COALITION FOR INNOVATION

AI Blueprint for the Future

Coalition for Innovation, supported by LG NOVA

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Preamble

The Coalition for Innovation is an initiative hosted by LG NOVA that creates the opportunity for innovators, entrepreneurs, and business leaders across sectors to come together to collaborate on important topics in technology to drive impact. The end goal: together we can leverage our collective knowledge to advance important work that drives positive impact in our communities and the world. The simple vision is that we can be stronger together and increase our individual and collective impact on the world through collaboration.

This "Blueprint for the Future" document (henceforth: "Blueprint") defines a vision for the future through which technology innovation can improve the lives of people, their communities, and the planet. The goal is to lay out a vision and potentially provide the framework to start taking action in the areas of interest for the members of the Coalition. The chapters in this Blueprint are intended to be a "Big Tent" in which many diverse perspectives and interests and different approaches to impact can come together. Hence, the structure of the Blueprint is intended to be as inclusive as possible in which different chapters of the Blueprint focus on different topic areas, written by different authors with individual perspectives that may be less widely supported by the group.

Participation in the Coalition at large and authorship of the overall Blueprint document does not imply endorsement of the ideas of any specific chapter but rather acknowledges a contribution to the discussion and general engagement in the Coalition process that led to the publication of this Blueprint.

All contributors will be listed as "Authors" of the Blueprint in alphabetical order. The Co-Chairs for each Coalition will be listed as "Editors" also in alphabetical order. Authorship will include each individual author's name along with optional title and optional organization at the author's discretion.

Each chapter will list only the subset of participants that meaningfully contributed to that chapter. Authorship for chapters will be in rank order based on contribution: the first author(s) will have contributed the most, second author(s) second most, and so on. Equal contributions at each level will be listed as "Co-Authors"; if two or more authors contributed the most and contributed equally, they will be noted with an asterisk as "Co-First Authors". If two authors contributed second-most and equally, they will be listed as "Co-Second Authors" and so on.

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The Coalition is intended to be a community-driven activity and where possible governance will be by majority vote of each domain group. Specifically, each Coalition will decide which topics are included as chapters by majority vote of the group. The approach is intended to be inclusive so we will ask that topics be included unless they are considered by the majority to be significantly out of scope.

We intend for the document to reach a broad, international audience, including:

- People involved in the three technology domains: CleanTech, AI, and HealthTech
- Researchers from academic and private institutions
- Investors
- Students
- Policy creators at the corporate level and all levels of government

Chapter 9:
AI and the Community Lens: Equity, Poverty, and Place in the Age of Intelligence

Authors: Ann M. Marcus, John Barton, Svetlana Stotskaya

Introduction: The Promise and Peril of AI in an Unequal World

Artificial Intelligence (AI) is reshaping our lives: driving change in healthcare, education, employment, public services, and civic engagement. Yet as powerful as these tools are, their benefits remain unequally distributed. For many individuals and communities already facing poverty, systemic racism, language barriers, and infrastructural gaps, AI risks becoming just another technology that overlooks or excludes them.

At this intersection lies a profound challenge and opportunity: Can we design AI systems that serve everyone, particularly the most vulnerable? But more to the point, can these systems be developed in collaboration with the communities that will use them? Can these tools not only predict outcomes but help unravel the systemic roots of inequity?

AI won't solve poverty unless it's designed with communities, not just for them. This chapter explores how AI can support equity if built around lived experience, ethics, and local knowledge. It's a call for inclusive, justice-first innovation, not just better algorithms.

Understanding Community Diversity

Communities are complex and multi-layered, shaped by factors such as geography, income, education, age, culture, gender identity, language, religion, disability, and migration status. These variables influence not just how people experience the world but also how they interact with AI tools…or whether they have access at all.

For example:

- Seniors may face digital exclusion due to lack of training or design incompatibility with assistive technologies.
- Rural communities may lack broadband access and stable electricity, rendering digital health tools unusable.
- Linguistic minorities may be alienated by tools trained only in standard English.
- Neurodivergent individuals may struggle with AI interfaces not designed with cognitive diversity in mind.

AI's effectiveness hinges on understanding and addressing these lived experiences, not flattening them into one-size-fits-all assumptions.

Observations of subcommunities within communities and their unique and shared needs and challenges

This is by no means an exhaustive list of subcommunities or their challenges but represents an idea that some problems can be addressed systematically for all communities and some solutions must be customized for a subcommunity's unique needs. Of course, individuals are very likely members of more than one community, which may compound the challenges of meeting their needs.

Subcommunity	Short Description	Unique Needs/Challenges	Shared Needs
Age & Family Structure			
Seniors	Older adults, often 65+, including those who are homebound, are elder caregivers, and/or are aging service members: holders of community memory and resilience	Mobility, caregiving, end-of-life planning, digital exclusion, ageism, and isolation, especially in rapidly changing neighborhoods	Dignified access, social integration, trust-based services, and public spaces designed for aging in place
Youth & Transitional Age Young Adults	Teens and young adults navigating identity, mental health, and rapidly shifting educational and labor systems	Unstable housing, access to education, safe recreation, digital wellness, and future planning	Mentorship, intergenerational support, and youth-driven leadership development
Single Parents & Caregivers	Parents and caregivers — disproportionately women and BIPOC — carry primary responsibility for children, elders, or disabled loved ones (or clients) with minimal support	Care burdens, lack of respite, income insecurity, and systemic undervaluation of care labor	Affordable care infrastructure, family-centered policies, and caregiver mental health support
Disability & Neurodivergence			
Physically Disabled	Those with mobility, visual, auditory, or chronic physical conditions,	Barrier-free access, adaptive tools, transportation	Universal design, equitable infrastructure, and

Subcommunity	Short Description	Unique Needs/Challenges	Shared Needs
	including those with temporary injuries, progressive diseases, or conditions related to aging or labor	independence, visibility in design processes, and protection from medical discrimination	proactive inclusion across digital and physical spaces
Mentally or Emotionally Disabled	Individuals managing chronic or acute mental health challenges, including schizophrenia, depression, PTSD, bipolar disorder, or trauma-related conditions	Continuity of mental health care, trauma-informed environments, peer support, housing stability, and destigmatization	Integrated health systems, culturally competent care, and protective community ecosystems
Neurodivergent Individuals	People with atypical cognitive styles (such as autism, ADHD, Tourette's, and learning differences) who must navigate neurotypical systems not built with their input	Communication diversity, support for executive functioning, sensory-friendly environments, and flexibility in routines and expectations	Understanding, acceptance, co-created environments, and adaptive learning / workplace systems
Economic & Housing Insecurity			
Low-Income Individuals & Families	Households under economic strain, including working poor, single earners, unhoused individuals, gig workers, and people in generational poverty	Economic instability, food deserts, childcare gaps, wage inequality, and disinvestment in community infrastructure	Access to opportunity, equitable public investment, and flexible, low-barrier services
Formerly Incarcerated Individuals	People reentering society post-incarceration, often facing stigma and exclusion from housing, work, and civic life	Job discrimination, background check barriers, parole limitations, and social reintegration	Pathways to redemption, record expungement support, and opportunities for stability and dignity
Houseless or Homeless Individuals	People experiencing chronic or transitional homelessness, couchsurfing, or living in	Housing insecurity, mental and physical health risks, lack of address for service	Stability, housing-first policies, trauma-informed outreach,

Subcommunity	Short Description	Unique Needs/Challenges	Shared Needs
	vehicles, shelters, or public spaces	access, systemic barriers to reentry and support	and coordinated service ecosystems
Language, Ethnicity & Culture			
Language-Identified Communities	Communities who speak languages other than English at home, such as Spanish, Vietnamese, Mandarin, Somali, Russian, or Indigenous languages	Language barriers in healthcare, education, and public services; lack of translation / interpretation; cultural miscommunication	Multilingual services, community liaisons, and language justice in civic engagement
Religion-Based Communities	Communities rooted in shared spiritual, theological, and ritual traditions — across Judaism, Islam, Christianity, Buddhism, and more — often navigating faith expression in pluralistic settings	Religious accommodation, protection from bias, interfaith engagement, and preservation of cultural-religious identity	Safe and inclusive spaces, recognition of religious pluralism, and cultural literacy
Gender, Identity & Orientation			
LGBTQIA+ Communities	People across the spectrums of gender identity and sexual orientation — including trans, nonbinary, and intersex individuals — often forging chosen families	Discrimination in housing, healthcare, and employment; safety threats; identity affirmation; and access to affirming care	Freedom of expression, legal protections, and community-led spaces for safety and joy
Digital Inclusion			
Digitally Marginalized Individuals	People with limited access to reliable internet, digital devices, or digital literacy, including rural residents,	Device and broadband gaps, digital illiteracy, cybersecurity vulnerability, and	Universal broadband, device access, digital

Subcommunity	Short Description	Unique Needs/Challenges	Shared Needs
	seniors, low-income individuals, and some disabled groups	exclusion from services and civic life	skills training, and inclusive tech design
Indigenous & Sovereign Nations			
Indigenous & Tribal Members	Native peoples with deep cultural, ecological, and historical ties to land; sovereign nations resisting centuries of colonization and erasure	Land and water rights, self-governance, health and educational equity, and cultural revitalization	Respect for tribal sovereignty, rematriation, and investment in indigenous-led solutions
Refugee & Migration Status			
Refugees & Asylees	Individuals fleeing war, persecution, or disaster, often rebuilding lives in unfamiliar cultural and bureaucratic systems	Trauma recovery, housing and employment access, legal navigation, and language services	Welcoming environments, community bridging, and trauma-informed integration policies

Where We Are Now: A Moment of Risk and Possibility

- Accelerating technological change meets backsliding policy environment
- Communities navigating both renewed threats and emergent tools
- Mutual aid, cultural resilience, and tech innovation rising from the grassroots

What Role Can AI Play?

Opportunities and Understanding: AI provides opportunities to expand access to healthcare; legal and civic services; education and job training; and culturally competent support tools It can improve mental health and PTSD-informed solutions, as well as create and deploy tools for advocacy, understanding, mobilization, and cultural revitalization. AI can even answer the question, "Who should I call?"

Recognition of Shared and Unique Needs and Tailoring Engagement Accordingly: Many communities share similar needs: the desire for health, safety, clean air and water, and a comfortable place to live. While perhaps 80% of community needs are the same or similar regardless of the specific characteristics of a community. By identifying cross-community insights, it is possible to also recognize common systemic barriers shared by many groups (e.g., digital access, economic disenfranchisement, language exclusion) and use these insights to

craft systemic AI-supported solutions that draw on community strengths and work across geographics and demographic boundaries.

There are, of course, unique community requirements derived from culture, language, history, or a shared traumatic experience. While only 20% of community needs may be unique, recognizing and responding to these differences is critical. As they say, the devil is in the details. Unique community characteristics require tailored engagement styles, sensitivity to distinguishing customs, characteristics, or historic and lived experiences (e.g., linguistic preservation, trauma-specific services, or tribal governance). Addressing their challenges and crafting solutions that meet their needs effectively — with trust and respect — requires extra care and close collaboration, such as co-designed AI tools that reflect local culture, knowledge systems, and modes of interaction.

Poverty, Place, and the AI Divide

Across the U.S. and the globe, communities in poverty face systemic harms that are often misinterpreted, unmeasured, or entirely invisible to traditional institutions. From exposure to environmental toxins to underfunded schools and insecure housing, the effects are cumulative and intergenerational.

AI, if designed ethically, has the potential to surface these hidden patterns. Through tools such as data fusion, causal analysis, and predictive modeling, AI can help us move from reactive problem-solving to proactive, systemic change. However, these benefits cannot be realized if the same systems are trained on biased data or governed without community input.

The digital divide — especially in rural areas such as Appalachia or tribal nations — means many people do not have access to high-speed Internet, updated devices, or the digital literacy required to use even basic online services. This isn't just a technology gap; it's a structural equity issue that demands targeted policy, investment, design, and education strategies.

One promising model is a community-aware, AI-optimized database analysis tool. Such a system would help trace structural harms from their origin (roots) to their everyday impact (branches), allowing for both big-picture insight and local relevance. It could:

- Integrate health, education, housing, and justice data,
- Enable scenario modeling to explore potential interventions, and
- Center lived experience as part of both input and outcome analysis.

The Role of AI in Addressing Social Determinants of Health (SDOH)

One powerful area where AI is already making strides is in healthcare, particularly in addressing social determinants of health (SDOH): the non-medical factors that affect well-being, such as access to healthy food, clean water, safe housing, transportation, education, and job training. Broadband access itself is now recognized as an SDOH. In disadvantaged communities, such as in Appalachia, for example, AI-powered tools are being used to:

- Map opioid overdose patterns and optimize harm-reduction strategies,
- Predict which communities will suffer most from climate-related displacement, and
- Improve access to mental health screenings through AI-enhanced telehealth.

Globally, similar tools are emerging to serve remote communities across India and sub-Saharan Africa. These systems bring diagnostics to communities that are without doctors, using solar-powered mobile health units and multilingual interfaces.

Yet here too, risks abound. Biases embedded in historical data can misrepresent needs or assign blame. Without careful governance and local engagement, even well-intentioned AI tools can cause harm.

Decentralization and Community Ownership

Central to any equitable AI approach is decentralization. Data and decision-making authority must reside not only in institutions but in communities themselves. A decentralized, community-aware AI platform would:

- Allow neighborhoods to query trends by geography, identity, and issue;
- Surface both structural causes and lived impacts of inequity; and
- Support local coalitions in designing and testing their own solutions.

Such a tool would draw on AI's strengths — pattern recognition, longitudinal analysis, and narrative generation — while prioritizing consent, transparency, and cultural relevance.

For instance:

- A local government overlays historical zoning data with broadband access and youth dropout rates to identify generational technology gaps.
- An advocacy network maps early signs of eviction pressure and its link to environmental risk zones and mental health service deserts.
- A coalition of educators compares school discipline rates with local transportation access, revealing racialized barriers tied to attendance and mobility.
- A tribal council uses AI to preserve endangered languages and monitor land usage.

The Ethical Imperative: Bias, Surveillance, and Trust

Bias in AI is not accidental; it is the result of choices made in training data, model design, and implementation. Too often, these systems:

- Misinterpret non-standard language or dialects (e.g., AAVE, Spanglish),
- Prioritize majority cultural norms, and
- Over-police or mislabel marginalized populations.

These outcomes are not just technical failures; they are social ones. They erode trust, perpetuate inequality, and concentrate power.

Ethical AI requires:

- Transparent governance,
- Community participation in design,
- Public-sector and nonprofit innovation ecosystems, and
- Robust protections for privacy, data sovereignty, and algorithmic accountability.

Cultural Relevance and Community Engagement

To build systems that are truly inclusive, AI must reflect the diverse ways people think, communicate, and solve problems. This means:

- Respecting religious and spiritual values in algorithmic filtering,
- Designing for accessibility from the ground up (not as an add-on),
- Creating multilingual, low-literacy interfaces, and
- Co-creating with communities rather than imposing "solutions."

Trust in technology grows when people feel seen, heard, and respected in the design and implementation process. AI can amplify marginalized voices, but only if those voices are central from the start.

Strategies for Equity-Centered AI

To address the risks and unlock AI's potential for justice, we recommend:

Infrastructure Investment: Expand broadband, electricity, and device access in underserved areas.

Upskilling and AI Literacy: Integrate AI education into digital literacy programs, focusing on low-literacy and marginalized users.

Ethical Governance: Establish inclusive policies that ensure transparency, auditability, and fairness.

Public-Private Partnerships: Leverage collaborations to make AI tools affordable and relevant.

Community-Led Innovation: Fund and scale community-generated tech that addresses local needs.

Community-Informed Risk Mitigation

AI systems must be evaluated against lived experience and subject to correction. Here are some risks along with recommended mitigation strategies.

Risk	Mitigation
Reproduction of bias	Community audits, redress inputs, and transparent design layers
Extractive surveillance	Consent-based protocols, decentralized data ownership
Disconnection from lived reality	Narrative overlays and qualitative data weighting mechanisms
Over-centralization	Open infrastructure design with regional override and participatory logic

Roadmap for Action

- Convene cross-sector leaders and community representatives to co-design tool priorities.
- Develop a prototype that blends historical, quantitative, and qualitative data.
- Pilot in a small regional setting and include community validation, and ethical oversight.
- Build multilingual, multichannel accessible interfaces with non-institutional users, who may have limited technology fluency, in mind.
- Develop guidance for shared data governance and decentralized deployment.

Conclusion: Toward an Intersectional, Inclusive AI Future

The path to an equitable AI future lies in combining technical excellence with deep community engagement. It requires humility from developers, courage from policymakers, and creativity from everyone.

AI can be a tool for systems change, but only if built along with those who have been most harmed by systems in the past. It can illuminate connections, forecast risks, and guide resources, but only if grounded in justice, shaped by culture, and owned by communities.

Let us ensure that the intelligence we build reflects the intelligence already alive in the people we serve.

See also Appendix C: “Case Study: AI Framework for Solution-Focused Community Problem Solving”

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For more information about the Coalition for Innovation, including how you can get involved, please visit coalitionforinnovation.com.

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