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Research article

Artificial Intelligence and Desirable Futures: Visions of Scientific Researchers in Mexico*

Inteligencia artificial y futuros deseables: visiones de investigadores científicos en México

Gabriela Elisa Sued[1]

Abstract

In Mexico, the lack of public policies, regulations, and a national strategy has left Artificial Intelligence (AI) in a phase of interpretative flexibility, where collectively shaped visions of its future play a key role in its stabilization. Against this backdrop, this study examines the future visions of AI held by researchers affiliated with two major Mexican research centers. To do so, a qualitative approach was employed, drawing on 25 semi-structured interviews and grounded in the discursive nature of the motivations guiding scientific practice. The findings reveal that these visions vary not only according to whether research is oriented toward basic or applied knowledge, but also depending on the institutional setting in which it takes place. Moreover, the study demonstrates that, in Mexico, future visions of AI are configured as niche strategies aimed at social utility, in contrast to global corporate imaginaries focused on disruption and productivity. It also shows that the vision of AI as a tool for technoscientific development is limited by the absence of a coordinated strategy and public policies. In conclusion, the paper outlines science policy actions that could strengthen collaboration among actors and support the development of low-cost computational solutions.

Keywords: STS studies, technoscientific development, sociotechnical imaginaries, artificial intelligence, social utility of knowledge.

How to reference

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Resumen

Debido a la falta de políticas públicas, regulaciones y estrategia nacional, en México la inteligencia artificial se encuentra en una fase de flexibilidad interpretativa en la que cobran importancia las visiones de futuro colectivamente modeladas para su estabilización. Este estudio identifica las visiones de futuro de investigadores en inteligencia artificial afiliados a dos centros mexicanos principales. Se adoptó un enfoque cualitativo, basado en 25 entrevistas semiestructuradas y sustentado en el carácter discursivo de las motivaciones que orientan la práctica científica. Los hallazgos destacan que las visiones de futuro varían según el abordaje básico o aplicado del conocimiento, y de acuerdo con la institución de pertenencia. El artículo contribuye a mostrar que, en México, las visiones de futuro sobre la inteligencia artificial se configuran como estrategias de nicho orientadas a la utilidad social, en contraste con los imaginarios corporativos globales centrados en la disrupción y la productividad. Asimismo, se evidencia que la visión de la inteligencia artificial como herramienta de desarrollo tecnocientífico enfrenta limitaciones por falta de una estrategia coordinada y de políticas públicas. Las conclusiones detallan acciones de políticas científicas que apunten a fortalecer las relaciones entre actores, así como el apoyo al desarrollo de soluciones de bajo costo computacional.

Palabras clave: estudios CTS, desarrollo tecnocientífico, imaginarios sociotécnicos, inteligencia artificial, utilidad social del conocimiento.

INTRODUCTION

Although Artificial Intelligence (AI) originated more than six decades ago, it has only become widely diffused in the past decade. First emerging in the academic sphere in the 1950s, AI was initially dominated by a symbolic approach that sought to replicate human cognition through logical and mathematical rules. However, this approach was later questioned for being too fragmented. In the 1980s, the connectionist paradigm replaced it. This new approach emphasized learning and self-organization through neural networks inspired by the human brain (Weber & Prietl, 2021). Over the last ten years, AI has been defined by its ability to learn from large amounts of data and perform complex tasks autonomously (Kaplan & Haenlein, 2019).

Due to its ability to address challenges in various fields, including finance, healthcare, insurance, and climate change, learning-based AI has reshaped computer science by creating a new sociotechnical system that is still in the process of stabilizing. Within this evolving context, institutional and individual visions of AI's future play a key role in guiding technoscientific development, social applications, and public policy. From the perspective of Science, Technology, and Social (STS) studies, such visions are not neutral forecasts, but rather social construction of meaning that orient collective action. The formation of sociotechnical imaginaries—shared visions of desirable futures—contributes to the stabilization of emerging technologies and legitimizes scientific interventions in social issues (Jasanoff & Kim, 2009). However, these imaginaries vary according to the actors and contexts involved in technological development.

In countries like Mexico, where AI has not yet been fully stabilized, visions of its future differ greatly from the dominant global corporate narratives. Large technology firms have played a pivotal role in shaping global visions of AI (Richter et al., 2023). As machine learning became associated with large-scale data collection, which is often linked to privacy concerns and discriminatory outcomes, companies decided to reframe AI in 2015 as the application of statistical models, automated classification, and prediction based on pattern recognition. This shift emphasized autonomous task solving rather than massive data use. These learning models were quickly adopted across commercial sectors, including finance, insurance, and advertising (Elish & Boyd, 2018). By 2016, these models had expanded into areas such as urban planning, healthcare, environmental management, and sustainability. They were promoted under the banner of "AI for social good" (Hager et al., 2017).

By 2022, learning-based systems had evolved into foundational models— AI systems trained on vast amounts of unstructured data, usually via self-supervised learning. After minimal fine-tuning, these models can serve as adaptable bases for a wide range of downstream tasks applicable to diverse areas, thereby transforming AI research and development (Bommasani et al., 2022). Conversational chatbots, such as ChatGPT, derive from these foundational models and are optimized for natural language interaction. However, only a select few companies, collectively known as Big Tech, possess the technical expertise, computational infrastructure, and massive datasets necessary to develop such models, which results in high economic concentration and limited global competition (Nayak & Walton, 2024). These innovations have fueled social visions centered on enhanced productivity, routine work reduced or eliminated, and an inevitable technological transformation that increasingly shapes governmental sociotechnical imaginaries (Bareis & Katzenbach, 2022; Wang & Downey, 2025).

Unlike in the Global North, where AI development is concentrated in large technology corporations, public research centers in Latin America play a leading role in knowledge production and training specialized personnel (Red Iberoamericana de Indicadores de Ciencia y Tecnología [Ibero-American Network of Science and Technology Indicators], 2023). In the region, AI is still in its formative stages and has yet to be fully stabilized as a technology. In Mexico, regulatory standards have yet to be established, and efforts to promote public policies for innovation and technological development are in their infancy. Although systematic AI research has been identified (Chávez & Vizuete-Sandoval, 2025; Sued, 2024), little is known about its specific characteristics or the perspectives that guide it.

This study connects the importance of public AI research centers with the necessity of identifying their interpretive dimensions within the local context. The objective is to characterize the diverse and cross-cutting views of AI held in Mexico. The article posits that these views, while sharing certain common features, differ according to the type of research—basic or applied—being conducted and the institutional trajectories of the researchers' affiliated organizations, which vary in history and purpose. To empirically examine this hypothesis, the study analyzes twenty-five interviews with researchers from two public institutions dedicated to computing research.

The paper is structured as follows. First, it reviews analytical tools from STS studies that address the discursive and narrative dimensions of scientific practice (Hilgartner, 2015; Jasanoff, 2015; Jasanoff & Kim, 2009; Kreimer, 2023). These tools are understood as meaning-making processes that shape and motivate research. Next, the methodology is presented, emphasizing a qualitative, interpretive approach grounded in researchers' perspectives. The findings section outlines the range of views on AI; it begins with a set of common perspectives among interviewees, followed by divergent visions linked to cognitive and institutional factors that influence scientific practice. The discussion draws on Hilgartner's (2015) concept of cutting-edge visions and identifies two main imaginaries: one centered on high-quality autonomous science (in a minority of cases), and another emphasizing the social utility of knowledge production (in most cases). The paper concludes that heterogeneous visions of AI coexist in Mexico yet converge toward niche imaginaries fostered by limited competitiveness with large-scale AIs.

ANALYTICAL TOOLS

Several analytical tools have been developed in STS studies to examine visions of the future. One of the most prominent is the concept of sociotechnical imaginaries (Jasanoff & Kim, 2009), which illuminates how societies envision technological futures intertwined with governance dynamics. These sociotechnical imaginaries are collective, institutionally stabilized, and publicly articulated representations of desirable futures that can be achieved through scientific and technological advancement and vary across sociocultural contexts. For example, the United States has historically viewed nuclear energy as risky technology that requires strict state control, whereas South Korea has seen it as a driver of national modernization and economic growth (Jasanoff, 2015; Jasanoff & Kim, 2009).

The value of sociotechnical imaginaries lies in their focus on their social understanding and adaptation rather than the technical specificity of technologies. Unlike narratives derived from historical trajectories, these imaginaries are forward-looking, projecting visions of what is good, valuable, and desirable for a community. They are also tied to the exercise of power through the prioritization of development goals, allocation of funding, investment in infrastructure, and acceptance or suppression of political dissent (Jasanoff & Kim, 2009).

Vanguard visions can help us better understand the emergent and contested nature of visions that have yet to achieve institutional consolidation as a sociotechnical imaginary (Hilgartner, 2015). This concept bridges micro- and macrosocial levels by highlighting small collectives whose non-hegemonic projections of the future negotiate, compete with, and align to established dominant imaginaries. For instance, synthetic biology researchers in the United States articulate their visions of future to a broader national sociotechnical imaginary of innovation that encompasses entrepreneurship and iconic technological developments. Unlike stable and long-lasting imaginaries, avant-garde visions are heterogeneous and transient. They often reflect the early phases of a technological development process, when its meanings are still open to negotiation. Once adopted by a broader community, these visions can evolve into the category of imaginaries (Jasanoff, 2015).

As the findings will show, researchers often connect their work to the notion of the social utility of knowledge, a concept primarily linked to market engagement in the 1990s that, in the 21st century, shifted toward principles of development, equity, and sustainability (Bortz et al., 2022). Within this framework, techno-scientific promises play a central role in shaping desirable futures.

By projecting prospective technological solutions into present research agendas, scientists can mobilize resources, build strategic alliances, and redefine their methodological approaches (Kreimer, 2023).

METHODOLOGY

The study adopted a qualitative research method emphasizing the recording, categorization, and interpretive analysis of 25 semi-structured interviews with full-time researchers from two leading public university computing research centers in Mexico. Both institutions are recognized as pioneers in the field but differ in their orientation and research objectives.

Center A, established in the 1970s, encompasses several applied science departments, including the Computer Science Department, from which the interviewees hail. Center A prioritizes academic research and values publication in indexed journals as a key performance indicator. Center B, founded in the 1990s as a center of excellence in Computer Engineering, conducts research and provides teaching and knowledge transfer across various social sectors. Designed to achieve social impact, Center B emphasizes problem-solving, patent and utility model registration, and the creation of collaborative innovation networks. The center hosts thirteen laboratories organized into three research areas, one of which focuses on AI.

Of the 25 interviewees, 18 are men and 7 are women. Engineers represent the majority (17), followed by graduates in Computer Science or related fields (6) and Mathematics (2). All the interviewees hold doctoral degrees, most in Computer Science or related disciplines (16), while the rest hold degrees in Engineering (5), Cognitive Sciences and AI (2), and Mathematics (2). Fifteen researchers are primarily engaged in applied knowledge production, testing their own or third-party algorithms with various datasets. Five focus on basic research, developing new algorithms or optimizing existing ones, and another five combine both approaches. Their AI subfields were diverse, with pattern recognition, neural networks, machine learning, machine vision, and natural language processing (being less prominent). The most common area of automated machine learning technique application was medical data analysis (15 researchers), followed by environmental issues, natural language processing applications, and energy efficiency.

The interviews were conducted between May 2024 and April 2025 at the participants' workplaces. Interviewees were selected based on institutional profiles, registration as specialists in bibliographic databases, and the snowball method, that is, referrals from other interviewees. Each session lasted between one and two hours and covered topics such as the participants' academic backgrounds, training, areas of expertise, organizational practices, collaborative networks, and research focus. Participants were also asked about their perspectives on the future of AI in Mexico, including its potential, challenges, and limitations.

All recordings were transcribed and thematically coded using Taguette software (Rampin, 2018). Several themes emerged in the initial coding stage, including researcher training, academic collaboration, interest in AI, data acquisition processes, evaluation and funding mechanisms, and perceptions of the current and future landscape of AI in Mexico. References to technoscientific promises and the imaginary of social utility were primarily associated with interest in AI and data acquisition methods. These methods were often linked to health, environmental, or community-oriented projects rather than commercial applications. Visions of the future were identified in responses about Mexico's AI development prospects and strengths. These emergent codes were consistently associated with the study's core variables—the type of research (basic or applied) and institutional affiliation—which facilitated further refinement of the article's central hypothesis.

The interpretation was validated using two main criteria. First was internal consistency of narrative, which was examined by looking at how similar patterns emerged across interviews and AI subfields. Second was external coherence with the analytical approach, ensuring that the empirically derived categories aligned with the theoretical framework without distorting their meaning. This validation process supported a situated interpretive analysis through which visions of the future were understood as discursive constructions shaping scientific practice while revealing structural constraints and potential actionable horizons.

RESULTS

The analytical frameworks highlight the variety of perspectives, especially during phases when technologies are still becoming stable. Among the interviewees, this diversity stems from the different motivations and positions associated with each AI subfield. These differences highlight the importance of situating their sociotechnical perspectives within their specific research contexts. Factors such as areas of application of developments, strategies for obtaining training data, research outputs, methodological orientations (basic or applied), and institutional affiliation contribute to shaping their views on AI.

Despite this diversity, shared perspectives emerge around certain themes. Unlike media and corporate imaginaries that portray AI as a disruptive force capable of radically transforming society, economy, and labor markets (Wang & Downey, 2025), researchers adopt a more cautious and reflective stance. While acknowledging AI's importance, they refrain from attributing exceptional or immediate transformative powers to it.

This section identifies two main types of perspectives. The first type encompasses views common to all participants and focuses on general-purpose AI, its social applications, and the niche strategies researchers use to avoid direct competition due to limited large-scale resources. The second type comprises heterogeneous perspectives organized into two categories: (1) differences shaped by institutional affiliation, which influence how researchers envision AI and potential applications in the future in Mexico, and (2) distinctions based on research orientation—whether basic (typically aligned with logical-mathematical paradigms) or applied (emphasizing connectionist models).

Homogeneous Views

While most interviewees acknowledge the importance of foundational models, they distinguish these models from their own work. They describe their work as AI designed for specific, limited purposes, such as automating medical diagnoses or predicting environmental conditions through machine learning techniques. Their views on foundational models range from admiration for their capabilities to criticism of their misuse, which may hinder human learning. Many researchers note, in this sense, that chatbots may replace cognitive skills.[1]

> … human capital under training must be fully aware of how to use AI to improve decision-making, not replace the intelligence they need to develop. Neurons require trial and error to function. Professional maturity is achieved only through practice. If I want an excelling engineer, it's because they've practiced repeatedly, implementing algorithms and methodologies that clearly define solutions. (Researcher, Center B, Intelligent signal processing research subfield)

In this sense, while recognizing the potential of generative AI to substitute human cognition, researchers generally view their own developments as fostering collaboration between users and systems, augmenting human expertise. They emphasize human control over algorithms given that they view technology as a support tool for human decision-making processes.

There is also criticism concerning the commercial objectives behind chatbots. Many argue that corporate priorities favor market diffusion over developing robust and reliable solutions. This is evident in the ongoing issues of factual accuracy and consistency. Additionally, participants emphasize the importance of education, not only in building technological capabilities, but also in fostering awareness of AI's social uses and its potential to enable or constrain local development.

All participants agree that the rise of foundational models requires them to adapt their professional practices. Unable to compete at resource scale, researchers from both centers have adopted a main strategy consistent with the concept of technological niches (Schot & Geels, 2007). They leverage the flexibility of the research environment—outside the influence of the market—to focus on local social problems and develop targeted, cost-effective, and context-specific algorithms. Some are also exploring alternative computing architectures, such as neuromorphic computing, which may offer energy- and resource-efficient alternatives to systems based on Graphics Processing Units (GPSs).

> With the emergence of deep networks and large language models, much more computing power is needed. […] We must change our approach, narrow our focus, and tackle problems that aren't being addressed globally. We must focus on small niches. (Researcher, Center A, Natural language processing research subfield)

Statements like these are frequent in the survey and serve as guiding principles for future action, though they are not always immediately translated into physical devices. For example, one illustrative case involving a remote fetometry project is presented:

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[1] All the interview excerpts provided below were originally transcribed in Spanish. They were translated for this English version of the paper.

> A worried mother might travel long distances to Mexico City, wait for hours, and finally be told she's fine after receiving an incorrect diagnosis in her hometown. These are, therefore, cases of misdiagnoses in small populations. If accurate diagnoses were available everywhere, hospitals would only treat real cases. The project aims to develop software to assist general medical residents in small towns with capturing images and provide an initial diagnosis. (Researcher, Center A, Machine vision research subfield)

In this case, the prototype is still in development. The researcher plans to publish the results as applied science, but he prioritizes transferring the technology. After four years of work, he expects to install the prototype in a doctor's office. If successful, he will extend its use across community clinics and eventually transfer maintenance of the system to a small local company.

According to the interviewees, the viability of their developments and their transformation into transferable knowledge face several limitations. One key challenge is the lack of databases specific to the Mexican population, especially for health-related research and digital audio processing. These constraints hinder the development of localized AI, causing some researchers to view Mexico as primarily a follower and user of AI rather than a developer on par with leading nations. Consequently, the country is viewed as being at a stage of technological learning and human capital formation, training specialists who will later work in industry. Participants widely agree that achieving autonomous AI development requires coordinated efforts, which are still lacking in science and technology policies.

Heterogeneous Views

Beyond these shared concerns, however, differences emerge according to institutional affiliation and research approach, whether basic or applied. Center A does not specialize in computer science, but rather integrates mathematicians, statisticians, and engineers within a shared research environment. Although it is classified as an applied research center, its promotion and incentive systems are tied to academic publications. Because machine learning–based AI requires real-world testing of algorithms, researchers must balance prototype development with scientific dissemination. Their work spans machine learning applications in vision, neural networks, and natural language processing, particularly in healthcare, energy, and local language translation.

Their research focus relates to their disciplinary expertise and access to data from other fields. In health-related projects, for example, public-sector physicians serve as co-researchers, data providers, evaluators, and potential users of the applications. Their efforts typically result in prototypes that lead to academic publications, but these prototypes have not yet reached the stage of technology transfer. Researchers are motivated by the opportunity to publish their research output and by interdisciplinary collaborations linking AI specialists with non-specialists from various fields.

Their sociotechnical imaginary centers on producing applied, socially relevant knowledge, particularly in the health sector. There, projects are redefining doctor–patient relationships by integrating automated diagnostic devices. The social utility of these technologies is still in the future, as they mainly exist in prototype form and as publications that present applicable, though not yet applied, results. Researchers at Center A view AI as an applied and collaborative field where interdisciplinarity and engagement with other disciplines are key opportunities for advancement:

> The trend now is interdisciplinary, which is good news for us because it's applied. Not necessarily within the core of our community, but in communities that are just beginning to use AI. For example, Chemistry has undergone a revolution and is now closely linked to AI; Biology is advancing slowly; and Medicine already had a strong technological component. I think we have the necessary tools to make an impact through interdisciplinarity, something that our *supercore* AI colleagues are not particularly adept at, probably because of having a community with which they can easily communicate. (Researcher, Center A, Natural language processing research subfield)

Similar to researchers at Center A, those at Center B focus on applied knowledge, but they operate within a different institutional logic, which is driven by demand-based research and problem-oriented projects designed to serve government or industry needs. They emphasize practical problem-solving, producing utility models, consulting, and securing public and private funding. Consequently, they have achieved a higher degree of technology transfer than Center A, contributing to expert consulting for government authorities, patents, and applied technological models.

These researchers view AI as an opportunity to advance scientific and technological capacities. However, progress is hindered by structural challenges, including limited funding, weak support for creating innovation-oriented platforms such as science- and technology-based companies, insufficient computing infrastructure, and difficulty in funding the integration of the Center with local industries. They note that these constraints largely stem from recent technological policies that have supported science but left innovation primarily for the private sector.

> As a country, we are not a powerhouse in AI. How much of our GDP goes to research and the creation of technology-based companies? The government focuses on key areas related to AI, such as semiconductors for specific data computation, but we lack the technology to do that work. There are research initiatives and important areas of work, but more is needed, especially technology-based companies and human capital training directed toward them. Education should focus on cultivating technology entrepreneurs or, at least, identifying those with that vocation. (Researcher, Center B, Digital signal processing research subfield)

Another difference in perspectives emerges between researchers who approach AI as a basic science grounded in logical-mathematical models and those who focus on data-driven, algorithmic prototypes and applications. The former group represents a minority among interviewees, typically consisting of more senior academics, whose work within the logical-mathematical paradigm predates the rise of connectionist paradigms. However, there are a few isolated cases that, from the standpoint of basic science, also relate to the generation of social utility of knowledge. These researchers have seen their basic developments applied in different areas:

> What motivates science is knowledge, not the market. In academia, there's often pressure on students to move beyond theory and focus on applications, but I prefer to keep my distance from that approach. (Researcher, Center B, Logical–mathematical models research subfield)

These scholars prioritize publishing in high-level academic forums and training entry-level students, even if they later pursue an industrial career. Their aim is explainable, rigorous research, not the development of commercially viable AI. Many strongly criticize neural network–based AI, citing its lack of interpretability.

For some, defending the analogies between human and automated abilities (symbolic paradigm) has become a form of political resistance against neural network applications, which they perceive as lacking explainability and fostering ignorance among students. These perspectives also highlight that, unlike the learning-based models predominant among the interviewees and dominant in general-purpose artificial intelligence developments, the logical-mathematical and connectionist paradigms coexist within research.

DISCUSSION OF RESULTS

Grounded in tools from the social studies of science and technology, this analysis examined the motivations and projections regarding AI among Mexican academic researchers. In a context of interpretive flexibility driven by the absence of public policies and strategic visions, the perspectives of local researchers are crucial for stabilizing AI and creating desirable futures. This is manifested through proposals, regulations, and potential policy design (Jasanoff, 2015). These perspectives are situated constructions shaped by social factors, such as research trajectories, experiences, and institutional affiliation, as well as cognitive factors, including the AI subfield, methodological orientation (basic or applied), and technical practices.

From a regional standpoint, the Ibero-American Network of Science and Technology Indicators (2023) notes that AI in Latin America remains in a constitutive phase dominated by public research centers and lacking stable regulatory frameworks—a situation mirrored in Mexico. Similarly, Chávez and Vizuete-Sandoval (2025) emphasize that AI capacity building in the region often perpetuates technological and data dependence. This is evident in local researchers' difficulties accessing infrastructure, acquiring datasets, and competing with large-scale global models. Sued's (2024) bibliometric study of Mexican AI production emphasizes applications oriented toward social utility, complementing the study's qualitative evidence and reinforcing the importance of strategies that focus on the common good.

In this context, Mexican researchers agree on using specific-purpose AI solutions to address local problems, particularly those related to health, the environment, and energy efficiency. This strategy allows them to avoid direct competition with large-scale models. These discursive constructions serve as technoscientific promises (Kreimer, 2023) that legitimize research projects and guide daily practices by articulating motivations and objectives.

However, the visions identified in the interviews lack institutional stabilization, which is a characteristic of fully developed sociotechnical imaginaries (Jasanoff & Kim, 2009). They are not embedded in formal documents or public policies, but rather, they reflect individual, non-hegemonic, and emergent avant-garde visions (Hilgartner, 2015). Rooted in the potential social utility of knowledge or significant academic contributions (Nowotny et al., 2003), these cutting-edge perspectives contrast with corporate imaginaries, which prioritize the increase of productivity and the inevitability of technological implementation (Wang & Downey, 2025).

This study contributes to a deeper understanding of meaning-making processes in sociotechnical systems by highlighting the situated and context-dependent nature of AI research in Mexico. By differentiating between global and local visions, the paper provides insights that can inform the design of public policies and strategic plans that are grounded in local practices, capabilities, and strengths and oriented toward the common good and the social utility of knowledge.

CONCLUSIONS

The study reveals the coexistence of various sociotechnical perspectives among Mexican AI researchers. Participants generally express ambivalence toward general-purpose AI, emphasizing specific, context-sensitive developments as niche strategies that align with the common good and the availability of local data. These perspectives vary according to researcher profiles and institutional contexts. Those engaged in basic science value academic autonomy and the production of fundamental knowledge. In contrast, researchers focused on applied projects emphasize social utility. Center A favors interdisciplinary collaborations for applied purposes, while Center B emphasizes AI's potential for scientific and technological development, as well as the necessity of greater national funding and coordinated efforts.

These findings challenge corporate and media narratives that portray AI as inherently disruptive. They also expose the tensions within Mexican and Latin American scientific fields, such as those between global scaling and local problem-solving and between theoretical research and technology transfer.

Based on this evidence, the study outlines science policy recommendations aimed at enhancing projections and applicability. In applied research, strengthening collaboration among researchers, health professionals, engineers, local communities, and government agencies is critical to transform academic prototypes into effective, socially impactful solutions. Simultaneously, supporting basic science through low-cost computing infrastructure and solutions that reduce reliance on specialized hardware can sustain local innovation. Together with a national strategy for coordination and funding, these actions can boost technology transfer and the production of fundamental knowledge. This will narrow the gap with global corporations and foster an AI ecosystem that is responsive to national needs and capacities.

This study makes three key contributions: it identifies alternative visions to dominant corporate AI narratives, critically examines the concepts that guide researchers' motivations and discourse, and provides empirical evidence to inform context-sensitive, socially oriented science policy. However, the qualitative design and sample, which includes leading AI researchers, limit the generalizability of the results to the broader academic community in this field.

A notable challenge was the reluctance of some researchers to expose their work to social science analysis. This restricts access to information, thereby hindering the development of studies with greater validity and scope. This resistance underscores the tension between scientific practice and its social approach and highlights the need to foster trust to expand research horizons. Future studies may identify the cutting-edge visions of researchers affiliated with institutions with diverse profiles or in other Latin American countries to enable comparative analyses of AI visions and motivations.

Understanding future visions of AI at public research centers paves the way for a research agenda rooted in practice, where technological developments respond to real possibilities, local contexts, and social needs. In order to achieve AI with a positive social impact, local capabilities must be strengthened, and non-hegemonic ways of envisioning the future of AI must be cultivated.

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CONFLICTS OF INTEREST

The author declares no financial, professional, or personal conflicts of interest that could have influenced the results or interpretations presented in this manuscript.

DECLARATION OF USE OF ARTIFICIAL INTELLIGENCE

ChatGPT 4.0 was used for specific tasks, including translating the abstract into English, microediting texts, verifying the argumentative structure against editorial requirements, and clarifying terminology related to artificial intelligence. All uses were fully supervised by the author.

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