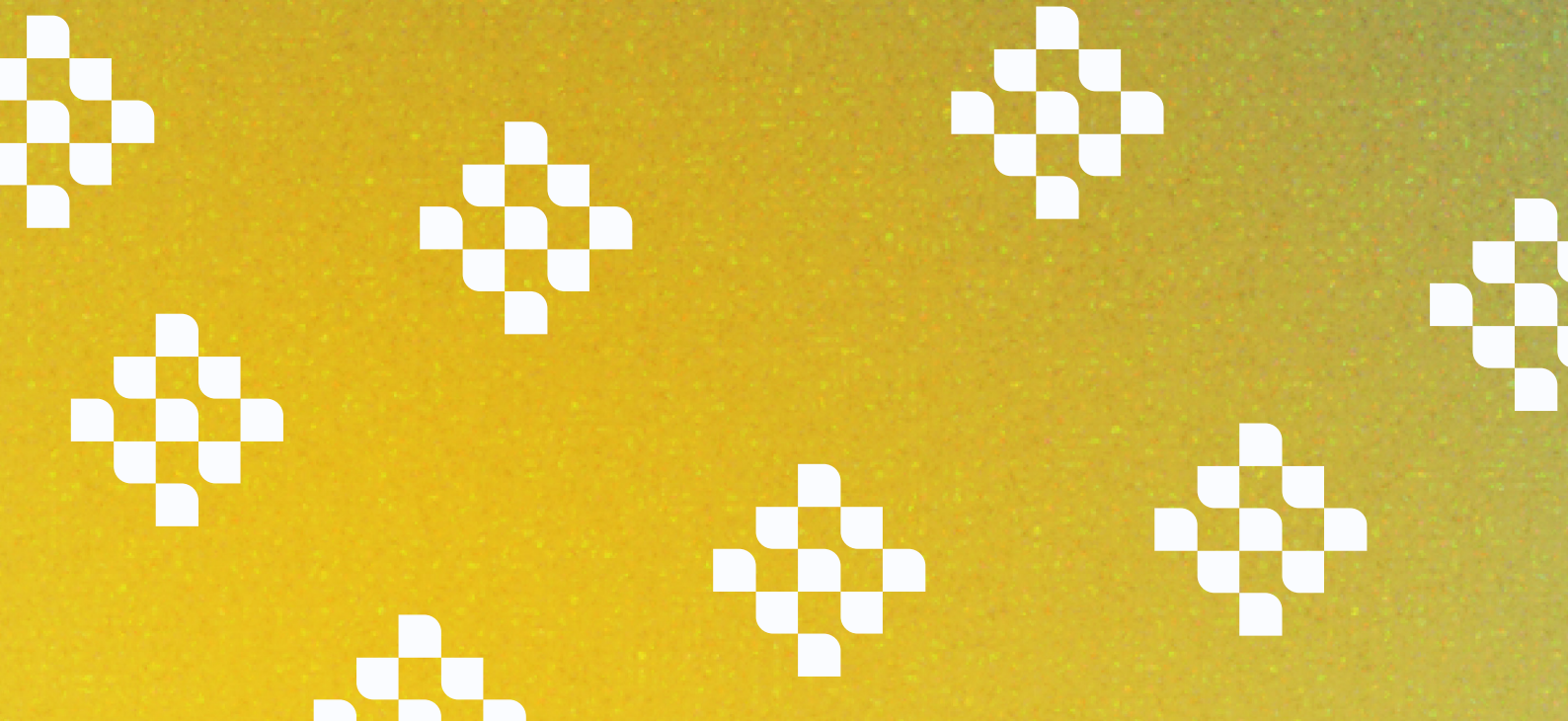# Event Report: Inclusive Digital Transformation – The DPI Approach and Beyond

IT for Change

Date: 10 January 2025

Venue: The Leela Palace, Bengaluru

Contents

Concept Note

Over the past decade, India has leveraged the promise of Digital Public Infrastructures (DPIs) to enhance the efficiency of public service delivery, foster innovation across sectors such as finance, healthcare, and agriculture, and build a competitive digital economy. Industry federations such as National Association of Software and Service Companies (NASSCOM) have taken an optimistic view of India's DPI strategy, predicting that the economic value added by DPI could increase to between 2.9% and 4.2% of India's GDP by 2030[1]. Policymakers are also actively exploring the export of India's DPI–particularly the India Stack triad of identity, payments, and data-sharing architecture–to other countries in the Global South.

However, for a holistic perspective on DPIs and to realize its potential in full, it is vital to move beyond a purely economistic vision. People's movements, grassroots organizations, and communities must play a participatory role in defining the purpose and outlining the design of proposed DPIs. The ownership and control of DPIs need to be reinterpreted from the standpoint of democratization of technological infrastructures and public accountability to enable people-centric digital innovation that addresses contextual development challenges. It is also important to pay attention to how multiple stakeholders articulate ideas of innovation, trust, and diversity in the marketplace. This calls for a stocktaking on how DPIs are implemented in the context of India's developmental priorities and histories.
In this context, IT for Change convened a day-long roundtable on 10 January 2025, to explore the following questions (See Annex 2 for the full event agenda) :

1. What ethical guidelines should inform the design and governance of different Digital Public Infrastructures? What are our learnings from the Indian experience on what matters in specific techno-social ecosystems?
2. What are emerging sector-specific insights on DPI norms and design choices?
3. What ethical principles and guardrails should inform public-private partnerships in the rollout of DPIs? Are new legislative measures required?
4. What alternative prototypes of DPIs do we have from experiments led by start-ups, policymakers, and progressive technologists?

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1   NASSCOM. (2024). "India's Digital Public Infrastructure: Accelerating India's digital inclusion". NASSCOM. https://community.nasscom.in/sites/default/files/publicreport/Digital%20Public%20Infrastructure%2022-2-2024_compressed.pdf

Executive Summary

The roundtable brought together a diverse group of participants, including tech policy researchers, civil society and civic tech organizations, members of social movements, industry representatives, digital rights advocates, and policymakers (See Annex 1 for the full list of attendees). The discussions underscored the need to move beyond economic metrics and techno-solutionism to ensure that DPI truly serves public interest and democratic participation. Key sessions explored how India's approach to DPI has relied heavily on private sector involvement, often at the cost of public accountability and equity. The role of public-private partnerships (PPPs) was scrutinized, with concerns raised over exclusionary outcomes, opaque governance, and the unchecked influence of private entities in essential service delivery. Sectoral deep-dives into agriculture and healthcare highlighted how digital systems, such as Agri Stack and the Ayushman Bharat Digital Mission (ABDM), risk reinforcing existing inequalities–particularly along caste, gender, and economic lines–if not designed with participatory governance frameworks.

The discussions also emphasized the importance of a rights-based approach, ethical data governance, and meaningful citizen participation. Alternative governance models, such as community data frameworks, were proposed to ensure that digital infrastructures remain public goods rather than corporate assets. The roundtable concluded with a call for policy roadmaps that integrate democratic principles into DPI design, ensuring inclusivity, accountability, and responsiveness to the needs of the most marginalized communities.
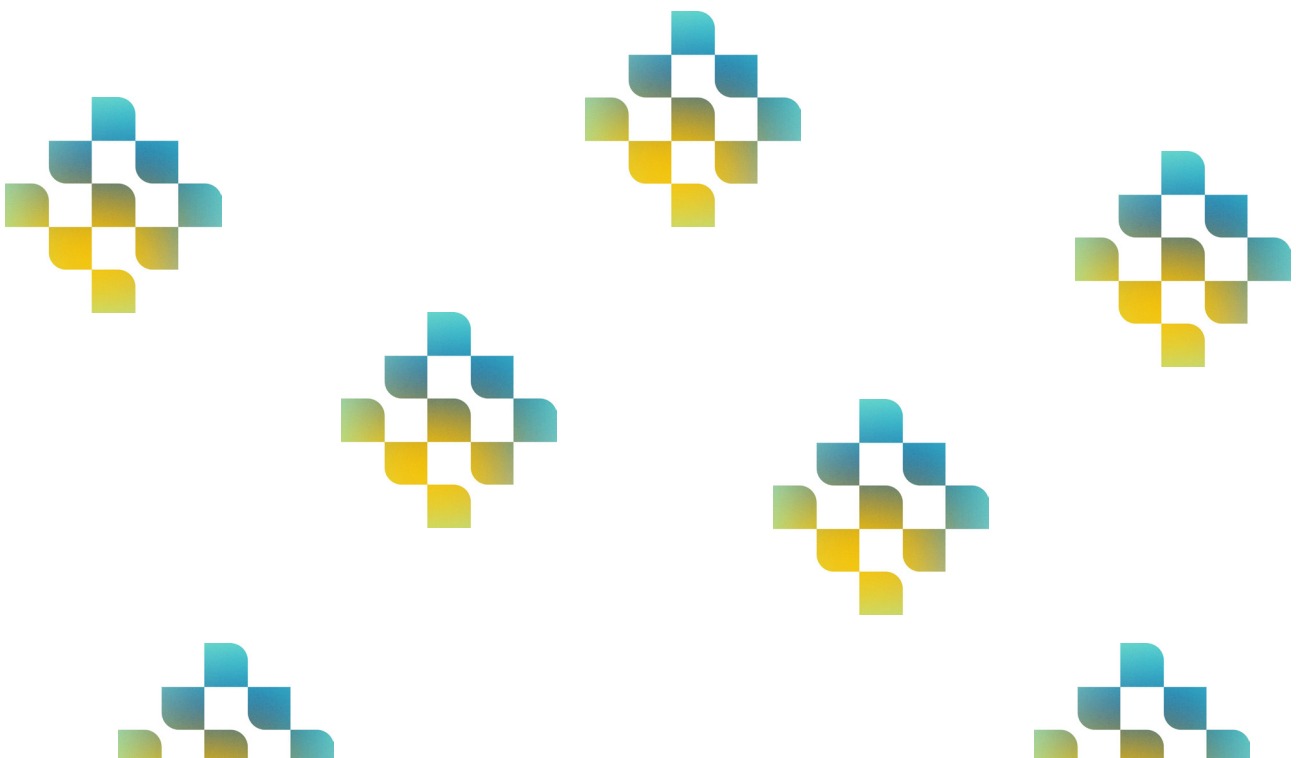
Session Takeaways

Session 1 - From Rhetoric to Reality: Examining India's DPI Story

The first session of the day focused on the need to elevate the lived experiences of those directly affected by India's chosen model of implementing DPI, and how the gap between policy decisions and community experiences can be bridged. Presenters included Nikhil Dey from Mazdoor Kisan Shakti Sangathan (MKSS), Amber Sinha from Tech Policy Press, Mansi Kedia from the Indian Council for Research on International Economic Relations (ICRIER), and Nandini Chami from IT for Change.

This critical appraisal of India's DPI strategy began with the observation that traditional principles of administrative law have not been applied to the design and deployment of DPI. This has allowed the state to evade responsibility and scrutiny and the private sector has instead been permitted to develop DPI, which are then endorsed by the state. The term 'public' was also examined in relation to India's DPI, with the argument that it should not be idealized as purely a neutral initiative. A more nuanced understanding of publicness, ranging from full state ownership to open-access platforms, was deemed necessary. Discussions emphasized that the exclusionary impact of the current model on citizens, which has resulted in denial of legitimate claims and deletion of legitimate beneficiaries from the system, is not merely collateral damage in a digital transformation journey. It was noted that emphasis on the technical layers of openness and interoperability is not adequate to render digital infrastructure truly public, when considering unchecked private sector dominance.

> "It's a mistake to believe that DPI alone can solve all problems. It can set solutions in motion but shouldn't be the only focus."

> "It should be called a company-sarkar partnership, not PPP! Companies must follow what people and the state decide—not drive decisions since accountability lies only with the state."

A critical reassessment of systems like Aadhaar was called for, particularly regarding its exclusionary effects, caused by technical failures and mandatory requirements that denies citizens their legitimate benefits. The importance of inclusive dialogue and democratic engagement was emphasized, to shape a more equitable and accessible DPI framework. Presenters pointed to the need to build robust public governance frameworks through democratic participation, take a rights-based approach towards digital transformation, and move beyond techno-optimism to build DPIs that deliver on creating public value and serving the public interest.

Session 2 - Back to Basics: People's Tech Infrastructure

The second session focused on the importance of accountability, transparency, and user-centric design in DPI and what is needed to make DPIs work in the public interest. Speakers for this panel included Deepika Mogilishetty from EkStep Foundation, Tanuj Bhojwani, Debanand Misra from the Indian Institute of Technology, Delhi, Anjula Gurtoo from the Indian Institute of Science, and Harsh Nisar from the National Highways Authority of India.

The discussion began by emphasizing the foundational role of accountability and transparency within democratic societies, regardless of the tools used for welfare delivery. In this regard, privileging and prioritizing the voice of the citizen, as a rights-holder, was deemed critical. It was agreed that principles like equity and fairness should guide the creation of DPI, with a strong emphasis on ensuring that these principles are not just abstract ideals but are publicly declared and actively pursued. The narrow focus on technical architectures of DPI without recognizing the broader context of governance and the digital capacity of the state was critiqued. The state was called upon to take a more active role, in terms of building digital capabilities and encouraging participatory democracy in DPI design and development. In a contrary vein, the role of private sector involvement was also positively discussed, with some suggesting that private companies can contribute to delivering public benefits in the absence of limited state capacity, and that private innovation can unlock broader economic and social gains.

> "Our higher education system is fixated on engineering, business, and other funded fields, while human and public issues remain isolated, disconnected from broader disciplines. While universities and the government are pushing for problem-solving centers, the real goal should be to create bridges between diverse discourses."

The conversation also highlighted the need for universities to play a more active role in addressing the intersection of technology, data, and public policy. It was stressed that universities should adopt a more interdisciplinary approach to education, integrating technical education with humanities and public governance. Additionally, concerns were raised about the lack of meaningful public consultation in the development of DPI, particularly with regard to caste and economic exclusion. The principle of '*do no harm*' was proposed as a starting point for DPI design and implementation, especially in the data collection and data sharing layers. Finally, discussions emphasized the need to improve governance structures around digital infrastructure, by pointing out that the focus on technology itself often overlooks the broader governance deficits that have permitted private capture and resulted in exclusionary mechanisms.

Session 3 - PPPs in DPI Ecosystems: A Stocktaking

This session critically investigated how public-private partnerships have performed in delivering on their public interest promises, in the context of India's DPI journey. Speakers included Alok Prasanna Kumar from Vidhi Centre for Legal Policy and Chatar Singh from Mazdoor Kisan Shakti Sangathan.

The discussion highlighted the challenges posed by PPPs, particularly in models where private entities control essential services without adequate government oversight. It was observed that this lack of accountability often leads to exclusion and delays in service delivery, as seen in the example of the compulsory use of Aadhaar for accessing pensions, which has resulted in widespread issues due to technical errors in the database.

> "It's not that the state 'wants' to act – it 'must' act. Yet, it looks to private players to delegate its responsibilities, and the financial burden that should fall on the state is shifted onto the citizens."

> "The state has specific purposes for which it was designed to exist. There is a state purpose and a profit purpose–and these two can coexist with the right governance measures."

The conversation also emphasized the limitations of the state, particularly the centralization of policy power and scarcity of resources, which compels the government to rely on private players for services. In this model, a private entity takes on the responsibility of providing services under a license, with little to no involvement from the government. In contrast, in the past, citizens had to approach the state for certain services, but it was noted that this is no longer the case as private entities increasingly mediate service delivery. This effectively creates a rupture in the relationship between a state and its citizens, allowing the circumvention of constitutional principles and obligations. Furthermore, this dynamic creates a tension between the profit motives of private companies and the public welfare goals of the state, potentially undermining the inclusivity and accessibility of services.

The need for more inclusive and transparent innovation was stressed, with examples highlighting how public data, when leveraged by private individuals, can lead to valuable innovations, but only if data is seen as a shared resource held in trust by the state. It was questioned whether innovation should follow a top-down approach, or if more people-centric, ground-up innovations could offer better solutions. Lastly, there was a call for greater transparency and equity in digital public infrastructure, acknowledging that while platforms like the Jan Soochna Portal aim to improve access to information, they still face challenges in ensuring equity and accountability.

Session 4 - Five Trillion Economy and Farmers' Dividends: Will the Twain Meet?

Two afternoon sessions brought in deep sectoral insights from the development of DPI for the agriculture and healthcare sectors. In the first of these sessions, Chintan Donda from Wadhwani AI, Sadhana Sanjay from IT for Change, and Namita Singh from Digital Green explored the potential of Agri Stack to deliver material benefits for the agricultural sector and improve farmer livelihoods.

The conversation began with an interrogation of the definition of farmer in these initiatives, with participants noting that women farmers are often excluded from such initiatives because they do not hold land titles in their names. This exclusion is compounded by issues such as the ownership of the mobile phone registered for accessing farmer advisory services. The exclusion of a large portion of the farming population, including tenant farmers, tribal communities, and smallholder farmers, due to technical deficits was identified as a significant challenge to the effective use of DPI in agriculture.

The conversation also touched upon the state's reliance on private sector involvement, exemplified by partnerships with corporations like Microsoft and Amazon, which has created a "regulatory free-for-all." Farmers, treated as passive beneficiaries, are compelled to surrender their data to access essential benefits and rights. In the absence of robust data governance frameworks scaffolding data exchanges, this, in reality, enables unchecked access to agricultural data, rendering it vulnerable to corporate capture. Participants called for reclaiming constitutional principles like Articles 39(b) and (c), which advocate for equitable resource distribution and prevention of wealth concentration, to develop a data governance framework centered on social justice and redistribution of data dividends.

> "It is critical to interrogate why the private sector's involvement and capabilities have been enlisted without consultation with the supposed beneficiaries–farmers and communities–who are treated as mere passive recipients of the system's ultimate benefits."

In this manner, the discussion underscored the urgency of addressing the governance deficit in agricultural DPIs. While frameworks like Telangana's Agriculture Data Exchange (ADeX) include principles like consent and data minimization, it was noted that they fall short of treating agricultural data as a societal commons. This gap perpetuates systemic inequities, allowing digital tools to reinforce historical injustices tied to caste, gender, and land ownership. It was observed that the critical question of how data value is distributed–who profits versus who is shortchanged–remains unresolved in the current approach towards developing DPI for agriculture.

Session 5 - Health for All: Can the Digital Deliver?

The second of the sectoral deep-dives addressed the ethical concerns that have surfaced as a result of DPI deployment in healthcare. Presenters included Akshay S. Dinesh from Action for Equity, Pallavi Bedi from the Centre for Internet and Society, and Ramya Chandrashekhar from the *Centre National de la Recherche Scientifique*.

The discussion underscored the intricate interplay between technology, governance, and constitutional values in shaping India's digital health landscape. The role of constitutional morality and social justice emerged as key themes, with technology seen as a tool that must first prioritize inclusivity and fairness. Instead, what we see is unchecked datafication and digitalization of public healthcare. The discussion highlighted how the absence of accountability and participatory governance in developing these tools defies constitutional principles, with the monitoring and surveillance of Accredited Social Health Activist (ASHA) workers–frontline workers in healthcare–identified as an illustrative example in this regard.

> "The key challenge is nurturing constitutional morality in practice, particularly by cultivating Ambedkar's vision. His concept of constitutional morality goes beyond a legal framework, embracing inclusion, justice, fairness, and ongoing moral introspection – essential elements for shaping digital frameworks in healthcare."

Concerns about data governance, particularly in the Ayushman Bharat Digital Mission (ABDM), were brought to the fore, with the complexities of consent and potential misuse of health data identified as critiques of the ABDM architecture. Participants also stressed the need to move beyond simplistic notions of consent, accounting for the social and political contexts influencing decisions. Additionally, the need for an overarching legal framework for digital health, grounded in the right to healthcare and constitutional principles, was a recurring focus. Experts stressed the importance of informed consent, the regulation of sensitive health data, and dignity of labor for frontline health workers.

In conclusion, the discussion called for alternative models like community data governance and health data trusts and emphasized the critical need for rigorous evaluation of digital interventions before implementation, especially in healthcare.

Session 6 - A Digital Public Infrastructure for the People: A Roadmap

The closing session brought together stakeholders from the government, civil society and academia to bridge gaps in public discourse and take stock of what is required to build citizen-centric DPI. This session focused on the need for inclusive digital transformation, emphasizing that it requires more than just a technological blueprint for DPI, and must instead be deeply rooted in the principles of participatory democracy. Speakers at this session were Abhishek Singh from the Ministry of Electronics and Information Technology, Shankar Singh from Mazdoor Kisan Shakti Sangathan, Aditi Surie from the Indian Institute for Human Settlements, Srikumar Chattopadhyay from the Kerala Development and Innovation Strategic Council, Julia Powles from the University of Western Australia, and Luke Coates from the Australian Government, Department of Foreign Affairs and Trade.

The conversation began with an overview of the opportunities presented by the digital and AI paradigm for improving delivery and accessibility of public services. In India, Unified Payments Interface (UPI), Aadhaar, and data platforms like DigiLocker were developed to improve uptake of rights and benefits, by enabling individuals to access them through digital transactions. It was observed that initiatives like DigiLocker have simplified data and file sharing, and verification of identity. It was also noted how AI-powered bots can assist in diagnosing diseases, particularly in rural areas where medical professionals are scarce. Similarly, it was also noted that AI has the potential to address the teacher shortage by providing students with a resource to ask questions and receive answers.

> "The issue of inclusion–specifically, people being denied access through Aadhaar–must be addressed by the state. There are always alternatives to consider. While some may be denied services, we need to evaluate whether the current digital model is superior to the outdated manual system it replaced–which, in many ways, it is."

However, the importance of considering the most vulnerable–or the "last-mile"– when designing policies and implementing digital initiatives was emphasized. Some participants cautioned against the wholesale involvement of private companies in public initiatives, noting their profit-driven nature often lies in direct contrast to the public interest. The issue of people, particularly elderly women, facing verification challenges due to fingerprint issues, leading to instances where they are wrongly declared dead or are unable to access services was highlighted.

The discussion then shifted to looking ahead–how can inclusive roadmaps for digital transformation be collectively developed? A tension between two extremes was observed– one that views DPI purely as technological infrastructure and the other that sees it as deeply entangled with political and social complexities. Participants emphasized that a wholly technological version of DPI does not exist, and that much of what the state needs to address cannot be solved by technology alone. Kerala's approach towards digital transformation was highlighted as an example of how local knowledge and human resources can drive inclusive development through initiatives like the "One District, One Idea" program and its focus on women and disabled individuals in tech fields.

In this regard, the need for a context-driven approach to technology design, where DPI can be inclusive of citizens who lie at the margins was emphasized. The notion of "digital fire escapes"– alternative tech designs to ensure accessibility for all–was central to the recommendations.

> " "When crafting policy, we must prioritize the most vulnerable and marginalized. The true measure of success is whether they benefit – if they are left behind, the policy has failed."

The importance of embracing political and social friction and seeing them as learning opportunities, and catalyzing democratic participation in the DPI discourse were outlined as key components of an inclusive policy roadmap for citizen-centric tech infrastructure.
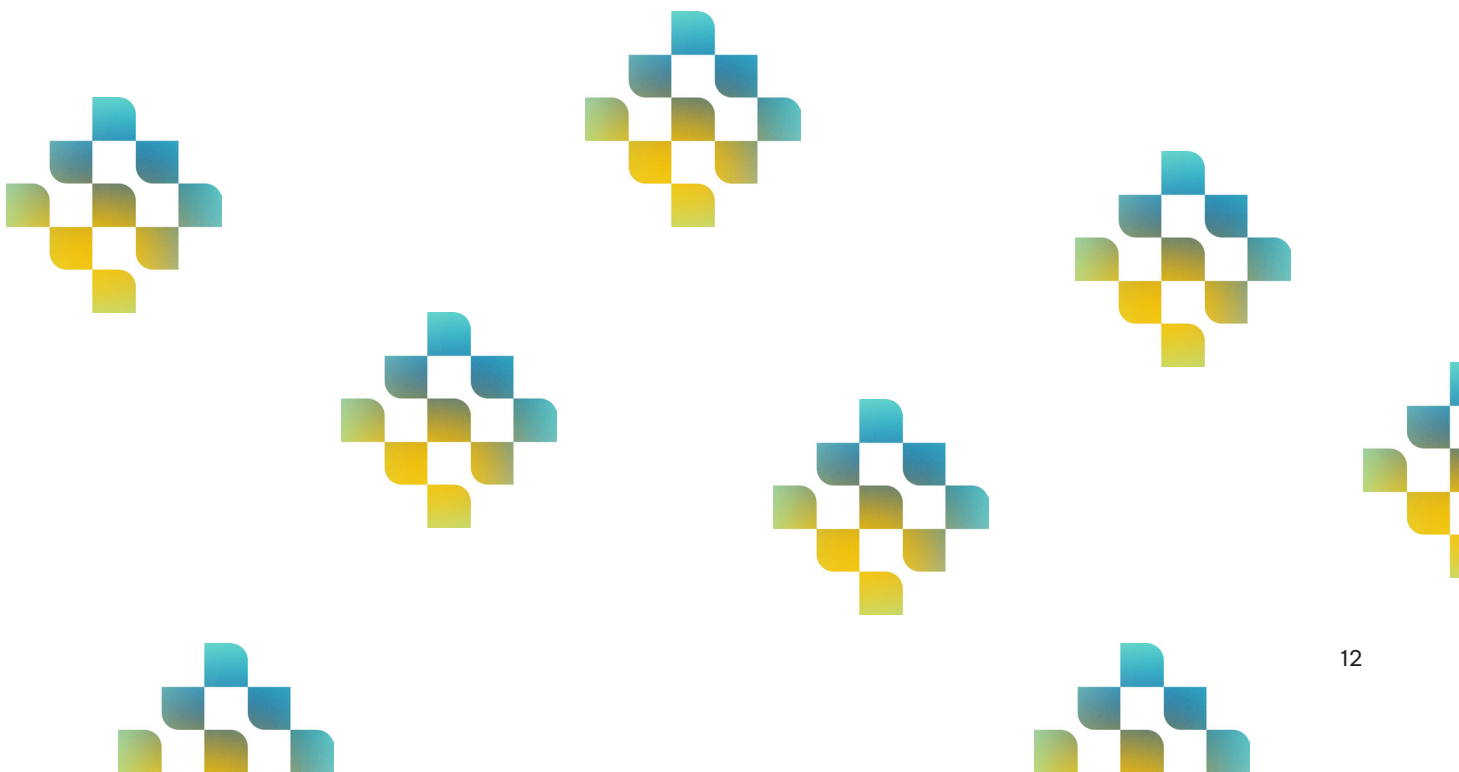
Conclusion

The roundtable served as both a stocktaking exercise and a provocation, urging a shift in how DPIs are conceptualized and governed. It laid bare the tensions between innovation and accountability, efficiency and equity, public interest and private control. While DPI is often heralded as a tool for inclusion, the discussions underscored how, without deliberate safeguards, it can deepen existing fault lines of caste, class, and gender.

Through rigorous debate, the roundtable catalyzed a critical interrogation of India's DPI model. It brought to the fore the urgent need for participatory governance, ethical data stewardship, and frameworks that ensure technology remains a means to social transformation rather than an end in itself.

More than just a forum for critique, the discussions paved the way for reimagining alternative models that place people at the heart of digital ecosystems rather than relegating them to passive beneficiaries. As India continues its digital trajectory, the roundtable left behind a clear mandate: to ensure that DPI is not just built, but built right—rooted in democracy, accountability, and a vision of digital justice that does not leave the most marginalized behind.
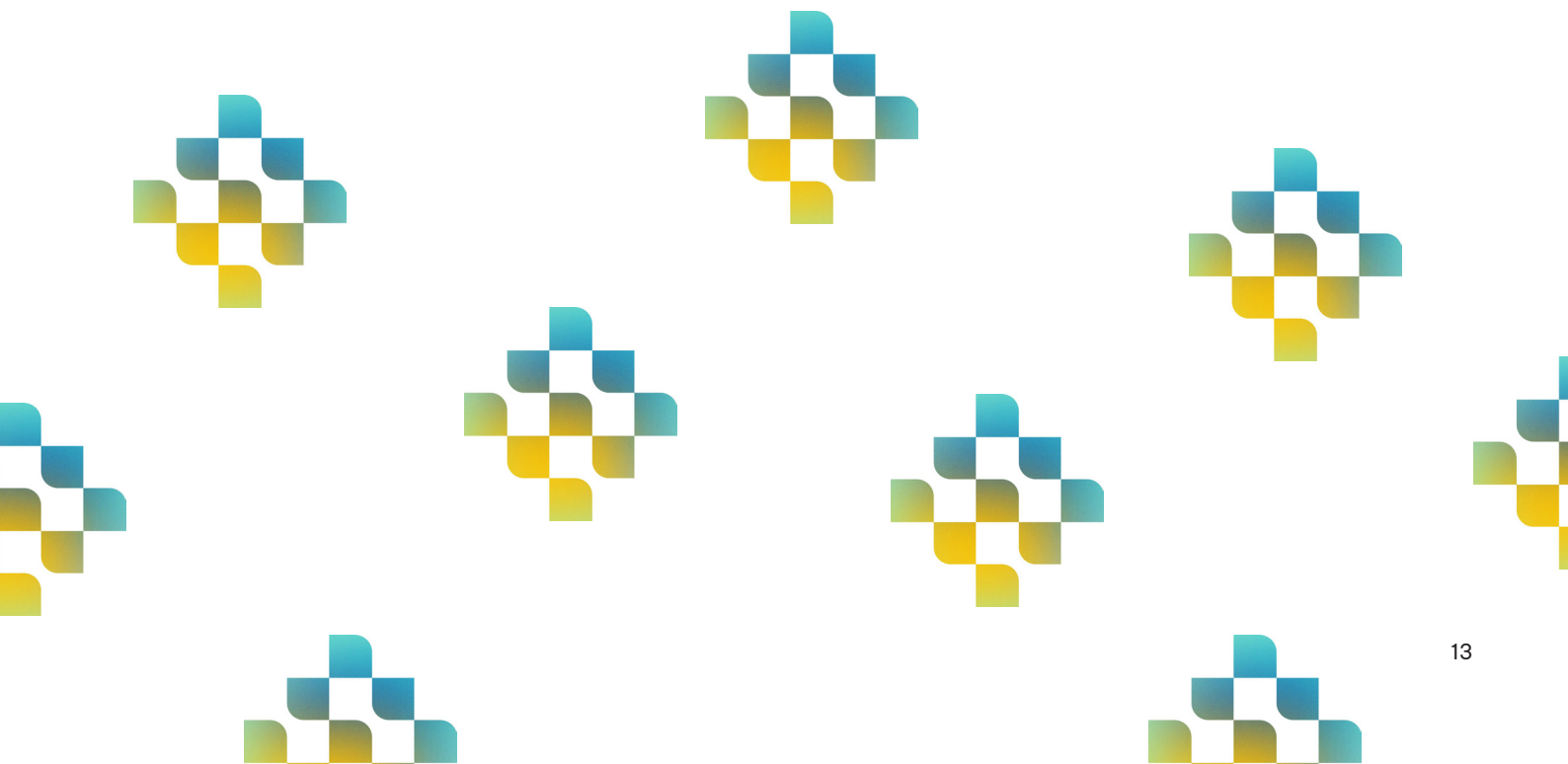
Annex 1: List of participants

1. Abhishek Singh, Ministry of Electronics and Information Technology
2. Aditi Surie, Indian Institute for Human Settlements
3. Akshay S Dinesh, Action for Equity
4. Alok Prasanna Kumar, Vidhi Centre for Legal Policy
5. Amber Sinha, Tech Policy Press
6. Anita Gurumurthy, IT for Change
7. Anjula Gurtoo, Indian Institute of Science
8. Chatar Singh, Mazdoor Kisan Shakti Sangathan
9. Chintan Donda, Wadhwani AI
10. Debanand Misra, Indian Institute of Technology, Delhi
11. Deepika Mogilishetty, EkStep Foundation
12. Julia Powles, University of Western Australia
13. Luke Coates, Australian Government, Department of Foreign Affairs and Trade
14. Mansi Kedia, Indian Council for Research on International Economic Relations
15. Namita Singh, Digital Green
16. Nandini Chami, IT for Change
17. Nikhil Dey, Mazdoor Kisan Shakti Sangathan
18. Pallavi Bedi, Centre for Internet and Society
19. Rakshita Swamy, Social Accountability Forum for Action and Research
20. Ramya Chandrashekhar, Centre National de la Recherche Scientifique
21. Sadhana Sanjay, IT for Change
22. Shankar Singh, Mazdoor Kisan Shakti Sangathan
23. Srikumar Chattopadhyay, Kerala Development and Innovation Strategic Council
24. Tanuj Bhojwani, Independent

Annex 2: Event Agenda

Time	Session	Speakers
08:45 - 09:15	**Registration**	
09:15 - 09:30	**Introduction** Welcoming participants, setting the context	• Anita Gurumurthy | IT for Change • Rakshita Swamy | Social Accountability Forum for Action and Research
09:30 - 10:30	**From Rhetoric to Reality: Examining India's DPI story** What does it mean for digital infrastructure to be truly public? How has the India DPI story delivered on the vision of publicness?	Nikhil Dey | Mazdoor Kisan Shakti Sangathan Amber Sinha | Tech Policy Press Mansi Kedia | Indian Council for Research on International Economic Relations (Virtual) Nandini Chami | IT for Change
10:30 - 10:45	**Coffee Break**	
10:45 - 12:00	**Back to Basics: People's Tech Infrastructure** What are the building blocks of people-centred digital innovation? What design norms and public governance frameworks are key to democratising the benefits of DPIs for inclusive societies and fairer economies?	• Tanuj Bhojwani | Independent • Deepika Mogilishetty | EkStep Foundation • Debanand Misra | Indian Institute of Technology, Delhi • Anjula Gurtoo | Indian Institute of Science • Harsh Nisar | National Highways Authority of India
12:00 - 13:00	**PPPs in DPI ecosystems – A Stocktaking** PPPs are seen as magic bullets in the DPI discourse. What is the PPP score card for inclusive innovation? How do they pan out in welfare delivery? What alternative architectures are necessary to build DPI ecosystems for the common good? How can we centre people-public partnerships in DPI ecosystems?	• Alok Prasanna Kumar | Vidhi Centre for Legal Policy • Chatar Singh | Mazdoor Kisan Shakti Sangathan

13:00 - 14:00	**Lunch**	
14:00 - 14:45	**Five Trillion Economy and Farmers' Dividends: Will the Twain Meet?** In India's policy discourse, AgriStack is being projected by some as a fix for the crisis of agricultural productivity. Is technology a distraction or can it be mobilised to address deeper socio-structural factors for transforming livelihoods?	• Chintan Donda | Wadhwani AI • Sadhana Sanjay | IT for Change • Namita Singh | Digital Green
14:45 - 15:15	**Coffee Break**	
15:15 - 16:00	**Health for All: Can the digital Deliver?** The digitalisation of healthcare presents new challenges for bioethics. What next for the right to health?	• Akshay S Dinesh | Action for Equity • Pallavi Bedi | Centre for Internet and Society • Ramya Chandrashekhar | Centre National de la Recherche Scientifique (Virtual)
16:15 - 17:45	**A Digital Public Infrastructure for the People: A Roadmap** Inclusive digital transformation needs more than a techno blueprint of DPIs. It must also be rooted in the ethos of participatory democracy. How can we design a governance framework for DPIs to catalyse innovation that is accountable, equitable and inclusive? How can the conception and roll out of DPIs centre the interests of the poor and the historically oppressed?	• Abhishek Singh | Ministry of Electronics and Information Technology (Virtual) • Shankar Singh | Mazdoor Kisan Shakti Sangathan • Aditi Surie | Indian Institute for Human Settlements • Srikumar Chattopadhyay | Kerala Development and Innovation Strategic Council • Discussants: • Julia Powles | University of Western Australia • Luke Coates | Australian Government, Department of Foreign Affairs and Trade • Moderator: • Anita Gurumurthy | IT for Change
17:45 - 19:00	**High Tea**	

Annex 3: List of Abbreviations

ABDM	Ayushman Bharat Digital Mission
ADeX	Agriculture Data Exchange
ASHA	About Accredited Social Health Activist (ASHA)
DPI	Digital Public Infrastructure
ICRIER	Indian Council for Research on International Economic Relations
MKSS	Mazdoor Kisan Shakti Sangathan
NASSCOM	National Association of Software and Service Companies
PPP	Public-Private Partnership
UPI	Unified Payments Interface