Knowledge Society Manifesto

Aspirations for 2024-2029

Koan Advisory Group

Koan Advisory Group (“Koan”), is a New Delhi based public policy consulting firm focused on new and emerging technologies. Koan combines domain knowledge across diverse technical areas with continuous engagement of decision makers in industry, civil society and government. It is staffed by a multidisciplinary team of professionals and services the world’s most innovative companies, local government departments, and international organisations. More information can be accessed at: www.koanadvisory.com

Overview

With over 800 million broadband users, India faces unique opportunities and challenges in navigating the digital landscape. This aspirational manifesto aims to set forth our vision for a prosperous, safe and equitable knowledge society, one that is rooted in the public interest and aligned with the nation's foundational values and principles. Recognizing the critical balance between leveraging technological opportunities and addressing associated risks, this document is designed on the premise that inclusive information societies can help ensure balanced growth, societal well-being, and the enhancement of individual rights.

This aspirational manifesto is a call to action based on five promises/ objectives to shape our shared digital future. We hope that Indian politicians find it useful in shaping their own promises in the run up to the 2024 General Elections.

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Scope

Information technology has revolutionised the production and consumption of knowledge. This manifesto outlines a vision to make the most of the information era, ensuring individual rights are upheld, societal harms are mitigated, equitable access is provided, and governance is agile yet grounded, steering towards a prosperous and inclusive digital future rooted in foundational values and principles. The scope of this manifesto extends across:

Electronics Layer: The electronics layer within the context of this manifesto encapsulates the hardware components, devices, and systems integral to digital technology. It encompasses the manufacturing, assembly, and distribution of electronic goods, ranging from consumer devices like smartphones, computers, and wearables to industrial equipment, sensors, and other elements such as servers and networking hardware. This layer is pivotal in driving technological advancements, shaping innovation, and supporting the functionality of digital services and products. It also involves policies and initiatives directed at fostering indigenous manufacturing, promoting research and development in electronics, streamlining supply chains, and ensuring quality standards in electronic goods.

Content and App Layer: The content and app layer represents the diverse landscape of digital content, applications, software, and services available across various platforms and mediums. It includes social media platforms, streaming services, e-commerce platforms, communication apps, software applications, digital entertainment, educational content, and more. Policies governing this layer focus on content regulation, user privacy, intellectual property rights, data governance, cybersecurity, and fostering an environment conducive to innovation and fair competition. Additionally, they address issues related to user-generated content, platform liability, and ensuring ethical and constitutional standards are upheld in digital media and app-based services.

Infrastructure Layer: The infrastructure layer forms the backbone of the digital ecosystem, comprising telecommunications networks, internet infrastructure, data centers, cloud computing services, and digital payment systems. It involves the physical and virtual frameworks that enable connectivity, data storage, and the seamless functioning of digital services. Policies related to this layer should emphasize equitable access to high-quality and affordable digital infrastructure across urban and rural areas. They should also cover cybersecurity measures, data protection, standards for digital interoperability, promoting shared infrastructure to reduce redundancy, and fostering innovation in infrastructure technologies to support the evolving needs of a digitally connected society.

Minimum Government, Agile Governance

Encourage a balance between technological innovation and necessary regulation, emphasising minimal state-intervention wherever possible

Uphold Individual Rights and Constitutional Values in the Digital Sphere

Ensure that technology, especially when used in public sector service delivery, is aligned with and enhances individual rights and constitutional values

Promote Equitable Access and Quality of Service

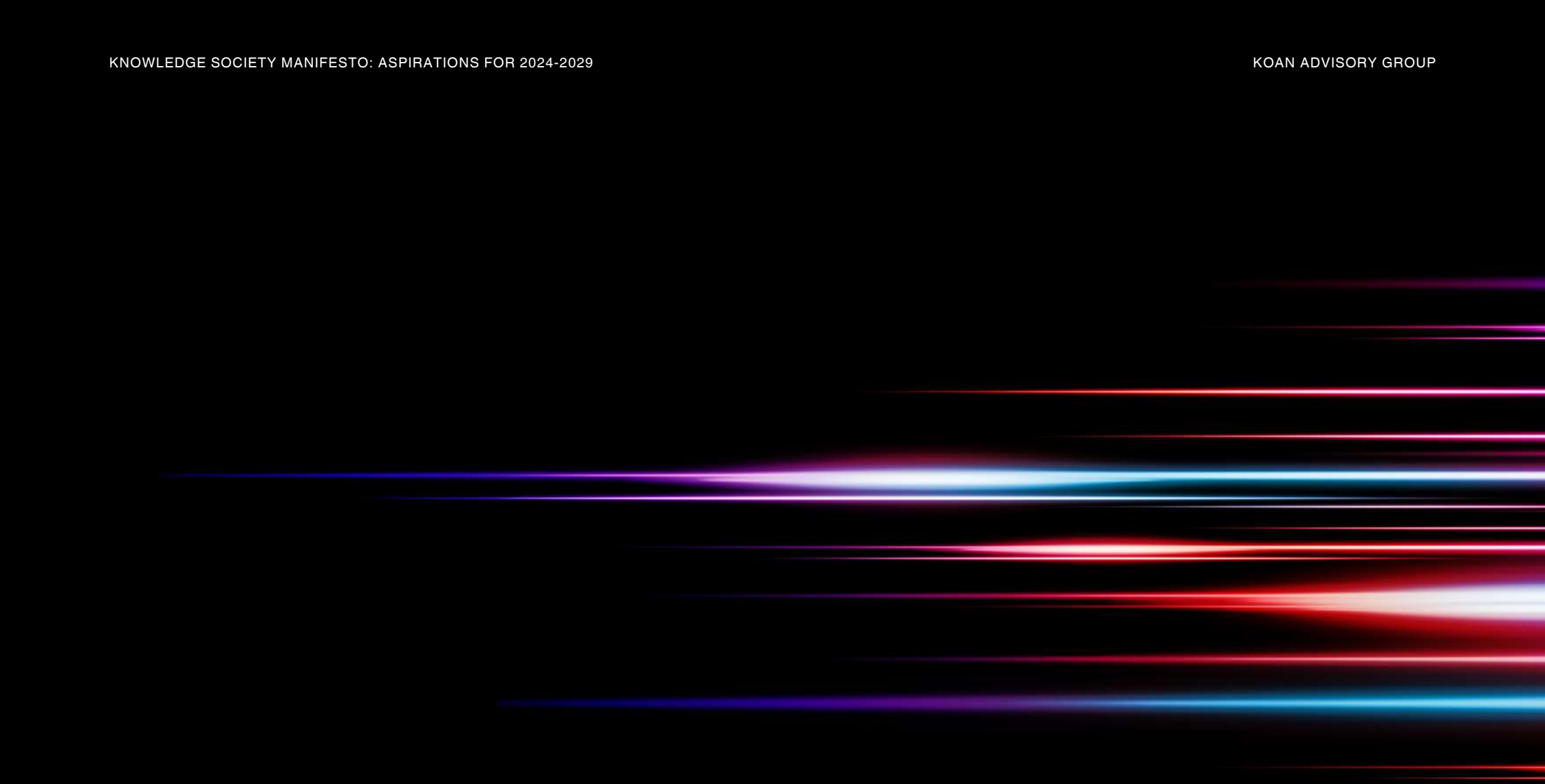
Ensure that all citizens have equal and affordable access to digital technologies, with particular focus on underserved and rural areas

Foster a Resilient and Inclusive Knowledge Society

Develop policies that support the growth of a digital economy that is resilient, competitive and sustainable

Mitigate Societal Harms and Address Market Failures

Develop and implement policies aimed at identifying and mitigating societal harms arising from emerging digital technologies



Proposed Actions

Uphold Individual Rights and Constitutional Values in the Digital Sphere

1

Foster a Resilient and Inclusive Knowledge Society

2

Mitigate Societal Harms and Market Failures

3

Equitable Digital Access and Quality of Service

4

Minimum Government, Agile Governance

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1 Uphold Individual Rights and Constitutional Values in the Digital Sphere

1.1 ***Digital Citizen's Charter***: In the pursuit of upholding individual rights and constitutional values in the digital sphere, a foundational step is the creation of a Digital Citizens' Charter.[1] A charter crafted via public consultations, will serve as a beacon for the Indian State's commitment to protecting citizens' rights online and at their workplace. It will encompass and recommit to essential freedoms such as the right to information, profession and free expression. Such a charter will also outline the role of digital businesses in facilitating these rights, balancing the empowerment they offer with responsibilities towards the republic.

Integral to the idea of a citizen's charter is the principle of federalism, emphasizing the need for coordination between the central and state governments to ensure the uniform application of the charter's principles across all regions of India. This approach not only potentially fosters greater accountability within digital spaces but also empowers local communities to play an active role in overseeing digital markets and ensuring that the digital landscape evolves in a manner that is inclusive and respectful of diverse perspectives. Additionally, educating citizens about digital citizenship -- or the responsible use of technology, is critical.

1.2 ***Constitutional Content Standards***: Policies that govern digital media must be reviewed and harmonised with the standards outlined in the Indian Constitution.[2] Any restrictions on free speech online must only be limited in the interests of security and sovereignty of India, friendly relations with Foreign States, public order, decency or morality in the relation to contempt of court, defamation or incitement to an offence. Content regulation for digital media must respect the constitutional balance between freedom of expression and necessary societal safeguards.

A key aspect of this harmonization involves curtailing executive overreach in content regulation, particularly to prevent a scenario where the executive exercises a veto over content choices made by informed adult users or consumers. It is essential to establish clear, transparent, and objective criteria for content regulation, which is overseen by experts with deep knowledge in media, law, and social sciences. That is, experts, rather than traditional regulatory bodies, must ensure that content regulation is both fair and aligned with constitutional principles.

1.3 ***Legal Certainty for Businesses***: It is essential to provide legal certainty to new and emerging businesses that leverage digital mediums to access markets, in consonance with constitutional right to freedom to practice any profession, or to carry on any occupation, trade or business. Digital mediums enable swift innovation and the development of novel business concepts. However, this fast-paced evolution often results in a lag in state-response to understand and regulate new businesses models, and can often lead to knee-jerk prohibitions.[3]

The guiding principle in this endeavour should be the maxim "everything which is not forbidden is allowed,"[4] thereby providing a broad legal safe harbour for commercialisation of digital innovations. Codifying this principle in information technology law can ensure that new digital business models operate in a space of legal clarity and certainty. Governments and regulatory bodies may consequently be encouraged to understand and adapt regulatory responses to these models. This paradigm shift is crucial for nurturing a healthy, innovative digital economy, where policies are conducive to growth.

Foster a Resilient and Inclusive Knowledge Society

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2.1 ***Trusted Value Chains:*** While India has initiated steps towards implementing the concept of trusted supply chains,[5] particularly in sectors like telecom, our approach is entity-centric, focussed on maintaining lists of trusted vendors and suppliers based on criteria such as ownership and country of origin. However, the intricate and interconnected nature of information technology necessitates a comprehensive approach. The notion of trust must encompass an understanding of the flow of value within technology supply chains. This is essential to mitigate risks and vulnerabilities that can be exploited by bad actors, even in scenarios where individual entities are deemed trustworthy.

Specifically, the introduction of an investment screening law for critical industries / market segments is imperative. A nuanced and sophisticated law will help identify and oversee points of tacit control within the value flow of supply chains. This would contribute to building a resilient information technology infrastructure that is secure, reliable, and aligned with India's strategic interests. Such a law may simultaneously increase inward investments and introduce greater flexibilities for compliant firms.

2.2 ***Multistakeholder Digital Governance***: Recognizing the complexity and vastness of the digital economy, it is crucial for India to continue to commit to multistakeholder digital governance that involves various segments of society in the policymaking process. This approach aligns with India's endorsement of multi-stakeholderism in the global governance of the internet over the past decade.[6] Such a model facilitates a 'whole of society' approach, ensuring that policies and regulations are well-informed, inclusive, and reflect the diverse interests and expertise within the digital ecosystem.

A key aspect of multi-stakeholderism is an emphasis on self-regulation and co-regulation as effective regulatory mechanisms. These models, involving multiple expert stakeholders, can fill the gaps in knowledge and capacity that currently exist within state and regulatory institutions. By fostering greater standard-setting and allowing for more flexible, market-oriented governance, these models can reduce the reliance on hard law, creating a dynamic and effective framework for the governance of digital products and services. Above all, a commitment to a multi-stakeholderism promotes a more participatory and democratic governance process.

2.3 ***Economic Security in Electronics***: India faces the challenge of transforming from an import-dependent economy to one that excels in export competitiveness and scale.[7] Despite significant initiatives, including performance-linked incentives and subsidies, a strategic recalibration of policies to promote electronics manufacturing is essential. This recalibration should not only aim at import substitution but also at enhancing global competitiveness. Critical to this transition are improvements in infrastructure, logistics, tax structures, and a simplification of compliance processes, which are fundamental in reducing the operational disadvantages currently faced by domestic manufacturers.

Deepening regional economic integration is a pivotal element in this strategy. By fostering closer economic ties with relevant regional groups such as the Association of Southeast Asian Nations, India can create a more interconnected and efficient supply chain. This would strengthen India's position in the global manufacturing landscape and simultaneously help diversify sources of demand. Focusing on both internal improvements and external economic relationships, India can build a robust electronics manufacturing ecosystem, capable of competing on the global stage and contributing to long-term economic security.

Mitigate Societal Harms and Market Failures:

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3.1 ***Trusted Information Ecosystem:*** In addressing the pervasive challenge of disinformation online, a collaborative public-private approach is essential. The State, while a key player in this endeavour, cannot tackle this issue in isolation. Strategic partnerships with digital platforms and intermediaries are critical to extend the supervisory reach and harness the vast data and content oversight capabilities that these entities possess. Digital platforms, with their advanced tools and technologies for content moderation and trend spotting – often referred to as 'reg-tech' – play a pivotal role in regulating user environments and identifying misleading content. Additionally, entities managing core application services like operating systems, browsers, and other internet access interfaces hold significant potential in aiding supervision. It is imperative to co-opt and incentivize these players.[8]

Simultaneously, the State bears the primary responsibility of educating and preparing citizens to navigate the internet more discerningly. This involves the development of initiatives aimed at enhancing digital literacy, especially in the context of understanding and critically assessing online content. Such efforts become even more crucial in scenarios where disinformation could lead to population-scale harm, such as in cases of information warfare by adversarial states or non-state actors. India must foster a digital environment where misinformation and disinformation are not only identified and curtailed but also less likely to be believed and propagated by citizens.

Furthermore, there is a need to assess state capacity to address threats, specifically in the cyberspace. The scale of the Indian population on the internet ensures that government agencies such as CERT-IN might face limitations in handling the increasing volume of cyber breaches.[9] To overcome this, the government can consider the establishment of a National Cyber Corps, utilizing the abundance of engineering talent in India. This corps could focus on enhancing cyber security measures, not just in response to breaches but also in proactive defence and infrastructure fortification against cyber threats.

3.2 ***Global Coordination:*** Global coordination is paramount to address the real-world harms emerging from cross-border technology, such as crypto-assets and AI. To establish effective guardrails against serious concerns like money laundering and cyber terrorism, India must actively build domestic capacities to engage internationally. This involves developing and enforcing supervision mechanisms that align with global standards, yet are tailored to the unique challenges presented by these technologies.[10]A robust approach is one that addresses risks and fosters the responsible development and deployment of these emerging technologies.

Furthermore, India's role in setting standards for digital systems and infrastructures, particularly those that require cross-border interoperability, is critical. This extends to establishing rules for the interaction between digital and physical systems, ensuring seamless and secure integration. Active and meaningful participation in global forums is essential, ensuring that India's contributions are not mere afterthoughts but are influential in shaping global policies and practices.[11] Such engagement will not only bolster India's position in the international arena but also ensure that global standards reflect India's perspectives and requirements.

3.3 ***Quality Regulatory Institutions***:Three decades into its economic liberalisation, India has witnessed the evolution of regulatory institutions overseeing several ICT-enabled markets. However, the quality of regulations and the institutional capacity of its regulators still require substantial enhancement to meet global standards. As highlighted by the International Telecommunications Union, which classifies India's

ICT regulator as a third-generation body, there is a significant gap when compared to the more advanced fifth-generation collaborative regulators. This disparity, coupled with the high volume of litigation linked to economic regulations,[12] points to a pressing need for improved regulatory efficacy and economic justice, particularly in the fast-evolving technology-driven markets.

To elevate India's regulatory institutions to world-class status, a comprehensive strategy focusing on institutional design, expertise retention, and collaborative processes is essential. Equally important is the strengthening of appellate institutions, which play a crucial role in delivering economic justice and maintaining regulatory balance. The synergy between regulators, appellate authorities, and policy-making bodies is vital for a cohesive regulatory ecosystem. This triad must operate in sync, adopting global and local best practices, to ensure a regulatory environment that is robust, transparent, and conducive to balancing market growth and consumer welfare.

Equitable Digital Access and Quality of Service

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4.1 ***Responsible Innovation:*** An ecosystem where technology players are not only motivated but also rewarded for comprehensively assessing the impacts of their products and services, including their social and environmental footprints is a meaningful ideal. Incentives for promoting responsible innovation could be strategically integrated into public procurement norms, encouraging companies to develop solutions that enhance rather than erode public trust.[13] Such incentives would drive the industry towards creating technology that is socially beneficial and environmentally sustainable. Additionally, these incentives could be extended to aspects of design and development, ensuring products and services foster inclusivity and trust.

The State plays a crucial role in shaping this landscape of responsible innovation. It should encourage businesses, especially those at the intersection of digital and emerging technologies, to establish robust internal checks to ensure their offerings are free from biases and are reliable, safe, and user-friendly. This is particularly important in industries like education, HR-tech, gaming, fintech, and other areas where the risk surface is extensive. Furthermore, the State should facilitate the creation of industry-wide codes of practice in collaboration with civil society, technical bodies, and experts. These can serve as benchmarks for responsible innovation, reflecting collective societal wisdom.

4.2 ***Competitive Digital Market***: Maximising the distributional benefits of digital markets requires a policy environment that inherently supports and stimulates competition. Key to this is the development of regimes that have a pro-competition bias. India must encourage digital businesses to innovate and compete, not only domestically but also on a global scale. A responsive policy framework should nurture innovation while ensuring fair competition. Information technology regimes, in particular, need to be crafted to enforce fair, reasonable, and non-discriminatory practices in business conduct -- and these objectives must be enshrined in a forward-looking IT policy.[14]

Furthermore, a nuanced understanding of the dynamics of digital markets is essential for effective competition regulation. India should prioritize regular market studies and robust evidence collection to differentiate between natural monopolies and other market structures. A focus on harm assessment and ex post determinations rather than ex ante prescriptions allows for more tailored and effective interventions.[15] Such an evidence-based approach, coupled with an ethos of assessing market dynamics on a case-by-case basis, ensures that regulatory actions are precise, timely, and conducive to maintaining a vibrant and competitive digital market.

4.3 ***Shared Infrastructure***, ***Enhanced Prosperity***: Opening up and sharing last-mile connectivity infrastructure is a key to enhancing digital service delivery. The capital-intensive nature of this infrastructure makes it vital to encouraging sharing of resources. This will reduce the cost of network development by avoiding duplication of infrastructure.[16] Crucially, freeing up capital can increase investment towards areas that are traditionally underserved, fostering greater inclusivity in access to connectivity services including telecom and internet.

One notable example of infrastructure sharing is Local Loop Unbundling (LLU), which India should commit to. LLU involves allowing communications and broadcast network providers access to the last-mile infrastructure of the dominant market player, the incumbent provider, to deliver services to customers.[17] This approach ensures fair and non-discriminatory access to network resources and promotes open competition in service provision. It also serves as a veritable analogue to the focus on digital public infrastructure in the context of areas such as retail payments and digital exchanges -- that unlock interoperability related gains in various digital market segments.

Minimum Government, Agile Governance

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5.1 ***One Nation One Market*** **:**The digital market is advantageous for local businesses because it allows for seamless access to the pan-Indian market. This feature however rests on two principal assumptions. The first is that the standards for digital enabled or digital service delivery are not fragmented along regional boundaries. That is, a user in Kashmir should be able to access the same experience, service or product as one in Kanyakumari. Towards this, digital products and services must be covered within the Central list of the Seventh Schedule of the Constitution.[18]

Similarly, the ideal of one nation one digital market simply cannot hold without a uniform taxation structure. The goods and services tax (GST) was meant to exemplify this idea in its own way through the prerequisite of one nation one tax. But this ideal is fragmented owing to contestations for revenue maximisation and now there are seven prevailing tax rates offline. The country must take a long-term view to standardise taxation online -- to ensure it does not begin to mimic the fragmentation businesses and consumers experience offline.

5.2 ***Light-Touch Regulation***: India has largely adopted a light-touch approach to digital regulation. However, proactive measures need to be taken to ensure legacy regulatory constructs do not spill over into the digital space. For instance, price regulation of non-essential services should not be considered in the digital market. Today, India is exceptional in the manner it price regulates non-essential markets like the television market.[19] This has led to a stagnation in the quality of content, for instance through a lack of monetisation options for niche content.

In the digital context, forbearance on price regulation essentially translates to a recommitment to the principle of network neutrality. This is the idea that anyone can launch an app and distribute it over the internet and consumers can freely access these apps from anywhere. The true essence of the internet is its global nature. Introducing non market-based pricing rules for network access disrupts this paradigm. A recommitment to net neutrality will allow for market-based mechanisms for price discovery between applications and infrastructure players, and therefore help maximise consumer welfare.

5.3 ***Modernise Adjacent Laws***: Several legal frameworks aid in the monetisation and growth of IT. Most prominent among these are laws related to intellectual property (IP). A commitment to fostering a healthy environment for innovation and commercialisation can provide a fillip to Indian start-ups in the digital space -- something that can be envisioned in a new IP policy. Core to this is the need for a modern IP regime to reflect new economic realities. For instance, India does not have a trade secrets law.[20] Such a law can complement patent laws in early innovation stages by allowing inventors in the start-up space to freely share ideas with investors.

Similarly, a commitment to ensuring that the State cannot expropriate private property is essential to the growth of the start-up ecosystem.[21] This translates to several specific areas of policy focus. Mandatory sharing requirements that are aimed at content creators, publishers and platforms must be avoided at all costs.[22] These erode incentives for private investment and are a relic of the old economy. Additionally, the country must protect source codes and proprietary algorithms with reasonable and well-defined exceptions for national security purposes. Such protections will provide the necessary impetus to build confidence and trust in the digital ecosystem, and allow for commercialisation and scaling of the vibrant Indian start-up ecosystem.

References

1 For example, Canada's Digital Charter sets out principles to ensure that privacy is protected, data-driven innovation is human-centred, and Canadian organizations can lead the world in innovations that fully embrace the benefits of the digital economy. While not a citizen's charter but akin to it in form, is the United States Blueprint for an AI Bill of Rights, is a set of five principles and associated practices to help guide the design, use, and deployment of automated systems to protect the rights of the American public in the age of artificial intelligence.

2 For instance, Rule 3(1)(b)(v) of the IT Rules, 2021 states that intermediaries should make proactive efforts to take down information which is fake, false, misleading in nature. Fake/false/misleading information is not a category of information which be reasonably restricted under Article 19(2) of the Indian constitution. *See* Vasudev Devadasan "Draft IT Rules That Propose Fact-Checking by PIB Raise Serious Constitutional Concerns." The Indian Express. January 22, 2023. https://indianexpress.com/article/opinion/columns/draft-it-rules-that-propose-fact-checking-by-pib-raise-serious-constitutional-concerns-8397092/. Similarly the Programme Code under Section 5 of the Cable Television Networks (Regulations) Act, 1995 states "no programme which offends against good taste and decency should be carried". While decency has been included under Article 19(2), terms like good taste find no mention within the constitution.

3 *See,* for instance, Reserve Bank of India, Prohibition on dealing in Virtual Currencies (VCs), RBI/2017-18/154, DBR.No.BP.BC.104 /08.13.102/2017-18. Available at: https://www.rbi.org.in/commonperson/English/Scripts/Notification.aspx?Id=2632

4 In the realm of common law systems, this principle often manifests in the absence of specific laws or statutes regulating certain actions. If a particular behaviour or action isn't explicitly prohibited by law, it's considered permissible. The idea is that in liberal democracies we are inherently and naturally free to do anything, so long as it is not expressly prohibited by law. *See* Weinberger, Ota (October 29, 1988). "The Role of Rules". *Ratio Juris*. 1 (3): 224–240. doi:10.1111/j.1467-9337.1988.tb00016.x. This principle is applicable in various contexts. For instance. in the domain of international law, the Lotus case of 1926–1927 established the freedom of sovereign states to act as they wished, unless they chose to bind themselves by a voluntary agreement or there was an explicit restriction in international law. *See* S.S. Lotus (*Fr. v. Turk*.), 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7).

5 Trusted Products are products whose critical components and the products themselves are sourced from Trusted Sources. The National Cyber Security Coordinator (NCSC) is the designated authority to determine whether to include a vendor as a trusted source or a telecom product as a trusted product. The NCSC makes its decision based on the approval of the National Security Committee on Telecom headed by the deputy National Security Advisor. A list of trusted sources and products is maintained on the Trusted Telecom Portal. The National Security Directive on Telecommunication Sector (NSDTS) mandates Telecom Service Providers (TSP) to use only such equipment in their network, which are designated as 'Trusted Products' from 'Trusted Sources'. The Directive was notified by the Union Cabinet on December 16, 2020, and came into effect on June 15, 2021.

6 Statement by Minister Ravi Shankar Prasad at ICANN53. Buenos Aires, 22 June 2015, https://www.youtube.com/watch?v=ZeYnSxcLIMQ. An (unedited) copy of the transcript is available at: https://ccgnludelhi.wordpress.com/2015/06/22/text-of-it-minister-ravi-shankar-prasads-remarks-at-icann53

7 In FY21-22, India's trade deficit in electronics reached $56 billion. *See* Banikinkar Pattanayak "Electronics Trade Deficit Hits Record $56 Billion in FY22." Financial Express. June 3, 2022. https://www.financialexpress.com/policy/economy-electronics-trade-deficit-hits-record-56-billion-in-fy22-2547068/

8 The EU has developed a voluntary code of practice to address disinformation online. Tech companies, including Facebook, Google, Twitter, and others, have committed to combating fake news and disinformation by enhancing transparency, disrupting advertising revenue for purveyors of disinformation, and empowering users through access to diverse information. *See* European Commission "The Strengthened Code of Practice on Disinformation 2022." Available at: https://digital-strategy.ec.europa.eu/en/library/2022-strengthened-code-practice-disinformation. Similarly, the Australian Code of Practice on Disinformation and Misinformation (The Code) has been developed by the Digital Industry Group Inc. (DIGI), a non-profit industry association that advocates for the interests of the digital industry in Australia. The Code was developed in response to Government policy as set out in Regulating in the Digital Age: Government Response and Implementation Roadmap for the Digital Platforms Inquiry, where Government asked the major digital platforms to develop a voluntary code of conduct outlining what the platforms will do to address concerns regarding disinformation and credibility signalling for news content. *See* Digital Industry Group Inc "Australian Code of Practice on Disinformation and Misinformation". Available at: https://digi.org.au/wp-content/uploads/2022/12/Australian-Code-of-Practice-on-Disinformation-and-Misinformation-FINAL-_-December-22-2022.docx.pdf

9 K V Kurmanath, "India emerges as top-3 target for nation-state driven cyber-attacks" The Hindu Businessline. October 6, 2023. https://www.thehindubusinessline.com/info-tech/india-emerges-as-top-3-target-for-nation-state-driven-cyber-attacks/article67387522.ece.

10 India is a member of inter-governmental organisations such as the Financial Action Task Force. This has engaged in standard setting for crypto assets.

11 Chaudhari, Rudra. “On India’s Role in Technology Standards.” https://carnegieendowment.org/2020/09/09/on-india-s-role-in-technology-standards-pub-82496.

12 To illustrate, from 2013-2019, there were 4432 Broadcast petitions filed at the telecom appellate tribunal. *See* Mittal, Shivangi and Varun Ramdas. 2020. “INDIAN TV BROADCASTING at a CROSSROADS: An Assessment of Regulatory Outcomes and the Way Forward.” Koan Advisory Group. https://www.koanadvisory.com/storage/2020/08/Indian-TV-Broadcasting-at-a-Crossroads-2.pdf. From 1st January 2020 - 19th November, 2023, there were 2496 petitions that were filed, and of these 1986 cases are still pending before this authority.

13 Rule 144 (i) to Rule 144 (x) of the General Financial Rule, 2017 sets out fundamental principles of public procurement of goods to bring efficiency and transparency and promote competition in public procurement.

14 The National Policy on Information Technology, 2012 focuses on India’s IT/ITeS Sectors. India’s digital economy has evolved to comprise various entities across the hardware and software layers. Thus, we need a policy which can augment the capacity of India’s digital economy of the present and of the near future.

15 Makiyama, Hosuk Lee, and Badri Narayanan Goplakrishnan. 2020. “Economic Costs of Ex Ante Regulations.” ECIPE OCCASIONAL PAPERS. https://ecipe.org/publications/ex-ante/

16 *See* Mattia Nardotto, Tommaso Valletti& Frank Verboven “Unbundling the incumbent: Evidence from UK broadband” Journal of the European Economic Association,Vol.13, Issue2 April 2015,Pp 330-362, https://doi.org/10.1111/jeea.12127

17 There are several models of LLU: full unbundling, where complete access to the infrastructure is granted; shared unbundling, allowing simultaneous use by the incumbent and new entrants; and bitstream access, which involves installing high-speed data circuits for shared access. The choice of model and the pricing methodology are critical to the network's efficient functioning, and these must be adapted to the specific market conditions of each location.

18 The Union Government regulates Telecom through Entry 31 of the Union List and was able to introduce the Digital Personal Data Protection Act, 2023 through the residuary powers granted to it under Article 248 and Entry 97 of the Union List. These two provisions allow the Union Government to legislate on matters not explicitly provided in State List and Concurrent List. However, states like Orissa have demanded the ability to create state-level data protection frameworks in the past. *See* Deeksha Bharadwaj, “Need data protection bodies at state level for robust law: JPC member” Hindustan Times. September 27, 2021. https://www.hindustantimes.com/india-news/need-state-level-data-protection-authorities-joint-parliamentary-committee-mp-amar-patnaik-101632679181340.html.

19 Mittal, Shivangi and Varun Ramdas. 2020. “INDIAN TV BROADCASTING at a CROSSROADS: An Assessment of Regulatory Outcomes and the Way Forward.” Koan Advisory Group. https://www.koanadvisory.com/storage/2020/08/Indian-TV-Broadcasting-at-a-Crossroads-2.pdf.

20 India’s trade secrets regime is primarily based on judicial decisions grounded in equity principles and common law actions pertaining to breaches of confidence. This framework centres on employees' obligations and responsibilities towards employers regarding confidential information obtained during their employment. However, several critical aspects of trade secrets law remain unclear. These include the extent of damages in case of a breach, instances of trade secret theft by business rivals, and procedural safeguards in court proceedings.

21 Mason, Colin, and Dr. Ross Brown. 2014. “Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship.” OECD. https://www.oecd.org/cfe/leed/Entrepreneurial-ecosystems.pdf. *See* Elert, N., Henrekson, M., Sanders, M. (2019). Entrepreneurship, the Rule of Law, and Protection of Property Rights. In: The Entrepreneurial Society. International Studies in Entrepreneurship, Vol 43. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-59586-2_2

22 The mandatory sharing framework under the Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act, 2007 is an example of an ad hoc expropriatory law. This becomes evident when examining specific instances, such as the Ministry of Information and Broadcasting’s gazetted notification of January 27, 2017, where the Ministry detailed fixtures for the Gandhi Gold Cup, a tournament that hasn’t been active since 2004. Additionally, *See* Mittal, Shivangi, Siddharth Deb, Aman Grover and Aayush Soni. 2019. “Federated Growth: Unleashing India’s Sports Economy.” Koan Advisory Group & FICCI. https://www.koanadvisory.com/storage/2019/12/federated-growth-report.pdf. Likewise, discussions on the expansion of mandatory sharing frameworks is underway in other domains such as Section 31-D of the Copyright Act, 1957. In 2021, the Department Related Parliamentary Standing Committee on Commerce submitted its 161st Report on the Review of the Intellectual Property Regime in India, where it recommended an amendment to Section 31D for incorporating ‘internet or digital broadcasters’.

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