented is important, and a lack of understanding of this context is problematic, especially with the already marginalised and vulnerable position of certain communities. Spatial marginality is based on the physical location and distance from centres of development. These centres are poorly integrated into the system, and can have an impact on

[44] Leah Verghese, Shruthi Naik, Siddharth Mandrekar Rao, Sandhya PR, Amulya Ashwatappa, 'Lawyers' Experiences During Covid-19 Pandemic' (Daksh December 2020) <https://www.dakshindia.org/lawyers- experiences-during-covid-19/> accessed 4 June 2024.
[45] Varsha Aithala and Siddharth de Souza (n 43) 301.

the livelihoods of people and the space itself. [46] This is a process which reinforces and reproduces the state of marginalisation. [47]

An important illustration showing the exclusionary effects of the use of technological tools, in the Malaysian context, was the decision to pilot the Artificial Intelligence in Court Sentencing' ('AiCOS') sentencing system in Sabah and Sarawak. In these two states, 46% of the populations live in rural areas, compared to 20% in mainland Malaysia. Large parts of the area are 'interior' and cut off from the rest of the country. Due to mountainous and swampy terrains and underdeveloped road networks, connectivity by land is limited. Many communities rely on boat transport along rivers just to access basic amenities such as schools, health and public services, including legal services. The communities are predominantly indigenous, who are systematically seeing their rights stripped by the government. Many people work in the informal economy with low, unsteady incomes. Sabah has both the highest poverty rate,[48] and the highest rate of statelessness in the country; both states have the lowest literacy rates in Malaysia.

Access to justice is already a significant social problem in this area[49] - even basics such as births and deaths are not always recorded because of the logistical difficulties. Mobile courts were set up to address this with magistrates travelling to the interiors by bus, longboat or air to provide these basic legal and administrative services. As we already know, those living in rural areas are structurally disadvantaged by the social exclusion parameters such as age, income and education level; [50] this is further exacerbated by their likelihood of facing digital exclusion. These factors are certainly true in East Malaysia. The story of Veveonah Mobisin, a student from Sabah who had to camp in a tree in the jungle for 24 hours to be able to access Internet signal to sit her exams[51] made national headlines and highlighted the inequality of

[46] LM Sommers, A Mehretu, BWM Pigozzi, Towards typologies of socioeconomic marginality: north/south comparisons. in H Jussila, R Majoral, CC Mutambirwa (ed), Marginality in Space – Past, Present and Future: Theoretical and Methodological Aspects of Cultural, Social and Economic Parameters of Marginal and Critical Regions (England: Ashgate Publishing Ltd 1999) 7-24; Walter Leimgruber, Part I: General Aspects: Setting the frame; Peripheries and margins; World-views and values. in Walter Leimgruber (ed), Between Global and Local: Marginality and Marginal Regions in the Context of Globalization and Deregulation (Routledge 2004);

[47] Ghana S. Gurung and Michael Kollmair, 'Marginality: Concepts and their Limitations' [2007] 12 NCCR North-South Dialogue 10

[48] In 2022, Sabah had a poverty rate of 19.7% and Sarawak, 10.8%. In 2017, Sabah's literacy rate was 79% and Sarawak was at 72% compared to Malaysia's overall literacy rate of 93.5% for females and 96.5% for males. <https://www.statista.com/statistics/1196343/poverty-rate-by-state-malaysia/>; <https://www.theborneopost.com/2017/05/16/literacy-rate-in-sabah-and-sarawak-lower/> accessed 4 June 2024.

[49] not least for the large stateless population, who are excluded from public services because they lack official identification.

[50] S Park et al, 'The Multi-layers of Digital Exclusion in Rural Australia' (2015) 48th Hawaii International Conference on System Sciences <https://doi.org/10.1109/HICSS.2015.436>

[51] Tse Yin Lee 'Malaysian student sits exams in a tree to ensure good wifi' (18 June 2020) <https://www.bbc.com/news/blogs-news-from-elsewhere-53079907> accessed 4 June 2024.

opportunities caused by East Malaysians' digital poverty. A 2018 study of 11 remote Sarawakian villages found that accessing the Internet is not part of everyday life for these communities, but rather a challenging task that requires significant effort, including travelling to other locations (and even then, connectivity is sometimes limited to particular times of the day). Therefore, "*Internet adoption [..] is still very low: 64% [...] living in these communities were not accessing the internet, compared with 22% of Malaysians overall*". [52]

Since its pilot, the types of criminal offences included in the remit of AiCOS have steadily expanded, even though barely any information has been made public about the results of the pilot, or the system's performance. At the same time, the involvement of AI or machine learning ('ML') in decision-making in this domain was not explicitly mentioned in either Malaysia's national policy on digitalisation[53], or in its AI policies. In fact, it stands out as seemingly experimental, without coherent policy direction, at least at the national level.

The decision to test out AI in Sabah and Sarawak courts first suggests a lack of consideration for techno-social factors, given the demographic difference of these states from Peninsular Malaysia, in particular the fact that a large proportion of the populations here are economically and digitally excluded. This is important because these barriers to internet access also mean an exclusion from knowledge and connectivity to the outside world. Such conditions already cause a vast information gap between the governed and the governing in these communities. For access to justice to be improved, this information gap would have to be narrowed by making information on legal procedures clearer, in formats that are accessible in an area where people cannot readily access information online. Administering judgments using a machine learning system, in a non-transparent, unexplainable way, is the antithesis of this.

The seminal case of *Public Prosecutor v Denis P Modili* (2020), [54] a drug possession case, was the first real-life test case of the AiCOS system, and raised concerns of lack of transparency in the way the tool was used. Firstly, the judgement referred to a "recommended percentage" or probability of 54.31% for the model's recommended sentence of ten months. However, what this percentage actually represents was not explained at the time. Khong and Ho explore two possible statistical interpretations, establishing that the meaning of this percentage would be very different depending on the type of model

[52] C Horn et al, *Digital Inclusion and Mobile Media in Remote Sarawak* (Swinburne University of Technology 2018) <https://doi.org/10.4225/50/5a5e751012e2e> accessed 7 July 2025.
[53] Economic Planning Unit, Prime Minister's Department (Malaysia*), National Fourth Industrial Revolution (4IR) Policy* <https://www.epu.gov.my/sites/default/files/2021-07/National-4IR-Policy.pdf> accessed 4 June 2024.
[54] *Public Prosecutor v Denis P Modili* [2020] 2 SMC 381 (Magistrate Court, Kota Kinabalu).

used.[55] This has important implications because, for certain types of models, it makes sense to set a minimum required threshold (e.g. at least 50%) that must be met to accept the AI's recommended sentence. The fact that this probability is cited in the judgement but not officially explained suggests, concerningly, that the model's operation may be a black box even for the courts. This concern is justified since the bar council, the organisation representing Malaysian lawyers, was not given any guidelines or insights into how the system works, nor were criminal law practitioners consulted.[56] It also creates opacity around how the sentences are reached, making it much harder for the average citizen to understand, or for the defendant to argue against.

Secondly, the judge used three variables - drugs' weight, accused's age and employment record - without disclosing whether these were the *only* variables used; whilst other sources have discussed the use of other variables in the model, namely marital status, nationality, gender, and past acquittals[57]. Either way, the definitive list of features and their weights in the model was not officially published, and there was no requirement for judges to disclose which features actually matter to the outcome of a given case. In other words, there is neither general transparency about how the algorithm works, nor explainability for individual cases. Without respect for these crucial AI ethics principles, there is a risk of entrenching ourselves in a system of algorithmic governance and technical determinism.[58] This is directly contradictory to the goal of improving access to justice, which requires publicness of legal processes.

This lack of transparency gives rise to another concern: does the model consider all relevant variables? What is being left out? Based on the *Denis P Modili* case, Khong and Ho postulate that mitigating and aggravating factors are not included in the model. This is significant because mitigating factors such as health and family situations are particularly important in drug cases in Malaysia.

On the other hand, are all the variables used relevant? Even if nationality and gender have been used as decisive factors in sentencing historically, should they be? Given the goal of making sentencing more

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[55] Khong, D. W., & Ho, C. C. (2022). Artificial Intelligence in Malaysian Courts: PP v Denis P Modili. Asian Journal of Law and Policy, 2(2), 127-136.
[56] V Anbalagan, 'Malaysian Bar Troubled over Judges Using AI for Sentencing' (*Free Malaysia Today*, 24 July 2021) <https://www.freemalaysiatoday.com/category/nation/2021/07/24/malaysian-bar-troubled-over-judges-using-ai-for-sentencing/> accessed 4 June 2024.
[57] 'How Courts in Sabah and Sarawak Are Sentencing with the Help of AI' <https://govinsider.asia/intl-en/article/how-courts-in-sabah-and-sarawak-are-sentencing-with-the-help-of-ai-abang-iskandar-malaysia> accessed 4 June 2024.
[58] Wyatt, S. (2008). Technological determinism is dead; Long live technological determinism. In E. Hackett, O. Amsterdamska, M. Lynch, & J. Wajcman (Eds.), *Handbook of Science and Technology Studies* (pp. 165-180). MIT Press.

consistent, should demographic characteristics really be considered? Sentencing should only consider appropriate factors focusing on the facts of the crime committed and should not be based on "unchangeable factors that a person cannot control". [59] At the time of writing, Malaysia does not currently have criminal sentencing guidelines, although the Malaysian Bar Council has been advocating for these for at least a decade. [60]

This fact reinforces the techno-deterministic approach: a hope for a sophisticated tool to solve the problem when there is a lack of a basic framework (sentencing guidelines) in the first place. Given this context, it is even more important that the algorithm should not consider factors outside of an individual's control which are irrelevant to the case.

C. Marginalisation and Publicness

Marginalisation leads to disempowerment due to how asymmetries of information and power emerge in the digitalisation of justice systems. A crucial element of access to justice is the understanding of the system to citizens. The use of technological tools like ML always involves trade-offs. But the acceptability of those trade-offs depends very much on the particular context in which the technology is being applied. In the context of a fundamental public institution like the courts, is it a sensible trade-off to increase the efficiency and potentially consistency of decision-making, in exchange for a less understandable, unexplainable system?

The e-Committee of the Indian Supreme Court formulated a Vision Document for e- Courts in 2022. This vision aims to simplify court procedures using technology to increase efficiency through redesigning processes. Justice delivery is not the sovereign function of courts and instead would be disaggregated into tasks that can either be automated using AI tools and blockchain technologies or outsourced to other (private and public) players. The vision recommends creating foundational digital infrastructure, which can handle different services such as a digital case registry, intelligent scheduling systems, transaction management, document processing, and an interoperable criminal system where data can be shared between prisons, the police and legal aid authorities. It proposes the use of protocols and standards for the implementation of the services to be provided using the digital infrastructure.

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[59] Holder, E. (2014). Attorney General Eric Holder Speaks at the National Association of Criminal Defense Lawyers 57th Annual Meeting and 13th State Criminal Justice Network Conference. *The United States Department of Justice*. <https://www.justice.gov/opa/speech/attorney-general-eric-holder-speaks-national-association-criminal-defense-lawyers-57th.>

[60] See for example this post on the Bar Council website from 2012: <https://www.malaysianbar.org.my/article/news/legal-and-general-news/legal-news/case-for-sentencing-guidelines>

The vision document is filled with technocratic jargon stating for instance, that institutions should 'connect, develop and evolve solutions in a seamless manner'.[61] Underlying this vision, justice delivery is being repackaged into a commoditized service that can be understood, and addressed in purely transactional terms of costs, speed, scale and efficiency.[62] The vision document argues for an 'ecosystem' approach, where the judiciary need not provide all the services itself, and can leverage the capabilities and solutions provided by various public, private and citizen actors, by curating the right environment and infrastructure for solutions to emerge rapidly from the ecosystem. It suggests several ways in which the private sector can play a role, for instance in building solutions for discovery, tracking filings and managing documents, developing applications that integrate case listing with billing services for lawyers, generating proactive case alerts for litigants, developing digital infrastructure for the National Judicial Technological Council etc.[63] The involvement of private actors appears to be indeterminate. This is because they have the capacity to contribute in terms of creating parallel dispute resolution processes like e-courts, develop technologies for courts like predictive analytics, and also elements which are called micro services in the document such as e-filing, transcription or payment. Each of these services create increasing dependencies of the judiciary on other actors.[64] The vision however does little to interrogate the different motivations that such a wide array of actors will have.

In this conception of "justice as a service", less emphasis is placed on the critical, public function of courts of providing authoritative, binding and impartial decisions that protect people's rights, and which enjoy the power of sanction. As a result, there is a lack of serious engagement with the institutional independence of the judiciary that will come to increasingly depend on a new set of actors. While judicial independence is mentioned in terms of principles in the envisaged National Judicial Technology Council through ensuring it has operational independence, what is not accounted for is a new kind of dependency as a result of digitalisation processes and the reliance on private actors. The document loosely uses language which states the ecosystem should allow market players to 'innovate and collaborate'. It envisages the judiciary as a curator of services, and places upon it the responsibility to 'curate the right environment and infrastructure for solutions to emerge rapidly from the ecosystem of

[61] ibid.
[62] Siddharth Peter de Souza, Varsha Aithala and Srishti John, 'The Supreme Court of India's Vision for e-Courts: The Need to Retain Justice as a Public Service' (2021) <https://www.thehinducentre.com/publications/policy-watch/article34779031.ece> accessed 31 August 2021.
[63] Varsha Aithala and Siddharth Peter de Souza 'The Lengthening Shadow of the Legal Tech Market on the Supreme Court of India' in Siddharth Peter De Souza and Julia Wellhausen (eds) *Digitalising Courts in Asia Exploring the Mechanics of Judicial Transformations* (Edinburgh University Press, 2025) https://edinburghuniversitypress.com/book-digitalising-courts-in-asia.html accessed December 18, 2024.
[64] Corinne Cath (ed), *Eaten by the Internet* (Meatspace Press 2023).

public and private actors.' [65] It goes as far as to compare the judicial system to the financial payment system- arguing that similarly, the judiciary should 'invest in creating the infrastructure and enabling ecosystem needed.'[66]

This vision leads to serious questions about the consequences of commoditizing these different functions to actors that would not view justice delivery as a public service, but as a service that can instead be driven by neoliberal ideas of profit, efficiency, economies of scale. Further, in what ways would such private actors be subject to the same levels of accountability, transparency, and interrogation from the public that the judiciary, however limited, can and should be?

Taking this approach can imply that the commitments of institutions like the judiciary are subject to managerial fantasies of seamlessness. This is especially when seamlessness cannot be addressed purely through creating technocratic solutions, and a disavowing of critical disparities in justice delivery that come from digital divides, algorithmic biases, gender and caste-based participation, and literacy levels.

III. DIGITALISATION FROM THE MARGINS

The previous section explored multi-layered ways in which marginalisation is taking place on account of digitalisation, making explicit that the nature of the impacts of digital transformations must be addressed in differentiated ways. Addressing marginalisation requires ensuring that no-one is left behind, which cannot happen when opportunities to participate and to be heard in justice institutions do not exist in real and meaningful ways. [67]

Establishing a framework for thinking about 'digitalisation from the margins' includes ensuring that those who are marginalised by digitalisation not only bear testimony to the lived experiences of the implications of digitalisation but also have the power to establish pathways to find solutions to their

[65] Varsha Aithala and Siddharth Peter de Souza (n 61) 165
[66] 'Vision Document for Phase III of eCourts Project | Official Website of E-Committee, Supreme Court of India | India' <https://ecommitteesci.gov.in/vision-document-for-phase-iii-of-ecourts-project/> accessed 6 May 2024.
[67] 'What Does It Mean to Leave No One Behind?' (n 5). 'Inclusive by Design: Accelerating Digital Transformation for the Global Goals | United Nations Development Programme' (*UNDP*) <https://www.undp.org/publications/inclusive-design-accelerating-digital-transformation-global-goals> accessed 9 July 2023.

problems.[68] Thus, 'focusing and centring the needs of those most-impacted, most at-risk and those least consulted from ideation processes to production' is critical when thinking of technology adoption.[69]

Doing this requires understanding the ways in which technology can create domination, and cause oppression in terms of how people engage individually with technology. It also requires examining how people are affected at a community level, and how they are impacted by different social institutions.[70] To counter technology determinism, it is also critical to be able to build technology for usability with the community, and with a plurality of contexts in mind.[71]

Drawing from the case studies across the jurisdictions, we identify three pathways that foreground thinking with the margins, not just as a site of passivity, but a site from where change can emerge.[72] This means firstly, framing the design of digital transformations with people centered perspectives. The second is a focus on socio-economic disadvantages in the design and rollout of technologies and the third is to build for public interest to ensure rigorous discussions and deliberation. These pathways are meant to provide a contrasting starting point to the unbridled managerial logics that currently make up digital court development.

A. Framing design: Engaging with People Centred Perspectives

The first aspect is that of people centricity, that people's voices should matter in the design, implementation, and evaluation of justice systems. Developing a justice system that foregrounds people's centricity implies that the system is relevant, trusted, as well as useful and engageable such that, not only is there a people centered culture, but that the purpose and vision of the justice system is to empower people to participate in it. [73]

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[68] Miranda Fricker, 'Introduction' in Miranda Fricker (ed), *Epistemic Injustice: Power and the Ethics of Knowing* (Oxford University Press 2007) <https://doi.org/10.1093/acprof:oso/9780198237907.003.0001> accessed 23 April 2023.

[69] Afsaneh Rigot, 'Design From the Margins' (Belfer Centre For Science and International Affairs 2022) <https://www.belfercenter.org/publication/design-margins> accessed 11 March 2025.

[70] Patricia Hill Collins, *Black Feminist Thought, 30th Anniversary Edition: Knowledge, Consciousness, and the Politics of Empowerment* (Routledge 2022). Sasha Costanza-Chock, 'Design Justice, A.I., and Escape from the Matrix of Domination' [2018] Journal of Design and Science <https://jods.mitpress.mit.edu/pub/costanza-chock/release/4> accessed 7 January 2021.

[71] Siddharth Peter de Souza, 'The Spread of Legal Tech Solutionism and the Need for Legal Design' (2022) 13 European Journal of Risk Regulation 373.

[72] Payal Arora, *The Next Billion Users: Digital Life Beyond the West* (Harvard University Press 2019).

[73] OECD, *OECD Framework and Good Practice Principles for People-Centred Justice* (OECD 2021) <https://www.oecd-ilibrary.org/governance/oecd-framework-and-good-practice-principles-for-people-centred-justice_cdc3bde7-en> accessed 4 June 2024.

As researchers at the Hague Institute for Innovation of Law argue, 'People-centred justice resolves legal problems people have, prevents them from occurring, is tailored to what people need to move on and, therefore, creates opportunities for people to fully participate in their societies and economy. It puts people and the outcomes they need at the centre, not institutions.'[74] Doing so entails that responses to problems are systemic, and also engage in power building, which gives people the agency to act. [75]

An illustration of this can be seen in Kenya in the case of criminal law court services, where the judiciary has innovated the process to make it more accessible for users. For example, in Nairobi, the judiciary erected temporary open-air courts in strategic places like stadiums and sports centres,[76] to dispose of cases that are not heavy taxing such as Covid-19 related offences of driving past the curfew time and loitering. The participants in these proceedings were being handled on the spot and being issued with light penalties such as reasonable fines to the tune of Kshs. 500- 2000 or community service sentences where one is not able to pay the fine. It is apparent that this approach considers ways to engage with the justice system that are familiar, and knowable, acknowledging that shifting both the location, as well as forum for justice delivery would have exacerbated existing inequalities in access.

From the early 2000s, Argentina's Ministry of Justice and Human Rights set up e-kiosk Access to Justice Centres ('CAJ') across all provinces of the country providing online consultations to people on their civil, criminal and administrative cases.[77] These include matters related to access to documentation to claim social benefits, social security, family relationships, conflicts with the criminal law, violence, health problems, housing, work and education, among others.[78] While studies have found some problems with its operation, it has sustained its operations as an interdisciplinary community service during different political regimes, which can channel the State's responses to people's problems and has promoted access to justice specifically for vulnerable communities.[79]

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[74] HiiL, *Policy Brief: Delivering People-Centred Justice, Rigorously* <https://www.hiil.org/research/delivering-people-centred-justice-rigorously-policy-brief-2021-01/> accessed 11 March 2025.
[75] Rachel Black and Sabeel Rahman, 'Centering the Margins: A Framework for Equitable and Inclusive Social Policy' <http://newamerica.org/family-centered-social-policy/policy-papers/centering-margins/> accessed 11 March 2025.
[76] 'Kasarani Stadium Turned into Court, 90 Charged Over Covid-19 Offences' *The Star* (7 May 2020) <https://www.the-star.co.ke/news/2020-05-07-kasarani-stadium-turned-into-court-90-charged-over-covid-19-offences/> accessed 4 June 2024.
[77] Dhru, Nikam and Barendrecht, Use of Digital Technologies in Judicial Reform and Access to Justice Cooperation (HiiL, 2021) <https://www.hiil.org/wp-content/uploads/2021/11/HiiL-Use-of-digital-technologies-in-judicial-reform-and-access-to-justice-cooperation.pdf> accessed 7 July 2025.
[78] ACIJ, CELS and INECIP, *Centers for the Access to Justice in Argentina: Executive Summary* (2021) <https://inecip.org/wp-content/uploads/2021/12/ACIJ-CELS-INECIP-Centers-for-the-access-to-justice-in-Argentina-Executive-summary.pdf> accessed 23 March 2025.
[79] ibid.

The Indian non-profit, OpenNyAI, is building open-source AI digital public goods bringing together 'innovators, institutions, resources and ideas across the legal and AI domain together', to enhance the Indian citizen's experience of justice.[80] Through an initiative called *Jugalbandi* which uses advanced, multilingual, conversational, AI powered chatbots, users can access basic services like legal representation, advice and information for instance in a domestic violence case or obtain information and assistance on government schemes etc. on their mobile phones. The chatbots use OpenAI's ChatGPT with Indian language translation models and are integrated with WhatsApp. As a digital public good, it aims to remove language barriers to access essential services which is particularly relevant in a country like India with diverse linguistic communities.[81] Such an intervention aims to ensure that judicial services are increasingly available to people in their own contexts, however, the challenge remains that in this intervention, the role of Big Tech in judicial services is increasing, resulting in further infrastructural dependencies, and the potential of private sector logics creeping into the functioning of interventions. In another example, the group Lawyered offered legal assistance to truck drivers by creating a helpline, and in collaboration with the All-India Transporters Association. Their work also has ensured that there are lawyers every fifty kms on highways to ensure that legal help is available.[82]

These examples demonstrate that engaging with design that focuses on people centricity is critical, because the focus on closing the gap of last mile access. In doing so, such approaches build not only solutions that people need but also focus on things that can be usable given the contexts within which they are employed.

B. Focussing on Disadvantage: Addressing Socio-Technical Factors

The second aspect of designing from the margins, is to account for socio-technical factors to prevent challenges of technological determinism.[83] This involves engaging not just with the software and hardware of a technical system, but the issue of rights, and responsibilities, and how people and technology are entangled. Engaging with socio technical factors enables the design of the digital court

[80] Open Nyai, <https://opennyai.org/> accessed 23 March 2025.

[81] Thoughtworks, 'How AI Is Overcoming Language Barriers and Driving Inclusion' (Pragmatism in Practice Podcast) <https://www.thoughtworks.com/en-in/insights/podcasts/pragmatism-in-practice/how-ai-is-overcoming-language-barriers-and-driving-inclusion> accessed 23 March 2025.

[82] Sachin Malhan, Varun Hemachandran and Smita Gupta, 'How AI Is Transforming Access to Justice in India' (*NLSIR*, 23 March 2025) <https://www.nlsir.com/post/how-ai-is-transforming-access-to-justice-in-india> accessed 23 March 2025.

[83] Paul Adler, 'Technological Determinism' in Stewart Clegg and James R Bailey (eds), *The International Encyclopaedia of Organization Studies (*Sage 2006).

system to focus on how people, organization, processes interact. It acknowledges that to design a digital court requires engaging with several interdependent parts.[84]

From the standpoint of building courts that can facilitate digital justice, it is imperative that those who face disadvantage are at the heart of the design. This ideal of inclusiveness: of leaving no one behind and reaching the furthest behind first, recognises that digital divides,[85] persist between countries, communities and people, which is closely associated with *age, gender, skills, language, socio-economic status, affordability, geographical location* etc. Promoting digital inclusion, enabling access to information, services and opportunities, particularly for marginalized groups, can accelerate digital equality.[86]

An approach that sees digital inclusion as part of the design of any solution is critical. As the Digital Future Society advances, this idea has many elements including : (i) access to electricity, the internet, devices and quality of that access; (ii) traditional and digital skills including critical thinking, literacy and entrepreneurship; (iii) use of technology, public and private digital services, digital products and content, various types of work, social and civic engagement activities, as well as places of access to measure actual value creation and digital inclusion of marginalised communities; and (iv) a supportive environment, particularly in terms of affordability, legally valid identification, financial inclusion, trust and security.[87]

This approach is visible in the approach from the Argentinian cabinet in 2023, which recommended a data infrastructure strengthening project,[88] which aims to "strengthen the foundations of the data infrastructure, increase digital resilience, foster digital adoption in Argentina; and respond effectively in the event of an eligible crisis or emergency". Eleonora Vallet from University of Buenos Aires, calls this the "first digital divide", arguing that it takes effort to make sure that the internet broadband connectivity and infrastructure reaches the largest number of people (including unserved users) to close differences in access to new technologies and the internet, before moving to close the

[84] Gordon Baxter and Ian Sommerville, 'Socio-Technical Systems: From Design Methods to Systems Engineering' (2011) 23 Interacting with Computers 4.
[85] The Digital Future Society defines digital divide as the gap between those with access to digital infrastructure and devices, and those without.
[86] UN Department of Economic and Social Affairs, *Draft – Digital Inclusion for All: Online Global Forum 2021* (12 February 2021) <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2021/02/Draft-DigitalInclusion4All-OnlineGlobalForum2021-12Feb.pdf> accessed 23 March 2025
[87] 'Measuring the Margins: A Global Framework for Digital Inclusion' (*United Nations University*, 12 March 2025) <https://unu.edu/egov/project/measuring-margins-global-framework-digital-inclusion> accessed 23 March 2025.
[88] Gobierno de Argentina, *Plan de Políticas Públicas Integrales* (PPPI) (November 2023) <https://www.argentina.gob.ar/sites/default/files/2023/09/pppi_-_nov2023.pdf> accessed 7 July 2025.

"second digital divide" which relates to the skills of understanding and use of these technologies by the population that has access to them. The project aims to develop a "resilient data infrastructure, cloud infrastructure and high-performance computing applications through the implementation of modular computing centers (digital stations) interconnected to the node in Benavídez" and to "enhance knowledge, training and change management, in order to develop the necessary skills and adaptations for the industrial 4.0 market."[89]

Barriers to access justice caused by the digital divide can be significantly broken down through last mile connectivity. Recognising this, in Kenya, steps have been taken to ensure that users have direct access to court information, through integrating features such as ensuring that SMS are sent so users can learn about the status of a case.[90] In a similar effort, e-Sewa Kendras are being set up in district courts and high courts in India in partnership between the state governments and the Central government. These enable litigants to obtain information on their case status, obtain copies of judgement and orders, and for e-filing of cases.[91] So far, the effectiveness of these centres has not been examined independently, but it is important to recognise the value of these initiatives in fostering a supportive ecosystem for innovation.

C. Building Digital Solutions for Public Interest

With rapid digitalization, there is increasing privatisation of products and services around digital courts. The third pathway we argue is that such digital solutions need to be built with the public interest at its core. Züger and Asghari advance that in their work on public interest AI, which has relevance for developing a digital court for the public interest, that the development should have: 1) public justification for the use of the system 2) an emphasis on equality in the system, 3) a focus on deliberation and co-design, 4) technical safeguards such as in relation to data protection or accuracy, 5) validation that can be open and challenged,[92] and 6) sustainability, that the systems can work in the long run.[93]

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[89] ibid.

[90] 'E-court processes in Kenya promote access to commercial justice' (*IDLO - International Development Law Organization*, 31 January 2020) <https://www.idlo.int/fr/news/story/e-court-processes-kenya-promoting-access-commercial-justice> accessed 23 March 2025.

[91] eCommittee of the Supreme Court of India, 'eSewa Kendra' <https://ecommitteesci.gov.in/service/e-sewa-kendra/ accessed> 23 March 2025.

[92] Theresa Züger and Hadi Asghari, 'AI for the Public. How Public Interest Theory Shifts the Discourse on AI' (2023) 38 AI & Society 815.

[93] Theresa Züger and Hadi Asghari, 'Introduction to the Special Issue on AI Systems for the Public Interest' (2024) 13 Internet Policy Review <https://policyreview.info/articles/analysis/introduction-special-issue-ai-systems-public-interest> accessed 23 March 2025.

Some of the cases include initiatives by civil society groups in India who have created open data management systems such as the Open Budgets India platform and the Justice Hub. Justice Hub, launched in February 2021, is an open access repository of datasets and reports around law and justice, contributed by its members.[94] Open Budgets India 'makes budget datasets accessible and easy to work with'[95]. These are expected to reduce issues such as lack of good quality documentation and limitations on the ability for researchers to explore datasets across several years using open and accessible tools. Recently, the Indian government approved the IndiaAI Mission in 2024 to develop a strong AI computing and semiconductor infrastructure. This can enable the creation of indigenous AI solutions tailored to Indian languages and contexts. It creates the IndiaAI Dataset Platform to provide Indian startups and researchers seamless access to a unified repository of high-quality, anonymised/non-personal datasets, reducing barriers to AI innovation and supporting them to develop advanced AI applications in public interest.[96]

In Argentina, the Buenos Aires City Government's mediation system grew exponentially during the pandemic and is quite successful in terms of settlements (88% in April 2020).[97] It is a public platform in which citizens can call for mediation on neighbouring and administrative issues, but also large companies have registered so that they can be called by clients/consumers to fix claims. In this sense, it can be argued that digitalisation of justice has provided a cheaper alternative to a normal court proceeding. This benefit is equally distributed among all stakeholders: disputing parties (be they common citizens, businesses, organisations), lawyers, mediators, court employees and even states.

Building in public interest is critical, because it guarantees attention to 'the negotiation of citizens not as private people put as part of a collective public, exchanging views and experiences to collaboratively determine which solutions best serve the public', with an emphasis on not building with abstract ideas in mind, but based on actual problems.[98]

IV. CONCLUSIONS

[94] Justice Hub India, <https://justicehub.in/> accessed 23 March 2025
[95] Open Budgets India, <https://openbudgetsindia.org/> accessed 23 March 2025.
[96] Press Information Bureau (India), 'Press Release' <https://pib.gov.in/PressReleasePage.aspx?PRID=2108810 accessed> 23 March 2025.
[97] Francisco Mignaquy "An Opportunity to Enhance Access to Justice in Latin America? A study on Argentina and Brazil's current situation regarding access to justice and approach towards the use of ODR" <https://arno.uvt.nl/show.cgi?fid=157094> accessed July 4, 2025
[98] Züger and Asghari (n 92).

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In this collaborative paper, we illustrate the varied ways in which the digitalisation of courts is causing marginalisation. Through illustrations from India, Argentina, Kenya and Malaysia, we examine how courts are adopting techno deterministic approaches that not only exacerbate existing social inequalities but leave out more and more people at the margins.

The paper unpacks different aspects of marginalisation and argues for why it is imperative to map how people who are furthest away from courts, while still being subject to them, will interact with these systems. While our selection of countries for a deeper analysis is limited due to practical considerations, we can safely infer that the process of digitalisation of the justice system has been sudden, and ad hoc across these jurisdictions. This investigation has inevitably led us to explore the real motivations of the State for rapid digitalisation of the justice system and its impact on stakeholders. Broadly, these revolve around the themes of costs, speed and efficiency of the process, sometimes at the expense of the basic principles of transparency, accountability and access to justice.

We believe that the margins should be relooked into, as a site from where sustainable change can emerge. This requires, among others, a recognition of people's voices in the design, implementation, and evaluation of the system. The three pathways we propose argue for courts that further digital justice, by being people centric, engaging with socio-technical factors, and supporting solutions which advance public interest.