Preferred Future Series™

Four Dimensions of AI in Community Colleges: Policy, Operations, Teaching, and Workforce

Dr. Rick Aman Aman & Associates – Futuring and Strategic Leadership September 22, 2025

Premise - AI as a Force Multiplier in Higher Education

Artificial Intelligence is reshaping every sector and community colleges are no exception. While the risks of displacement and disruption are real, AI also offers practical, immediate opportunities to improve how colleges govern, operate, teach, and prepare students for the workforce. Community college leaders who understand the "four dimensions of AI" can harness its potential without being overwhelmed by hype.

Evidence and Implications

The EDUCAUSE 2025 AI Landscape Study shows that higher education institutions are actively strategizing for AI use cases in administration, policy, teaching, and workforce. It documents both opportunities and concerns around aligning AI adoption with institutional mission. <u>EDUCAUSE</u>

"Generative AI and the Future of Work in America" (McKinsey) points out that AI has strong potential to automate routine tasks, boost productivity, and reshape job roles implying both risk of displacement and opportunity for colleges to prepare students and retool systems for the AI era. Early pilots show AI streamlining administrative processes, supporting faculty with new teaching tools, and expanding access to personalized advising.

Colleges that deploy AI thoughtfully will improve both student success and institutional sustainability, while those that hesitate risk widening gaps in service and efficiency.

The Four Uses of AI in Community Colleges

1. Policy and Governance

• Establish frameworks for responsible AI adoption: Colleges could adopt clear guidelines on ethics, privacy, and bias to ensure AI tools are implemented with trust and transparency.

- Develop campus policies for faculty, staff, and students: Policies should define acceptable use, academic integrity expectations, and professional standards to keep everyone aligned.
- Position trustees and presidents as proactive leaders: Boards and executives should guide AI adoption strategically, setting a tone of innovation rather than reacting only when challenges arise.

2. Operations

- Automate back-office tasks: Routine functions in HR, finance, and procurement can be streamlined with AI, reducing administrative burden and costs.
- Enhance enrollment services with AI-driven tools: Chatbots and intelligent scheduling systems improve responsiveness and free staff to focus on higher-value student support.
- *Use predictive analytics for planning:* AI models can help optimize course scheduling, classroom use, and staffing, reducing inefficiencies and improving student access.

3. Teaching and Learning

- *Use of AI in Research:* At the community college level, this includes faculty using AI to support discipline-specific research, inform curriculum development, and engage in applied projects that benefit regional industries. It also means teaching students how to use AI responsibly in classwork, with attention to best practices for accuracy, critical thinking with regard to output, ethical use, and citation.
- *AI-Powered Tutoring and Adaptive Learning:* Intelligent tutoring systems and adaptive platforms can deliver personalized support in writing, math, and technical subjects, helping students overcome barriers and improving retention and completion rates.
- Faculty Tools for Teaching Innovation: AI can streamline course design, provide grading and feedback assistance, and generate instructional resources, giving faculty more time to focus on mentoring, interactive teaching, and student engagement.
- Integration of AI into Curriculum: Embedding AI literacy across programs ensures students graduate with an understanding of how these tools shape their professions, whether in healthcare, advanced manufacturing, business, or the liberal arts.

4. Workforce Preparation

• *Embed AI literacy across all programs*: Every student should graduate with basic knowledge of prompting, ethical use, and data awareness to be workforce ready.

- Develop new certificates and degrees: Community colleges can offer focused credentials in data analytics, automation, and applied AI fields to meet employer demand.
- Train students to apply AI in diverse sectors: Programs should prepare learners to use AI in practical settings from clinical diagnostics to manufacturing automation to business decision-making.

Community College Advantage - Why Presidents and Boards Must Lead

Community colleges are uniquely positioned to **test, scale, and normalize AI adoption** more quickly than large universities. For trustees and presidents, this means an opportunity and responsibility to lead in shaping how AI strengthens both student success and regional workforce resilience.

- *Governance at Scale:* Smaller size and close community ties enable trustees and presidents to approve and launch AI pilots quickly, demonstrating innovation without years of delay.
- Strategic Workforce Alignment: With a mission anchored in regional labor needs, community colleges can ensure AI adoption is not abstract but directly tied to employer demand and local economic growth.
- Access and Affordability: By embedding AI skills into both degree and certificate programs, colleges provide broad populations — from firstgeneration students to displaced workers — with pathways into the future workforce.
- *Institutional Agility vs. Tradition:* Unlike universities that are often too large, bureaucratic, or steeped in tradition to respond quickly, community colleges can pivot rapidly to manage the implications of AI for higher education and the workforce.

Implication for College Leadership:

Boards and presidents who embrace this role will position their colleges as anchor institutions of innovation, helping their regions navigate disruption with confidence. By adopting AI thoughtfully, leaders can safeguard institutional sustainability by reducing costs, improving efficiency, and strengthening enrollment pipelines. They can also advance student success by embedding AI tools into advising, tutoring, and curriculum, ensuring that graduates are supported and equipped with skills aligned to emerging career paths. At the same time, community colleges that lead in AI integration will strengthen their regional economies by retraining displaced workers and supplying employers with talent prepared for AI-enabled industries.

Finally, trustees and presidents who act early will elevate their reputations as forward-thinking stewards, positioning their colleges as models of innovation in higher education. In short, the choice is clear: institutions that lead now will thrive as engines of opportunity and resilience, while those that delay risk falling behind in both mission and market relevance.

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