

Governing the Digital Frontier: A Strategic Framework for Global South Leadership in AI and Digital Governance

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ABSTRACT

The adoption of the Global Digital Compact (GDC) at the Summit of the Future on 22 September 2024 creates a comprehensive multilateral framework for digital cooperation and mandates two new institutional mechanisms — the Independent International Scientific Panel on AI and the Global Dialogue on AI Governance — whose design and operating norms remain to be elaborated by the General Assembly. For states of the Global South, the Compact's adoption is therefore an opening rather than an endpoint: a narrow but consequential window in which the norms, standards, and institutional modalities governing artificial intelligence, data, cybersecurity, and digital public infrastructure may yet be shaped rather than merely received. This article asks how Global South states can strengthen domestic, regional, and multilateral institutional capacities to move from primarily rule-taking positions toward greater rule-shaping influence in global AI and digital governance. We propose a multi-stage explanatory framework linking domestic capacity, regional coordination, technical and negotiating capability, effective multilateral participation, coalition and agenda-setting capacity, and norm and standard influence to the outcome of rule-shaping, and we identify analytically inferred breakdown points in this framework. The framework is presented as a proposed analytical model, not as an empirically validated causal law; the comparative evidence from three cases (India, Brazil, African Union) is consistent with the model but does not constitute causal validation, which would require a larger-N study with process-tracing evidence. The article introduces an AUN Digital Governance Strategic Diagnostic Framework — honestly characterised as a diagnostic framework rather than a statistical index, with no invented numerical scores — that maps country positioning across five AUN analytical imperatives, clearly distinguished from the GDC's five official objectives. Drawing on country evidence frozen at 18 October 2024 (India's IndiaAI Mission and UPI/DPI; Brazil's Pix and pending AI Bill 2338/2023; the African Union's Continental AI Strategy), and distinguishing five levels of international influence (domestic innovation, international diffusion, norm entrepreneurship, standard-setting influence, and demonstrated rule-shaping), the article advances a strategic framework for Global South rule-shaping, identifies six counterarguments that qualify the analysis, and concludes with policy implications tied to the admissible evidence base.

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Abstract

The adoption of the Global Digital Compact (GDC) at the Summit of the Future on 22 September 2024 creates a comprehensive multilateral framework for digital cooperation and mandates two new institutional mechanisms — the Independent International Scientific Panel on AI and the Global Dialogue on AI Governance — whose design and operating norms remain to be elaborated by the General Assembly. For states of the Global South, the Compact's adoption is therefore an opening rather than an endpoint: a narrow but consequential window in which the norms, standards, and institutional modalities governing artificial intelligence, data, cybersecurity, and digital public infrastructure may yet be shaped rather than merely received. This article asks how Global South states can strengthen domestic, regional, and multilateral institutional capacities to move from primarily rule-taking positions toward greater rule-shaping influence in global AI and digital governance. We propose a multi-stage explanatory framework linking domestic capacity, regional coordination, technical and negotiating capability, effective multilateral participation,

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Keywords: Global Digital Compact; AI governance; Global South; rule-taking; rule-shaping; digital public infrastructure; digital sovereignty; cybersecurity; digital divide; multilateralism

1. Introduction

On 22 September 2024, world leaders convened at the United Nations General Assembly in New York and adopted the Pact for the Future, a sixty-four-page outcome document whose central annex was the Global Digital Compact (GDC) [1][2]. Twenty years after the World Summit on the Information Society (WSIS) had established the foundational principles of a people-centred, development-oriented, and inclusive information society, and seven years after Secretary-General António Guterres had placed digital cooperation at the centre of his reform agenda through the Our Common Agenda report [3], the international community now possessed a comprehensive, multilaterally negotiated framework for governing the digital domain. The Compact is organised around five official objectives — closing digital divides and accelerating progress on the Sustainable Development Goals; expanding inclusion in and benefits from the digital economy; fostering an inclusive, open, safe, and secure digital space that respects human rights; advancing responsible, equitable, and interoperable data governance; and enhancing the international governance of artificial intelligence for the benefit of humanity [4]. Its adoption was accompanied by institutional innovations of genuine significance: the Compact mandates the establishment of an Independent International Scientific Panel on AI and a Global Dialogue on AI Governance, both intended to provide ongoing multilateral capacity for AI governance [4][5]. Reactions to the adoption ranged from enthusiasm about a comprehensive multilateral digital framework—the first comprehensive global framework for digital cooperation and AI governance—to scepticism about implementation capacity and the balance between state-centric and multistakeholder approaches [13].

Yet the moment of the Compact's adoption was also a moment of stark inequality. The International Telecommunication Union's Facts and Figures 2023 report, the most recent comprehensive global connectivity assessment publicly available as of October 2024, estimated that 2.6 billion people — approximately one-third of the world's population — remained offline, with 5.4 billion individuals (67 per cent of the global population) using the internet [6]. The gap between high-income and low-income countries was particularly stark: 93 per cent internet usage in the former compared with 27 per cent in the latter, a sixty-six-percentage-point differential that had proven remarkably resistant to policy intervention [6]. In the domain of artificial intelligence, the asymmetry was, if anything, more pronounced. The United Nations Conference on Trade and Development's Technology and Innovation Report 2024 documented that by 2023

only 30 per cent of developing countries had adopted a national AI strategy, compared with 66 per cent of developed economies, and that just 12 per cent of least developed countries possessed any form of AI policy framework [7]. The governance of the technologies that are reshaping economies, societies, and power structures worldwide was being designed predominantly by and for the countries that had created them, while the countries most affected by their deployment remained marginal participants in the rule-making process [8].

This article argues that the adoption of the Global Digital Compact, far from being an endpoint, represents the opening of a critical window of opportunity for the Global South. The institutional mechanisms mandated by the Compact — the International Scientific Panel on AI, the Global Dialogue on AI Governance, and the follow-up and review processes — remain largely unfilled as of October 2024. The evidence, assessments, policy dialogue and recommendations generated through these mechanisms may influence the norms, standards and institutional practices that emerge, but the mechanisms mandated by the GDC are intended primarily to provide scientific assessment and inclusive international dialogue rather than treaty enforcement, and their detailed operating modalities remained to be elaborated as of 18 October 2024. For developing countries, this constitutes both an urgent challenge and a strategic opportunity: to shape the digital governance architecture from within rather than to accept it as an external imposition. We propose a strategic framework for Global South leadership in digital and AI governance, organised around five analytical imperatives that we distinguish clearly from the GDC's five official objectives. The framework is grounded in the empirical evidence of digital divides, emerging Southern regulatory models, and the institutional dynamics of the post-Compact governance landscape, all of which are reconstructed to include only evidence publicly available by 18 October 2024. The framework is illustrated through an AUN Digital Governance Strategic Diagnostic Framework and is offered as a contribution to scholarly analysis of Global South agency in international rule-making, rather than as a policy brief or advocacy document.

2. Research Question and Argument

The central research question is: How can Global South states strengthen domestic, regional, and multilateral institutional capacities to move from primarily rule-taking positions toward greater rule-shaping influence in global AI and digital governance? The question is framed around the article's actual analytical contribution, which is a multi-stage explanatory framework linking domestic institutional capacity to international rule-shaping, and the identification of analytically inferred breakdown points in that framework.

Supporting questions examine: (i) the domestic capacity prerequisites for credible international participation; (ii) the regional coordination mechanisms through which states aggregate negotiating weight; (iii) the technical and negotiating capabilities required to influence treaty and standard text; (iv) the conditions for effective multilateral participation in institutions such as the GDC-mandated Panel and Dialogue; (v) the role of digital public infrastructure as both a domestic enabler and an international normative contribution; (vi) the conditions under which digital sovereignty claims advance or fragment collective Southern positions; and (vii) the conditions that convert formal representation into substantive agenda-setting.

The article's central argument is that Global South rule-shaping is not a direct function of any single capacity but may emerge from a multi-stage framework in which each stage is hypothesised to be an enabling condition for the next. Where the framework breaks down, states that possess substantial domestic capacity may nonetheless remain rule-takers internationally because they fail to convert domestic capacity into regional coordination, or regional coordination into effective multilateral participation. Conversely, states with comparatively modest domestic capacity but strong regional coordination and effective multilateral engagement may exercise disproportionate rule-shaping influence relative to their size. The strategic implication, if the framework is correct, is that capacity-building investment alone is insufficient; the

framework must be developed across all its stages, with particular attention to the breakdown transitions. We stress that this argument is a proposed analytical model supported by comparative evidence from three cases, not an empirically validated causal law; causal validation would require a larger-N study with process-tracing evidence across many more cases than this article examines.

3. Literature Review

The article situates itself within several intersecting bodies of scholarship available by 18 October 2024. We do not claim to be the first to identify the North–South asymmetry in AI and digital governance; that observation is well-established in the admissible literature. Our specific contribution, articulated in Section 4, is the multi-stage explanatory framework of rule-shaping and the identification of its analytically inferred breakdown points, which adds to and does not duplicate existing scholarship.

3.1 Global Governance and Institutionalism

The scholarship on global governance and institutionalism provides the theoretical foundation for understanding how international rules are made, diffused, and contested. Studies of regime formation, institutional design, and the conditions under which international institutions constrain or enable state behaviour have long recognised that institutional outcomes reflect the distribution of power and capacity among participants, and that the design choices made at a regime's formative stage have path-dependent effects on subsequent outcomes [10]. The literature on the WSIS-era internet governance architecture, and its limitations in producing binding or enforceable outcomes, is central to understanding the significance of the GDC as an attempt to update that architecture [11][12].

3.2 International Political Economy and Regulatory Governance

The literature on the Brussels effect and regulatory diffusion analyses how jurisdictions with large markets and sophisticated regulatory capacity export their standards to others, sometimes intentionally and sometimes through market mechanisms. In AI governance, the European Union's AI Act (Regulation 2024/1689) has been analysed as a potential global standard whose influence on regulatory developments in other jurisdictions is already discernible [24][25]. However, the structural limits of regulatory diffusion are particularly acute for the Global South, where the institutional prerequisites for transplanting EU-style frameworks — well-resourced regulators, conformity assessment bodies, judicial oversight, and mature data protection infrastructure — are often absent [8][27].

3.3 Norm Entrepreneurship and Standard-Setting

The scholarship on norm entrepreneurship examines how actors — states, coalitions, epistemic communities — propose, advocate, and embed new norms in international institutions. This literature highlights that norm influence depends not only on the substantive merit of proposals but on the strategic capacity of their proponents, including the ability to coordinate coalitions, supply technical expertise, and frame issues in ways that resonate across diverse audiences. The application of norm entrepreneurship theory to the digital domain is relatively underdeveloped in the admissible literature, which provides an opening for the present analysis.

3.4 Technology Governance, AI Governance, and Digital Sovereignty

A growing body of scholarship analyses the rise of digital sovereignty claims, particularly in the Global South, as states seek to assert greater control over digital infrastructure, data, and regulatory choices. Distinctive

national approaches to digital sovereignty — visible in India's DPI-centred model, Brazil's rights-oriented model, and South Africa's emerging hybrid approach — illustrate the analytical variation within the Global South and highlight the dual-edged character of sovereignty claims, which can serve development and citizen protection but can also serve censorship and surveillance. This article builds on these observations while avoiding the simplification that the Global South is a homogeneous bloc. In this framework, data sovereignty refers not to blanket data localisation or isolation from international data flows, but to the capacity of states and regional institutions to establish rights-protective, development-oriented and interoperable rules governing data collection, access, use, transfer and value creation.

3.5 Global South Agency and Governance Capacity

Finally, the literature on Global South agency in international institutions examines how developing countries have organised collectively — through the G77, the African Group, BRICS, and other configurations — to advance shared positions in negotiations on trade, climate, and development finance. The admissible literature documents both successes (the establishment of the Green Climate Fund, the inclusion of Common but Differentiated Responsibilities in climate regime text) and limitations (collective action problems, divergent national interests, capacity asymmetries within the South itself). This article applies this body of scholarship to the digital and AI governance domain, where the empirical analysis of Global South agency is comparatively recent and where the GDC's institutional innovations create new venues for its exercise [19].

3.6 What the Literature Establishes and What Is Missing

The admissible literature establishes: that a North–South asymmetry exists in AI and digital governance [7][8]; that regulatory diffusion from the North shapes Southern regulatory choices [24][25][27]; that digital public infrastructure models from the South have achieved significant scale [36][37][38]; that the GDC creates new institutional venues whose design is indeterminate as of October 2024 [4][5][18]; and that the Global South is internally heterogeneous in its digital governance approaches [8][28]. What is missing in the admissible literature is a systematic, multi-stage explanatory framework linking domestic capacity to international rule-shaping, with empirical identification of the breakdown points. This article addresses that gap.

4. Conceptual Framework: Rule-Taking and Rule-Shaping

4.1 Definitions

We define rule-taking as a position in which a state primarily adopts externally developed standards, implements external regulatory models, has limited agenda-setting capacity, and participates in international rule-making without materially shaping the resulting rule. Rule-taking is not the absence of participation; rule-taking states may be present at negotiations, may sign instruments, and may implement outcomes, but the substantive content of the rules reflects priorities and frameworks developed elsewhere.

We define rule-shaping as a position in which a state demonstrates the capacity to propose norms, influence negotiating text, coordinate coalitions, supply technical expertise, contribute institutional models that are adopted by others, influence standards, and shape international institutional design. Rule-shaping is a matter of degree; few states are pure rule-makers, and most exercise shaping influence on some issues while taking rules on others. The analytical question is not whether Global South states are rule-takers or rule-shapers in the abstract, but under what conditions and through what mechanisms they transition from one position to the other.

We avoid the simplification that all Global South states are rule-takers. India's export of digital public infrastructure models, Brazil's contribution to rights-oriented AI regulation, and the African Union's Continental AI Strategy are all examples of rule-shaping activity by Global South actors, even if these examples are uneven and partial. The framework below seeks to explain why some such initiatives exercise international influence while others do not.

We further distinguish five levels of international influence, which are NOT synonymous: (i) domestic innovation — the development of new governance models, technologies, or institutional arrangements within a state; (ii) international diffusion — the spread of a domestic innovation to other states through adoption, reference, or inspiration; (iii) norm entrepreneurship — the active proposal and advocacy of new norms in international fora; (iv) standard-setting influence — the conversion of norm advocacy into substantive content in international standards or instruments; and (v) demonstrated rule-shaping — the aggregate outcome in which the resulting rules reflect a state's or coalition's perspectives, priorities, and frameworks to a meaningful, documented degree. A domestic policy innovation does NOT automatically constitute international rule-shaping; the distinction is essential to honest analysis (Figure 1).

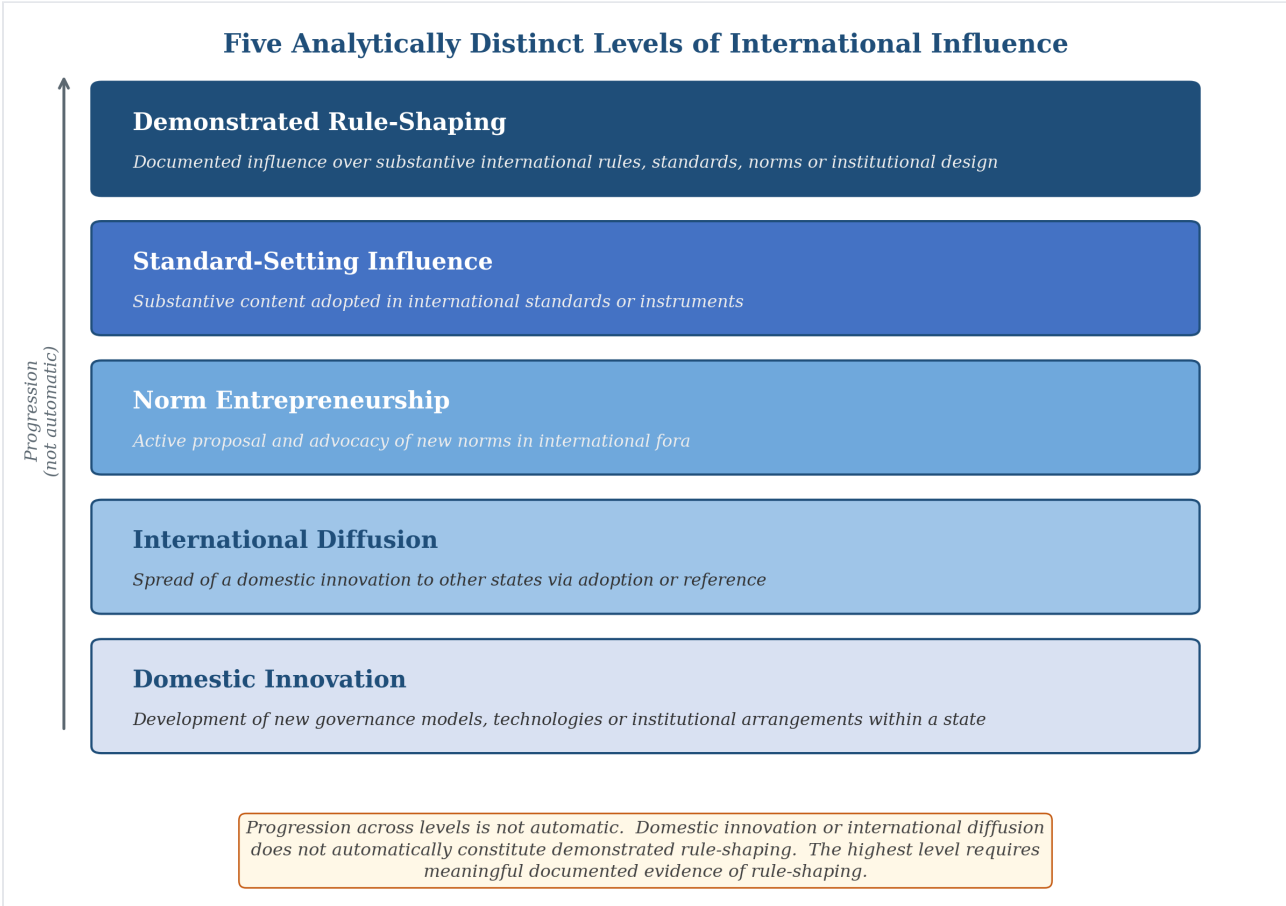


Figure 1. Five analytically distinct levels of international influence.

Progression across the levels is not automatic. The highest level (demonstrated rule-shaping) requires meaningful documented evidence of influence over substantive international rules, standards, norms or institutional design.

4.2 The Multi-Stage Explanatory Framework

We propose that effective rule-shaping may emerge from a multi-stage explanatory framework with seven stages:

- (1) Domestic capacity — the institutional, technical, and human resources to develop and implement governance frameworks domestically.
- (2) Regional coordination — the diplomatic and institutional capacity to aggregate national positions into regional positions with greater negotiating weight.
- (3) Technical and negotiating capability — the expertise to draft, amend, and assess treaty and standard text, including the capacity to identify the substantive implications of drafting choices.
- (4) Effective multilateral participation — sustained, substantive engagement in international institutions, including the ability to deploy expertise across multiple negotiating tracks simultaneously.
- (5) Coalition and agenda-setting capacity — the ability to build coalitions across regions and interest groups, and to place issues on institutional agendas.

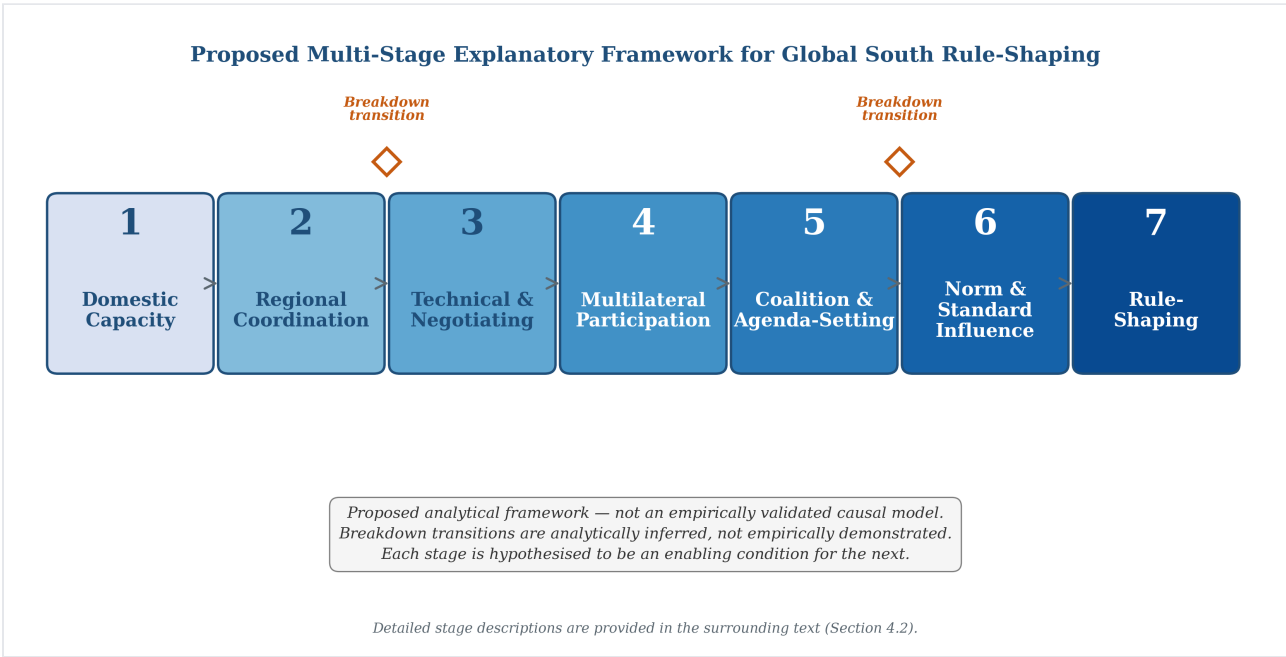


Figure 2. Proposed multi-stage explanatory framework for Global South rule-shaping.

The model links domestic capacity to eventual rule-shaping through regional, technical, multilateral, coalition, and norm/standard-setting stages. It is presented as an analytical model rather than a validated causal law. Breakdown transitions are analytically inferred, not empirically demonstrated.

- (6) Norm and standard influence — the conversion of agenda-setting into substantive content in instruments, standards, and institutional modalities.
- (7) Rule-shaping — the aggregate outcome in which the resulting rules reflect Southern perspectives, priorities, and frameworks to a meaningful, documented degree.

The framework is depicted in Figure 2. We propose this framework as an analytical model, not as an empirically validated causal law. Each stage is hypothesised to be an enabling condition for the next, but the relationship is not claimed to be deterministic or causally validated by the three-case comparative evidence in this article. The framework is consistent with the comparative evidence (Section 11), which supports the identification of analytically inferred breakdown points, but causal validation would require a larger-N study with process-tracing evidence across many more cases. Where the evidence is insufficient to demonstrate a

breakdown, we use 'hypothesised breakdown point' or 'analytically inferred constraint' rather than 'demonstrated breakdown.'

4.3 Honest Characterisation of the Diagnostic Framework

We introduce in Section 12 the AUN Digital Governance Strategic Diagnostic Framework. We characterise it honestly as a diagnostic framework rather than a statistical index. A validated statistical index would require operational definitions for each variable, specified indicators and measurement rules, weighting, scoring, aggregation rules, thresholds, documented data sources, and validation against external criteria — an apparatus we do not possess and do not claim to. The framework instead organises five analytical imperatives against their corresponding GDC objective, key challenges, priority actions, diagnostic questions, and observable evidence, and is intended as a diagnostic tool for policy discussion rather than as a validated measure. We do not invent numerical scores. This honest characterisation is itself part of the article's contribution: scholarship on Global South digital governance has been weakened by the tendency to present heuristic frameworks as if they were validated indices.

5. Global South Institutional Heterogeneity

The Global South is analytically useful as a category because its members share a common structural position relative to Northern-dominated rule-making: they are, on the whole, more often the objects than the authors of international digital and AI rules. The category is also analytically useful because it captures the shared experience of negotiating within institutions whose design and default rules reflect Northern priorities and frameworks. However, the Global South is not a homogeneous bloc, and treating it as such obscures the very variation that the rule-shaping analysis must explain. Every collective statement about 'the Global South' in this article is qualified by the recognition that the category encompasses states at vastly different levels of development, with fundamentally divergent interests in digital governance, from China's emphasis on state sovereignty and technological self-reliance to India's embrace of multistakeholder digital public infrastructure to Brazil's rights-oriented regulatory approach.

The heterogeneity of the Global South can be documented across ten dimensions: state capacity, economic structure, digital infrastructure, regulatory capacity, AI capability, market size, regional integration, technological dependence, institutional maturity, and geopolitical influence. India combines high administrative capacity in digital public infrastructure with a historically risk-based and comparatively enabling AI regulatory approach and significant geopolitical weight (G20 presidency in 2023, active Quad participation). Brazil combines a well-established data protection authority (ANPD) and a rights-oriented regulatory tradition with a pending AI Bill that, as of October 2024, remained under Senate consideration. The African Union operates at the continental scale with substantial strategy documents but limited implementation capacity, and individual African states range from comparatively advanced digital governance (South Africa, Kenya, Rwanda) to states with minimal digital infrastructure. These differences matter for rule-shaping: India's DPI expertise gives it a distinctive contribution to make to international DPI standards; Brazil's rights-oriented framework may appeal to states seeking alternatives to the EU's risk-based model; the African Union's continental strategy offers a scale of coalition-building that no individual African state could achieve alone.

The implication for the explanatory framework is that breakdown points are unevenly distributed. The domestic-to-regional coordination transition is comparatively well-developed in Africa (through the AU) and comparatively underdeveloped in South Asia and Latin America. The regional-to-multilateral transition is comparatively well-managed when single issues are at stake (climate finance, pandemic response) but dissipates when multiple digital governance tracks are negotiated simultaneously, each requiring distinct

technical expertise. The strategic implication is that rule-shaping strategies must be tailored to the specific configuration of capacities and gaps in each region and at each stage of the framework.

6. Global Digital Governance as of 18 October 2024

6.1 From WSIS to the Summit of the Future

The Global Digital Compact did not emerge from a vacuum. Its genealogy traces through more than two decades of multilateral deliberation on internet governance, beginning with the World Summit on the Information Society (WSIS) in Geneva (2003) and Tunis (2005), which established the foundational principles of a people-centred, development-oriented, and inclusive information society and created the Internet Governance Forum (IGF) as a multistakeholder platform for dialogue. The IGF's non-binding, deliberative character meant that it produced norms without enforcement mechanisms, principles without institutions, and dialogue without decisions. In the two decades that followed, the pace of digital transformation vastly outstripped the capacity of the WSIS-era governance architecture to manage it. The emergence of platform monopolies, the proliferation of cyber threats, the explosive growth of artificial intelligence, and the deepening of digital divides between and within nations all exposed the inadequacy of existing arrangements [10].

The formal process that produced the Global Digital Compact began with the Secretary-General's Our Common Agenda report in September 2021, which proposed a Global Digital Compact as one of several tracks for multilateralism to deliver on its promises [3]. After extensive consultations, including a Technical Expert Group report and multiple rounds of informal negotiations, a Zero Draft of the Compact was published on 1 April 2024, co-facilitated by the Permanent Representatives of Sweden and Rwanda [12]. The negotiations that followed, conducted through the spring and summer of 2024, revealed sharp divisions between states favouring a continuation of the multistakeholder model of internet governance and those advocating a more state-centric approach, as well as disagreements over the weight to be accorded to human rights obligations in the digital domain. Civil society organisations, including Privacy International, Derechos Digitales, and Access Now, provided extensive commentary on successive drafts, advocating for stronger provisions on encryption, corporate accountability, data protection, and independent follow-up mechanisms [14][15][16]. The final text, adopted as an annex to the Pact for the Future (Resolution A/RES/79/1) on 22 September 2024, reflected a series of compromises but retained commitments of substance across its five objectives [2].

6.2 The Five Objectives of the Compact

The Global Digital Compact is organised around five official objectives, quoted verbatim from the adopted text [4]. Objective 1 commits governments to close all digital divides and accelerate progress across the Sustainable Development Goals, with particular attention to least developed countries, landlocked developing countries, and small island developing states. Objective 2 commits governments to expand inclusion in and benefits from the digital economy for all, recognising that connectivity alone is insufficient if individuals and enterprises lack the skills, resources, and regulatory environments to participate productively in digital markets. Objective 3 commits governments to foster an inclusive, open, safe, and secure digital space that respects, protects, and promotes human rights, including commitments to uphold international law online, to mitigate online harms and gender-based violence, and to strengthen international cooperation against cybercrime. Objective 4 commits governments to advance responsible, equitable, and interoperable data governance approaches, including the development of interoperable national data governance frameworks, the promotion of cross-border data flows with appropriate safeguards, and the establishment of

mechanisms for equitable data sharing. Objective 5 commits governments to enhance the international governance of artificial intelligence for the benefit of humanity, including the establishment of the institutional infrastructure for ongoing multilateral AI governance [4]. CIDOB and other policy analysis platforms have examined the Compact's objectives and their implications for a responsible, inclusive digital transition [23].

The five objectives of the GDC should not be conflated with the five analytical imperatives we propose in Section 12. The GDC's objectives are the official UN commitments adopted by Member States. Our five imperatives are AUN's analytical framework for organising Global South strategic action across the GDC's domains. The two sets are related but distinct, and conflating them — as the original draft of this article did by referring to 'five pillars' — risks implying UN endorsement of an analytical framework that is properly attributed to the authors.

6.3 Institutional Innovations: The AI Panel and Global Dialogue

Perhaps the most consequential structural feature of the Global Digital Compact is its creation of two new multilateral mechanisms for AI governance. The Independent International Scientific Panel on AI, to be established within the United Nations system, is mandated to produce independent, evidence-based assessments of AI development, opportunities, risks, and impacts, serving a function analogous to the Intergovernmental Panel on Climate Change in the environmental domain [4][5]. The Global Dialogue on AI Governance, created alongside the Panel, is intended to provide a platform for regular, inclusive exchanges among governments, the private sector, civil society, and technical communities on emerging AI governance challenges [4][5]. The UN High-level Advisory Body on AI had earlier recommended these mechanisms in its February 2024 final report, and analysis of that report informs the discussion here [18].

The significance of these institutional innovations lies not only in their formal mandates but in the degree to which their practical design and composition remain undetermined as of October 2024. The modalities of the Panel — its working methods, its relationship with existing UN bodies such as the International Telecommunication Union and UNESCO, its capacity to commission research, and its ability to influence state behaviour — are all to be negotiated. Similarly, the Global Dialogue's capacity to serve as a genuine forum for normative development, as opposed to a merely consultative talking shop, will depend on the political will of its participants and the institutional support it receives from the UN secretariat. We do not specify the membership composition of the Panel in this article because that composition was not determined by the GDC itself; it is the subject of subsequent General Assembly elaboration. For developing countries, this indeterminacy is both a risk and an opportunity: if the Panel and Dialogue are captured by the interests and epistemic frameworks of the most powerful states, they will reinforce existing asymmetries; if developing countries organise effectively to participate in and shape these institutions from their inception, they can ensure that the norms and assessments produced reflect the priorities and perspectives of the Global South [8][19]. Figure 3 summarises the GDC's five official objectives and the two new AI governance mechanisms mandated by the Compact.

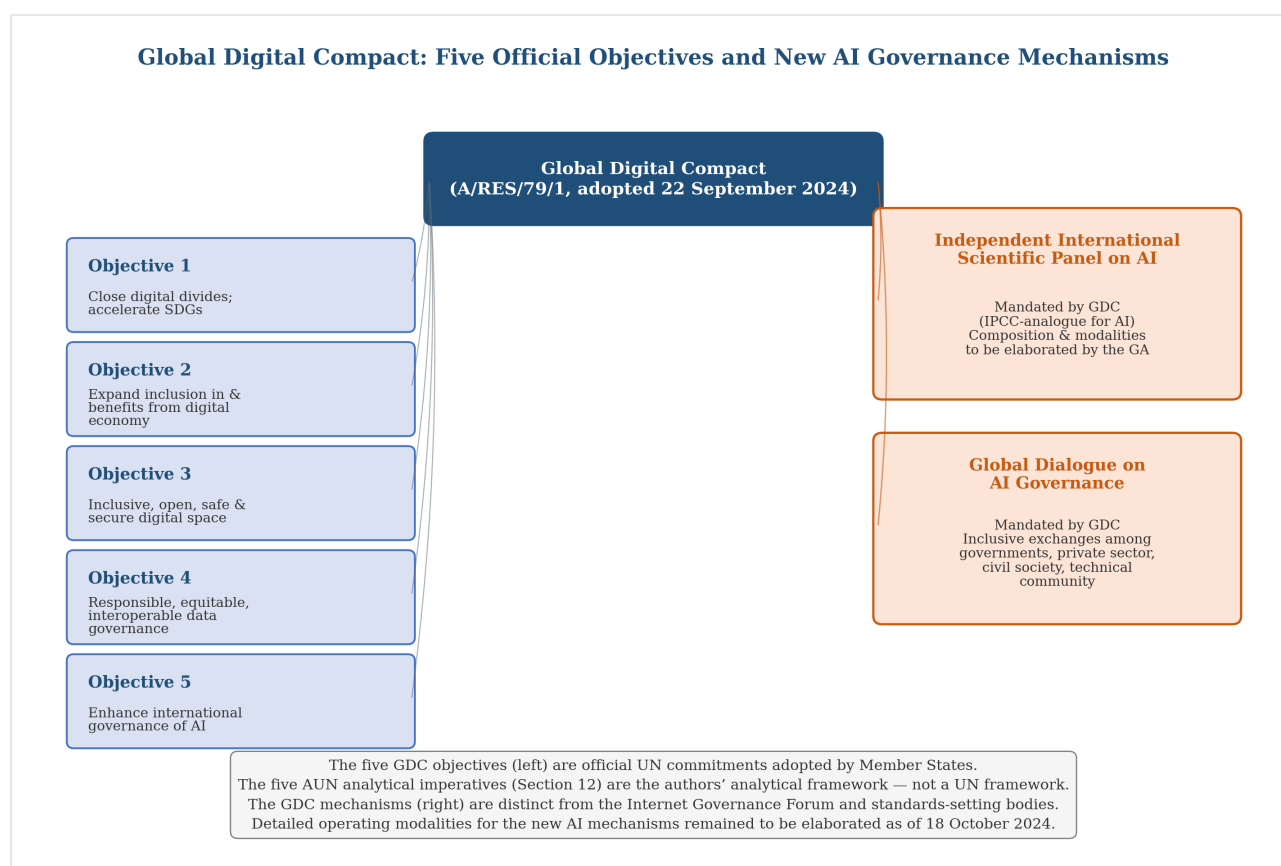


Figure 3. Institutional architecture of the Global Digital Compact relevant to AI and digital governance as of 18 October 2024.

The five GDC objectives are official UN commitments. The five AUN analytical imperatives (Section 12) are the authors' framework, not a UN framework. Detailed operating modalities for the new AI mechanisms remained to be elaborated as of 18 October 2024.

7. AI Governance

7.1 The Brussels Effect and Its Structural Limits

The European Union's Artificial Intelligence Act, Regulation (EU) 2024/1689, adopted in the spring of 2024 and entered into force on 1 August 2024, is a comprehensive regional AI regulatory framework adopted in 2024 [24]. Its risk-based approach classifies AI systems into four tiers, ranging from unacceptable-risk applications — such as social scoring and real-time biometric identification in public spaces, which are prohibited — to minimal-risk systems, which are largely unregulated, with high-risk systems subject to rigorous conformity assessments, transparency requirements, and post-market monitoring obligations. The Act has been analysed as a potential global standard, and its influence on regulatory developments in other jurisdictions is already discernible. Brazil's pending AI legislation, Bill 2338/2023, was under Senate consideration as of October 2024 and draws explicitly on the EU's risk-based framework [26][32]. Countries across Southeast Asia, Latin America, and Africa have used the Act as a reference point in their own regulatory deliberations [25][27].

However, the Brussels effect in AI governance, while real, is subject to structural limitations that are particularly acute for the Global South. First, the EU AI Act is designed for a specific institutional context: a jurisdiction with well-resourced regulatory agencies, established conformity assessment bodies, sophisticated

judicial oversight, and a mature data protection infrastructure under the General Data Protection Regulation. Transplanting this framework to countries lacking these institutional prerequisites risks creating regulatory formalism — laws on the books that bear little relationship to the reality of AI deployment on the ground [8]. Second, the Act reflects a specific set of normative priorities, particularly the protection of individual fundamental rights, that, while universally valid, may not capture the full range of concerns most pressing in developing country contexts, such as the impact of AI on informal labour markets, the use of AI in agricultural extension services, or the deployment of algorithmic systems in public service delivery where state capacity is limited [8]. Third, and perhaps most importantly, the Brussels effect operates as a form of regulatory diffusion that privileges the perspectives and interests of the rule-maker over those of the rule-taker. Countries that adopt EU-inspired frameworks without substantial adaptation may find themselves enforcing standards that serve European market interests more effectively than they serve local development needs [25][27].

7.2 Emerging Southern Regulatory Models

Against this backdrop of regulatory diffusion from the Global North, a growing number of developing countries are developing AI governance approaches that reflect their own priorities, institutional contexts, and development strategies. The African Union's Continental Artificial Intelligence Strategy, endorsed by the AU Executive Council on 18–19 July 2024 in Accra and published on the AU portal on 9 August 2024, is a comprehensive regional AI governance framework from the Global South [28]. The Strategy is explicitly Africa-centric and development-focused, positioning AI as a tool for advancing Agenda 2063, the continent's long-term development blueprint, rather than merely as a risk to be managed. It calls for unified national approaches among AU Member States, emphasises the importance of national data strategies, advocates for agile and forward-looking regulation, and stresses the need for regional and international cooperation [28] [29]. The Strategy is a norm entrepreneurship contribution: it articulates a Southern-origin framework that other regions and states can reference, and it positions the AU as a rule-shaping actor in continental AI governance. It is, however, a strategy rather than a binding instrument; its implementation depends on Member State adoption and resourcing, both of which face substantial capacity constraints [27][35].

India's approach has been characterised by a distinctive combination of a historically risk-based and comparatively enabling regulatory approach and heavy public investment in digital infrastructure. The IndiaAI Mission, approved by the Union Cabinet on 7 March 2024, is a comprehensive national initiative to build an AI innovation ecosystem, with substantial public investment in computing infrastructure, data quality, and AI applications in priority sectors including agriculture, health, and education [30][31]. India's governance framework, articulated through a series of policy documents and guidelines, promotes a historically risk-based and comparatively enabling approach that balances technological growth with safety, accountability, and inclusion, and is closely integrated with the country's digital public infrastructure, particularly the India Stack [31]. Brazil, meanwhile, has pursued a more rights-oriented approach. Its pending AI legislation, Bill 2338/2023, was under Senate consideration as of October 2024 and incorporates provisions on algorithmic impact assessments, the right to explanation for automated decisions, and the establishment of a supervisory authority, drawing on both the EU model and Brazil's own tradition of public-interest regulation under the LGPD data protection law [26][32]. These emerging models demonstrate that the Global South is not a monolithic entity in AI governance; rather, it encompasses a range of approaches shaped by distinct political traditions, institutional capacities, and development priorities.

7.3 The Governance Capacity Gap

Despite these promising developments, a fundamental capacity gap separates the Global South from the Global North in AI governance. UNCTAD's Technology and Innovation Report 2024 documented that by 2023 only 30 per cent of developing countries had adopted a national AI strategy, compared with 66 per cent of

developed economies, and that just 12 per cent of least developed countries possessed any form of AI policy framework [7] (Figure 4). This gap in policy formulation is mirrored, and compounded, by gaps in implementation capacity. Regulatory mandates for AI are often fragmented across multiple agencies with no single authority possessing a comprehensive mandate, and gaps in legislative frameworks, institutional mandates, technical expertise, enforcement mechanisms, and stakeholder engagement processes have been documented across developing countries in the admissible literature [27][35].

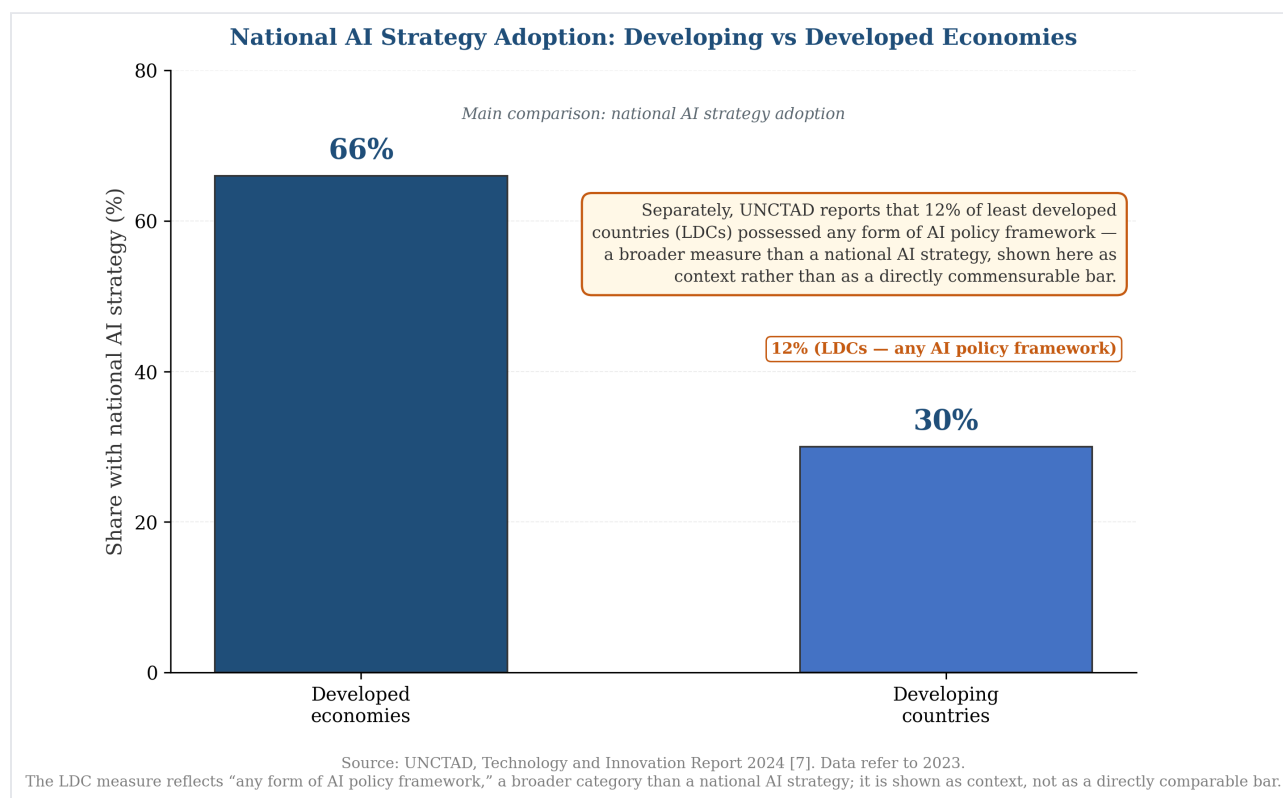


Figure 4. National AI policy capacity gap identified by UNCTAD.

Source: UNCTAD, Technology and Innovation Report 2024 [7]. Data refer to 2023. The LDC measure reflects “any form of AI policy framework,” a broader category than a national AI strategy.

The consequences of this governance capacity gap are not merely administrative. In the absence of effective domestic governance frameworks, developing countries are exposed to the full range of AI risks — from algorithmic discrimination and labour displacement to surveillance and misinformation — without the institutional mechanisms needed to detect, assess, and mitigate these harms. Moreover, the governance capacity gap creates a vicious cycle: countries that lack the institutional capacity to govern AI effectively are also those least able to participate meaningfully in international governance negotiations, where technical expertise, regulatory experience, and diplomatic resources are prerequisites for influence. The Global Digital Compact's emphasis on capacity-building and its creation of the International Scientific Panel on AI represent potential corrective mechanisms, but their effectiveness will depend on the willingness and ability of developed countries to provide adequate financial and technical support, and on the capacity of developing countries to organise collectively to articulate and advance their interests in the new institutional framework [5][19].

8. Digital Divide and Infrastructure

8.1 The Connectivity Gap in Numbers

The empirical reality of the digital divide, even as the Global Digital Compact was being negotiated, provided a sobering backdrop to the proceedings. The ITU's Facts and Figures 2023 report, the most recent comprehensive global connectivity assessment publicly available as of October 2024, estimated that 5.4 billion people, representing 67 per cent of the world's population, were using the internet, with approximately 2.6 billion remaining offline [6]. While tracked indicators showed improvement, the rate of progress was slowing, and universal connectivity remained, in the characterisation of senior ITU officials, a distant prospect. The gap between high-income and low-income countries was particularly stark: 93 per cent internet usage in the former compared with 27 per cent in the latter, a sixty-six-percentage-point differential that had proven remarkably resistant to policy intervention [6] (Figure 5). The UNCTAD Digital Economy Report 2024 provides further context on the structural character of these divides within the broader digital economy [42].

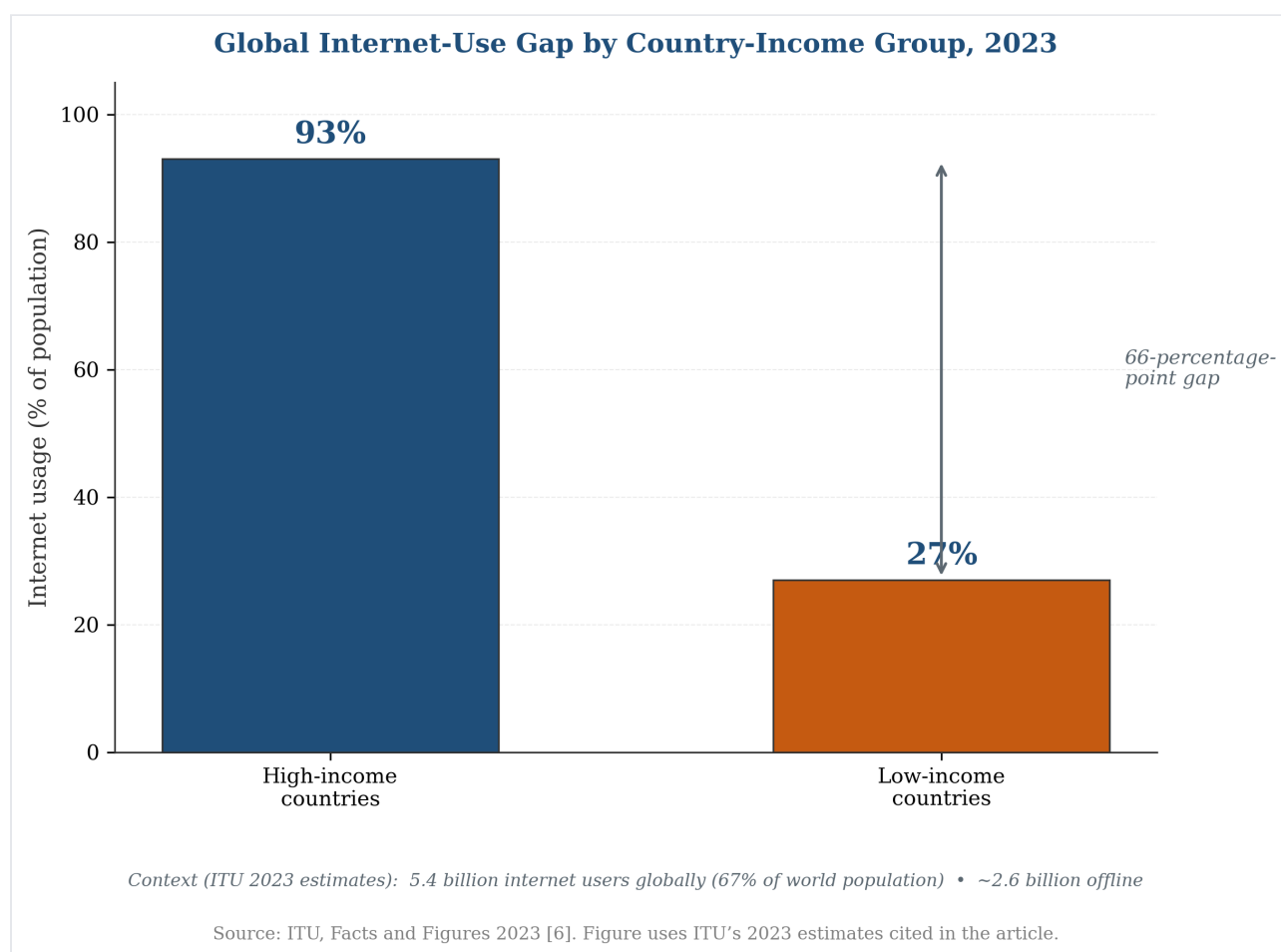


Figure 5. Internet-use disparity between high-income and low-income country groups, 2023.

Source: ITU, Facts and Figures 2023 [6]. Figure uses ITU's 2023 estimates cited in the article.

These aggregate figures, while alarming, understate the severity of the divide in two important respects. First, they measure connectivity in binary terms — online versus offline — without capturing the vast differences in the quality of access. In many low-income countries, even those counted as connected endure connection speeds, data caps, and device limitations that render meaningful participation in the digital economy impractical. Mobile broadband coverage may be near-universal globally, but the gap between coverage and actual usage, driven by affordability constraints, remains significant in the poorest regions [9][21]. Second,

the aggregate figures mask the compounding effects of intersecting inequalities. Gender gaps in internet use, though narrowing, persist in much of South Asia and sub-Saharan Africa. Urban-rural divides mean that rural populations in developing countries are often doubly disadvantaged, by both national income levels and geographic remoteness. The Giga initiative, a joint undertaking of ITU and UNICEF focused on school connectivity, has documented that the gaps in school connectivity around the world largely mirror the broader discrepancies in digital development between rich and poor nations; as of mid-2024, Giga had mapped more than 350,000 schools and was working with 54 countries to connect them [20][21].

8.2 Beyond Access: Affordability, Quality, and Skills

The Global Digital Compact's first objective — closing all digital divides and accelerating progress on the Sustainable Development Goals — reflects a growing recognition within the multilateral system that the digital divide is not merely a connectivity gap but a multidimensional inequality encompassing affordability, device access, digital literacy, and the availability of relevant local content and services in local languages [4]. The Alliance for Affordable Internet has documented that in many low-income countries, a basic smartphone and a data plan sufficient for modest monthly use can consume 20 per cent or more of household income, far exceeding the affordability threshold of 2 per cent recommended by the Broadband Commission for Sustainable Development [9]. This affordability barrier means that even where network infrastructure exists, large segments of the population are effectively excluded from meaningful digital participation.

The skills dimension of the divide is arguably the most consequential for long-term development outcomes. The World Economic Forum's Future of Jobs Report 2024, released on 30 April 2024, identified technological literacy, AI and big data skills, and cyber security skills among the fastest-growing competencies in the global labour market, while simultaneously noting that the workforce transformation required to meet these demands was proceeding most slowly in precisely the countries that could least afford to be left behind [22]. The risk is not merely that developing countries will fail to participate in the AI-driven economy but that the AI revolution may actively widen development gaps, as automation displaces labour-intensive industries on which many developing economies depend, and as AI-enabled services concentrate economic value in the countries and corporations that control the underlying technology [8]. The Compact's second objective, on inclusive digital economies, addresses these concerns, but translating its commitments into nationally relevant policies will require a level of institutional capacity and policy coherence that many developing countries have yet to build [4].

9. Cybersecurity Governance

9.1 The Escalating Cyber Threat Landscape

The cybersecurity dimension of digital governance has acquired renewed urgency in the context of the rapid expansion of digital infrastructure in developing countries and the corresponding widening of the attack surface available to malicious actors. Cybersecurity Ventures, a private industry research firm, projected in its Official Cybercrime Report (originated November 2022, with antecedents in a 2020 SEC filing) that global cybercrime costs could reach approximately USD 9.5 trillion in 2024 [34]. We describe this figure as an industry projection rather than an independently measured loss total: it is an estimate produced by a private firm using a methodology that has not been independently audited, and it is widely cited in industry and policy commentary but should not be treated as an empirical measurement. The projection includes direct damages, lost productivity, and the costs of theft of data, intellectual property, and financial assets, and is consistent with the firm's broader projection of USD 10.5 trillion by 2025 [34]. We do not build a major

empirical conclusion on this contested industry estimate; we cite it as one indicator, among others, of the scale of the cybersecurity challenge.

The World Bank has documented that the costs of cyber incidents in developing countries, while smaller in absolute terms, represent a larger share of GDP than in advanced economies, and that the economic impact of cybercrime on development trajectories is both direct, through financial losses and service disruptions, and indirect, through the erosion of trust in digital systems that is essential for digital adoption and economic growth [33]. The proliferation of AI-powered cyber threats has further intensified the challenge. Generative AI has lowered the barriers to conducting sophisticated phishing campaigns, creating convincing deepfakes for fraud and disinformation, and discovering and exploiting software vulnerabilities at scale. For developing countries, many of which are still building basic cybersecurity infrastructure, the arrival of AI-enhanced threats represents a qualitative escalation that threatens to outpace their defensive capacities. The Global Digital Compact's third objective, on fostering an inclusive, open, safe, and secure digital space, acknowledges these challenges and commits governments to strengthening international cooperation, but the gap between commitment and capacity in the cybersecurity domain remains significant and, in the absence of targeted investment and knowledge transfer, is likely to widen [4].

9.2 The UN Convention against Cybercrime: Status as of October 2024

As of 18 October 2024, the United Nations Ad Hoc Committee to Elaborate a Comprehensive International Convention on Countering the Use of Information and Communications Technologies for Criminal Purposes had finalised the text of a Convention against Cybercrime, but the General Assembly had not yet adopted the instrument [17]. The Convention, when adopted, will provide States with a range of measures for the prevention, investigation, and prosecution of cybercrime, and is intended to facilitate cross-border law enforcement cooperation. For developing countries, the Convention offers the potential for enhanced technical assistance and capacity-building in cybercrime investigation and digital forensics, areas where many jurisdictions face acute shortages of trained personnel and specialised equipment.

However, the Convention has been the subject of considerable controversy, particularly among human rights organisations and digital rights advocates, who have expressed concern that certain provisions, if implemented without adequate safeguards, could be used to justify expanded surveillance powers, restrictions on encryption, and the criminalisation of legitimate online expression. The tension between the legitimate need for international cooperation against cybercrime and the imperative to protect fundamental rights online is particularly acute in the context of the Global South, where rule-of-law constraints on state surveillance are often weaker and where the capacity for independent judicial oversight of cybercrime investigations may be limited. The Global Digital Compact's emphasis on grounding digital governance in international human rights law provides an important normative counterweight, but translating this principle into practice, particularly in the context of cybercrime enforcement, will require sustained attention from both governments and civil society [4].

A further priority should therefore be to make technical assistance and capacity-building a core implementation pillar of the emerging international cybercrime framework. Such assistance should extend beyond general awareness or equipment provision to include specialised training for investigators, prosecutors and competent authorities; development of national legislation and strategic policy; collection, preservation and sharing of electronic evidence; maintenance of evidentiary chain of custody and digital-forensic capability; preparation of requests for mutual legal assistance; and, where appropriate, transfer of relevant technology and specialised knowledge on mutually agreed terms. Particular attention should be given to the institutional and resource constraints of developing countries, with international and regional organisations supporting coordinated, non-duplicative capacity-building programmes. This recommendation draws on the provisions of the pre-adoption draft text finalised by the Ad Hoc Committee (document

A/AC.291/L.15, dated 6 August 2024) [17], which articulated technical assistance and capacity-building as core elements of the emerging framework.

10. Digital Public Infrastructure

10.1 Lessons from India Stack and Brazil's Pix

While much of the digital governance discourse has focused on regulatory frameworks and institutional mechanisms, some of the most consequential digital governance innovations of the past decade have emerged not from regulation but from the strategic deployment of digital public infrastructure (DPI) by developing countries. India's India Stack, a layered architecture of digital identity (Aadhaar), digital payments (Unified Payments Interface, UPI), and data sharing (Data Empowerment and Protection Architecture, DEPA), has enabled the delivery of financial services, government benefits, and commercial transactions at a scale and cost that would have been difficult to achieve through market mechanisms alone [36][38]. For clarity, digital public infrastructure (DPI) should be distinguished from digital public goods (DPGs): DPGs are open-source software, open data, open AI models, open standards and open content, whereas DPI refers to resilient, safe, inclusive and interoperable shared digital systems. The two concepts are related but not synonymous; DPI may incorporate DPGs as components, but not all DPGs constitute DPI, and not all DPI is built exclusively from DPGs. As of September 2024, UPI processed approximately 15 billion transactions per month, with hundreds of millions of registered users, making it a high-volume real-time payment system by global standards [39][40]. The NPCI product statistics page provides the primary source for the transaction-volume figure; the precise user count is not pinned to a single primary source in this article, and we therefore state the figure as 'hundreds of millions of registered users' rather than citing a specific number [39].

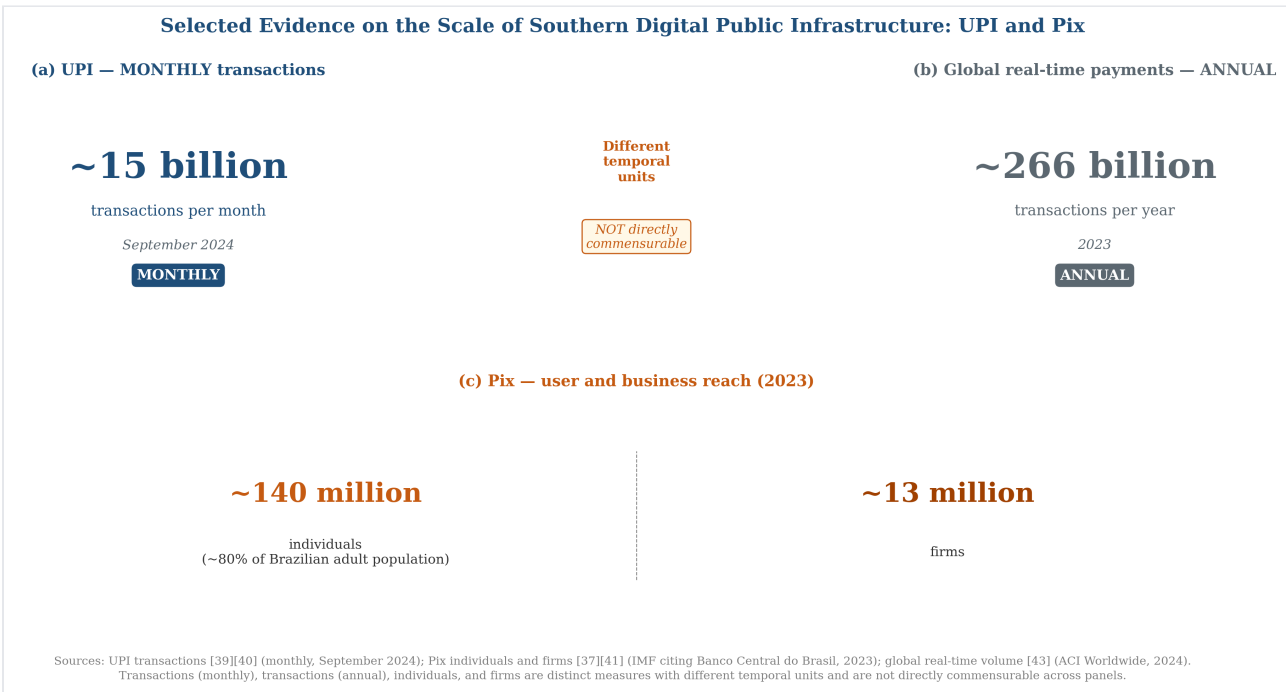


Figure 6. Selected evidence on the scale of Southern digital public infrastructure: UPI and Pix.

Sources: UPI transactions [39][40]; Pix individuals and firms [37] (IMF citing Banco Central do Brasil, 2023); global real-time volume [43] (ACI Worldwide, 2024). Transactions, individuals, firms and global volume are distinct measures and are not directly commensurable across panels.

Brazil's Pix, an instant payment system created and managed by the Central Bank of Brazil, has achieved comparable reach: by 2023, the system was used by approximately 140 million individuals — roughly 80 per cent of the Brazilian adult population — and 13 million firms, according to International Monetary Fund analysis citing Banco Central do Brasil data [37][41]. Together, India's UPI and Brazil's Pix account for a substantial share of global real-time payment transaction volume (Figure 6); ACI Worldwide's Prime Time for Real Time 2024 report, released on 30 April 2024, documented that global real-time payment transactions reached 266 billion in 2023, with India accounting for the largest national share, and we cite this source for the global-share context [43]. We do not retain the prior, more specific quantitative claim about the combined UPI+Pix share of global real-time payments ('nearly two-thirds') because the precise figure could not be pinned to a single admissible primary source; the softer formulation 'a substantial share' is defensible.

The significance of these DPI systems for digital governance extends far beyond payments. They demonstrate that developing countries are not merely passive recipients of Northern technology but can be active innovators in the design and deployment of digital systems that serve development objectives. The India Stack and Pix share several features that are instructive for the broader Global South: they are built on open, interoperable standards; they are designed as public goods rather than private platforms; they leverage existing infrastructure, particularly mobile networks, to achieve scale; and they incorporate regulatory oversight from inception, embedding compliance and consumer protection into the system architecture rather than treating them as after-the-fact constraints [36][37][38]. The GDC's emphasis on digital public infrastructure as a critical enabler of the Sustainable Development Goals reflects a growing recognition within the multilateral system that DPI, when well-designed and inclusively governed, can be a tool for closing both digital and developmental divides [4].

10.2 DPI as a Development Accelerator

The development potential of digital public infrastructure is substantial and well-documented. Research by the Observer Research Foundation, the Centre for Strategic and International Studies, and other institutions has shown that DPI can expand financial inclusion, strengthen state capacity for service delivery, reduce leakage in government transfer programmes, and foster both public and private sector innovation [36][38]. India's Direct Benefit Transfer programme, supported by Aadhaar-linked identity and bank-account infrastructure and the broader JAM architecture, has been credited with improving targeting, reducing leakages and accelerating benefit delivery. Brazil's Pix has similarly expanded financial inclusion among previously unbanked populations and has generated substantial efficiency gains for businesses of all sizes [37].

However, the DPI model also carries risks that must be carefully managed. Concerns about surveillance, data concentration, and the exclusion of individuals who lack the digital literacy or the biometric characteristics required to participate in DPI-based systems have been raised in both the Indian and Brazilian contexts, and these concerns are particularly acute in countries with weaker data protection frameworks and less robust independent oversight mechanisms. The Global Digital Compact's fourth objective, which calls for interoperable national data governance frameworks and equitable data sharing, provides a normative foundation for addressing these concerns, but translating the Compact's principles into DPI governance practices that protect individual rights while preserving developmental benefits will require careful, context-specific regulation. For the Global South, the challenge is to harness the potential of DPI while avoiding the pitfalls of techno-solutionism, ensuring that digital infrastructure serves human development rather than subordinating it to technological logic [4]. The DPI example also illustrates a critical distinction: domestic innovation (UPI and Pix are domestic innovations of high capacity) does not automatically constitute demonstrated rule-shaping. UPI has diffused internationally (adoption in Bhutan, UAE, Malaysia, Singapore, Sri Lanka, France, Mauritius, and Nepal by mid-2024 [36]) and India has exercised norm entrepreneurship and

agenda-setting (the G20 2023 DPI declaration), but the conversion of diffusion and norm entrepreneurship into demonstrated standard-setting influence and demonstrated rule-shaping in international standards bodies is not yet evidenced by the admissible sources as of October 2024. The five levels of international influence distinguished in Section 4.1 must be applied here, not collapsed.

11. Comparative Analysis

The country evidence assembled in Sections 7–10 enables a comparative analysis of where the rule-shaping framework succeeds and breaks down across the three principal Southern cases. We stress that the breakdown points identified below are analytically inferred constraints supported by comparative evidence, not empirically demonstrated breakdowns in the causal-law sense; causal validation would require process-tracing evidence across a larger sample of cases.

11.1 India

India demonstrates high domestic capacity in DPI, moderate domestic capacity in AI-specific governance, and significant geopolitical weight. It exercises norm entrepreneurship and agenda-setting capacity in international DPI standard-setting (the G20's 2023 DPI declaration, led under India's presidency; the India Stack references globally) and UPI has diffused internationally to 7+ countries [36][38]. However, the evidence does not support a claim that India has converted this domestic innovation and diffusion into demonstrated rule-shaping in international AI governance. India's historically risk-based and comparatively enabling AI approach has been articulated at the national rather than coalition level, and no admissible source documents India leading a multilateral AI coalition as of October 2024. We characterise the transition from regional coordination to effective multilateral participation in AI as an analytically inferred constraint for India: the framework predicts that India's domestic DPI capacity should convert into AI rule-shaping, but the evidence shows domestic innovation and international diffusion without a documented coalition leadership that would constitute demonstrated rule-shaping. The confidence in this characterisation is moderate: the constraint is consistent with the evidence but alternative explanations (India may exercise bilateral rather than multilateral influence; or the transition may be underway but not yet documented in admissible sources) cannot be excluded.

11.2 Brazil

Brazil demonstrates well-established data protection (LGPD, 2020; ANPD established) and a distinctive rights-oriented AI Bill that, as of October 2024, remained under Senate consideration [26]. Brazil has contributed a significant domestic digital-public-infrastructure model through Pix, which has been examined in international comparative research [37][41]. The evidence does not support a claim that Brazil has aggregated its national AI approach into a broader Latin American coalition around rights-oriented AI governance; no admissible source documents such a coalition as of October 2024. We characterise the transition from domestic capacity to regional coordination as an analytically inferred constraint for Brazil: Brazil's domestic rights-oriented framework has not been converted into a regional coalition. The confidence is moderate: the constraint is consistent with the evidence, but alternative explanations (Brazil may prefer bilateral or issue-specific coordination; or the coalition may be forming but not yet documented) cannot be excluded.

11.3 African Union

The African Union demonstrates comparatively strong regional coordination capacity among the three cases examined here, having produced a continental AI strategy that aggregates 55 Member States into a single

strategic framework [28]. We qualify 'comparatively strong' as 'among the three cases examined here' rather than ranking the AU as 'the strongest' regional coordinator, because a defensible ranking would require a comparative methodology across more than three cases. The AU's rule-shaping potential is significant but unrealised as of October 2024. The AU's institutional capacity to deploy its continental position across the multiple negotiating tracks of the GDC follow-up — the AI Panel, the Global Dialogue, the IGF, and the various standard-setting bodies — is constrained by limited technical and negotiating expertise and by capacity and implementation constraints. The AU strategy itself identifies capacity-building and resource mobilisation as implementation priorities [28]. External analysis likewise identifies capacity and implementation constraints [35]. We characterise the transition from regional coordination to effective multilateral participation and technical capability as an analytically inferred constraint for the AU: the continental strategy has been adopted but not yet converted into demonstrated multilateral rule-shaping. The confidence is moderate.

11.4 Comparative Summary

The comparative analysis supports the central proposition as an analytical model, not as an empirically validated causal law: rule-shaping is hypothesised to be a function of the full framework, not of any single capacity. States with substantial domestic capacity but weak regional-to-multilateral transitions (India in AI) may remain rule-takers internationally in the AI domain despite their domestic strength in DPI. States with comparatively well-established domestic regulatory frameworks but limited regional aggregation (Brazil) have rule-shaping potential that is unrealised. States with strong regional coordination but limited subsequent transitions (the AU) have rule-shaping potential that is unrealised for different reasons. The strategic implication, if the framework is correct, is that capacity-building investment alone is insufficient; the framework must be developed across all its stages, with attention to the specific breakdown transitions in each case. The case-level evidence for each breakdown point is classified as 'Moderate — analytically inferred constraint,' reflecting that the evidence is consistent with the hypothesised breakdown but does not constitute demonstration.

12. AUN Digital Governance Strategic Diagnostic Framework

Drawing on the comparative analysis, this section presents the AUN Digital Governance Strategic Diagnostic Framework. We characterise it honestly as a diagnostic framework rather than a statistical index. A validated statistical index would require operational definitions for each variable, specified indicators and measurement rules, weighting, scoring, aggregation rules, thresholds, documented data sources, and external validation — an apparatus we do not possess and do not claim to. The framework instead organises five analytical imperatives against their corresponding GDC objective, key challenges, priority actions, diagnostic questions, and observable evidence, and is intended as a diagnostic tool for policy discussion rather than as a validated measure. We do not invent numerical scores.

Table 1 presents the framework. The five analytical imperatives are: (1) building AI regulatory capacity; (2) leveraging digital public infrastructure; (3) asserting data sovereignty; (4) strengthening cybersecurity resilience; and (5) claiming voice in multilateral AI governance. These imperatives are AUN's analytical framework, clearly distinguished from the GDC's five official objectives. The mapping in Table 1 indicates the correspondence between the two frameworks, but the correspondence is not identity: the imperatives are an analytical lens on the GDC's domains, not a restatement of them.

AUN Analytical Imperative	Corresponding GDC Objective	Key Challenges	Priority Actions	Diagnostic Question	Observable Evidence
1. Build AI regulatory capacity	Objective 5 (AI governance)	Fragmented institutional mandates; shortage of technical expertise; reliance on imported regulatory models	Enact context-specific AI legislation; establish dedicated AI governance agencies; invest in regulatory sandboxes and technical training	Does the state have a context-specific AI governance framework adapted to its development priorities?	National AI strategy adopted; dedicated AI agency established; regulatory sandbox operational
2. Leverage digital public infrastructure	Objectives 1 & 2 (digital divide; inclusive digital economy)	Exclusion of vulnerable populations; data concentration risks; inadequate data protection	Adopt open interoperable DPI standards; integrate DPI with SDG delivery; establish independent DPI oversight	Does the state have open, interoperable, inclusively-governed DPI serving development objectives?	DPI deployed at scale; interoperability standards adopted; independent oversight mechanism established
3. Assert data sovereignty	Objective 4 (data governance)	Data extraction by foreign platforms; weak national data frameworks; pressure from trade agreements	Enact comprehensive data protection laws; develop national data strategies; negotiate equitable data-sharing terms	Does the state have a national data governance framework that protects citizen rights while enabling development?	Data protection law in force; national data strategy published; data-sharing agreements negotiated
4. Strengthen cybersecurity resilience	Objective 3 (safe and secure digital space)	Rapidly escalating cyber threats; AI-enhanced attack sophistication; limited incident response capacity	Invest in national CERTs and cyber workforce; align with international standards; balance security with rights	Does the state have the institutional capacity to detect, respond to, and recover from cyber incidents?	National CERT operational; cyber workforce trained; incident response framework in place

5. Claim voice in multilateral AI governance	Objective 5 (AI governance) and the institutional mechanisms	Under-representation in new GDC bodies; capacity constraints in diplomatic negotiations; fragmentation of Southern positions	Organise coordinated Southern positions; nominate qualified experts to the AI Scientific Panel; engage substantively in the Global Dialogue	Does the state participate substantively in multilateral AI governance institutions, individually or through coalitions?	Experts nominated to GDC-mandated bodies; coordinated regional positions articulated; negotiating capacity deployed
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Table 1. AUN Digital Governance Strategic Diagnostic Framework: Five AUN Analytical Imperatives for Global South Rule-Shaping

Maturity condition: For each imperative, the maturity condition is not a numerical score but a qualitative judgement based on the observable evidence. A state 'meets' the imperative when the observable evidence is present; 'partially meets' when some evidence is present; and 'does not meet' when the evidence is absent. This qualitative characterisation is honest about the framework's diagnostic (not statistical) nature.

13. Strategic Framework for Global South Rule-Shaping

13.1 From Diagnostic to Strategy

The diagnostic framework provides a map of where the rule-shaping framework breaks down; the strategic framework identifies the actions required at each stage to address the breakdown. The framework is organised around the multi-stage explanatory model and addresses each of its seven stages. At the domestic capacity stage, the priority is to build context-specific AI regulatory and governance capacity that is not merely a transplant of Northern models but an adaptation to Southern development priorities. The emerging models described in Section 7 — the AU's Continental AI Strategy, India's historically risk-based and comparatively enabling approach integrated with DPI, and Brazil's rights-oriented legislation — provide a range of templates that other developing countries can adapt to their own contexts [28][31][26]. The critical principle is that regulatory frameworks should be designed to serve development objectives, not merely to manage risks defined by external standards.

At the regional coordination stage, the priority is to invest in the diplomatic and institutional capacity to aggregate national positions into regional positions with greater negotiating weight. Regional organisations — the African Union, ASEAN, MERCOSUR, and others — can play a valuable role in facilitating coordinated Southern positions, ensuring that the fragmentation that has characterised much of the Global South's participation in previous multilateral technology negotiations is not replicated in the GDC follow-up [19][28]. The breakdown at this stage is concentrated where divergent national interests prevent aggregation; the strategic response is to identify the issues on which Southern positions can be aggregated despite national differences, and to invest in the institutional capacity to do so.

At the technical and negotiating capability stage, the priority is to develop the expertise to draft, amend, and assess treaty and standard text. This requires investment in the Southern epistemic community in digital governance — through university curricula, think tank capacity, and professional training programmes that

develop the technical and policy expertise needed to engage effectively in multilateral governance processes [7]. At the effective multilateral participation stage, the priority is to sustain substantive engagement across the multiple negotiating tracks of the GDC follow-up — the AI Panel, the Global Dialogue, the IGF, and the various standard-setting bodies — recognising that influence in any single track is dissipated if the others are neglected.

At the coalition and agenda-setting stage, the priority is to build coalitions across regions and interest groups and to place issues on institutional agendas. The G20's 2023 DPI declaration, led under India's presidency, is an example of agenda-setting that placed DPI on the international agenda in a way that subsequent Southern positions could build on [36][38]. At the norm and standard influence stage, the priority is to convert agenda-setting into substantive content in instruments, standards, and institutional modalities. This is the most demanding stage and the one at which Southern influence has been most limited historically; it requires the combination of all preceding stages plus the strategic patience to sustain engagement across multiple negotiating cycles.

13.2 The Action Agenda

The action agenda is organised around three temporal horizons. In the immediate term (the first year following the Compact's adoption), developing countries should prioritise the nomination of qualified experts to the International Scientific Panel on AI, ensuring that the Panel's composition reflects geographic, gender, and disciplinary diversity and that Southern perspectives are represented in its initial work programme [4]. Simultaneously, countries should conduct national digital governance readiness assessments, using the diagnostic framework in Table 1, to identify the most critical capacity gaps and to prioritise reform efforts. Regional organisations can play a valuable role in facilitating coordinated Southern positions for the Global Dialogue on AI Governance [19].

In the medium term, the focus should shift to the implementation of context-specific AI governance frameworks. The emerging models described in Section 7 provide a range of templates that other developing countries can adapt to their own contexts [28][31][26]. The critical principle is that regulatory frameworks should be designed to serve development objectives, not merely to manage risks defined by external standards. This means that AI governance in developing countries should prioritise the use of AI for public service delivery, agricultural optimisation, health system strengthening, and educational access, while simultaneously establishing safeguards against algorithmic discrimination, labour displacement, and surveillance. The Global Digital Compact's provisions on capacity-building and international cooperation should be leveraged to secure the technical and financial assistance needed to implement these frameworks, but the design and ownership of the frameworks must remain firmly in national and regional hands [4].

The structural reform agenda addresses the deeper institutional and economic transformations required for sustained Southern digital leadership. This includes investment in digital infrastructure, particularly broadband connectivity and affordable computing resources, which remains a prerequisite for any meaningful participation in the AI economy. It includes reform of the international financial architecture to make development finance available for digital transformation at scale, recognising that the financing gaps identified in the context of the SDGs extend fully into the digital domain. And it includes the cultivation of a Southern epistemic community in digital governance, through investment in university curricula, think tank capacity, and professional training programmes [7][8].

14. Counterarguments and Limitations

The framework presented in this article is subject to several important limitations and counterarguments that merit explicit acknowledgment. We address six counterarguments that merit explicit acknowledgment.

14.1 Technological and Financial Concentration May Limit Global South Rule-Shaping

The first counterargument holds that the concentration of AI capabilities in a small number of corporations headquartered in the United States and China, and the concentration of frontier model development in a still smaller number of firms, may structurally limit the rule-shaping capacity of Global South states regardless of their domestic, regional, and multilateral coordination. On this view, the most consequential rules governing AI are made in corporate boardrooms and in the bilateral interactions between frontier developers and their home-state regulators, and multilateral institutions such as the AI Scientific Panel and the Global Dialogue are epiphenomenal. We acknowledge the force of this counterargument. The governance of AI and digital technologies is shaped not only by states and international organisations but, and in many respects primarily, by the technology companies that develop and deploy these systems [8][22]. The Global Digital Compact's provisions on business and human rights represent a step in the right direction, but translating voluntary commitments into binding, enforceable obligations will require action beyond the Compact itself. Our response is that the rule-shaping framework we identify is a necessary but not sufficient condition for Global South influence; addressing corporate concentration requires additional strategies (competition policy, liability rules, public-interest AI development) that operate at the domestic and bilateral levels in parallel with the multilateral framework.

14.2 Domestic Capacity May Matter More Than Multilateral Participation

The second counterargument holds that domestic capacity — the ability to develop and deploy AI in service of national development priorities — may matter more for development outcomes than influence in multilateral rule-making. On this view, India's investment in DPI has done more for Indian development than any plausible multilateral AI rule could, and the analytical effort devoted to the rule-shaping framework is misdirected. We acknowledge that domestic capacity is foundational; the framework begins with it and cannot proceed without it. However, we argue that domestic capacity and multilateral rule-shaping are complements rather than substitutes. The international rules that govern cross-border data flows, AI liability, content moderation, and cybercrime determine the policy space within which domestic capacity can be deployed. States with substantial domestic capacity but limited rule-shaping influence find their domestic choices constrained by international rules they did not shape. The strategic implication is that both must be developed in parallel, not that one can be substituted for the other.

14.3 Regional Coordination May Suffer Collective-Action Problems

The third counterargument holds that regional coordination among Global South states suffers from collective-action problems that the framework underestimates. The Global South is internally heterogeneous (Section 5), and the divergent interests of its members — between large and small states, between net technology exporters and importers, between democratic and authoritarian regimes — may prevent the aggregation of national positions into meaningful regional positions. We acknowledge this as the principal potential breakdown point in the framework and have identified it as such in the comparative analysis (Section 11). The framework does not assume that regional coordination is automatic; it identifies the institutional investments required to address collective-action problems, including the development of regional organisations' analytical and convening capacity and the identification of issues on which aggregation is feasible despite national differences.

14.4 Digital Sovereignty May Produce Fragmentation

The fourth counterargument holds that digital sovereignty claims, while advancing national control over digital infrastructure and data, may produce fragmentation of the global digital space that ultimately disadvantages all states, including those that assert sovereignty most strongly. Distinctive national approaches to digital sovereignty — visible in India's DPI-centred model, Brazil's rights-oriented model, and South Africa's emerging hybrid approach — illustrate the variation in sovereignty claims within the Global South. We acknowledge that sovereignty claims can serve development and citizen protection but can also serve censorship and surveillance, and that fragmentation of the digital space raises transaction costs and limits interoperability. Our response is that the framework treats sovereignty as a strategic variable rather than a normative endpoint: the question is not whether sovereignty claims are good or bad in the abstract but under what conditions they advance collective Southern interests and under what conditions they fragment them. The framework's emphasis on interoperable standards and on coordinated sovereignty claims (rather than uncoordinated ones) is intended to address this concern.

14.5 DPI Success Does Not Automatically Create International Influence

The fifth counterargument holds that the success of DPI initiatives such as UPI and Pix in domestic financial inclusion does not automatically translate into international rule-shaping influence. Domestic DPI success and international DPI standard-setting are different activities requiring different capabilities. We acknowledge this. The comparative analysis (Section 11) explicitly identifies the analytically inferred constraint at the transition from domestic capacity to international influence for both India (in AI) and Brazil (in regional AI coordination). The five levels of international influence distinguished in Section 4.1 — domestic innovation, international diffusion, norm entrepreneurship, standard-setting influence, and demonstrated rule-shaping — are applied in Section 10.1 to UPI and Pix: both are evidenced as domestic innovation with international diffusion, and India's G20 2023 DPI declaration evidences norm entrepreneurship and agenda-setting, but demonstrated rule-shaping in international standards bodies is not yet evidenced by the admissible sources as of October 2024. The framework's emphasis on the full explanatory model, rather than on domestic capacity alone, is designed to address this counterargument: DPI success contributes to rule-shaping only when it is aggregated into transferable institutional models and deployed through coordinated international standard-setting.

14.6 Formal Representation Does Not Equal Substantive Agenda-Setting

The sixth counterargument holds that formal representation in international institutions — seats on panels, participation in dialogues — does not equate to substantive agenda-setting influence. The historical record of multilateral technology governance, from the IGF's two decades of non-binding dialogue to the protracted negotiations over the cybercrime convention, provides grounds for scepticism about the capacity of intergovernmental processes to produce governance outcomes that match the pace and scale of technological change [10]. The institutional mechanisms created by the GDC — the AI Panel and the Global Dialogue — are advisory and deliberative in nature and lack the enforcement authority of, for example, the World Trade Organization's dispute settlement mechanism. We acknowledge this fully. The framework does not claim that the GDC institutions are sufficient; it identifies the conditions under which substantive agenda-setting influence can be exercised within and around them, recognising that the institutions themselves will not produce outcomes without sustained, capable engagement by their participants.

14.7 Limitations of the Study

Beyond these counterarguments, the study has methodological limitations. The empirical and documentary evidence base is limited to information publicly available by 18 October 2024; developments after that date,

including the subsequent elaboration of the AI Scientific Panel composition through General Assembly resolution and subsequent academic analyses, are not incorporated. The case selection — India, Brazil, and the African Union — is justified by digital-governance significance, AI policy activity, DPI innovation, regional leadership, and multilateral engagement, but it is not exhaustive; other Global South states (China, Indonesia, Nigeria, Kenya, Rwanda, South Africa) have relevant experiences that future work should incorporate. The diagnostic framework is honestly characterised as a diagnostic tool rather than a validated statistical index; its application to systematic cross-country measurement would require methodological development beyond the scope of this article. The multi-stage explanatory framework is a proposed analytical model, not an empirically validated causal law; the comparative evidence from three cases is consistent with the model but does not constitute causal validation, which would require a larger-N study with process-tracing evidence. The breakdown points identified in Section 11 are analytically inferred constraints, not demonstrated breakdowns; their confidence classification is 'Moderate' across all three cases.

15. Policy Implications

The policy implications follow from the explanatory framework and are tied to the admissible evidence base. They are organised around the seven stages of the framework. We note that these implications are conditional on the framework's validity; if the framework is incorrect or incomplete, the implications would need to be revised.

At the domestic capacity stage, Global South governments should invest in context-specific AI regulatory and governance capacity, drawing on the emerging Southern models (AU Continental AI Strategy, India's DPI-integrated historically risk-based and comparatively enabling approach, Brazil's rights-oriented framework) as templates for adaptation rather than importing Northern frameworks wholesale [28][31][26]. The investment should include dedicated AI governance agencies, regulatory sandboxes, technical training programmes, and the data protection infrastructure that any AI governance regime presupposes.

At the regional coordination stage, regional organisations — the AU, ASEAN, MERCOSUR, and others — should invest in the analytical and convening capacity to aggregate national positions into regional positions. This includes dedicated digital governance policy units within regional secretariats, regular ministerial-level coordination meetings, and the development of common negotiating positions for the GDC follow-up processes [19][28].

At the technical and negotiating capability stage, governments and regional organisations should invest in the Southern epistemic community in digital governance, through university curricula, think tank capacity, and professional training programmes. Scholarly platforms have a role to play in providing a venue for Southern researchers and practitioners to contribute to the evidence base that should inform both national policy and international negotiation [7][8].

At the effective multilateral participation stage, governments should sustain substantive engagement across the multiple negotiating tracks of the GDC follow-up, recognising that influence in any single track is dissipated if others are neglected. This requires the deployment of expertise across the emerging GDC-related governance landscape — including the International Scientific Panel on AI and Global Dialogue on AI Governance, alongside existing forums such as the Internet Governance Forum and relevant standards-setting bodies.

At the coalition and agenda-setting stage, governments should build coalitions across regions and interest groups, learning from examples such as the G20's 2023 DPI declaration. The G20's DPI work, led under India's

presidency, illustrates that agenda-setting is feasible when the convening state supplies a credible technical contribution and coordinates with like-minded states across regions [36][38].

At the norm and standard influence stage, governments should convert agenda-setting into substantive content in instruments, standards, and institutional modalities. This is the most demanding stage and the one at which Southern influence has been most limited historically; it requires the combination of all preceding stages plus the strategic patience to sustain engagement across multiple negotiating cycles. We acknowledge that the evidence base does not yet demonstrate that Southern states have achieved this conversion at scale; the policy implication is therefore aspirational, grounded in the framework rather than in demonstrated precedent.

16. Conclusion

This article has asked how Global South states can strengthen domestic, regional, and multilateral institutional capacities to move from primarily rule-taking positions toward greater rule-shaping influence in global AI and digital governance. The answer we have proposed is a multi-stage explanatory framework with seven stages — domestic capacity, regional coordination, technical and negotiating capability, effective multilateral participation, coalition and agenda-setting capacity, norm and standard influence, and rule-shaping — in which each stage is hypothesised to be an enabling condition for the next. The framework is presented as a proposed analytical model, not as an empirically validated causal law, and the analytically inferred breakdown points are identified with appropriate epistemic caution.

The empirical answer from the India/Brazil/AU comparison is that the framework is consistent with the comparative evidence. India exercises norm entrepreneurship and agenda-setting in international DPI standard-setting but has not converted this into demonstrated rule-shaping in multilateral AI governance (analytically inferred constraint at the regional-to-multilateral transition). Brazil has a well-established domestic rights-oriented framework but has not aggregated it into a regional coalition (analytically inferred constraint at the domestic-to-regional transition). The African Union demonstrates comparatively strong regional coordination among the three cases but has not converted its continental strategy into demonstrated multilateral rule-shaping (analytically inferred constraint at the regional-to-multilateral and technical-capability transitions). In all three cases, the conversion of domestic innovation into demonstrated rule-shaping is not yet evidenced by the admissible sources as of October 2024 — a finding that, if the framework is correct, identifies the strategic priority for the coming years.

The theoretical answer is that the multi-stage explanatory framework adds a specific mechanism to the existing scholarship on Global South agency in international rule-making. The framework offers an explanation for why states with substantial domestic capacity may nonetheless remain rule-takers internationally (because the framework breaks down at intermediate stages), and why states with comparatively modest domestic capacity but strong regional coordination may exercise disproportionate influence (because the framework is more complete across its stages). This contribution is differentiated from the existing literature and does not duplicate existing work.

The policy answer, conditional on the framework's validity, is that capacity-building investment alone is insufficient; the framework must be developed across all its stages, with particular attention to the breakdown transitions. The AUN Digital Governance Strategic Diagnostic Framework (Section 12) and the strategic framework (Section 13) organise this effort across the five AUN analytical imperatives, clearly distinguished from the GDC's five official objectives.

The limitation is that the framework is a proposed analytical model, not an empirically validated causal law; the breakdown points are analytically inferred constraints, not demonstrated breakdowns; the diagnostic framework is a diagnostic tool, not a validated statistical index; and the evidence base is limited to information publicly available by 18 October 2024. Subsequent developments, including the elaboration of the AI Scientific Panel composition and further academic analyses, are not incorporated into this article and are reserved for future work. The case selection is illustrative rather than exhaustive.

Future research should extend the case selection to additional Global South states, develop the diagnostic framework into a validated measurement instrument through the specification of operational definitions, indicators, weighting, scoring, aggregation, and validation against external criteria, and incorporate the post-October 2024 developments that this article has deliberately excluded. Causal validation of the multi-stage framework would require a larger-N study with process-tracing evidence across many more cases than the three examined here. The GDC's adoption on 22 September 2024 created a new institutional architecture for global digital governance; the norms, standards, and practices that will give it substance are still to be negotiated. For the Global South, this represents both an urgent challenge and a narrow window of opportunity. Whether the AI Panel and the Global Dialogue become genuinely inclusive mechanisms for global governance or merely new arenas for the exercise of existing power asymmetries will depend on the institutional design decisions made in the coming years, and on the capacity of developing countries to organise effectively to participate in and shape them. The Compact has been written. The work of making it deliver for the Global South has only just begun.

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