



Shaping the Future: Ethical Al Integration for Texas Communities

The Texas Lyceum 2025 Public Conference TexAI: Where Artificial Intelligence Meets Policy

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Introduction

As artificial intelligence (AI) continues transforming industries and societal structures, Texas is uniquely positioned to become a national leader in ethical AI governance. This brief examines three pivotal areas where AI intersects with policy, infrastructure, and justice: workforce development, energy demands, and the ethical challenges of pre-trial detention systems. By implementing targeted recommendations, Texas can address pressing challenges, capitalize on emerging opportunities, and establish a model for responsible AI integration.

Areas of Focus

- 1. Ethical Al in Pre-Trial Detention: While tools like Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) improve judicial efficiency, they also perpetuate algorithmic discrimination and lack of transparency. Addressing these concerns requires mandatory algorithmic audits, judicial training, and increased transparency in algorithmic methodologies to safeguard fairness and uphold due process.
- 2. Al Governance and Workforce Development: The Texas Responsible Al Governance Act (TRAIGA) sets a framework for accountability, fairness, and transparency through risk-based regulation, prevention of algorithmic discrimination, consumer rights protections, and workforce initiatives. Achieving success will depend on simplifying compliance for small and medium-sized enterprises (SMEs), launching reskilling programs that are appealing and accessible to blue collar workers, and fostering crosssector collaboration.
- 3. Al Infrastructure Demands: The rapid expansion of artificial intelligence (AI), data centers, and crypto mining is placing unprecedented strain on Texas's energy grid, which already sees 8.8% of its power consumed by these industries. Solutions include capping crypto profits from demand-response programs, promoting renewable and small nuclear energy adoption, implementing water and energy efficiency reporting, and implementing stronger community protections.

Part 1: Ethical AI in Pre-Trial Detention Decisions

Background

Artificial intelligence (AI) tools like Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) have become increasingly prevalent in pre-trial detention decisions, promising enhanced efficiency, consistency, and evidence-based judgments. However, the integration of these tools raises significant ethical and practical concerns. COMPAS and similar systems rely on historical data, often embedding algorithmic discrimination affecting marginalized communities. Furthermore, their proprietary nature limits transparency, preventing

stakeholders from fully understanding or challenging the outputs. Despite these limitations, Aldriven tools are reshaping judicial processes, underscoring the need for ethical frameworks and oversight to ensure that justice remains fair and non-discriminatory. Addressing these concerns is critical to maintaining public trust and upholding the judicial system's integrity.

Key Challenges

- **Fairness:** Historical patterns in AI training data lead to discriminatory outcomes, particularly for marginalized groups.¹
- **Transparency Issues:** Proprietary algorithms limit public trust by preventing stakeholders from understanding how risk scores are calculated.²
- **Automated Decision-Making:** Over-reliance on AI outputs risks reducing human discretion and dehumanizing judicial processes.³
- **Predictive Accuracy:** The inaccuracy of AI risk assessments, such as high false favorable rates, can lead to unjust detention or release decisions.⁴

Recommendations

- **Mandatory Algorithmic Audits:** Conduct regular third-party audits of Al systems to identify and rectify algorithmic discrimination and inaccuracies.⁵
- **Judicial Training:** Train judicial officials to effectively interpret AI-generated outputs and ensure that these tools complement, rather than replace, human judgment.⁶
- **Promote Transparency:** Require developers to disclose key performance metrics and make algorithmic methodologies transparent. Consider open-source models to enhance public trust.⁷
- Algorithmic Fairness Standards: Develop ethical frameworks and best practices for ensuring fairness and accountability in Al-driven decision-making systems.

Part 2: AI Governance and Workforce Development in Texas

Background^{8,9}

A vital component of TRAIGA is its workforce development initiative, which introduces grants to prepare Texans for employment in the AI-driven economy. This initiative is designed to address the anticipated skills gap and align skills training with the evolving demands of AI technologies. TRAIGA's workforce development grant program builds on successful state initiatives like the Texas Reskilling and Upskilling through Education (TRUE) program, offering short-term training for in-demand skills. By fostering partnerships with educational institutions, businesses, and industry stakeholders, TRAIGA ensures that reskilling programs are not only accessible but also

aligned with market needs. This enables Texans to compete in a rapidly advancing economy while bolstering the state's technological leadership.

Key Challenges

- Simplifying the Complexity of Regulation: The broad definitions of "high-risk" Al systems and the regulatory requirements they entail may impose significant compliance burdens on businesses, particularly small and medium enterprises (SMEs). These firms often lack the resources to navigate complex regulatory frameworks effectively. Therefore, simplified compliance processes specific to SMEs should be established to ensure that the TRAIGA does not stifle innovation inadvertently.
- Ensuring Sufficient Access: Training programs must ensure that underrepresented groups in the tech workforce, including blue-collar workers, have access to reskilling opportunities. Tailoring programs to meet the unique needs of various community demographics will be essential for maximizing participation and success rates in workforce development initiatives.
- Evaluation and Adaptation: To ensure that TRAIGA remains effective, regular evaluations of its impact on both the workforce and AI governance will be necessary. Policymakers should implement feedback mechanisms to adjust regulations and workforce initiatives based on industry developments and community feedback. This ongoing evaluation will help maintain the relevance of programs and regulations as the technological landscape continues to evolve.

Recommendations

- **Simplify Compliance for SMEs:** Streamline regulatory frameworks to reduce the burden on small and medium-sized enterprises (SMEs). Establish advisory groups to assist these businesses in navigating compliance requirements by providing clear guidelines.
- Enhance Accessibility in Reskilling Programs: Launch an outreach campaign to raise awareness about available training opportunities to universities, community colleges, and industry companies to maximize participation across the state. Develop and fund workforce development initiatives targeting low-income groups and workers and blue-collar workers, in partnership with educational institutions.
- Foster Cross-Sector Collaboration: Encourage partnerships between government agencies, industry leaders, and academia to align workforce development efforts with evolving industry needs. Host annual forums to facilitate dialogue and the exchange of best practices among stakeholders, ensuring that actions remain aligned and effective.
- Establish Continuous Improvement Mechanisms: Set up a periodic review cycle, such as biannual assessments, to ensure TRAIGA remains responsive to technological

and societal shifts and incorporates feedback from industry, academia, and community stakeholders. Establish a public reporting mechanism to enhance transparency and accountability, providing updates on TRAIGA's progress and areas for improvement.

Part 3: Al Infrastructure Demands

Background

Texas faces challenges in meeting the rising energy demands of artificial intelligence (AI), data centers, and cryptocurrency mining operations. These industries are energy-intensive and pose environmental, economic, and community challenges. As the largest U.S. energy producer with a deregulated energy market and business-friendly policies, Texas has attracted significant growth in these sectors. However, the state must address critical issues, including insufficient energy capacity, impacts from water and energy usage, and the strain on communities.

Key Challenges

- **Energy Consumption:** AI, data centers, and crypto mining industries consume a significant portion of Texas's power (8.8%), straining the grid.¹⁰
- **Infrastructure Shortfalls:** Despite significant investments, Texas faces a projected 12% energy demand shortfall by 2030.¹¹
- **Water Supply:** High water consumption for cooling systems and insufficient tracking exacerbates water challenges.^{12,13}
- **Community Impact:** Rising energy costs, minimal long-term job creation, and noise pollution from data centers and crypto mining operations negatively affect local communities.^{14,15}

Recommendations

- Address Crypto Mining Practices: Cap crypto mining profits from demand-response programs to prevent market manipulation and alleviate strain on the grid.
- **Promote Renewable and Nuclear Energy:** Encourage the adoption of renewable energy sources such as solar and encourage nuclear small modular reactors. Introduce statewide solar rebate and buyback programs.
- Mandate Efficiency Metrics: Require energy-intensive facilities to report water usage effectiveness (WUE) and power usage effectiveness (PUE) metrics. Incentivize water and energy conservation technologies.

- **Community Protections:** Enforce lower noise ordinances (e.g., reducing from 85 decibels to 55 decibels) and cap electricity prices for residential consumers during high-demand periods.
- **Upgrade Infrastructure:** Require facilities to develop independent power generation and upgrade grid infrastructure before connecting to the grid.

Conclusion

Texas has a real opportunity to lead the nation in the governance of ethical artificial intelligence by addressing pivotal challenges in workforce development, energy infrastructure, and justice systems. For policymakers, this necessitates the creation of regulations and policies that prioritize transparency, fairness, and sustainability while fostering innovation. Technology executives should adopt ethical frameworks that ensure accountability and fairness while collaborating with educational institutions to cultivate a skilled workforce. Nonprofit organizations and community groups have a vital role in advocating for access to the benefits of artificial intelligence, which enhances public awareness and trust. Additionally, local and state governments can protect their communities by implementing necessary safeguards, promoting energy initiatives, and establishing environments that encourage innovation.

Texas is poised to transform AI-related challenges into remarkable opportunities for growth, fairness, and leadership by embracing a multi-sector approach. Addressing AI in key policy areas, such as workforce development, energy infrastructure, and criminal justice, strengthens Texas's approach to AI governance. The proactive measures we implement today will set the national standard for responsible AI integration, ensuring that all Texans reap the benefits of technological advancements fairly and ethically. Through strategic collaboration, targeted investment, and decisive actions, Texas will establish itself as a frontrunner in responsible innovation, aligning progress with the needs of our communities and society.

The Ethical and Practical Challenges of Integrating Al-Driven Risk Assessment Tools in Pre-Trial Detention Decisions

By Melissa lonson

Introduction

There are many ethical and practical challenges to integrating Al-driven risk assessment tools into pre-trial detention decisions, focusing on widely debated systems like COMPAS (Correctional Offender Management Profiling for Alternative Sanctions). These tools promise to enhance efficiency, consistency, and evidence-based decision-making in the judicial process. However, they also raise critical concerns regarding fairness, transparency, and algorithmic discrimination, disproportionately affecting marginalized communities. Drawing on the example of Wisconsin's experience with COMPAS, this report highlights how proprietary algorithms can exacerbate racial disparities, as demonstrated in the landmark case of *State v. Loomis* (2016).¹⁶ This case and others underscore the challenges of balancing technological innovation with the principles of fairness and justice.

The Promise and Risks of Al-Driven Tools

Al-driven risk assessment tools are increasingly being deployed to evaluate the likelihood of an individual reoffending or failing to appear in court, providing judicial officials with data-driven insights for pre-trial detention decisions. Advocates of these tools argue that they can reduce algorithmic discrimination, increase consistency, and streamline decision-making processes. For example, the Public Safety Assessment (PSA) has successfully reduced jail populations in states like Kentucky and New Jersey without compromising public safety.¹⁷ Additionally, Al systems can tackle inefficiencies within the judicial system by minimizing dependence on subjective human judgment and providing uniform methods across various contexts.

However, these benefits come with significant risks. One major concern is the perpetuation of unfair racial and socioeconomic factors embedded in the tools' training data, leading to discriminatory outcomes.¹⁸ Studies of COMPAS have revealed disproportionately high false positive rates for Black defendants, raising questions about fairness and accountability.¹⁹ Such disparities are not limited to COMPAS but are indicative of broader systemic issues inherent in AI-based judicial tools. Additionally, these disparities highlight a larger ethical dilemma—can tools trained on historical data fully escape the past's unfairness?

The opacity of these algorithms, often shielded by proprietary protections, further undermines public trust and due process.²⁰ Defendants and their legal representatives cannot effectively challenge the validity of AI-generated assessments, leaving them vulnerable to unjust outcomes. This lack of transparency for technology developers represents a missed opportunity to build trust and credibility by proactively engaging with judicial stakeholders.

Key Ethical and Practical Challenges

For technology executives, policymakers, and strategists, understanding the ethical challenges AI-driven tools pose in pre-trial detention decisions is critical. A central concern is the lack of transparency and accountability. Proprietary algorithms prevent judges, defendants, and the public from understanding how risk scores are calculated. AI's "black box" nature erodes public trust and raises significant legal and ethical questions about fairness and due process.²¹ The *State v. Loomis* case exemplifies these issues, where the court upheld COMPAS's use but highlighted the need for judicial safeguards and human oversight.²²

Another critical issue is the risk of automated decision-making, where judges and other decision-makers overly rely on Al-generated recommendations. This overreliance can reduce judicial discretion and dehumanize legal processes by reducing individuals to mere data points.²³ Additionally, studies have shown that the predictive accuracy of these tools is far from perfect. For instance, COMPAS's false positive rates underscore the dangers of overestimating Al's reliability, potentially leading to unjust detention or release decisions.²⁴ For decision-makers, this challenge necessitates a dual focus on refining algorithms and ensuring that the technology remains an aid to human expertise, not a substitute for it.

Recommendations for Ethical Integration

To address these challenges, this report outlines three key recommendations for stakeholders:

- Mandatory Algorithmic Audits: Regular third-party audits must be implemented to identify and rectify algorithmic discrimination and inaccuracies in AI systems. These audits should be transparent and publicly available to build trust and accountability among policymakers and the public.²⁵ Furthermore, ensuring regular and independent evaluations can highlight areas for improvement and enable iterative refinements in AI systems.
- 2. Human Oversight and Training: Judicial officials must receive proper training to interpret AI-generated outputs and contextualize them within broader socio-legal considerations. AI tools should complement, not replace, human judgment, particularly in high-stakes decisions such as pre-trial detention. Technology executives must ensure their tools are designed for collaborative use.²⁶ This includes designing user interfaces that clearly explain algorithmic outputs and their implications for case-specific contexts.
- 3. Enhanced Transparency: Greater openness in algorithmic methodologies is essential. Open-source models or mandatory disclosure of key performance metrics can foster public trust and protect defendants' rights.²⁷ Legislators should prioritize regulations, ensuring transparency and building confidence in AI systems. By requiring developers to disclose the metrics underlying risk predictions, policymakers can create an environment emphasizing accountability and ethical responsibility.

Call to Action

Technology executives, strategy officers, and legislators engaged in shaping the future of AI in the justice system should underscore the importance of ethical governance frameworks prioritizing fairness, transparency, and accountability. By addressing these foundational concerns, AI can be leveraged to enhance justice. Collaboration across sectors, from technology development to legislative oversight, is crucial in establishing norms prioritizing fairness and due process.²⁸ The recommendations outlined here provide a roadmap for policymakers, technologists, and judicial authorities to ensure that AI is a tool for fairness in the justice system. Thoughtful implementation of these strategies can position Texas as a leader in ethical AI integration, setting a benchmark for other states and jurisdiction.

Al Governance and Workforce Development in Texas: Code, Compliance, and Careers

By Nicole Roy

Introduction^{29,30}

The Texas Responsible AI Governance Act (TRAIGA), drafted by Texas State Representative Giovanni Capriglione, positions Texas as a leader in AI innovation and workforce transformation. As AI reshapes critical industries like healthcare, finance, and transportation, TRAIGA offers a framework to balance innovation with accountability. As AI transforms key industries, TRAIGA offers a regulatory framework that prioritizes accountability, fairness, and transparency. Key provisions of the bill include:

- 1. **Risk-Based Regulation:** High-risk AI systems will face stricter oversight, particularly those impacting sectors like healthcare, finance, and employment.
- 2. Algorithmic Discrimination Prevention: Developers of high-risk AI systems must take steps to prevent discriminatory practices, including conducting impact assessments.
- 3. **Consumer Rights:** The bill empowers consumers with the right to understand when they are interacting with AI systems and the nature of consequential decisions being made about them.
- Workforce Development Initiatives: TRAIGA introduces grant programs aimed at reskilling and upskilling Texans to prepare them for AI-related roles, addressing the skills gap created by AI-driven industry shifts.

Key Challenges and Considerations

While the TRAIGA represents a robust approach to AI regulation and workforce development, three key challenges must be addressed:

- 1. **Complexity of Regulation:** The broad definitions of "high-risk" AI systems and the regulatory requirements they entail may impose significant compliance burdens on businesses, particularly small and medium enterprises (SMEs). These firms often lack the resources to navigate complex regulatory frameworks effectively. Therefore, simplified compliance processes specific to SMEs should be established to ensure that the TRAIGA does not stifle innovation inadvertently.
- Ensuring Access: Training programs must focus on access ensuring that underrepresented groups and blue-collar workers are provided with reskilling opportunities. Tailoring programs to meet the unique needs of various communities will be essential for maximizing participation and success rates in workforce development initiatives.

3. **Evaluation and Adaptation:** To ensure that TRAIGA remains effective, regular evaluations of its impact on both the workforce and AI governance will be necessary.

Policymakers should implement feedback mechanisms to adjust regulations and workforce initiatives based on industry developments and community feedback. This ongoing evaluation will help maintain the relevance of programs and regulations as the technological landscape continues to evolve.

Related AI Legislation: Texas Data Privacy Act³¹

The Texas Data Privacy Act (TDPA) aims to protect consumer privacy by setting clear guidelines for the collection, use, and sharing of personal data. It grants Texas residents rights to access, delete, and opt out of the sale of their data, promoting transparency and consumer control over personal information. The act applies to businesses in Texas, requiring them to implement data privacy safeguards and accountability measures, such as third-party compliance.

Both TRAIGA and the TDPA focus on protecting consumer rights and ensuring ethical data use in the face of technological advancements. While TRAIGA addresses AI development and algorithmic transparency, the legislation can further benefit by incorporating the TDPA's principles of data transparency and consumer rights. These shared goals highlight the importance of safeguarding individuals' interests as AI technologies evolve and provide a strong foundation for the key recommendations needed to ensure TRAIGA's successful implementation.

Recommendations for TRAIGA's Implementation

To successfully enforce TRAIGA and ensure its long-term impact, additional actions are needed that address key challenges and enhance its implementation.

- 1. **Streamline Regulatory Framework**: Simplify compliance requirements for small and medium-sized enterprises (SMEs) to encourage innovation while maintaining accountability. Establish an SME-focused advisory group to assist with navigating regulations.
- 2. Enhance Training Initiatives: Launch reskilling campaigns targeting underrepresented groups, such as blue collar workers, and fund accessible training programs in partnership with local educational institutions to ensure access in the AI workforce.
- 3. **Promote Cross-Sector Collaboration**: Foster partnerships between government agencies, industry leaders, and academic institutions to align workforce development with industry needs. Incentivize collaboration through grants and tax credits.

4. **Establish Continuous Improvement Mechanisms**: Develop evaluation frameworks to assess TRAIGA's effectiveness, conduct biannual reviews to incorporate stakeholder feedback, and establish public reporting for transparency.

Strategic Benefits

Implementing these measures will address the challenges of job displacement, ensure access to workforce training, and strengthen public trust in AI systems. TRAIGA's initiatives will also stimulate economic growth by preparing Texans for emerging AI roles and attracting investment to the state's expanding tech sector.

Call to Action

The AI Advisory Committee should act decisively to implement these recommendations and position Texas as a national leader in responsible AI governance. By fostering innovation, ensuring access, and safeguarding public accountability, TRAIGA has the potential to build a resilient and ethical AI ecosystem that benefits all Texans.

Addressing Texas's Energy Challenges for Al, Data Centers, and Crypto Mining: Ethical and Practical Solutions

By Joe Eduard Rucker

Introduction

The capacity of Texas's electric grid to meet the growing energy demands of artificial intelligence (AI), data centers, and crypto mining operations is of increasing concern. These industries are not only energy-intensive but also pose significant water, economic, and community challenges. Despite Texas's advantageous position as a major energy producer with a deregulated energy market, pro-business policies, and ample resources, substantial gaps remain in meeting the projected energy demands while addressing associated impacts.

Key Challenges

The rapid expansion of artificial intelligence, data centers, and crypto mining operations in Texas has introduced substantial challenges across energy demand, water supply, and community impact.

- Al Infrastructure: Data centers play a crucial role throughout the life cycle of Al, supporting various stages of Al development and deployment. Texas is the second largest data center market by inventory in the United States, hosting more than 340 data centers, with more proposed. Energy is crucial for data centers, since consumption accounts for 60-70% of total operational costs.³²
- 2.) Energy Demands and Growth: Data centers in Texas currently consume over 8.8% of the state's power and are a cornerstone of Al infrastructure.³³ The energy demands of Al are substantial; for example, ChatGPT consumes 10 to 30 times the electricity of a Google search.³⁴ Crypto mining facilities account for 2.5% of peak load but offer flexibility by reducing operations during grid stress. However, they profit primarily from energy arbitrage, manipulating programs like ERCOT's demand-response services.³⁵
- 3.) **Grid and Energy Infrastructure:** Texas is investing \$13.6 billion in transmission upgrades and \$10 billion from the Texas Energy Fund to build new gas-powered plants. Despite these investments, the state faces a 12% shortfall in meeting projected energy demand by 2030.³⁶ The Southern Spirit Transmission project, funded by a \$360 million federal grant, aims to connect Texas's grid to the U.S. system, providing an additional 3 gigawatts of capacity and enhancing grid stability.³⁷

- 4.) **Water Supply:** Data centers and crypto operations are water-intensive, using millions of gallons daily for cooling, often at preferential rates.³⁸ Only half of data centers track water usage, exacerbating sustainability challenges.³⁹ Emerging technologies, such as waterless cooling systems, offer partial solutions but can increase energy demands, indirectly affecting off-site water usage.⁴⁰
- 5.) Community and Economic: Data centers create significant temporary construction jobs but few permanent roles. Despite large tax revenues, local governments often lose millions through tax incentives for these facilities.⁴¹ Rising energy consumption contributes to higher electricity prices and infrastructure costs, with potential residential electricity price increases of up to 70% by 2030.⁴² Noise pollution from data centers and crypto mines exceeds safe decibel levels, which poses significant health risks to nearby communities.⁴³

Recommendations for Addressing Energy Challenges

These recommendations are aimed at making Texas a global leader in AI, while maintaining and improving ethical standards. Although not an exhaustive list of recommendations, they address the most important challenges.

- 1.) Energy Policy: Address the crypto mining industry's manipulation of the energy market by capping profits from demand-response programs. Diversify energy sources, with a focus on renewable energy and nuclear small modular reactors. Implement a statewide solar rebate program and a solar buyback program to increase solar installation. Promote energy efficiency by requiring standards in data centers and crypto mining operations. Offer tax credits, rebates, and/or financing programs to residential and commercial consumers for upgrading to energy-efficient devices. Require energy-intensive facilities to develop independent power generation and upgrade grid infrastructure before connecting.
- 2.) Water Supply: Promote monitoring and reporting of Water Usage Effectiveness (WUE) and Power Usage Effectiveness (PUE) metrics. Incentivize water conservation technologies, such as on-site wastewater treatment and Al-driven cooling optimization. Tie tax exemptions to energy efficiency and renewable energy standards.
- 3.) **Community Protections:** Cap electricity prices for residential consumers during periods of high demand. Lower noise ordinances from 85 decibels to 55 decibels to mitigate community impacts of data centers and crypto mines. Require local governments to conduct a community impact report on data centers and crypto mining operations.

Call to Action

To ensure Texas emerges as a global leader in AI, immediate action is required. Policymakers and companies should implement energy-efficient standards for data centers and crypto mining operations, prioritize diversifying energy investments, and protecting our communities. Taking these steps will allow Texas to become a global leader while maintaining and protecting our scarce resources and communities.

Endnotes

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