



# The epistemic readiness gap: rethinking AI readiness indices through ILIA 2025

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## Abstract

Artificial intelligence (AI) readiness indices have become central instruments in global AI governance, ranking states according to their apparent capacity to develop, regulate and benefit from AI. These instruments typically privilege digital infrastructure, research output, innovation and the existence of formal strategies, while giving less systematic attention to whose knowledge is encoded in AI systems, who participates in governing them, and how AI-mediated decisions can be understood and contested. This article examines these tensions through the Latin American Artificial Intelligence Index (ILIA 2025), a significant regional effort that both departs from some global benchmarks and makes Latin American AI capacity legible to policymakers and international organizations. Using ILIA as a strategically revealing case, the study reconstructs its indicator architecture and qualitatively recodes its sub-indicators along five axes of epistemic inclusion: linguistic and epistemic diversity; participatory and relational governance; epistemic accessibility and contestability; community data governance and epistemic sovereignty; and the foundations and quality of trust. The analysis shows that ILIA incorporates important regional and endogenous concerns, but that these concerns remain unevenly represented and only partially operationalized within the comparative architecture of the index. Building on this diagnosis, the article conceptualizes an epistemic readiness gap and proposes five families of complementary sub-indicators and a cross-cutting Epistemic Inclusion Score that would strengthen ILIA's sensitivity to epistemic justice without abandoning its three-pillar structure. The argument has broader implications for the design of AI readiness benchmarks, suggesting that measuring readiness without sufficiently operationalizing epistemic inclusion remains conceptually incomplete and politically consequential, particularly in post-colonial contexts such as Latin America.

**Keywords** AI readiness indices · ILIA 2025 · Epistemic justice · Epistemic inclusion · Data governance · Participation · Latin America

## 1 Rethinking AI readiness in Latin America

Artificial intelligence (AI) has become a central object of global governance. States are increasingly ranked through composite “AI readiness” indices that promise neutral, comparable assessments of how prepared they are to develop, regulate and benefit from AI. Recent critiques show,

however, that these indices are theory-laden and performative rather than neutral descriptors. Analyses of the Government AI Readiness Index highlight how its indicators privilege Northern research ecosystems and can misrepresent the institutional realities and developmental priorities of African countries (Baguma et al. 2023). Other work demonstrates that high scores on the same index can coexist with irresponsible public-sector uses of AI, revealing a disjunction between formal indicators of readiness and substantive practices of responsible deployment (Nzobonimpa and Savard 2023). Comparative studies of digital-competitiveness and AI indices in Europe further show that instruments ostensibly measuring similar constructs diverge systematically because they embed different assumptions about which infrastructures and capabilities matter (Miškufová et al. 2025). Additional analyses suggest that AI readiness scores

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not only describe but also shape financial behavior, functioning as “hidden drivers” of banking strategies through their perceived signaling of institutional and ethical quality (Sitnicka et al. 2025).

Latin America has recently entered this field with the Latin American Artificial Intelligence Index (Índice Latinoamericano de Inteligencia Artificial, ILIA). ILIA 2025, developed by the UN Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL) and regional partners, offers a systematic assessment of digital infrastructure, human capital, research, innovation and governance across 19 countries and is already being used as a reference point in regional debates on AI readiness (ILIA, 2025). Complementary work on AI-driven automation and datafication in the region suggests that Latin America combines significant potential productivity gains with a persistent lag in investment and labor capacities relative to global leaders (Jung and Katz 2025). In this sense, ILIA constitutes an important regional benchmark: it provides a counterweight to global indices, foregrounds Latin American trajectories of AI development and helps render regional AI capacity legible to policymakers and international organizations. Precisely because ILIA is becoming influential in how preparedness is narrated and compared across the region, it also offers a revealing case through which to interrogate what AI readiness metrics make visible, how they do so, and what they may still leave insufficiently operationalized.

Existing readiness indices, including ILIA, tend to devote more systematic attention to infrastructure, research output, adoption and the existence of national strategies than to the epistemic conditions under which different communities can understand, contest and shape AI-mediated decisions. This does not mean that ILIA simply reproduces global readiness models without modification. On the contrary, ILIA incorporates important regional concerns and reflects meaningful attempts to foreground endogenous capacity-building, public-sector relevance and local AI development. The central question, however, is whether these advances are translated into the comparative and operational core of the index with enough force and consistency to capture epistemic inclusion as a constitutive dimension of readiness rather than as a secondary or indirect concern.

This article conceptualizes that tension as an epistemic readiness gap: a mismatch between material and institutional indicators of preparedness, on the one hand, and the distribution of epistemic power, linguistic inclusion, contestability and community data governance, on the other. Using ILIA 2025 as a strategically revealing regional case with broader implications, the article makes two contributions. First, it offers a critical but situated reading of ILIA from an epistemic-justice perspective, showing that the index represents a significant regional innovation while also underrepresenting, unevenly translating or insufficiently operationalizing

key dimensions of epistemic inclusion. Second, it proposes a conceptual and methodological framework for integrating those dimensions into AI readiness measurement through complementary sub-indicator families that can strengthen ILIA and inform the redesign of other regional and global benchmarks.

## 2 Rethinking “AI readiness” as a concept

Debates on AI readiness indices often focus on which indicators to include and how to weight them, while treating “readiness” itself as self-evident. In most global and regional benchmarks, readiness is operationalized as a bundle of material and institutional capacities: connectivity, cloud and data-center infrastructure, skilled labor, research output, private investment, national strategies and selected regulations (Baguma et al. 2023). In this view, a “ready” country is one that can host data centers, train AI experts, generate AI research, deploy AI across sectors and adopt high-level governance frameworks (Miškufová et al. 2025).

Critical analyses show that this notion is not neutral. Studies of the Government AI Readiness Index argue that its indicators privilege Northern research ecosystems and policy styles and systematically underestimate context-specific capacities in African countries (Baguma et al. 2023). Other work shows that high scores can coexist with irresponsible public-sector uses of AI, which means that formal indicators of readiness do not map neatly onto responsible AI governance (Nzobonimpa and Savard 2023). Comparative research on European indices reaches a similar conclusion: instruments that claim to measure the same phenomenon diverge because they rely on different assumptions about which infrastructures and capabilities matter (Miškufová et al. 2025).

From this perspective, AI readiness is not an objective condition that indices simply reveal. It is a constructed target that implicitly answers three questions: ready for what, ready for whom and ready on whose terms. Most existing indices assume that countries should be ready to compete in a global race for AI innovation, attract AI-related investment and integrate AI into public services and markets. They therefore treat expanded infrastructure and adoption as desirable in themselves.

This material framing has two limitations. First, it abstracts from distributional questions: who benefits from AI investment, and who bears its risks. Second, it treats the epistemic conditions of AI use, who can understand, contest and reshape AI-mediated decisions, as external to readiness. From an epistemic-justice perspective, however, these are not secondary concerns. The capacity of different communities to act as knowers, decision-makers and critics within AI

ecosystems is part of what it means to be prepared for AI's social and political consequences (Ferdman 2025).

In this article, AI readiness is therefore approached as a compound of material and epistemic conditions. Infrastructure, skills and institutional capacity matter, but so do the languages, epistemologies and governance arrangements through which AI is designed and deployed. A country may have data centers, fiber networks and AI graduate programs yet still be epistemically unprepared if AI-enabled public services operate only in dominant languages, if affected communities are excluded from governance, or if people lack meaningful reasons and appeal channels for AI-assisted decisions. The concept of an epistemic readiness gap refers to this misalignment between material capacity and epistemic inclusion.

AI readiness indices do more than describe national capacity: they shape political and economic expectations. By ranking countries, they produce narratives about who is “ahead” or “behind” in AI, and these narratives can affect reputation, policy priorities and investment decisions. In the banking sector, for example, AI readiness scores have been shown to function as “hidden drivers” of financial strategies by signaling institutional and ethical quality to investors and lenders (Sitnicka et al. 2025).

In Latin America, ILIA 2025 contributes to making AI capacity legible to policymakers and international organizations, influencing how governments position themselves in regional and global debates (Durán et al. 2025). Related work presents the region as combining significant productivity potential with a persistent lag in AI-related investment and labor capacity relative to global leaders (Jung and Katz 2025). In this context, indices help define what counts as progress: more infrastructure, more firms, more research, more adoption and more formal strategies.

These choices are embedded in broader political economies of AI. Studies of Latin American AI policy show repeated borrowing from OECD and UNESCO templates, which can narrow the space for locally specific priorities (Flórez Rojas 2025). Other work highlights digital extractivism and regulatory dependence in North–South relations (Alonzo González 2025). Macro-policy and public-administration studies similarly show that AI agendas in the region often prioritize competitiveness, innovation and efficiency over participation, inclusion and citizens' capacity to contest AI-mediated decisions (Salamanca-Garay et al. 2025; Contreras-Yupanqui 2025).

From this perspective, readiness indices participate in organizing a race for AI. By rewarding particular infrastructures and institutional designs, they can encourage capital-intensive projects such as data centers, cloud capacity and research hubs, while translating broader normative commitments, fairness, accountability, human rights, into relatively

narrow proxies such as the existence of strategies, regulations or authorities (OECD 2019; UNESCO 2022).

Adding epistemic-inclusion indicators does not resolve these tensions. What it can do is make more visible and contestable issues that current indices often treat only indirectly: whose languages and knowledges are encoded in AI systems, who participates with power in governance, how data is collectively governed and how trust in AI is produced. In that sense, epistemic indicators do not replace material criteria; they complicate them.

### 3 Epistemic injustice, coloniality and epistemically inclusive readiness

A growing body of work treats AI systems as epistemic technologies: infrastructures that shape who can know, speak and be heard. This literature shows how machine-learning systems can generate testimonial, hermeneutical and contributive injustices by structuring whose testimony is taken seriously, which experiences become intelligible and whose contributions to shared knowledge practices are recognized (Faissner et al. 2025). Other analyses describe mainstream machine learning as structurally epistemically conformist because majority-dominated datasets tend to amplify hegemonic perspectives and marginalize minority ones (Miragoli 2024). Research on generative AI similarly shows how these systems can intensify testimonial injustice, facilitate manipulation and deepen hermeneutical ignorance (Kay et al. 2024), while studies of large language models argue that data curation and reinforcement learning can produce epistemic lock-in by stabilizing partial interpretive resources over time (McInerney 2024).

These harms are closely tied to coloniality. Work on AI-mediated urban governance shows that smart-city infrastructures and predictive systems can reproduce “neo-colonial intelligence” by erasing indigenous ontologies and legitimizing dispossession and surveillance (Baresi 2025). Studies of generative AI in libraries in the Global South argue that systems trained on Western, Anglophone corpora reinforce colonial hierarchies of knowledge and marginalize local archives and epistemologies (Matsieli and Mutula 2025). Research on Latin American AI policies documents repeated transplantation of OECD and UNESCO frameworks with limited localization (Flórez Rojas 2025), while other analyses connect regional AI agendas to digital extractivism and regulatory dependence that constrain local autonomy (Alonzo González 2025). Macro-policy and public-sector studies likewise show that AI initiatives often prioritize competitiveness and efficiency over participation, inclusion and social rights (Salamanca-Garay et al. 2025; Contreras-Yupanqui 2025).

Sector-specific work shows that these concerns are practical, not abstract. In medical AI, epistemic inclusion has been framed as a relational issue in which decision-support systems should mediate shared epistemic resources rather than displacing them (Herzog and Branford 2025). In education, proposals for epistemically trustworthy AI tutors emphasize inclusivity, accountability, accuracy and reciprocal transparency so that AI supports, rather than erodes, students' capacities as knowers (Tanchuk and Taylor 2025).

Research on human–AI interaction adds a further layer by showing that trust can be produced through both explainability and anthropomorphic cues (Sauka et al. 2026; Folk et al. 2025). Other work on parasocial trust warns that users may experience care and reciprocity where no genuine agency exists, and that anthropomorphic framings can encourage misplaced attributions of authority or moral standing to technological artifacts (Maeda and Quan-Haase 2024; Placani 2024). This reinforces the importance of distinguishing between systems that are trusted and systems that are genuinely trustworthy (Zanotti et al. 2024; Zanotti 2025).

Taken together, these debates support five analytic axes for evaluating epistemic inclusion in AI readiness metrics. The first is linguistic and epistemic diversity, since the under-representation of indigenous and minoritized languages and epistemologies produces hermeneutical gaps. The second is participatory and relational governance, since epistemic inclusion depends on whether affected communities hold durable roles and real influence in agenda-setting, design and oversight. The third is epistemic accessibility and contestability, since people must be able to obtain meaningful reasons and challenge AI-assisted decisions, especially in high-stakes domains (Rao 2025; Peterson and Broersen 2024). The fourth is community data governance and epistemic sovereignty, because in contexts marked by digital extractivism, inclusion depends on whether communities can shape how their data is collected, used and shared. The fifth is the foundations and quality of trust, since systems that elicit compliance through persuasive or anthropomorphic design may undermine, rather than support, epistemic agency.

These five axes are not exhaustive. They are prioritized here because they are especially salient to debates on coloniality, digital extractivism, contestability and local capacity-building in Latin America, and because they can be reconstructed from ILIA's published architecture. Together, they provide a framework for examining what AI readiness indices make visible and what they leave insufficiently operationalized when viewed from the standpoint of epistemic justice. They also show that epistemic inclusion is not detached from material realities: it shapes who can access infrastructures, influence investment decisions and resist or redirect AI projects that affect their lives.

## 4 Analyzing ILIA through an epistemic-inclusion lens

This study adopts a qualitative, critical-interpretive design. Rather than recomputing ILIA scores or testing statistical hypotheses, it reconstructs the index's indicator architecture, recodes its sub-indicators through an epistemic-inclusion lens and examines the resulting patterns of emphasis, omission and uneven operationalization. The empirical basis is restricted to the published ILIA 2025 report and its methodological annex; internal deliberations, unpublished data and implementation practices fall outside the scope of the analysis (ILIA, 2025).

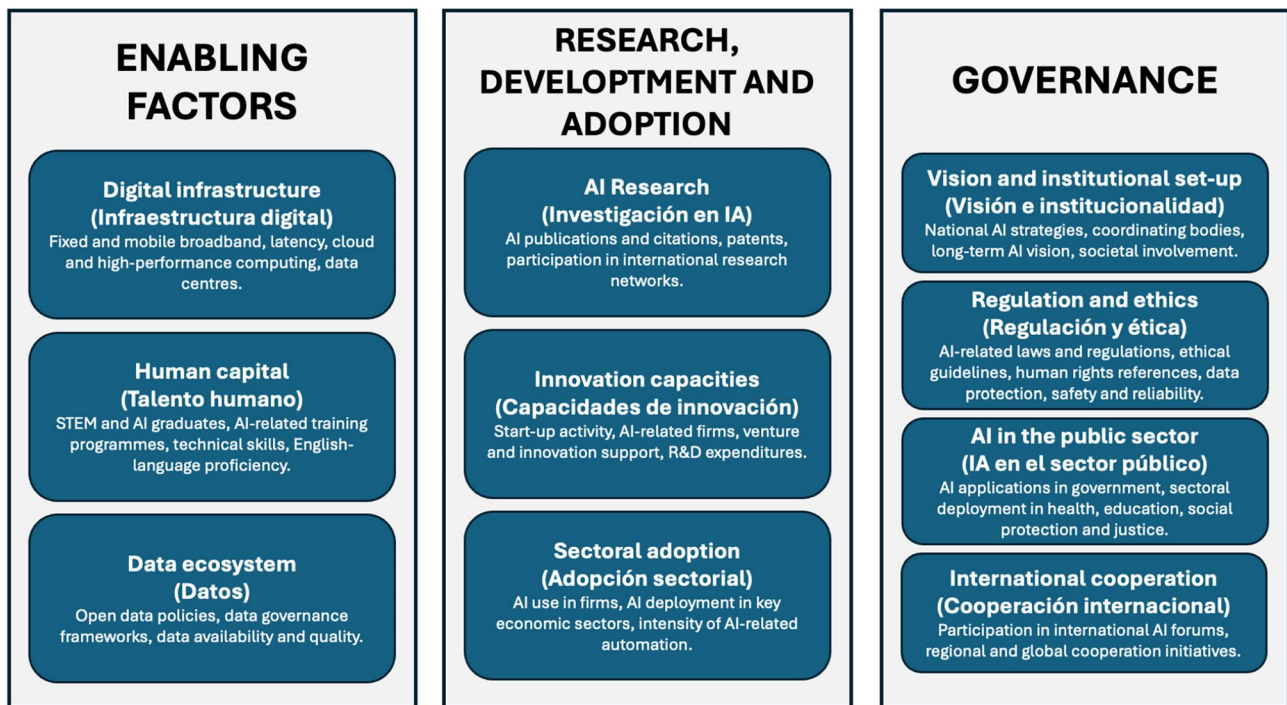
ILIA 2025 is a regional composite index produced by ECLAC and partner institutions to measure “the state of progress of AI” across 19 Latin American and Caribbean countries (ILIA, 2025). The index is organized into three main dimensions: Enabling Factors, Research/Development/Adoption and Governance. These are further divided into sub-dimensions, indicators and sub-indicators drawing on official statistics, international databases, bibliometrics and documentary analysis. ILIA 2025 also updates the 2024 edition by adding 28 sub-indicators (ILIA, 2025).

In this article, ILIA is treated as both a regional benchmark and a knowledge infrastructure: a way of organizing what counts as AI progress in Latin America. The analytical corpus therefore includes three parts of the report read together: the sections that justify the dimensions, the composition tables listing indicators and sub-indicators, and the interpretive discussion of key findings and regional priorities. Figure 1 summarizes this architecture.

## 5 Reconstructing the architecture of the index

The first step was to reconstruct ILIA's architecture in a format suitable for systematic comparison across dimensions. All dimensions, sub-dimensions, indicators and sub-indicators were identified as they appeared in ILIA 2025, preserving the original labels in Spanish and the brief definitional notes provided in the report. These elements were then organized in a matrix in which each row corresponded to one sub-indicator and the columns recorded: (1) formal attributes, such as dimension, sub-dimension, indicator and type of source; (2) substantive focus, such as connectivity, compute, AI research, start-up activity, participation or regulation; and (3) the type of phenomenon measured, for example policies, implementation, outputs or perceptions.

This reconstruction serves two purposes. First, it makes visible how measurement effort is distributed across



Aggregated into a single AI readiness score (ILIA 2025).

**Fig. 1** Schematic architecture of the Latin American Artificial Intelligence Index (ILIA 2025), showing the three main dimensions and their sub-dimensions, where measurement “mass” is concentrated

infrastructure, innovation and governance. Second, it allows a distinction between what ILIA recognizes narratively or programmatically in the report and what it operationalizes directly through comparative indicators. That distinction is important for the argument of this article: some epistemic concerns appear in the report’s strategic discussion or examples, but are not always translated into robust, high-visibility elements of the scoring architecture.

## 6 Recoding ILIA through five axes of epistemic inclusion

The core methodological move is to recode ILIA’s sub-indicators using categories derived from the epistemic-justice perspective developed in Sect. “[Analyzing ILIA through an epistemic-inclusion lens](#)”. Instead of asking only what a sub-indicator measures, the analysis asks which epistemic dimensions it addresses and how directly it does so.

Five coding categories guide this recoding:

- (1) linguistic and epistemic diversity;
- (2) participatory and relational governance;
- (3) epistemic accessibility and contestability;
- (4) community data governance and epistemic sovereignty; and

- (5) foundations and quality of trust.

Each sub-indicator is coded on each of these five axes using a three-level scale:

- 0 = absent, where the category is not meaningfully addressed;
- 1 = latent or indirect, where the category is relevant but not explicitly named or operationalized;
- 2 = explicit, where the category is directly incorporated into the definition or scoring logic of the sub-indicator.

Coding was conducted through iterative close reading and memo-writing. Given the interpretive and normative character of the framework, the emphasis is on transparency and consistency of coding criteria rather than on inter-coder reliability statistics. For example, a sub-indicator measuring fixed broadband subscriptions per 100 inhabitants is coded 0 across all five axes, whereas a sub-indicator on societal involvement in national AI strategies is coded 2 for participatory and relational governance and 1 for foundations and quality of trust because it explicitly refers to participation, but not to power-sharing or contestation.

## 7 Analytical strategy and limits

The recoded matrix is analyzed in two steps. First, the distribution of 0 s, 1 s and 2 s across sub-dimensions is examined to identify patterns of concentration, omission and weak operationalization. Figure 2 visualizes these patterns by showing the share of sub-indicators within each sub-dimension that explicitly address each epistemic axis. Second, these patterns are interpreted considering the wider debates discussed in Sect. “Analyzing ILIA through an epistemic-inclusion lens”, including AI readiness metrics, epistemic injustice, coloniality and the political economy of AI governance (OECD 2019; UNESCO 2022; Flórez Rojas 2025; Alonzo González 2025).

The same matrix also provides the empirical basis for the constructive proposals developed later in the article. The aim is not to produce an alternative composite ranking, but to identify where ILIA already contains entry points for epistemic inclusion, where concerns remain indirect or weakly operationalized, and where additional sub-indicators would be needed to make those concerns more systematically comparable.

This approach has clear limitations. It relies exclusively on published ILIA documentation and therefore cannot assess internal deliberations, institutional uptake or the practical effects of the index in policymaking. The coding framework is explicitly normative and reflects a particular conception of epistemic inclusion. The analysis is also limited to the 2025 edition of ILIA. These constraints delimit the claims that can be made, but they do not undermine the central objective: to examine how a major regional readiness index represents, translates and sometimes leaves under-operationalized key dimensions of epistemic inclusion.

## 8 ILIA’s readiness profile: what counts as capacity?

ILIA organizes Latin American “AI readiness” into three main dimensions: Enabling Factors, Research/Development/Adoption and Governance (Durán et al. 2025). Figure 1 shows that the densest parts of the index correspond to connectivity, cloud and data-center infrastructure; human capital in STEM and AI-related areas; AI research output and innovation; adoption in firms and the public sector; and the existence of national AI strategies, coordinating bodies and selected regulations.

Taken together, these elements depict readiness primarily as a combination of technical capacity, knowledge production, innovation ecosystems and formal governance arrangements. In ILIA’s terms, a “ready” country is one that has the material infrastructures and institutional configurations needed to host AI investment, generate AI research, deploy AI across sectors and adopt high-level strategies and regulations. This profile places ILIA within the broader family of readiness indices that use infrastructure, skills, research and formal governance as proxies for preparedness (Baguma et al. 2023; Miškuřová et al. 2025).

At the same time, ILIA is not simply a replication of global benchmarks. As a regional instrument, it places stronger emphasis on Latin American trajectories of development, on endogenous capacity-building and on public-sector relevance than many global rankings do (Durán et al. 2025). It therefore represents a meaningful regional effort to define AI preparedness on terms that are at least partly rooted in local priorities and constraints. This point is important for the analysis that follows: the argument of this article is not that ILIA lacks any sensitivity to regional specificity,

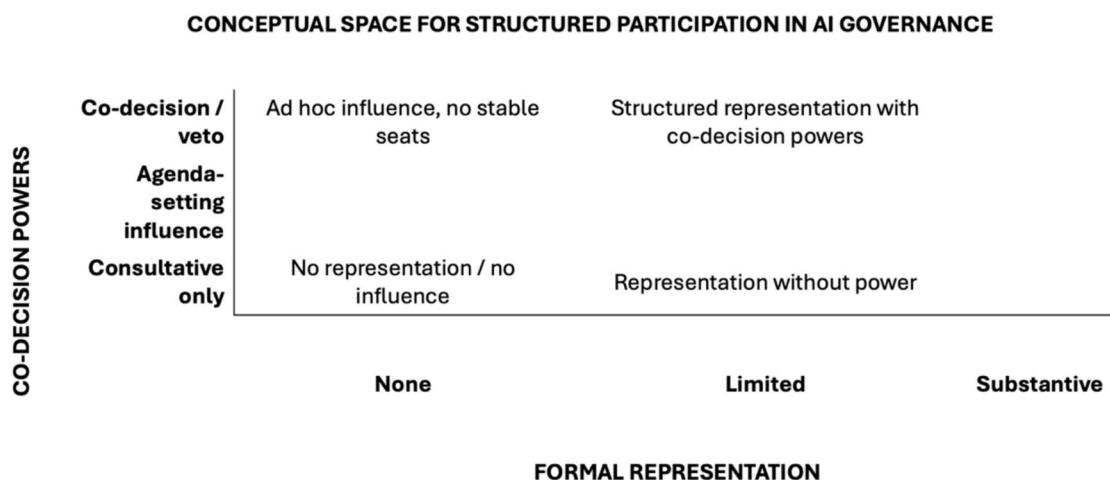


**Fig. 2** Conceptual space for structured participation of under-represented communities in national AI governance: degree of formal representation versus co-decision powers

but that its most visible and comparatively weighted dimensions still privilege a predominantly material-institutional conception of readiness.

This matters because the very architecture of the index helps define what counts publicly as “capacity”. What remains less visible at this descriptive level are the epistemic conditions under which different communities encounter AI: whose languages and knowledges are encoded in AI infrastructures, who participates in governing and contesting AI, how data is governed collectively and how trust in AI systems is cultivated. The coding matrix and heatmap in Fig. 2 are designed to clarify how these dimensions appear in ILIA, whether directly, indirectly or only weakly, relative to its stronger emphasis on infrastructure, innovation and formal governance.

## 9 The coding matrix: from narrative recognition to uneven operationalization

Every ILIA sub-indicator was recoded along the five epistemic-inclusion axes using the 0–1–2 scale described in Sect. “Recoding ILIA through five axes of epistemic inclusion”. Figure 2 displays the resulting heatmap. Rows represent ILIA sub-dimensions; columns represent the five epistemic categories; color intensity tracks the share of sub-indicators in each sub-dimension coded as having explicit attention (value 2) to the relevant axis.

The overall pattern remains strongly asymmetric. Across the Enabling Factors and Research/Development/Adoption dimensions, most sub-indicators are coded 0—absent on the five epistemic axes. Measures of connectivity, cloud capacity, data centers, AI research output, private investment and AI adoption primarily capture exposure, infrastructure and institutional capacity, rather than linguistic diversity, participatory power, contestability, community data rights or the foundations of trustworthy AI interaction.

However, a more careful reading of ILIA suggests that the relevant contrast is not always between total absence and explicit inclusion. In several cases, epistemic concerns are recognized narratively or programmatically in the report’s broader discussion, strategic framing or illustrative examples, but they are not consistently translated into the comparative logic of the index through clearly weighted and directly operationalized sub-indicators. This distinction is central to the revised argument of the article. The critique is therefore not that ILIA is wholly silent on these concerns, but that their presence is often indirect, uneven or weakly embedded in the scoring architecture.

This is particularly visible in the Governance dimension. A small number of sub-indicators, especially those related to societal involvement in AI strategies and to data protection, privacy and responsible AI, do engage concerns that are

relevant to epistemic inclusion (Durán et al. 2025). Yet even there, the treatment is uneven. Participation often appears in generic form; contestability is more visible in legal or normative discussion than in directly comparable metrics; and trust is approached mainly through regulatory or ethical proxies rather than through the quality of public interaction with AI systems.

From the standpoint of AI political economies, this pattern matters because it stabilizes a particular vision of progress. ILIA gives greatest comparative visibility to capacities that are legible to governments, international organizations and investment-oriented policy agendas: infrastructures, skills, research, adoption and formal institutional arrangements. Epistemic inclusion enters the picture more selectively, sometimes as a stated concern, sometimes as a recommendation, and only occasionally as a strongly operationalized comparative dimension.

## 10 Axis 1: linguistic and epistemic diversity—partial recognition, limited translation

The first axis concerns whether ILIA captures the presence of indigenous and minoritized languages and non-hegemonic epistemologies in AI infrastructures and services. In the comparative architecture of the index, this dimension remains only weakly operationalized. Across the Enabling Factors dimension, human-capital measures include English-language proficiency and AI-related training, but the index does not systematically translate linguistic diversity into comparable indicators of whether AI-enabled public services operate in indigenous or local languages, or whether language inclusion is embedded across the broader ecosystem of data, models and interfaces (Durán et al. 2025).

At the same time, the report is not wholly silent on locally grounded language and data issues. Its broader discussion of endogenous AI development and locally appropriate datasets points toward a regional awareness of the limitations of global AI systems in Latin American contexts, including the importance of technologies trained on regional linguistic and cultural materials (Durán et al. 2025). This matters because it shows that the problem is not a simple absence, but rather the limited translation of those concerns into the comparative core of the index.

A similar pattern appears in the “Data” and Research/Development/Adoption dimensions. Indicators imported from the Global Data Barometer capture data availability, capacity and governance, but they do not disaggregate by language or by the epistemic origins of datasets. Bibliometric indicators track research output, citation impact and, in one case, the share of women among AI authors, but they do not more directly register the presence of indigenous,

Afro-descendant or other historically marginalized knowledge communities, nor the role of non-dominant languages in the research and innovation ecosystem.

For these reasons, most ILIA sub-indicators remain coded 0 on the axis of linguistic and epistemic diversity, with only a limited number coded as 1—latent. The point is not that ILIA ignores the issue altogether, but that its index architecture still gives this dimension relatively little visibility compared with infrastructure, skills and innovation. From an epistemic-justice perspective, this matters because a country can appear highly “ready” while AI-enabled public services remain effectively monolingual and while the underlying data ecosystem continues to privilege only a narrow range of epistemic traditions. In that sense, ILIA captures important regional aspirations toward linguistic and epistemic inclusion, but it does not yet convert them into a robust comparative dimension of readiness.

## 11 Axis 2: participatory and relational governance—from inclusion to influence

The second axis asks whether affected communities have structured and enduring roles in defining AI strategies, datasets and deployments, beyond generic references to “stakeholders”. Here ILIA shows one of its clearest departures from more narrowly technocratic readiness frameworks. Within the Governance dimension, the indicator on “involvement of society” explicitly values public participation and multistakeholder processes in national AI strategy design (Durán et al. 2025). This is a significant regional innovation, particularly because it treats participation not merely as a rhetorical concern but as something that can enter the assessment of AI preparedness.

For this reason, the corresponding sub-indicators are coded as 2—explicit for participatory and relational governance. The index clearly recognizes participation as relevant to AI readiness. Yet a closer reading also shows why this axis remains only partially developed from an epistemic-justice perspective. Participation is still framed in broad terms, “society”, “stakeholders”, “multistakeholder processes”, without consistently distinguishing between actors with very different degrees of power, resources and institutional access. Nor does the scoring logic make visible whether participation is episodic consultation or whether affected communities hold durable roles in agenda-setting, monitoring and co-decision.

This distinction is analytically important. An index can register public participation and remain unable to differentiate between governance arrangements that merely consult marginalized actors and those that redistribute epistemic authority. In this sense, ILIA marks an important shift by acknowledging participation as part of AI readiness, but it

does not yet provide a sufficiently fine-grained metric for separating symbolic inclusion from meaningful influence.

The political significance of this limitation becomes clearer when participation is linked to investment and deployment decisions. If AI strategies are used to justify infrastructure expansion, public-sector rollouts or innovation funding, then what matters is not only whether some form of consultation occurred, but whether under-represented communities can shape which projects are prioritized, on what terms and with what safeguards. ILIA’s current architecture opens this question but does not fully resolve it. The issue, therefore, is not that participation is absent, but that the move from inclusion to influence remains only weakly operationalized within the index.

## 12 Axis 3: Epistemic accessibility and contestability—rights recognized, contestability only partially operationalized

The third axis examines whether ILIA captures people’s ability to obtain intelligible reasons for AI-assisted decisions and to challenge those decisions through effective institutional channels. Here again, the report shows greater normative sensitivity than a purely index-based reading might initially suggest. Within its regulatory and governance discussion, ILIA engages data protection, privacy and responsible AI, and it situates these concerns within a broader human-rights framing of AI governance (Durán et al. 2025). This is an important feature of the report, because it indicates that safeguards and rights are not external to ILIA’s vision of preparedness.

At the same time, the issue for this article is whether those concerns are translated into a sufficiently direct and comparable set of sub-indicators. In the current architecture, several governance sub-indicators are indirectly relevant to epistemic accessibility and contestability. Measures relating to data-protection laws, cyber-security frameworks, privacy protections and AI safety are coded as 1—latent insofar as they can support explanation, review and procedural protection in AI-assisted contexts. Yet they do so indirectly, through broad governance proxies rather than through indicators that specifically assess the accessibility of reasons, the availability of appeal channels or the effective reviewability of AI-mediated public decisions.

This distinction matters because rights recognized in legal or regulatory discussion do not automatically become visible in an index’s scoring logic. ILIA’s treatment of data protection and related rights, including protections associated with access, rectification, objection and oversight, signals an important normative commitment, but the current comparative architecture does not yet convert these commitments

into a robust metric of whether affected persons can obtain meaningful explanations, understand them, and contest AI-assisted outcomes in practice. In that sense, contestability is present in the report more clearly as a normative and regulatory concern than as a strongly operationalized comparative dimension of readiness.

The result is not a complete absence of epistemic accessibility and contestability, but an uneven translation from legal principle to index architecture. Indicators on AI in the public sector still primarily count projects, sectoral distribution and deployment, rather than the accessibility of reasons or the strength of contestation pathways available to welfare recipients, patients, debtors or other affected groups. From an epistemic-justice perspective, this remains a significant limitation: a country may score well for AI deployment and governance capacity while offering only weak comparative evidence that its citizens can meaningfully challenge AI-assisted decisions. The point, therefore, is not that ILIA ignores contestability, but that it does not yet operationalize it with the same clarity and visibility that it grants to infrastructure, adoption and formal regulation.

### **13 Axis 4: community data governance and epistemic sovereignty—endogenous development without robust collective metrics**

The fourth axis concerns collective data rights, community data governance and epistemic sovereignty. In this area, ILIA again shows a more complex profile than a simple binary of presence or absence would suggest. The report places significant emphasis on endogenous AI development, locally grounded capacities and the importance of building regional technological infrastructures rather than relying exclusively on external models and platforms (Durán et al. 2025). This emphasis is relevant to the concerns raised in this article, since endogenous development can be an important precondition for greater epistemic and technological autonomy.

However, endogenous development is not the same as community-led governance, and technological autonomy at the regional or national level does not necessarily translate into collective data rights at the community level. In ILIA's current architecture, "Data" sub-indicators drawn from the Global Data Barometer assess availability, capacity and governance, while governance indicators also register national data-protection institutions and related regulatory structures (Durán et al. 2025). These elements are coded as 1–latent for community data governance and epistemic sovereignty because they show that data governance is clearly on the agenda, but they do not directly measure whether

communities themselves shape how datasets are collected, governed, reused or shared.

This is where the epistemic-justice critique remains relevant. The report's orientation toward endogenous and regionally grounded AI development is an important departure from more externally driven conceptions of readiness. Yet the comparative architecture of the index still offers little direct visibility to forms of governance such as indigenous data sovereignty, community data stewardship, co-governed datasets or benefit-sharing mechanisms for communities whose data feed public AI systems. The issue is therefore not that ILIA fails to value local capacity, but that local or regional autonomy is not yet systematically differentiated from community-level epistemic sovereignty.

From a political-economic perspective, this distinction is significant. A country may strengthen endogenous AI capabilities and still organize data relations in ways that remain extractive or centralized, with little role for affected communities in governing the terms of data use. ILIA's current structure is better equipped to register national and institutional data-governance arrangements than to distinguish between these different models. As a result, community-level sovereignty remains only weakly visible as a comparative dimension of readiness. This is not because the report ignores autonomy or local development, but because the collective governance of data is not yet translated into a robust set of comparative indicators.

### **14 Axis 5: foundations and quality of trust—trustworthiness acknowledged, trust only indirectly measured**

The fifth axis concerns how ILIA conceptualizes and indirectly measures trust in AI systems. Here too, the report shows greater normative sensitivity than a narrow reading of the indicator architecture alone might suggest. ILIA discusses the need to build trust in AI and links this concern to data protection, privacy, safety, ethics and responsible governance (Durán et al. 2025). In this sense, the report clearly treats trustworthiness as relevant to AI preparedness.

The issue, however, is how this concern is translated into the comparative structure of the index. In the current architecture, sub-indicators relating to data protection, privacy, AI safety and ethical regulation are coded as 1–latent on the trust axis because they approximate some of the conditions under which trustworthy AI systems might emerge. Yet they do so indirectly. They do not assess how trust is cultivated in concrete AI-mediated interactions, whether public-facing systems clearly disclose their non-human status and limitations, or whether agencies distinguish between trust grounded in explanation and accountability and trust elicited through persuasive or anthropomorphic design.

This distinction matters because trust in AI is not only a regulatory issue; it is also a socio-technical achievement shaped by interface design, institutional communication and users' capacities to evaluate what systems can and cannot do. Research on human–AI interaction shows that trust can be increased by explainability, but also by anthropomorphic cues and parasocial dynamics that do not necessarily enhance genuine understanding or accountability (Sauka et al. 2026; Folk et al. 2025; Maeda and Quan-Haase 2024; Placani 2024). From that perspective, ILIA's current architecture is better at registering broad governance conditions associated with trustworthiness than at distinguishing between well-founded trust and forms of trust that are primarily engineered or affectively induced.

For this reason, the trust axis appears only weakly in the comparative core of the index. The problem is not that ILIA ignores the normative importance of trust, but that it does not yet operationalize the quality and foundations of trust as a distinct and visible dimension of AI readiness. A country may therefore score well on governance-related proxies while the public AI systems it deploys still rely on opaque interfaces, weak disclosure or forms of interaction that encourage compliance more than informed trust.

## 15 Epistemic readiness gaps and their implications for AI political economies

Taken together, the recoding reveals a consistent but more differentiated pattern than a simple language of absence would suggest. ILIA devotes most of its comparative “measurement mass” to digital infrastructure, human capital, AI research and innovation, adoption in firms and the public sector, and the existence of strategies, institutions and selected regulations (Durán et al. 2025). Along these dimensions, the index offers a substantial picture of technical and organizational capacity in Latin America.

By contrast, the five epistemic-inclusion axes appear more unevenly. Some of them are present in the report's broader narrative, strategic framing or regulatory discussion; some appear indirectly through governance-related proxies; and only a limited number are translated into clearly visible, strongly operationalized comparative dimensions. Linguistic and epistemic diversity, epistemic accessibility and contestability, community data governance and the foundations and quality of trust remain relatively weakly embedded in the architecture of the index, while participatory and relational governance appears more clearly but still in a form that does not fully distinguish consultation from durable influence.

This asymmetry supports the notion of an epistemic readiness gap. A country can score well on ILIA by expanding connectivity, investing in data centers, producing AI research, adopting AI in the public sector and passing a

national strategy, while still offering AI-mediated public services primarily in dominant languages, treating affected communities as consultees rather than co-decision-makers, relying on only indirect protections for contestability, and leaving collective data governance or trustworthy interaction only partially specified. The claim is therefore not that ILIA is blind to these issues in absolute terms, but that its most visible comparative logic still privileges material and institutional readiness over the distribution of epistemic power.

From the perspective of AI political economies, this gap is not only conceptual but also performative. ILIA is already used to narrate where Latin American countries stand in a regional and global AI race and to support arguments about the need to accelerate AI-related investment and reforms (Durán et al. 2025; Jung and Katz 2025). Because the index gives the greatest comparative visibility to infrastructure, research, adoption and formal governance arrangements, it tends to reinforce policy trajectories centered on capital-intensive expansion and accelerated deployment. Concerns such as multilingual provision, community data governance, contestability and the foundations of trustworthy public AI remain more weakly legible as markers of preparedness.

The findings do not imply that material and institutional capacities are irrelevant, nor that ILIA should be dismissed as a regional benchmark. On the contrary, ILIA represents a significant Latin American effort to move beyond external rankings and articulate a regional account of AI development. The point is that its current architecture still leaves key epistemic dimensions unevenly translated into comparative metrics. In environments shaped by coloniality, digital extractivism and uneven development (Flórez Rojas 2025; Alonzo González 2025; Salamanca-Garay et al. 2025; Contreras-Yupanqui 2025), that unevenness matters because it affects which forms of AI progress become publicly visible, investable and normatively defensible.

By making these patterns visible, the recoding clarifies both the strengths and the limits of readiness indices. No set of additional sub-indicators will resolve the broader tensions of AI political economies, including the question of whether countries should participate in global AI races or how scarce resources should be allocated between AI infrastructures and other public needs. However, integrating epistemic-inclusion axes into ILIA's architecture, along the lines proposed in Sect. “[Toward alternative metrics: integrating epistemic inclusion into ILIA—and beyond](#)”, would change what counts publicly as progress. Countries that expand infrastructure and adoption while leaving linguistic diversity, community data governance, contestability and the quality of trust only weakly supported would see those omissions reflected more clearly in their readiness profile. In this sense, the findings point toward a conception of AI readiness that links material capacity with epistemic inclusion, rather than treating the latter as external to preparedness.

## 16 Toward alternative metrics: integrating epistemic inclusion into ILIA—and beyond

The previous analysis showed that ILIA 2025 does not exclude epistemic concerns altogether but incorporates them unevenly and often indirectly. The index is strongest where it measures infrastructure, human capital, research, innovation and formal governance. It is weaker where readiness would require systematic comparative attention to linguistic inclusion, durable participation, collective data governance, contestability and the conditions under which trust in AI is produced. Because ILIA is already shaping how AI preparedness is understood in Latin America, these omissions matter. If epistemic inclusion remains weakly operationalized in such a benchmark, it is more likely to remain secondary in the policy agendas the index helps organize.

The purpose of this section is not to replace ILIA, but to show how it could be strengthened from within. The five families of sub-indicators proposed below are designed to fit its current three-pillar structure while making epistemic inclusion more visible and comparable. Figure 2 summarizes their placement and purpose.

Any revision of ILIA must work within three constraints already built into the report: the stability of the three-pillar structure, the use of mixed data sources and the need for comparability across 19 countries (ILIA 2025). For this reason, the article does not propose a separate “epistemic justice pillar”. Doing so would risk isolating epistemic inclusion as an optional add-on rather than treating it as part of what readiness itself should mean. Four principles guide the proposed additions: alignment with existing sub-dimensions rather than proliferation; mixed methods with modest claims; context-sensitive comparability; and performative reflexivity. Because ILIA helps define what counts as AI progress in the region, changing what it measures also changes what becomes visible and actionable in policy terms.

A first family of additions concerns structured participation of under-represented communities in AI governance. ILIA already recognizes public participation as relevant, but it does not yet distinguish clearly between consultation and influence. The proposed refinement would therefore ask not only whether participation occurred, but also who participated and with what degree of institutional power. It would differentiate between governance arrangements in which under-represented groups are merely consulted and those in which they hold reserved seats, recurring representation or some form of co-decision power in AI councils, ethics bodies or advisory boards. Figure 2 captures this distinction conceptually by separating formal

representation from co-decision power. This matters because participation is not only symbolic: where AI strategies are linked to funding, infrastructure expansion and public-sector deployment, representation and decision power shape which projects are prioritized and under what safeguards.

A second family addresses AI services and projects in indigenous and minoritized languages. Section “[The coding matrix: from narrative recognition to uneven operationalization](#)” showed that language-related concerns remain weakly embedded in ILIA’s comparative architecture, even though regional AI development increasingly depends on locally appropriate models, corpora and interfaces. Two additions would make this more visible: one would examine whether AI-enabled systems in areas such as welfare, health, education or digital justice are available beyond dominant languages; the other would assess whether states support language resources, speech tools or models for under-represented linguistic communities. Together, these indicators would shift the meaning of readiness from merely having AI services to asking who can use them on intelligible terms.

A third family concerns community data governance and epistemic sovereignty. ILIA already includes data governance as part of readiness, but mainly through national and institutional indicators. The proposed refinement would ask whether law or policy recognizes collective data rights, such as indigenous data sovereignty or community stewardship, and whether public AI or data projects include mechanisms through which affected communities can shape how data are collected, reused and shared. The purpose is to distinguish between endogenous or nationally grounded AI development and more demanding forms of community-level epistemic sovereignty. This distinction matters because regional or national autonomy does not automatically imply community control over data relations.

A fourth family concerns epistemic accessibility and contestability of AI-assisted public decisions. The report engages rights, data protection and responsible AI, but contestability remains only partially operationalized as a comparative dimension. The proposed additions would therefore focus on whether people have a right to receive reasons in AI-assisted decisions, whether those reasons are accessible to non-experts, and whether independent bodies can review such decisions and provide remedies. The purpose is not to require full explainability in every technical sense, but to ask whether public AI deployments are accompanied by arrangements that make them meaningfully challengeable in practice. Without such measures, readiness risks collapsing into administrative automation.

A fifth family concerns the quality and foundations of trust in AI-mediated interactions. ILIA currently approaches trustworthiness mainly through broad regulatory and ethical proxies. The proposed refinement would ask how trust is

produced in public AI systems: whether guidelines address disclosure and anthropomorphic design in chatbots and AI assistants, and whether institutions distinguish between informed confidence and more affective or parasocial forms of attachment. These indicators would help separate trustworthy design from mere user capture. This is important because AI systems may be accepted for the wrong reasons; where trust is cultivated through opaque interfaces, weak disclosure or anthropomorphic cues, compliance may reflect epistemic vulnerability rather than preparedness.

These five families can be integrated into ILIA without dismantling its existing architecture. The first step is to attach them to existing sub-dimensions rather than treating them as external supplements. Structured participation fits within *Visión e institucionalidad*; language inclusion within *Ecosistema digital* and *IA en el sector público*; community data governance within *Datos* and *Regulación y ética*; contestability within *IA en el sector público* and *Regulación y ética*; and trust-related measures within *Regulación y ética* and *Ecosistema digital*. The second step is to calculate a cross-cutting Epistemic Inclusion Score alongside the existing readiness structure. Such a score would not replace ILIA's current dimensions but would make visible the extent to which high material readiness is, or is not, accompanied by stronger epistemic inclusion. The third step is gradual piloting. Because concepts such as co-decision, contestability or parasocial trust are interpretive and context-sensitive, early implementation would require documentary analysis and structured input from regulators, statisticians, community organizations and affected groups.

The broader point is practical rather than maximalist. These additions do not resolve the deeper tensions of AI political economies, nor do they decide whether all countries should pursue the same AI trajectories. What they do is change what becomes legible as preparedness. If ILIA were to incorporate epistemic inclusion more directly, countries would no longer be able to appear fully “ready” based on infrastructure, research and adoption alone while leaving participation, language, contestability, data sovereignty and the quality of trust only weakly specified.

## 17 Conclusion: AI readiness, epistemic inclusion and the politics of measurement

ILIA 2025 is a significant regional achievement. It brings together evidence on infrastructure, human capital, research, innovation and governance into a coherent benchmark of AI preparedness for 19 Latin American and Caribbean countries (Durán et al. 2025). In doing so, it offers a regional counterpoint to global rankings and makes Latin American AI capacity more legible to

policymakers and international organizations. At the same time, this article has shown that ILIA still defines readiness mainly through material and institutional capacity: infrastructures, skills, research, adoption and formal governance arrangements.

Viewed through an epistemic-justice lens, this conception remains incomplete. The recoding of ILIA's architecture shows that linguistic and epistemic diversity, community data governance, contestability and the foundations of trust appear unevenly across the index. Some are present in the report's broader narrative or strategic orientation; others are captured only indirectly through governance-related proxies. What remains most visible in comparative terms, however, are infrastructure, innovation, adoption and formal regulation. The argument of this article is therefore not that ILIA ignores epistemic concerns altogether, but that these concerns are still only partially translated into the comparative core of the index.

This asymmetry is what the article conceptualizes as an epistemic readiness gap. A country may appear well prepared because it has expanded connectivity, AI-related skills, research capacity and public-sector deployment, while still offering weak guarantees of multilingual accessibility, meaningful participation, collective data governance or effective contestability. Readiness, in this sense, cannot be reduced to hosting AI systems; it must also include the conditions under which different communities can understand, challenge and shape them.

The article also situates this problem within the political economies of AI metrics. Readiness indices do not merely describe development; they shape what becomes visible, investable and normatively desirable. In Latin America, where AI policy is marked by uneven development, digital extractivism and external influence, this selective visibility matters. If infrastructure and adoption are measured much more clearly than epistemic inclusion, the latter is more easily displaced within policy priorities.

The five complementary sub-indicator families proposed here are intended as a pragmatic intervention, not a complete solution. They do not resolve the broader tensions of AI political economies, but they show how ILIA could incorporate epistemic inclusion more systematically without abandoning its existing structure. The analysis is limited to published ILIA documentation, to the 2025 edition, and to a selective normative framework that does not exhaust all forms of epistemic inequality. Even so, the broader implication remains clear: measuring AI readiness without sufficiently operationalizing epistemic inclusion is conceptually incomplete and politically consequential. The question is not whether epistemic justice should be added as an optional supplement, but whether a readiness metric that does not adequately register it can fully capture what it means to be prepared for AI in unequal and post-colonial societies.

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**Author contributions** I.C.C. conceived and designed the study; conducted the document analysis and recoding of ILIA 2025; interpreted the findings in light of the epistemic justice framework; drafted and critically revised the manuscript; approved the final version; and agrees to be accountable for all aspects of the work.

**Data availability** No datasets were generated or analysed during the current study.

## Declarations

**Competing interests** The authors declare that there are no competing interests.

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