

**A Comprehensive Policy Analysis of State Roadmaps for AI in Education:
Colorado and Emerging U.S. Legislation**

Qualifying Paper

Spring 2026

Saeed Sarani
Marywood University

Correspondence regarding this article should be directed to Saeed Sarani, a student in the Department of Strategic Leadership & Administrative Studies, Marywood University, 2300 Adams Avenue, Scranton, PA 18509. Email: ssarani@m.marywood.edu
Phone: 1 (405) 570-0523.

A Comprehensive Policy Analysis of State Roadmaps for AI in Education: Colorado and Emerging U.S. Legislation

Saeed Sarani

Abstract

Since the Turing machine of World War II, the world has been using Artificial Intelligence (AI) to detect patterns in human behavior. With the adoption of smartphones and other handheld personal devices, the decade between 2010 and 2020 created a big data boom in a regulatory vacuum that has only now caused a renegotiation of the social contract theory by many states, like Colorado. As the capabilities of this technology have expanded across many platforms and applications, the inherent risks associated with it have also increased exponentially. Over the last decade, machine learning models have quietly been collecting data with little regulation from every technology application used by humans. As people are beginning to understand that their personal data, consumer habits, and activities have been monitored and used without their informed consent, often with unrestricted access, to create datasets for marketing and advertising, as well as to determine credit lines, life-altering decisions, and social worthiness. Unfortunately, many AI programs have been found to include human bias and other detrimental selection aspects for consumers. Only in recent years has the question of how the data is being used been asked, and the answer was alarming.

From admission forms to loan applications, Artificial Intelligence data models have been shown to exhibit discriminatory preferences for one group of humanity over others, including by race, gender, and geographic location, some of which have been deliberately included. The state of Colorado has taken legislative steps to combat this inclusionary discrimination in AI platforms with the passage of Colorado's SB24-205, which determines that the biased and discriminatory practices embedded in AI platforms will be regulated to protect consumers and should include measures for consumer data privacy in business and education. Consumer protections include data privacy protections, removing bias discrimination data, and informing consumers when AI is used for life-altering decisions such as loan applications, school acceptance, and grading.

While Colorado used the previous administration's National Institute of Science and Technology (NIST) frameworks for cybersecurity to AI integration, which were widely researched nationally and globally, to inform its legislative model to mitigate discriminatory bias against consumers, the current national administrative policies are contradictory to those of previous administrations and to those in the rest of the world. In fact, the current administrative policy, EO 14365, is in direct conflict with Colorado's current SB24-205 legislation on AI use in education entities, through legal challenges, and threatens funding and other important state-recognized freedoms. The theories included in this problem fall into three categories: Dynamic Capability Theory & Diffusion of Innovations Theory; Contingency Theory & Organizational Change Theory; and Transactional Management Theory & Conflict Theory. Additionally, the problem overlaps with Social Contract Theory. The perspectives also include three categories. The first is the Consumers Socio-Technical perspective through the lens of the public understanding of Artificial Intelligence platform use and data collection practices in commercial consumer and education markets. The second is the Pedagogical/Cognitive perspective through the lens of highly researched AI use frameworks for AI policy creation in compliance with SB24-205 within

the scope of Colorado's 6-12 Charter School Educational settings. The third category is the Regulatory and Legislative perspective through the lens of recently issued national mandates, executive orders, and frameworks, as well as legal conflicts regarding AI use in Colorado educational settings, alongside financial threats and impacts on state constitutional rights.

Keywords: AI, Regulation, Colorado, Education, Frameworks, Executive Orders

Introduction

Since 2010, a shift from providing service to the harvesting of personal behavioral data through GPS locations, wearables for health data, smart home devices, automobiles, and appliances by platforms such as Facebook, Google, Apple, and Amazon has compiled datasets to advance the implementation of Artificial Intelligence as platforms, tools, and dataset transformation agents. Using consumers as unknowing participants in their data has been the currency of their “free services” to train large language models for machine learning, using data collected and retained without regard for personal privacy, bias, discrimination, or regulatory input at the state or national level, for over a decade.

From 2010 to 2019, new data numbering in the form of a “Zettabyte” was introduced; as such, over 50 zettabytes of data have been collected, and the rise of “The Cloud” data storage system was introduced by AWS and MS Azure. As people started to understand the power of the AI tools being used to impact their everyday lives, both personal and professional, and at school, they began demanding more regulation and protection for themselves and their families. These demands fall within the Social Contract Theory, which holds that government is responsible to the citizenry for maintaining freedoms of life, liberty, and property. In response to demands for accountability, state, national, and international groups have developed frameworks, policies, and laws to implement and regulate AI development, platforms, and tools that have a lasting impact on businesses, education, and personal use.

On a national scale, educational entities trying to avoid the use of AI platforms in educational settings is no longer a viable option, regardless of which government mandates are followed, and under the tenants of the dynamic capability theory, schools of all levels need a robust academic curriculum according to Vygotsky's zone of proximal development (1978) that emphasizes AI Literacy for all users, data privacy protocols for data storage within the U.S. borders as per USDE-FERPA and COPPA laws, and a vetting process for AI programs used in the educational setting as suggested by the various researched policy frameworks. Understanding the Diffusion of Innovation theory of earlier adoption through "pioneer states" as forerunners of AI use would allow AI use policies to form safeguards around AI development models. These safeguards would prevent harm to the most vulnerable citizens, students, by mitigating privacy breaches, providing an AI content literacy curriculum to prevent psychological manipulation, and regulating the automation of dataset bias to ensure that AI innovation is not provided at the cost of civil rights. The frameworks, policy guidelines, and legal guardrails have distinct defining features that should work together to ensure the ethical use of AI platforms, with built-in protections for student data, and to support their daily use in educational settings to effectively manage the underlying risks.

Today, through the lens of the conflict theory, Colorado 6-12 Charter schools are caught in a contentious tug-of-war over funding penalties between the federal government, which is prioritizing global competitiveness and innovation efforts, and state governments, prioritizing civil rights and individual protections, each fighting to determine which entity has regulatory priority over AI use and protocols. Understanding mandates under the contingency theory for maintaining constitutional rights and regulation of funding for all students and educational users, school use AI platforms in educational settings should have student data safeguards in place by

using only the minimum necessary data for processing, regulating bias controls for teaching and learning through blind review processes for “life altering decisions” such as testing funding and admissions processes, as well as employing auditable data privacy protections and utilizing only U.S. based storage options. But national Executive Orders and pending legislation describe these limitations as onerous to AI development and deployment.

Literature Review

According to Kurzweil (2024), the present technological age is one of the most rapidly advancing eras in history. Simple writing implements gave way to typewriters, which were then replaced by computer systems, and then by personal devices, making business and educational tasks increasingly efficient and faster than in prior eras. There are notable intrinsic risks involved in the use of AI tools, which are continually addressed in nearly every research and report. As Taeihagh (2024) notes, Artificial Intelligence (AI) use is incorporated into the working aspects of daily work, teaching and learning, retail, and life, and beyond. Legislation models are attempting to catch up for the safety and security of users.

“AI can be defined as automation based on associations. When computers automate reasoning based on associations in data (or associations deduced from expert knowledge), two shifts fundamental to AI occur and shift computing beyond conventional edtech: (1) from capturing data to detecting patterns in data and (2) from providing access to instructional resources to automating decisions about instruction and other educational processes. Detecting patterns and automating decisions are leaps in the level of responsibilities that can be delegated to a computer system. The process of developing an AI system may lead to bias in how patterns are detected and unfairness in how decisions are automated. Thus, educational systems must govern their use of AI systems. (USDE-OET, 2023)”

When designing their framework, UNESCO (2024) considers that Artificial Intelligence (AI) platforms with chatbot capabilities to be effective and efficient tools for teaching and learning in the educational setting, where students could have tailored individualized learning plans structured toward their interests and future goals and would allow teachers to have more robust instruction, but without guidance on the types of tools or how to use them, educators and students can bring unintentional risks of data breaches, misinformation, and unintentional bias into the classroom setting.

The United States National Institute for Science and Technology (NIST, 2023), under the direction of the federal government, released a risk management framework for AI use in education. In the landscape of AI in Education, state roadmaps for guidance and enforceable legislative guardrails create inevitable tensions between understanding and implementation. Considering this tension, Colorado has become the first state in the United States to pass specific legislation for consumer protection affecting privacy, the Colorado Consumer Protections for Artificial Intelligence Act (SB24-205, 2024), in relation to removing bias tendencies in AI application uses and specifically to restrictions for algorithmic discrimination embedded in programs, and has enforceable penalties for non-compliance beginning in June 2026.

Additionally, in an apparent circular bid to circumvent the 10th Amendment, which grants states the right to create laws to protect their citizens, the mandates of the recent United States Federal Executive Order No. 14365 for AI innovation attempt to block any state-level consumer protection that is deemed to interfere with profitable programmatic progress in AI development (U.S. EO 14365, 2025). It is important to note here that “bias” is defined as “ideological engineering” in current federal documents (2025-2026) and is defined as “algorithmic

discrimination” in previous federal documents (prior to 2025) and current state-level documents (Birhane, 2021).

Social Contract Theory and Consumers

As Rousseau (2004) has determined, the citizens born into the laws of any country are subject to a social contract between them and their government’s laws and regulations. While this takes certain freedoms from citizens without their express consent, it also obligates the government to act as a best-interest agent on behalf of the citizens it represents, protecting all other freedoms involving life, liberty, and property. Consumers in the United States are now demanding protection of their personal data, which AI platforms and programs use to make life-altering decisions in areas such as student, academic, and financial eligibility. The following tables show the current points of contention between the recent executive order and the new Colorado law for AI use.

EO 14365: Compliance, Regulation, and Education Impact			
Compliance Category	EO 14365 Requirement / Position	Education Context & State Conflict	Legal & Policy Citations
Data Privacy	Asserts that state disclosure mandates may violate the First Amendment or trade secret protections if they compel "excessive" reporting.	Conflict: Directly challenges Colorado’s requirement for schools to disclose training data and logic for "high-risk" systems.	<i>EO 14365 § 4; 47 U.S.C. 902(b)</i>
Bias Regulation	Views state-mandated "bias audits" (like Colorado’s) as requiring models to alter "truthful outputs" to reach ideological or demographic parity.	Risk: Schools following state bias laws may be labeled as having "onerous" regulations, jeopardizing federal funding.	<i>EO 14365 § 1; CO SB 24-205</i>
AI Literacy	Promotes a national standard of "Innovation-First" literacy. Encourages students to use AI tools for productivity and STEM dominance.	Mandate: Literacy is treated as a workforce readiness tool rather than just a risk-mitigation subject.	<i>EO 14179 (Legacy); EO 14365 § 2</i>
Funding Compliance	Conditionality of federal grants (e.g., BEAD broadband funds) on states <i>not</i> enforcing "onerous" AI laws.	The "Compliance Trap": Colorado schools must choose between state law (SB 24-205) and maintaining	<i>EO 14365 § 5; Infrastructure Investment & Jobs Act (IIJA)</i>

The recent U.S. Department of Labor AI Literacy Framework also imposes nationwide mandates on school curricula, or it will withhold funding for noncompliance. Administrative policies in education settings will need to include staff, faculty, and stakeholder training or meetings to ensure that all involved are aware of the changes being made and how they will directly impact their current and future strategic practices for using AI platforms in a school setting (UNESCO Framework, 2025).

From the first interactive artificial intelligence (AI) program for student use, Carbonell's SCHOLAR (1970), the rapid integration of AI in K-12 education represents a "Dual Evolution" in which the exponential growth of technology capabilities is linked to the simultaneous development of frameworks, policies, and laws. In their article for ScienceDirect, Wang et al. (2024) define artificial intelligence (AI) in education as the use of intelligent computer systems such as machine learning, natural language processing and algorithms to simulate human intelligence for enhancing, personalizing and automating the teaching and learning processes through personalized learning platforms, intelligent tutoring systems, and automated administrative supports (Wang et al., 2024). Since AI platforms began as educational tools, a comfort level with the products has enabled them to use "big data" to train on information from the entire internet, including student data. Because of the prior presentation as an educational source, this has led to the belief that AI-generated "fake news" information is more credible than human-promoted disinformation due to the lack of spelling errors and emotional ties and that only 11% of school children can distinguish a fake website from a legitimate resource site which

makes them prime targets for propaganda and exploitation campaigns (Alvestad, 2026, Lacey, 2026).

Diffusion of Innovation and Dynamic Capability

Colorado 6-12 Charter Schools have the flexibility on the implementation of AI use in their educational systems, but they must also have the capacity to configure their technology to determine bias detection and privacy security. According to Rogers's (2023) diffusion of innovation, Colorado is a “pioneer state” for successfully adopting technology as an early innovator while protecting its citizens.

When viewed through the lens of Vygotsky’s cognitive development theory (1930/1978), which argues that social interaction and culture are the fundamental engines of cognitive development, rather than just biological maturations, every culture passes down physical and cognitive “tools” like maps, calculators, language systems, or even platforms for AI use (Vygotsky, 1930/1978). In this capacity, AI tools have taken a “scaffolding” approach from their beginnings in pattern recognition in the unrestricted “big data” to the chatbots that now provide nearly human-like feedback (Godwin-Jones, 2021). UNESCO’s AI Competency Framework for Teachers (CFT) is a strong model for cognitive development through structure, helping teachers understand the effective tools available on global AI platforms (UNESCO-Framework, 2025).

According to Watrobski et al. (2025), data & technology theory suggests that technology is not a neutral tool but a system that focuses on an algorithmic core, emphasizing that the integrity of AI systems depends entirely on the quality, accuracy, and privacy protocols of its training datasets (Watrobski et al., 2025). Considering this information, there is a clear cause-and-effect relationship between algorithmic bias and the lack of diversity among programming engineers and platform developers over the past few decades (Yan & Liu, 2024; Birhane, 2021).

The theory of Ethics & Governance provides for a normative framework to oversee the lifecycle of AI systems through beneficence, non-maleficence, and justice with constraints for moral imperatives, human agency, and systemic accountability for technological deployments to ensure that automated systems remain transparent and appealable with a “human-in-the-loop” model (Ismail & Ahmad, 2025; Smith & Rustagi, 2020). Unfortunately, the companies creating AI platforms may not follow through on their promises of ethical programming and data mining to train their systems. (Taeihagh, 2024; Alvestad, 2026; Lacey, 2026).

With the dual evolution of AI use and frameworks, policy and law, AI tools’ functions redefine Vygotsky’s (1978) zone of proximal development for students through mechanisms of Policy Diffusion Theory, in which pioneer states like Colorado, as noted by Berry & Berry (2018), impact national structure for AI policy as characterized by state civilian protections (SB24-205) and national innovations (US EO 14365). Since the release of the AI platform ChatGPT in 2022, for consumer use, the technology industry has exploded with other AI platforms and data collection entities (IoT-Analytics, 2025). By the end of 2022, the world consumed 97 zettabytes of data, and that figure is projected to double by the end of 2025 (ResearchGate, 2024).

In October 2022, the White House Office of Science and Technology Policy (OSTP) released an AI Bill of Rights, establishing ethical expectations for the development and use of AI by American citizens (White House Office of Science and Technology Policy [OSTP], 2022). As a non-regulatory document, the OSTP (2022) Artificial Intelligence Bill of Rights identified principal areas of concern, including safe and effective systems, protections against algorithmic discrimination, data privacy, notice and explanation of use, human alternatives, and fallback options (OSTP, 2022).

“Considered together, the five principles and associated practices of the Blueprint for an AI Bill of Rights form an overlapping set of backstops against potential harms. This

purposefully overlapping framework, when taken as a whole, forms a blueprint to help protect the public from harm. The measures taken to realize the vision set forward in this framework should be proportionate with the extent and nature of the harm, or risk of harm, to people's rights, opportunities, and access. (OSTP, 2022)”

Feature	Colorado AI Roadmap / SB24-205	White House Blueprint for an AI Bill of Rights
Legal Status	Hard Law / Binding. Enforceable by the State Attorney General with penalties for non-compliance.	Guidance / Non-Binding. A set of principles to guide federal agencies and industry; lacks statutory authority.
Primary Goal	Consumer Protection. Focuses on preventing "algorithmic discrimination" in high-risk decisions.	Civil Rights Protection. Focuses on protecting citizens from harms to privacy, equity, and safety.
Scope of "High-Risk"	Specifically lists: Education, Employment, Lending, Insurance, Housing, and Healthcare.	Broadly applicable to any automated system that impacts "rights, opportunities, or access."
Enforcement	Mandatory "Reasonable Care" standards, bias audits, and impact assessments.	Voluntary adoption by agencies; encourages "notice and explanation" but cannot penalize.
Human Oversight	Human-in-the-loop mandated. Requires a right to appeal "life-altering" AI decisions to a human.	Recommended. Suggests human fallback and alternatives, but does not legally compel it.
Data Sovereignty	Emphasizes Data Minimization and localized privacy under the Colorado Privacy Act.	Focuses on Privacy by Design and protecting against abusive data practices globally.
Terminology	Defines "Algorithmic Discrimination" as a legal violation based on protected classes.	Defines "Safe and Effective Systems" as a broad ethical expectation of developers.

This shows a clear and defining concern for student use and consumer protections, as emerging patterns of review of AI systems and data collection practices reveal. In 2023, the Congressional

Research Service released a report for consideration of U.S. federal policy, as it acknowledged the following:

“The concept of AI has existed for decades with the term first being coined in the 1950s, followed by alternating periods of much development and lulls in activity and progress. A notable area of recent advancement has been in generative AI (GenAI), which refers to machine learning (ML) models developed through training on large volumes of data in order to generate content. Technological advancements in the underlying models since 2017, combined with the open availability of these tools to the public in late 2022, have led to widespread use...A general concern for Congress might be how to approach AI regulatory efforts in a way that balances support for innovation and beneficial uses while minimizing current and future harms.” (Congressional Research Service, 2023)

This second report bolstered federal and state government interventions in existing laws by using frameworks and roadmaps for AI use across various consumer and educational settings. Because of dual enrollment between K-12 and higher education entities, concerns for academic integrity, student data privacy, and implementation of instructional practices became key focus of school systems, administration, and other stakeholders concerned with FERPA and the Colorado Privacy Act compliance (Adeyemo, 2024). Although some schools have outright rejected AI platforms to preserve academic integrity and foster critical thinking development, State Departments of Education and School Boards have stepped in to create guidelines and policies for AI use through established frameworks. The current framework used by most Colorado school systems utilizes the 2023 federal framework created by the National Institute of Science and Technology (NIST, 2023) for guidance into the Colorado State Department of Education (CDE) creation and collaboration with the Colorado Education Initiative (CEI) to create an AI roadmap and toolkit (CDE & CEI, 2024). The guidelines in the roadmap were created with the expectation of progress toward statewide educational policy, including state- and nationally enforced mandates for AI use and integration. Full adoption of the CDE-CEI roadmap in Colorado schools is expected by 2027.

As Artificial Intelligence (AI) use increasingly permeates daily education, work, life, and beyond, legislative models are attempting to catch up to ensure user safety and security. As Taeihagh (2024) notes, the rapid integration of AI platforms into school settings left parties responsible for their governance and use struggling between fluidity and instability. Walker (1969) also noted that the historically “pioneer” states, such as Colorado, Massachusetts, Washington, Texas, and California, have set policy and legal trends that other states follow. Berry & Berry (1990) proposed that policy adoption in tech-heavy economies provides pathways for external diffusion through neighboring states. This theory is also applicable to the adoption of policies across state school systems. Smaller systems with limited resources will align their policies with those of larger, more affluent systems with diverse populations, using best practices for compliance, thereby stretching their own limited resources.

Executive Order 14365 (2025) created a diffusion interrupter, halting the natural progression of AI policies. This is an important distinction for early adopters of AI use, such as Colorado, California, North Carolina, Washington, D.C., and Michigan. The 2023 Congressional Research Service report states that AI systems may perpetuate or amplify biases contained in the datasets they are trained on (Congressional Research Service, 2023). According to Yan & Liu (2024), Artificial Intelligence in Education (AIED) involves numerous ethical issues, privacy, algorithmic bias, intellectual property rights, and a generation of false content for deceptive practices (Yan & Liu, 2024).

According to Abbot & Snidal (2000), the conceptual framework is a set of general principles structured to build consensus for best practices with high-level values embedded. The transition to policy is intended to guide decisions toward rational outcomes for the development of

operational procedures within a specific domain (i.e., education), with compliance directives and violation structures.

According to Abbott & Snidal (2000), the outcome is a legally binding rule that codifies existing policies into a universal requirement to protect public interests, using baseline behavioral requirements, legal penalties and liabilities, executive branch monitoring, and judicial enforcement. The governance of AI in K-12 education exists at the intersection of human cognition, pedagogical integrity, and organizational adaptation (Molenaar, 2022; OSPI, 2024; UNESCO, 2023). In early 2026, the U.S. Department of Labor officially issued the Artificial Intelligence (AI) Literacy Framework. The framework designated five foundational content areas for an AI-driven economy: What is AI, How AI Works, Using AI, Impacts of AI, and AI Ethics. On the surface, the framework is human-centered, with a focus on collaborative AI use rather than competitive AI interactions. In other words, this framework elaborates on the idea of AI as a tool for human use and control. Unfortunately, it also inhibits access to federal funding for noncompliance.

The transition from a conceptual framework to an enforceable law is a process of increasing specificity, authority, and accountability by moving the idea from: what we should be doing (framework for Roadmaps) to how it will be done (policy) to the final stage of what we must do (law) (Birkland, 2024; Stone, 2012). This concept incorporates a process in which the social contract theory allows all stakeholders to provide input and addresses concerns as they evolve at the state level, but it is not always applicable to executive orders or mandates that are effective upon signing.

Colorado State Roadmaps for Educational AI Policy and Guidance

According to the Colorado Education Initiative (CEI), AI policy roadmaps in education are state strategic guidance documents developed by state education agencies or collaborative state task forces that provide a non-binding, authoritative framework for educational providers to navigate the integration of AI into education environments (CEI, 2024). Nearly 35 states have issued formal AI roadmaps for K-12 education, and fewer have binding statutory requirements for schools. Before consolidating ideas into practice, school administrators must also consider additional sources of influence on policy. Transitions from frameworks (what to do) to policy (how to do it) move ideas into actionable guides and practices (Birkland, 2024; Stone, 2012). In addition to the CEI (2024) framework, the federal government also released guidance frameworks: Blueprints for AI Bill of Rights (OSTP, 2022) the National Institute for Science and Technology (NIST) built a risk management framework for AI use (NIST, 2023) and “pioneer” technology states quickly moved to develop their own state level roadmaps for AI use and integration.

From 2023 to 2026 in response to the rapidly evolving and unchecked momentum of the AI movement in technology, two things happened within the state of Colorado: The Colorado Charter Schools Institute (CSI), the regulatory body for over 260 charter schools listed within Colorado State Department of Education (CDE), implemented the Colorado Education Initiative (CEI) to create an AI roadmap and toolkit (CDE & CEI, 2024) for school administrators to help meet the need for guidance with AI use and AI literacy in school settings and to develop strategies for policies structuring curriculum based on AI use and AI literacy by personnel, students, and other stakeholders; secondly, Colorado legislators have passed Colorado SB24-205 Consumer Protections for Artificial Intelligence Act (SB24-205, 2024) into law to limit algorithmic bias and implement robust data protections for consumers as well as in educational

settings. This is important due to the use of AI programs to spread disinformation, malicious images and videos, and to discredit or assume authority over numerous experts in many professional fields (Chesney & Citron, 2019; Bender et al., 2021; Birhane, 2021).

The concept of eliminating bias from AI is not new; it was consciously noted in a UC Berkley study by Smith & Rustagi (2020) during the onset of the COVID-19 pandemic. The study included interviews from University Technology departments, Google, Microsoft, Retail Industry HR managers, and Equality Advocacy Group leaders. Their findings regarding bias in the AI platform were telling, as they showed that white male populations were selected more favorably in applicant pools.

“...Use of AI in predictions and decision-making can reduce human subjectivity, but it can also embed biases resulting in inaccurate and/or discriminatory predictions and outputs for certain subsets of the population. Harnessing the transformative potential of AI requires addressing these biases, which pose immense risk to business and society. As developers, users and managers of AI systems, businesses play a central role in leading the charge while decisions of business leaders are of historic consequence. The goal is not to fully “de-bias” AI – this is not achievable. Bias in AI isn’t simply technical and can’t be solved with technical solutions alone. Addressing bias in AI requires assessing the playing field more broadly. It requires seeing the big picture – where different business roles and players fit in, how they pass and play together, where the ball is coming from and where it should go. (Smith & Rustagi, 2020).”

Colorado’s K-12 charter schools' evolving regulations and ongoing updates to technical standards influence the use of AI. Ethical oversight grounded in data and technology theory maintains that AI integration requires both technological effectiveness and moral accountability to protect fundamental human rights (Ismail & Ahmad, 2025). Applying data and technology theory also emphasizes data minimization by establishing strict standards to reduce bias and discrimination in the algorithms of unvetted large language models (Floridi, 2021; U.S. DoE, 2023). The Colorado framework model for AI use in education combines the NIST framework with the result of a seven month collaboration between Colorado educators, legislators, industry

leaders, community members and students to create a guide to be used to bolster and complement existing technology use policies to ensure continued support through language for AI use, data protections, student support, academic integrity, and provide scaffolding for district leadership for compliance with SB24-205 (CEI, 2024). The Colorado framework specifically notes that the teaching and learning model enabled by AI is intended to expand and enhance current teaching and learning practices, not as a replacement for human-to-human interactions (CEI, 2024). Additionally, the U.S. Department of Education, Office of Educational Technology, offers recommendations for incorporating bias detection for AI platform integration and use (US DoE, 2024). This is important for the educational implementation of AI tools used to conduct comprehensive audits of resource allocations, identify gaps in technology, equipment, and software, and conduct assessments in rural and underserved areas while protecting data privacy (CEI, 2024). Recognizing the dual reality of artificial intelligence (AI) as a catalyst for educational innovation and its inherent consumer risks, the Colorado General Assembly enacted the Artificial Intelligence Act (CO-SB24-205) which is set for full implementation in June 2026 to align with the mandatory “reasonable care” standards for eliminating dataset bias, transparency, and other mandated regulations beginning for the 2026-2027 school year (CO-SB24-205, 2024). Other early adopters of AI frameworks, such as Washington, West Virginia, North Carolina, and Oregon, developed statewide frameworks that concentrate on academic integrity, teacher professional development, and human-centric uses, while California, Ohio, and Texas mandate specific actions for creating district policies for AI use of bias audits, chatbots, or providing misleading authority for medical and educational information.

Implementing Law, Regulation, & Legislative Guardrails, the U.S. Department of Education, Office of Educational Technology, offered recommendations for incorporating bias detection for

AI platform integration and use (US DoE, 2024). The shift from guidance to formal mandates in AI laws directly responds to the outcry for consumer protections regarding safety, data privacy, and the mental health and well-being of minors as users of AI in educational settings (Florida, 2021). Colorado’s AI Act (CO-SB24-205) is not limited to AI use in an educational setting but also includes broader consumer protections.

In an effort to counterbalance dataset bias through algorithmic discrimination, as of February 1, 2026, Colorado’s Consumer Protections for Artificial Intelligence Act SB24-205 requires deployers of high-risk Artificial Intelligence (AI) systems: “to use reasonable care to protect consumers from any known or reasonably foreseeable risks of algorithmic discrimination in the “high-risk” system” (CO SB24-205, 2024) and compels any deployer or developer of those systems to notify and disclose the use of those systems to consumers interacting with them beginning June 2026 (CO-SB24-205, 2024). These requirements apply to businesses and educational systems that currently or intend to use AI systems in any manner that has a substantial impact on consumer decisions, such as loan applications, grading systems, or admissions systems.

While the Colorado Department of Education (CDE) maintains limited regulatory jurisdiction over individual local educational providers' (LEPs) specific instructional policies, it provides foundational guidance grounded in stringent federal and state mandates on student data privacy (CDE, 2026). The requirements are aligned with the Family Education Rights and Privacy Act (1974) (20 U.S.C. § 1232g), Protection of Pupil Rights Amendment (PPRA), Children’s Online Privacy Protection Act (COPPA) (20 U.S.C. § 1232h) for children under 13, Individuals with Disabilities Education Act (IDEA) (15 U.S.C. §§ 6501–6506), and the Student Data Transparency and Security Act (2016) (C.R.S § 22-16-101 et seq.) which mandate regular

reviews of data handling practices for preventing algorithmic discrimination (CDE-Gov, 2016). The combination of these acts serves to simplify administrative transition and to establish transparency and accountability standards in their school policies for AI use in data systems. Unlike frameworks or school policies, Colorado SB24-205 is a mandatory compliance vessel with punitive teeth that is enforceable by the Colorado Attorney General with civil penalties up to \$20,000 per violation (CO-SB24-205, 2024). This formalizes the shift from optional strategies for learning from non-binding roadmaps, frameworks, and policy to enforceable hardline legislative guardrails to mitigate bias and protect student data. The new law was aligned with global, state, and federal frameworks and guidance documents released since 2020, but new administrative and political agendas have disrupted the implementation process. A 2026 policy briefing from the Consortium of School Networking (CoSN) gave notice that the first friction between restrictive state safety mandates and federal deregulation centered on policy guidance has emerged (CoSN, 2026).

Conflict and Transactional Management Theories

In anticipation of the passage and implementation of Colorado Consumer Protections for Artificial Intelligence Act SB 24-205 and pending or passed laws in other states in the U.S., in December 2025, the current federal administration issued an executive order (U.S E.O,14365, 2025) to countermand and legally challenge any state legislation that placed any “perceived limitations on AI expansion for unlimited and unrestricted use for commerce and innovation” (U.S. E.O. 14365, 2025). Despite the addition of data privacy legislation in several states, such as Nevada’s AB406, which explicitly bans AI for certain “high-stakes” uses, the preliminary test case for legal enforcement of Executive Order 14179 is Colorado’s landmark Consumer Protections for Artificial Intelligence Act, SB24-205. EO 14365 also challenges states’ rights to

enact laws granted by the Constitution's 10th Amendment. The U.S. E.O., 14365, will be implemented through the restriction or withholding of funds available to states through the “Broadband Equity Access and Deployment (BEAD)” and National Science Foundation (NSF) grant programs, whose mission is to deliver universal high-speed connectivity networks for AI applications. This contradiction places Colorado Charter Schools in a precarious financial position, caught between two regulatory bodies now threatening to withhold federal grant funding or impose significant state-level financial penalties. This table provides the results for the Secretary of Commerce’s report identifying specific legal challenges Colorado will be facing:

Flagged Colorado Provisions for Federal Challenge (March 2026)			
Flagged Provision	Statutory Reference (SB 24-205)	Commerce Dept. "Onerous" Designation Basis	Federal Legal Basis for Challenge
Mandatory Bias Audits	Sec. 6-1-1703(1)	"Ideological compelled speech" : Argues that requiring audits for "algorithmic discrimination" forces developers to embed specific demographic parity into models, distorting "objective" outputs.	1st Amendment (Compelled Speech) & EO 14365 § 4
High-Risk Disclosure	Sec. 6-1-1702(2)	Trade Secret Violation : Requiring schools to provide "plain language" explanations of training data and logic is viewed as forced disclosure of proprietary architecture.	Trade Secrets Act & Interstate Commerce Clause
Impact Assessments	Sec. 6-1-1703(3)	"Burdensome Compliance" : The requirement for annual reports is deemed a "barrier to entry" for smaller AI startups, reducing competition and favoring large incumbents.	EO 14365 § 2 (Market Competition)
Rebuttable Presumption	Sec. 6-1-1706	Shifting Burden of Proof : Placing the legal burden on schools/developers to <i>prove</i> a lack of bias is seen as a "chilling effect" on the deployment of innovative classroom tools.	Due Process & National AI Leadership Act (Proposed)

A concern for administrators is that the U.S. E.O. 14365 skirts the Stored Communications Act (SCA, 18 U.S.C. §§ 2701–2712, 2016), which prohibits providers from disclosing electronic communications data under the Fourth Amendment's right to privacy. While the U.S. E.O.,

14365 specifically mentions strict privacy for student data, the provisions and oral arguments of the Clarifying Lawful Overseas Use of Data (CLOUD) Act of 2018, enacted in response to *Microsoft vs U.S Government* (584 U.S. ____ (2018) for data sovereignty of data stored outside the United States aids the federal governments' ability to access the data if hosted on global cloud platforms under defined circumstances. Student data is protected within the United States under several legal policies, but the CLOUD Act establishes precedent for "data location" with a critical legal vehicle for boundary removal (i.e., in times of war). This is where the intersection of law and the existing policy frameworks meets professional ethics for responsible, accountable AI use in education.

Data Analysis

Public Understanding of Artificial Intelligence

The perspective of Public Awareness of Artificial Intelligence (AI) seemed to go from vague to AI tool use everywhere in the blink of an eye and most still see it as an extension of a Google search. From that perspective, AI was generally seen as an abstract idea formed from science fiction novels, comic books & movies, and to a small degree some WWII historical information on its uses to most people. The public fascination on science fiction kept the public focus on robotics and flight development for space travel. This has led to a largely uninformed public on the extensive and comprehensive collection and use of datasets for machine learning models used by AI platform developers today. Dynamic Capability Theory and Diffusions of Innovations Theory can be used to explain how this pattern of public complacency emerged. Dynamic Capability Theory proposes that identifying and assessing market opportunities and technological threats to mobilize resources to capture opportunities through new products, processes, or services, while the rate of new ideas spreads through the social sphere. In the

beginning, when loyalty programs for consumers began taking personal email information, datasets were being formed for marketing and advertising use. When social media platforms and online gaming entered the consumer market, unlimited data from personal information, online conversations, and image sharing with embedded location data were made available for public consumption. Companies whose platforms stored the information then had access to larger datasets to improve processes and collect even more personal information from consumers with little restriction on its use. As protections for the public were lax and cybercrime began to rise, it became clear that stronger regulations were needed, and that government regulators needed to step up. However, legislative efforts are often slow to implement. With all this consumer data available, media companies have quickly utilized large learning models for machine learning, and more intelligent pattern recognition software in the form of AI tools have been implemented at an astronomical pace and continue to outpace legislation efforts.

Artificial Intelligence State Regulation and Education

As global awareness of AI use and misuse increased, public outcry for protection could no longer be ignored, and collaborative frameworks to address these needs were deployed worldwide. Contingency Theory suggests that the best approach to managing an organization depends on the specific situation or context in which it operates. In this case, the focus is on consumer protection and the removal of AI programming bias from datasets. Organizational Change Theory explains the collaboration between the agency and the populace in developing many educational frameworks to establish restrictions, legislation, and protections that are beginning to be enforced on AI platforms used in Colorado's Charter school classrooms and in grades 6-12 learning environments. A collaborative from the state of Colorado worked with stakeholders to develop a roadmap for schools to safely utilize AI tools in teaching and learning environments. Colorado's

state legislators worked to create safeguards for Colorado citizens by passing Colorado SB24-205 into law effective June 2026. The bridge between Colorado and the previous executive administration (46) for national and state for collaborating in the development of AI use frameworks and proposed legislation is explained by through Social Contract Theory. According to Shah (2022) “Social contracts remain essential for legitimacy in modern democracies, defining the duties of government to protect, educate, and provide security to its citizens. The framework is often invoked in debates on social justice, immigration, and human rights to define the obligations between citizens and the state.” The following table shows the navigation complexity of the various frameworks, policies, and laws, along with the legal requirements currently enforced and/or pending for Colorado schools.

Category	Name of Key Frameworks & Laws	Implementation Timeline	Compliance & Alignment	Gaps in Scope & Requirements
Federal (Executive)	EO 14365 "Removing Barriers to AI Leadership"	Dec 2025 – Mar 2026	Focused on deregulation . Rescinded Biden's EO 14110. Mandatory review of "burdensome" state laws due March 11, 2026. Challenges states 10 th amendment rights to pass laws to protect citizens.	Lacks specific K-12 workforce or student safety protections; assumes private sector innovation will self-regulate risks.
Federal (Legislative)	TRUMP AMERICA AI Act (Proposed)	Jan 2026 (Introduction)	Aims for Federal Preemption to eliminate state-by-state chaos. Challenges states 10 th amendment rights to pass laws to protect citizens. Includes "Bad Samaritan" provisions for platforms.	Vague definitions of "facilitating" illegal content; creates litigation risk for schools using open-source AI.
Federal (Civil Rights)	Blueprint for an AI Bill of Rights	Ongoing (2022–2026)	Non-binding guidance. Used by Dept. of Ed for "Human-in-the-loop"	Not a formal law; schools can opt out without penalty unless state law

Category	Name of Key Frameworks & Laws	Implementation Timeline	Compliance & Alignment	Gaps in Scope & Requirements
			frameworks and data privacy principles.	reinforces these principles.
State (Comprehensive)	Colorado AI Act (SB 24-205)	Effective June 30, 2026	Requires "reasonable care" to avoid algorithmic discrimination ; mandatory disclosures for high-risk systems.	Conflict with federal deregulatory push ; currently under "burdensome law" review by US Dept of Commerce.
State (Instructional)	FutureEd Tracker (23+ States)	2026–2031 (Phased)	Mandates AI Literacy for graduation (e.g., IL, OH, AL). Hawaii requires 6-week courses by 2027.	Massive funding gap for teacher training ; no unified standards for what constitutes "AI Literacy."
Digital Standards	ADA Title II (Updated DOJ Rules)	Deadline: April 24, 2026	Strict Compliance: All digital content/AI tools must meet WCAG 2.1 Level AA standards.	Schools struggle with "legacy" content; many generative AI tools are not natively WCAG-compliant.
Federal (Instructional)	US Dept of Labor AI Literacy Framework	Effective: Feb 13, 2026	Mandatory for Federal Grant funds: Required for schools receiving workforce or "future-ready" tech grants	Mandates "Experiential Learning" but does not provide funding for broadband or hardware access
Federal (Instructional)	NIST AI Risk Management Framework (RMF 1.1)	Ongoing: 2023-2026	Voluntary Standard: Provides the technical "Affirmative Defense" for schools against discrimination lawsuits	Lacks Educational Specificity: does not address classroom pedagogy or student developmental stages
State (Instructional)	Colorado (CDE-CEI) Roadmap for AI K-12	Ongoing: 2024-2027	Guidance/Strategic: helps build district policies that meet state safety and instructional goals.	Unfunded Mandate: Provides high-level guidance but lacks direct state funding

Category	Name of Key Frameworks & Laws	Implementation Timeline	Compliance & Alignment	Gaps in Scope & Requirements
				for the required technical bias audits

New National Policy on AI Development

The national AI policies of the current US administration (45/47) can be easily explained through the Conflict Theory and Transactional/Management Theory. In its effort to create a new vision of the national power structure, the conflict theory, as defined by Karl Marx, asserts that social structures (laws, traditions, institutions) are created by dominant groups to maintain their privilege, leading to inevitable conflict and social change (both good and bad). Within the scope of the Transactional/Management Theory, where leaders clarify expectations, and followers receive rewards (bonuses, recognition) for meeting targets or punishments for failing them, the current national administration uses financial punishments in the form of withholding grants and other funding channels to enforce compliance on educational systems at the state level. The reward for compliance is eligibility for funding without a guarantee that it will materialize at the school level. With the dismantling of the national office of education and in its race to “win” the AI implementation and innovation sectors, the current national administration (45/47) has pushed Executive Orders (EO) 14365 for AI use effective in December 2025 and additional frameworks developed through the national Office of the Department of Labor (DOL) in January 2026, that work to contradict previous frameworks or prohibit protections for consumers through developments in “high-risk” AI platform creation. Colorado’s SB24-205 contradicts the national EO 14365 and DOL Framework’s disregard for consumer protections from bias discrimination and data privacy. The national administration is legally challenging the non-compliance through

the Department of Justice, which is in direct disregard of the 10th Amendment to the Constitution granting states the right to enact laws to protect their citizens.

According to the Stanford University HAI report (2025), over the past decade, the acceleration of AI technology development and deployment was closely monitored, and some mitigation efforts were put in place to protect the public, including the establishment of AI learning platforms to counterbalance any detrimental use of the technology. These efforts were compromised by the imbalance in the racial and gender diversity of the program engineers, who are predominantly white males (Nestor et al., 2025). While not exhaustive, three key areas of concern emerged from the data: AI bias through algorithmic discrimination, AI literacy gaps, and data security through risk management. Until December 2025, all published U.S. federal and state roadmaps for policy frameworks aligned to implement AI use laws across the nation. Despite technical and organizational efforts to improve explainability, transparency, and accountability, student data and privacy concerns have become imperative in the educational policy and law areas since personal data has been collected by privacy-invasive social media platforms, smartphone apps, and other Internet of Things (IoT) devices for decades (Hagendorff, 2019; Godwin-Jones, 2021). As the data was reviewed, in addition to increasing consumer awareness of data privacy and security, mitigation of algorithmic discrimination driven by embedded bias, and gaps in AI literacy for educational readiness, several themes emerged as crucial: the acceleration of AI technology shows that the ability to integrate or reconfigure internal and external competencies is hindered by inability to diversify in light safety risks and the need to mitigate bias to provide agile change as indicated the Dynamic Capability Theory for consumer protections; AI literacy gaps in common knowledge hinders the Diffusion of Innovation Theory's rate of adoption of new AI technologies for every day uses. Second, shifts in the external legal environment enforce

alignment in organizational internal policies for data security and risk management, while many educational networks are resistant to change in the adoption of AI technology use for students, fearing academic standards will fail. Third, legal challenges to states adopting legislation on a national level regarding federal funding opportunities for their educational entities for noncompliance of federally imposed executive orders and new AI Literacy frameworks in conflict with state adopted law and policy show clearly the conflicting balance of power structures.

The NIST RMF (2024) freely acknowledges that AI technologies have significant potential to transform society and people's lives, drive economic growth and scientific achievements, but frankly states they can also negatively impact individuals, groups, organizations, communities, and the planet since they are designed to operate with varying levels of autonomy to influence real decision making processes within given datasets (NIST, 2024).

The Vargas-Veleda et al. (2024) study found biased reports, as early applications show that AI platform datasets would have predetermined scaling biases for nearly every group (except white males) through scalable algorithmic discrimination. Correlational analysis finds that using roadmaps, frameworks, policies, and legislative-aligned efforts from 2020 to 2025, and attempting to offset this bias through mandatory "ethical reasonable care" standards in education and other areas of data privacy.

The Federal Executive Order 14365, which conflicts with Colorado's SB24-205 and the U.S. Constitution's 10th Amendment (U.S. Const. amend. X, § 1), if legally bound through US Department of Justice, could effectively remove state autonomy for AI legislation, along with removing bias and privacy protections from consumers in the emerging AI marketplace under the orders of "technical truthfulness" not only in Colorado, but across the United States. The

CLOUD Act causes additional legal complexities for data storage and privacy under certain circumstances. Additional safety concerns include unchecked algorithmic bias that erroneously assesses or predicts student achievement potential, challenges in system AI literacy to distinguish “real” from “fake” content, and the ability of AI systems to deliberately create misinformation.

Research Methodology

This study uses a qualitative relational methodology to examine the intersections of AI policy implementation within educational governance. As the body of research is continuously expanding in scope and focus, criteria for selection and inclusion in this literature review were limited to significant theories in educational learning and operational business strategies, works of historical significance to the overarching field of artificial intelligence, and current published frameworks from government endorsed entities, roadmaps produced in collaboration with state education departments, existing or developing charter school policies for the five largest charter schools in Colorado, state and federal laws, executive orders and mandates enacted within the last decade. While every attempt was made to restrict data selection to current laws, executive orders, and policies for examination, additional laws and frameworks were enacted during the study, and others are currently proposed for national legislation and Colorado ballots, which were examined as potential change agents. Although some can be categorized as resources for guidance, and others as legal mandates for conformity, some challenges arise for school implementation while remaining in compliance with established federal and state laws on student data privacy, mitigating bias, and improving AI literacy.

While the implications of the frameworks, laws, and mandates affect all students at all levels, works excluded from this review included any that focused on public or private schools, a single primary interest group or subset in education (such as students with disabilities or gender

affirmation), as the study’s focus is on AI policy in education in the general sense and on 6-12 Charter Schools in Colorado specifically.

Data for this work were systematically obtained from diverse repositories of primary and secondary sources, including frameworks from U.S. federal and Colorado state government websites, strategic reports from non-profit task force websites, policy briefings from U.S. organizations and international organizations, non-profits, and governments. To ensure validity and veracity, gray literature sources were integrated with peer-reviewed scholarly publications. Following the collection phase, the data is systematically analyzed to draw comprehensive conclusions and identify links between legal mandates and operational policies regulating the current state of AI use and its impact on school policy.

The selected materials were then grouped into three distinct categories for review: development of roadmaps and frameworks, roadmaps for policy and guidance, and law and legislation.

Ethical Implications

Technology has never been a neutral tool, especially in AI, where rapid growth should be directly linked to the development of ethical frameworks, roadmaps, and literacy to manage the inherent risks of bias and misinformation. Consumer protections are needed for AI systems trained on “big data” datasets that amplify existing societal biases and disproportionately impact marginalized student populations. Protecting students' privacy from data breaches, exploitative data mining practices, and the adverse effects of scalable algorithmic bias is ethically imperative. The rise of generative AI challenges the notions of academic integrity, and honest implementation of accountability requires “human-in-the-loop” models for AI to remain a tool for human benefit rather than a continuous source of disinformation and misuse.

From a regulatory and legislative perspective, enforceable laws such as Colorado's SB24-205 create a transition from non-binding frameworks, add a dimension of reasonable care in preventing algorithmic discrimination, and ensure data privacy protections in academic settings. Understandably, some educators remain hesitant to implement AI tools in the school setting. Platforms such as Grok, which have been in the news lately, have already been proven to have adverse effects in school settings and other areas with the nonconsensual use of Grok's photo manipulation and video creation capabilities misused by bad actors for the creation of pornographic content to the embarrassment of fellow students or, unfortunately, by educators and students' images.

State and National regulatory bodies conflict in their opinions on whether these capabilities should be removed from platforms, while public safety concerns are becoming increasingly valid over time. Careful vetting of tools for educational use, through AI policy and AI literacy education programs, is essential to prevent the misuse of the new and exciting developments in AI technology.

Preventing algorithmic bias to ensure fairness and prevent discrimination in life-altering outcomes across academic, financial, and regulatory settings is an ethically sound practice that many AI developers need to incorporate when developing programs for commercial use.

Legislative oversight should be ethically sound and manageable for academic system adoption for compliance. Administrators in Colorado Charter schools for grades 6-12 will need to work within state and national guidelines and legislation to remain compliant with both, without developing separate, conflicting policies. The current dispute over the sovereignty of law, the state, and national directives should be grounded in a clear understanding of state-level precedence to maintain the freedoms granted by the US Constitution's 10th Amendment.

Policy Recommendations

Colorado 6-12 Charter Schools should develop policy aligned with the Roadmaps, Frameworks, State legislation, and national policies. Although they are currently in conflict over the sovereignty of law, the following table shows alignment between Colorado SB24-205 and the US Executive Order 14365 for the creation of school compliance policies. For a charter school administrator, the goal is to align with the shared technical standards so that your schools are "safe" regardless of which level of government wins the current legal tug-of-war.

Shared Compliance: Where Federal and State Requirements Align		
Requirement Category	Common Foundation / Alignment	Why it Matters for Compliance
Risk-Based Classification	Both frameworks focus exclusively on " High-Risk " or " Consequential " systems (e.g., admissions, financial aid, grading).	You don't need to audit every classroom tool; only the ones that "change the course of a student's life."
Vendor Documentation	Both require Developers (vendors) to provide "Model Cards" or high-level summaries of training data and system limitations.	Federal and state laws both put the burden on the company to "show their work" to the school.
Human-in-the-Loop	Both mandates insist that AI should be a support tool , not a replacement for human judgment in sensitive areas.	Maintaining a human reviewer for every AI-assisted decision satisfies both CO's "Right to Appeal" and the Federal "Human-Centered" focus.
Transparency & Notice	Both require that people (parents/students) be notified when they are interacting with an AI system.	A simple "This process is assisted by AI" badge on your website satisfies both frameworks.
Technical Standards	Both point toward NIST AI RMF 1.1 as the "industry standard" for documenting reasonable care.	Following NIST is your "Safe Harbor" at both levels.

Colorado's 6-12 Charter Schools should adopt a compliance strategy to minimize AI-related risks to data privacy and academic integrity, while using the internal NIST 1.1 documentation,

which Colorado's Roadmaps and Legislation are built upon for state compliance and for any future legal defense. Additionally, while public-facing AI policy is framed in terms of "Workforce Readiness" and "Productivity," it aligns with EO 14365 to continually secure federal funding. Both state and federal initiatives promote data minimization for student privacy, disclosure of use, mandates for validity and reliability, and, finally, emphasize AI literacy and competency training and curriculum for students and teachers to promote human interaction and skills. The sticking point seems to be the amount of data the AI platforms should be allowed to capture, as well as the regulations on algorithmic bias restrictions embedded in the programming.

Summary

Goodwin-Jones (2021) notes that AI platform creators/deployers have used "big data" to develop algorithmic "learning" tools that find recognizable patterns and extrapolate information but have not mitigated privacy concerns or bias detection to ensure fairness in results. Information collected by these platforms has captured identifiable datasets, is embedded with biases, and can be used to create unrestricted content with any impact, positive or negative. According to the contingency theory, people are hesitant to interact with certain forms of AI until undisputed regulations and laws are passed to ensure safer use, privacy, and data collection. This is essential for the public's continued participation in a digital economy and trust in the social systems that have been in place for centuries.

Organizational Change theory, combined with the Diffusion of Innovations theory, helps explain the evolving educational standards and policies that affect student academics and the learning phenomena enabled by AI platforms. While teachers are facing student work of questionable origin and academic integrity, administrators are preparing their educational institutions to adopt AI infrastructure within their technology platforms. Despite efforts to standardize AI platform

policies for educational use, many schools and districts face obstacles ranging from biased datasets to federal deregulatory efforts. Colorado's 6-12 Charter Schools have some autonomy for curriculum inclusion, but must also follow state laws and the Department of Education guidelines for policy integrations. Although previously established standards for implementation were carefully constructed, current federal political interference at the state level will continue to cause reexamination with the cost of time, effort, and collaborative agreement, as well as funding interruption, regardless of how administrators seek to comply with either (or both) state or federal laws and prepare for readiness for AI policy implementation in schools.

Colorado's 6-12 Charter School educational policy makers have been previously caught in the middle of social, political, and economic strife, but the hard line in the sand for governance jurisdiction between state and federal governments has not been called into question before.

Education policy and implementation have traditionally been the purview of the states. Despite these conflicts and legal posturing, some alignment is evident across all the global frameworks, state roadmaps, legislation, and US federal mandates for AI policy and compliance. Colorado's 6-12 Charter Schools are facing multiple changes to policy integration for AI use and technology adaptability and capabilities for data risk mitigation, algorithmic bias detection and mitigation, as well as compliance in all applications of laws and mandates.

Explained by Marx (1876) through the conflict theory as of now, compliance is no longer just about Colorado SB24-205 state law, it has become a high-stakes choice between state mandates and federal funding eligibility under Department of Labor's AI Literacy Framework and the Executive Order 14365 with pending legislation for federal law.

Federal Funding Compliance Framework (March 2026)

Burns (1978) and Bass (1985) show impediments to compliance for Colorado’s SB24-205 state law through Transactional Management Theory’s lens. This shows clearly how the federal government oversight forces compliance against state laws, to remain eligible for federal discretionary grants (including **BEAD** broadband funds and **WIOA** workforce grants), and Colorado 6-12 Charter Schools must navigate the following federal requirements:

Funding Stream	Compliance Requirement (EO 14365 / DOL)	Risk Level for CO Charters
BEAD (Broadband)	States must not enforce “onerous” provisions of SB 24-205 (e.g., mandatory bias audits) to receive the final \$800M allocation.	Critical: High-speed AI infrastructure relies on these funds.
WIOA (Workforce)	Must implement the DOL AI Literacy Framework (Principles, Uses, Direction, Evaluation, Responsibility).	High: Affects schools with CTE or "Early College" pathways.
K-12 Grants	Priority is given to schools that integrate AI rather than block it, following the "Advancing AI Education" EO (2025).	Medium: Impacts competitive tech and innovation grants.

As a real-time issue, changes to laws, both state and federal, are gearing up for legal battles to ensure that AI not only becomes an additional tool and resource in the classroom, but what form of compliance end-users will be compelled to follow. Additional research will be needed to determine the effects of any legal battles and jurisdictional requirements on Administrator Readiness of AI platform use in Colorado’s 6-12 Charter Schools, Public K-12 and Higher-Ed educational entities and on educational pipeline enforcement efforts.

References

- Abbott, K. W., & Snidal, D. (2000). *Hard and soft law in international governance*. International Organization, 54(3), 421–456. <https://doi.org/10.1162/002081800551280> (Abbott & Snidal, 2000)
- Adeyemo, O., (2024). *Increasing security and improving performance with network managed service providers*. ISACA Journal, 1. <https://www.isaca.org/resources/isaca-journal/issues/2024/volume-1/increasing-security-and-improving-performance-with-network-managed-service-providers> (Adeyemo, 2024)
- Alva L. & Pandey B. (2025) Agentic AI systems in the age of generative models: architectures, cloud scalability, and real-world applications. *Artif Intell Rev* (2025). Retrieved 01-23-2026. <https://doi.org/10.1007/s10462-025-11458-6> (Alva & Pandey, 2025)
- Alvestad, S. (2026). 'More conversational and informal': AI written 'fake news' is perceived as more credible than human disinformation promoters. Genetic Literacy Project. <https://geneticliteracyproject.org/2026/03/10/more-conversational-and-informal-ai-written-fake-news-is-perceived-as-more-credible-than-human-disinformation-promoters/> (Alvestad, 2026)
- Baker, R. S., & Hawn, A. (2022). Algorithmic bias in education. *International Journal of Artificial Intelligence in Education*, 32(4), 1052–1092. <https://doi.org/10.1007/s40593-021-00285-9> (Baker & Hawn, 2022)
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.
- Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, 610–623. <https://doi.org/10.1145/3442188.3445922> (Bender et al., 2021)
- Berry, F. S., & Berry, W. D. (1990). "State Lottery Adoptions as Policy Innovations: An Event History Analysis." *American Political Science Review* (Berry & Berry, 1990)
- Birhane, A. (2021). Algorithmic injustice: A relational ethics approach. *Patterns*, 2(2), Article 100205. <https://doi.org/10.1016/j.patter.2021.100205> (Birhane, 2021)
- Birkland, T. A. (2024). *An introduction to the policy process: Theories, concepts, and models of public policy making* (6th ed.). Routledge.
- Burns, M., Winthrop, R., Luther, N., Venetis, E., & Karim, R. (2026, January 14). *A new direction for students in an AI world: Prosper, prepare, protect*. Brookings. <https://www.brookings.edu/articles/a-new-direction-for-students-in-an-ai-world-prosper-prepare-protect/> (Burns et al., 2026)

- Burns, J. M. (1978). *Leadership*. Harper & Row. Copyright 1978 by James MacGregor Burns. All rights Reserved. Printed in the United States of America by Harper & Row Publishers, Inc. in New York, NY, and in Canada by Fitzhenry & Whiteside Limited, Toronto. First Edition ISBN: 978-0060105884 Digital copy excerpt from: <https://archive.org/details/leadership1978burn/page/n7/mode/1up> Retrieved on April 2, 2026.
- Carbonell, J. R. (1970). AI in CAI: An artificial-intelligence approach to computer-assisted instruction. *IEEE Transactions on Man-Machine Systems*, 11(4), 190–202. <https://doi.org/10.1109/TMMS.1970.299942> (Carbonell, 1970)
- Center for Innovation, Design, and Digital Learning (2024). Artificial Intelligence: The Impact of AI on Education for All Learners. Author. <https://ciddl.org/wp-content/uploads/2025/03/Artificial-Intelligence-The-Impact-of-AI-on-Education-for-All-Learners.pdf> (CIDDL, 2024)
- Chesney, B., & Citron, D. (2019). Deep fakes: A looming challenge for privacy, democracy, and national security. *California Law Review*, 107(6), 1753–1820. <https://doi.org/10.15779/Z38QC0ZF44> (Chesney & Citron, 2019)
- Colorado Department of Education & Colorado Education Initiative. (2024). *Colorado Roadmap for AI in K-12 Education: Guidance for Integrating AI into Teaching and Learning*. Retrieved from <https://www.coloradoedinitiative.org/projects/ai-in-colorado-education/> (CDE & CEI, 2024)
- Colorado Education Initiative. (2025). *Future-ready Colorado: Artificial intelligence (AI) K-12 skills progression guide for educators*. https://www.coloradoedinitiative.org/wp-content/uploads/2025/08/Future-Ready-Colorado_Artificial-Intelligence-AI-K-12-Skills-Progression-Guide-for-Educators.pdf (The Colorado Education Initiative [CEI], 2025) (CEI, 2025)
- Colorado General Assembly. (2024). *Senate Bill 24-205: Concerning consumer protections in interactions with artificial intelligence systems*. Retrieved from <https://leg.colorado.gov/bills/sb24-205> (CO-SB24-205, 2024)
- Colorado Student Data Transparency and Security Act, Colo. Rev. Stat. § 22-16-101 et seq. (2016) <https://www.cde.state.co.us/dataprivacyandsecurity/crs22-16-101> (CDE-Gov, 2016)
- Congressional Research Service. (2023, August 4). *Artificial intelligence: Overview, recent advances, and considerations for the 118th Congress* (Report No. R47644). <https://www.congress.gov/crs-product/R47644> (Congressional Research Service, 2023)
- Consortium for School Networking. (2026). *Driving K-12 innovation: 2026 hurdles, accelerators, and enablers*. <https://www.cosn.org/the-2026-driving-k-12-innovation->

- [report-a-roadmap-for-whats-next/](#) (Consortium for School Networking [CoSN], 2026)
(CoSN, 2026)
- Dahrendorf, R. (1959). *Class and class conflict in industrial society*. Copyright by Ralf Dahrendorf. Original published by Stanford University California: Stanford University Press. Published online by Cambridge University Press August 1, 2014.
<https://www.cambridge.org/core/journals/american-political-science-review/article/abs/class-and-class-conflict-in-industrial-society-by-ralf-dahrendorf-stanford-california-stanford-university-press-1959-pp-xvi-336-650/B4E861F526446557112E7A308761DDAB> Retrieved April 2, 2026.
- Dusseault, B., Hurwitz, J., & Mandayam, A. (2025, November). *Districts and AI: Early adopters focus more on students in 2025-26*. Center on Reinventing Public Education. <https://crpe.org/districts-and-ai-early-adopters-focus-more-on-students-in-2025-26/> (Dusseault et al., 2025)
- Fiedler, F. E. (1964). A contingency model of leadership effectiveness. *Advances in Experimental Social Psychology*, 1, 149–190. [https://doi.org/10.1016/S0065-2601\(08\)60051-9](https://doi.org/10.1016/S0065-2601(08)60051-9)
- Floridi, L. (Ed.). (2021). *Ethics, governance, and policies in artificial intelligence*. Springer Nature. <https://doi.org/10.1007/978-3-030-81907-1> (Floridi, 2021)
- Gluck, J., Do, B., & Rice, T. (2025, October 2). *The state of state AI: Legislative approaches to AI in 2025*. Future of Privacy Forum. <https://fpf.org/resource/the-state-of-state-ai-legislative-approaches-to-ai-in-2025/> (Gluck et al., 2025)
- Gluck, J., (2026) From Proposal to Passage: Enacted U.S. AI Laws, 2023-2025, Future of Privacy Forum, February 19, 2026. Retrieved 02-25-2026. <https://fpf.org/blog/from-proposal-to-passage-enacted-u-s-ai-laws-2023-2025/> (Gluck, 2026)
- Godwin-Jones, R.,(2021) *Big Data and Language Learning; Opportunities and Challenges*, Journal of Language Learning & Technology vol25(1) <http://hdl.handle.net/10125/44747> or <https://scholarspace.manoa.hawaii.edu/items/01b5a977-7c65-4c90-b8bd-c5bd0754bd77> (Godwin-Jones, 2021)
- Hagendorff, T. (2020). The ethics of AI ethics: An evaluation of guidelines. *Minds and Machines*, 30(1), 99–120. <https://doi.org/10.1007/s11023-020-09517-8> (Hagendorff, 2019)
- Hao, S., Teng, F., Hou, R., Zhang, L., Wu, H., & Qi, J. (2023). Explainable AI and echo state networks calibrate trust in human machine interaction. *Scientific Reports*, 13(1), 16428. <https://doi.org/10.1038/s41598-023-43183-z> (Hao et al., 2023)

- Harry, A., & Sayudin. (2023). Role of AI in education. *Injuruty: Interdisciplinary Journal and Humanity*, 2(3), 260–268. Retrieved 02-16-2026. <https://doi.org/10.58631/injuruty.v2i3.52> (Harry & Sayudin, 2023)
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign. <https://curriculumredesign.org/wp-content/uploads/AI-in-Education.pdf> (Holmes et al., 2019)
- Holmes, W., & Tuomi, I. (2022). State of the art and practice in AI in education. *European Journal of Education*, 57, 542–570. <https://doi.org/10.1111/ejed.12533> (Holmes & Tuomi, 2024)
- Hou, Y. (2025). What do we mean by “AI integration”? Toward a typology of integrating artificial intelligence in higher education. *Education and Information Technologies*, 30, 10567–10593. Retrieved 01-24-2026. <https://doi.org/10.1007/s10639-024-13175-z> (Hou, 2025)
- IoT Analytics. (2025). *Generative AI market report 2025–2030*. <https://iot-analytics.com/leading-generative-ai-companies/> (IoT Analytics, 2025)
- Ismail, O., & Ahmad, N. (2025). Ethical and governance frameworks for artificial intelligence: A systematic literature review. *International Journal of Interactive Mobile Technologies (IJIM)*, 19(14), 121–136. <https://doi.org/10.3991/ijim.v19i14.56981> (Ismail & Ahmad, 2025)
- Kotter, J. P. (1996). *Leading change*. Boston: Harvard Business School Press 1996. Faculty & Research Publications. <https://www.hbs.edu/faculty/Pages/item.aspx?num=137> Retrieved April 2, 2026.
- Krpan, D., & Mladenović, S. (2025). *Unveiling the black box: Understanding AI in education* (B. Bachmann & A. Sander, Eds.). European Digital Education Hub; European Union. <https://www.daad-brussels.eu/files/2025/04/Understanding-AI-in-Education.pdf> (Krpan & Mladenovic, 2025)
- Kurzweil, R. (2004). The law of accelerating returns. In *Alan Turing: Life and Legacy of a Great Thinker* (pp. 381–416). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-05642-4_16 (Kurzweil, 2024)
- Lacey, E., (2026). *Helping children navigate online misinformation in the age of generative AI*. Zefr.com <https://zefr.com/press/helping-children-navigate-online-misinformation-age-generative-ai> (Lacey, 2026)
- Lawrence, P. R., & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12(1), 1-30. <https://doi.org/10.2307/2391211>

- Lewin, K. (1951). *Field theory in social science: Selected theoretical papers*. Edited by Dorwin Cartwright. Harper Torchbooks: The Academy Library, 1964. Reprinted by Harper & Row, 1976. New York, New York. ASIN: B000JJ0 WN2.
- Lin, H., Wei, W., & Lu, H. (2025). Facilitator or Barrier? A Systematic Review on the Relationship between Artificial Intelligence Technologies and the Development of Critical Thinking Skills. *Journal of Educational Technology and Innovation*, 7(2), 11–24. <https://doi.org/10.61414/f2ah8r08> (Lin et al, 2025)
- Marini, M. (2026, January 11). New report reveals concerning AI trend: 'An emerging gap'. *The Cool Down*. Retrieved 01-27-2026. <https://www.thecooldown.com/green-business/ai-corporate-governance-gap-companies/> (Marini, 2026)
- Marx, K. (1867, 2021). *Capital: A critique of political economy*. Originally published by Progress Publishers. Edited by Frederick Engels. ASIN: B091WCSXQL. ISBN-13: 979-8734736203. Independently Published April 7, 2021.
- Merod, A. (2026, January 15). House hearing: Is now a good time to regulate AI in schools? *K-12 Dive*. Retrieved 01-27-2026. <https://www.k12dive.com/news/house-hearing-debates-if-ai-should-be-regulated-in-the-classroom/809753/> (Merod, 2026)
- Microsoft Corp. v. United States (2016) [Microsoft Corp. v. United States, 829 F.3d 197 \(2d Cir. 2016\)](#) (584 U.S. ____ (2018))
- Molenaar, I. (2022). Towards hybrid human-AI learning technologies. *European Journal of Education*, 57(4), 632–645. <https://doi.org/10.1111/ejed.12527> (Molenaar, 2022)
- Molina, E., Cobo, C., Pineda, J., & Rovner, H. (2024). AI revolution in education: What you need to know. In *Digital Innovations in Education*. World Bank. <https://documents1.worldbank.org/curated/en/099734306182493324/pdf/IDU152823b13109c514ebd19c241a289470b6902.pdf> (Molina et al., 2024)
- Moran, J., & Warner, M. (2023, November 2). *Federal Artificial Intelligence Risk Management Act of 2023* (S. 3205, 118th Congress, 1st Session). United States Senate. <https://www.congress.gov> (Moran & Warner, 2023)
- NASBE (2026). "States Take Next Steps on Governing AI Use in Schools." *National Association of State Boards of Education*. (NASBE, 2026)
- National Institute of Standards and Technology. (2023). *Artificial intelligence risk management framework (AI RMF 1.0)*(NIST AI 100-1). U.S. Department of Commerce. Retrieved 02-12-2026. <https://doi.org/10.6028/NIST.AI.100-1> (National Institute of Standards and Technology [NIST], 2023) (NIST, 2023)

- Nestor Maslej, Loredana Fattorini, Raymond Perrault, Yolanda Gil, Vanessa Parli, Njenga Kariuki, Emily Capstick, Anka Reuel, Erik Brynjolfsson, John Etchemendy, Katrina Ligett, Terah Lyons, James Manyika, Juan Carlos Niebles, Yoav Shoham, Russell Wald, Toby Walsh, Armin Hamrah, Lapo Santarlaschi, Julia Betts Lotufo, Alexandra Rome, Andrew Shi, Sukrut Oak. “*The AI Index 2025 Annual Report*,” AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, Stanford, CA, April 2025. <https://doi.org/10.48550/arXiv.2504.07139> or https://hai.stanford.edu/assets/files/hai_ai_index_report_2025.pdf (Nestor et al., 2025)
- OECD. (2025) AI Adoption in the Education System (OECD Education Working Papers No. 320). OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/12/ai-adoption-in-the-education-system_43251cf0/69bd0a4a-en.pdf (Organisation for Economic Co-operation and Development [OECD], 2025) (OECD, 2025)
- Office of Superintendent of Public Instruction [OSPI]. (2024). *Human-centered AI guidance for K–12 public schools*. Washington State Department of Education. <https://ospi.k12.wa.us/sites/default/files/2024-06/comprehensive-ai-guidance.pdf> (OSPI, 2024)
- Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. Stanford University Press. (Original work published 1978). Paperback ISBN: 9780804747899, eBook ISBN: 9780804767187 (Pfeffer & Salancik, 1978/2003)
- ResearchGate. (2024). *The evolution of data centers in the age of AI*. https://www.researchgate.net/publication/384746186_The_Evolution_of_Data_Centers_in_the_Age_of_AI (ResearchGate, 2024)
- Rice, T., Francis, J., Wrigley, J., Do, B., (2026) Five Big Questions (and zero predictions) for the U.S. Privacy and AI Landscape in 2026, Future of Privacy Forum, December 17, 2025. Retrieved 01-26-2026. <https://fpf.org/blog/five-big-questions-and-zero-predictions-for-the-u-s-privacy-and-ai-landscape-in-2026/> (Rice et al, 2026)
- Rismani, S., Davis, L., Mingole, B., Rostamzadeh, N., Shelby, R., & Moon, A. (2023). Responsible AI measures dataset for ethics evaluation of AI systems. *Scientific Data*, 10(1), 537. <https://doi.org/10.1038/s41597-023-02434-2> (Rismani et al., 2023)
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press. August 16, 2003. ISBN-13: 978-0743222099
- Rousseau, J. J. (2004). *The social contract* (M. Cranston, Trans.). Penguin Books. (Original work published 1762).

- Schiff, D. (2022). Education for AI, not AI for education: The role of education and ethics in national AI policy strategies. *International Journal of Artificial Intelligence in Education*, 32(3), 527–563. <https://doi.org/10.1007/s40593-021-00270-2> (Schiff, 2022)
- Shah, S (2022) Explainer: Social Contracts. International Idea. Retrieved April 2026. <https://www.idea.int/blog/explainer-social-contracts> (Shah, 2022)
- Shipan, C. R., & Volden, C. (2008). The mechanisms of policy diffusion. *American Journal of Political Science*, 52(4), 840–857. <https://doi.org/10.1111/j.1540-5907.2008.00346.x> (Shipan & Volden, 2008)
- Smith, G., & Rustagi, I. (2020, July). *Mitigating bias in artificial intelligence: An equity fluent leadership playbook*. Berkeley Haas Center for Equity, Gender and Leadership. https://haas.berkeley.edu/wp-content/uploads/UCB_Playbook_R10_V2_spreads2.pdf (Smith & Rustagi, 2020)
- Stravopodis, M. (2024, March 7). *AI and access to education: Bridging the digital divide*. IRIS Sustainable Development. <https://www.irissd.org/post/ai-and-access-to-education-bridging-the-digital-divide> (Stravopodis, 2024)
- Stone, D. (2012). *Policy paradox: The art of political decision making* (3rd ed.). W. W. Norton & Company, Inc December 16, 2011. ISBN-10: 978-0393912722
- Taeihagh, A. (2025). Governance of Generative AI. *Policy and Society*, 44(1), 1–22. <https://doi.org/10.1093/polsoc/puaf001> (Taeihagh, 2024)
- Teece, D. J., Pisano, G., & Shuen, Amy. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z+2](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z+2)
- UNESCO. (2023). *Guidance for Generative AI in Education and Research*. United Nations Educational, Scientific and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000386693> (UNESCO, 2023)
- UNESCO. (2024). *AI competency framework for teachers*. United Nations Educational, Scientific and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000391104> (UNESCO-framework, 2024)
- UNESCO. (2024). *Use of AI in education: Deciding on the future we want*. Retrieved 02-26-2026. <https://www.unesco.org/en/articles/use-ai-education-deciding-future-we-want> (UNESCO, 2024)
- U.S. Constitution, all Amendments
[Article/Amendment/Preamble]. <https://constitutioncenter.org/the-constitution/full-text>
(U.S. Const. amend. XIV, § 1)

- U.S. Department of Commerce: *Evaluation of State AI Mandates Under EO 14365*, released March 11, 2026. <https://www.commerce.gov/data-and-reports/reports> (not available on the website as of: March 12, 2026)
- U.S. Department of Education (USDE) Individuals with Disabilities Education Act (IDEA) 2019, <https://www.ed.gov/laws-and-policy/individuals-disabilities/idea> and <https://sites.ed.gov/idea/statute-chapter-33>
- U.S. Department of Education (USDE) 2000, <https://studentprivacy.ed.gov/ferpa> revised: 2004, 2008, 2011. (FERPA, 2000-2011)
- U.S. Federal Trade Commission (FTC) Children’s Online Privacy Protection Rule (COPPA) 2018, <https://www.ftc.gov/legal-library/browse/rules/childrens-online-privacy-protection-rule-coppa> and, <https://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title15-section6501&edition=prelim>
- USDE-FERPA: Protection of Pupil Rights Amendment (PPRA, 20 U.S.C. § 1232h) <https://www.ecfr.gov/current/title-34/subtitle-A/part-98>
- U.S. Email Privacy Act of 2016 <https://www.congress.gov/bill/114th-congress/house-bill/699> (Email Privacy Act, 2016)
- U.S. CLOUD Act of 2018, <https://www.congress.gov/bill/115th-congress/house-bill/4943> (U.S. CLOUD, 2016)
- U.S. Executive Order 14365 (2025) *Ensuring a National Policy Framework for Artificial Intelligence December 11, 2025*. <https://www.whitehouse.gov/presidential-actions/2025/12/eliminating-state-law-obstruction-of-national-artificial-intelligence-policy/> (U.S. E.O 14179, 2025)
- U.S. Department of Education. (2024). *Artificial intelligence and the future of teaching and learning: Insights and recommendations*. Office of Educational Technology. <https://tech.ed.gov/ai/> (US DoE, 2024)
- U.S. Department of Education, Office of Educational Technology. (2023). *Artificial intelligence and the future of teaching and learning: Insights and recommendations*. Washington, DC: U.S. Department of Education. Retrieved from <https://tech.ed.gov> (USDE-OET, 2023)
- U.S. Department of Labor. (2026). *Artificial intelligence literacy framework* (Training and Employment Notice No. 07-25). Employment and Training Administration. <https://www.dol.gov/sites/dolgov/files/ETA/advisories/TEN/2025/TEN%2007-25/TEN%2007-25%20%28complete%20document%29.pdf> (US-DOL, 2026)

- U.S. Senate Committee on Commerce, Science, and Transportation. (2024, July 30). *Senate overwhelmingly passes children's online privacy legislation* [Press release]. <https://www.commerce.senate.gov/2024/7/senate-overwhelmingly-passes-children-s-online-privacy-legislation> (U.S. Senate Committee on Commerce, Science, and Transportation [Senate Commerce Committee], 2024) (Senate Commerce Committee, 2024)
- U.S. Unlawful Access to Stored Communications Act of 1986. <https://www.justice.gov/archives/jm/criminal-resource-manual-1061-unlawful-access-stored-communications-18-usc-2701> (18 U.S.C. §§ 2701 to 2710)
- Vargas-Veleda, Y., del Mar Rodríguez-González, M., & Marauri-Castillo, I. (2025). Visual Representations in AI: A Study on the Most Discriminatory Algorithmic Biases in Image Generation. *Journalism and Media*, 6(3), 110. MDPI Journal <https://doi.org/10.3390/journalmedia6030110> (Vargas-Veleda et al., 2025)
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Soubberman, Eds.). Harvard University Press. (Original work published 1930–1934). (Vygotsky, 1930-1934/1978)
- Walker, J. L. (1969). "The Diffusion of Innovations among the American States." *American Political Science Review*. https://fbaum.unc.edu/teaching/PLSC541_Fall08/walker_1969.pdf (Walker, 1969)
- Watrobski P, Souppaya M, Klosterman J, Barker W (2025) Methodology for Characterizing Network Behavior of Internet of Things Devices. (National Institute of Standards and Technology, Gaithersburg, MD), NIST Internal Report (IR) NIST IR 8349. Retrieved 02-12-2026. <https://doi.org/10.6028/NIST.IR.8349> (Watrobski, et al, 2025)
- White House Office of Science and Technology Policy. (2022, October). *Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People*. The White House. <https://www.whitehouse.gov/ostp/ai-bill-of-rights/> (White House Office of Science and Technology Policy [OSTP], 2022)
- Yan, Y., & Liu, H. (2025). Ethical framework for AI education based on large language models. *Education and Information Technologies*, 30(9), 10891-10909. Retrieved 02-14-2026. <https://doi.org/10.1007/s10639-024-13241-6> (Yan & Liu, 2025)

Professional Communications

This document was scanned for grammatical errors, plagiarism, and AI indicators using the Grammarly platform.