

The Case for Educator-Led AI Education

Research Brief, IOLEBA Guild & Assembly

The window to shape AI education is open, and it is closing quickly. The data below explains why the educators in the classroom must be part of designing what students learn, not simply handed the result. Every figure is sourced at the end of this brief.

The Faculty Preparation Gap

The people who train the next generation of AI-using workers are themselves the most underserved group in the entire AI education system.

- **68 percent of faculty** say their institutions have not prepared them to use AI in teaching, mentorship, or scholarship.
- **78 percent of educators** recognize AI's transformative potential, yet only **34 percent** feel adequately prepared to integrate it into their teaching.
- Only **6 percent of faculty** say their institution has provided sufficient resources to train them in AI literacy.
- A review of 95 empirical studies found that **65 percent of AI education research** focuses on student applications, while only 35 percent addresses teacher development. The field itself has neglected the educator.
- A 2024 survey of 1,135 educators found **58 percent had received zero AI training**, two years after generative AI entered the mainstream.

This is a structural failure, not a personal one. Institutions do not train faculty, so faculty cannot teach AI, so graduates leave unprepared, and the cycle repeats. IOLEBA breaks the cycle by making the educator the first contributor, not the last to be informed.

The Graduate Readiness Gap

- Only **3 percent of college graduates** report completing a university course focused specifically on AI. The rest taught themselves.
- **Seven in ten alumni** say their primary AI learning came from self-directed experimentation, not formal education.
- **63 percent of faculty** believe the most recent graduating class was not ready to use AI in the workplace.
- Roughly **42 percent of recent graduates** are underemployed, the highest rate in years, in part because degrees did not teach the AI-integrated skills the market now demands.

- Nearly nine in ten professors believe their students are prepared, yet almost half of students disagree. The educators teaching AI are often the least connected to what the workforce actually needs.

The Speed Problem

Curricula cannot keep pace with the technology using traditional cycles.

- Skills requirements in AI-exposed roles are changing **66 percent faster** than in non-AI roles, and that gap widened sharply in a single year.
- Traditional degree programs update on three to five year cycles. The AI workforce needs updates quarterly.
- AI-exposed jobs are growing **3.5 times faster** than the overall job market.
- Workers with AI skills command an average **56 percent wage premium**, more than double the prior year.

A curriculum built today must be living and adaptive. A fixed textbook is obsolete before it ships. This is exactly the problem the IOLEBA model is designed to solve.

Who Is Filling the Vacuum

No universally accredited, standalone AI degree yet exists, because the field changes faster than academic publishing cycles allow. That vacuum is being filled, and not by educators.

- In 2025, leading AI companies announced a **23 million dollar partnership** with a major teachers' union to embed their tools in K-12 classrooms. More than 60 companies signed a national pledge to bring AI education to schools.
- Big Tech spent **155 billion dollars on AI in 2025** alone, more than the entire federal budget for education, training, and social services combined.
- In 2026, the four largest hyperscalers are projected to invest up to **725 billion dollars** in AI infrastructure.
- Major textbook publishers have launched embedded generative AI tools, with one rolling out to over 100 colleges and universities.

These entities bring real expertise and resources. The concern is simply that a curriculum designed by vendors and validated by bureaucracy tends to serve institutional interests, not learner outcomes. Educators deserve a voice alongside them.

Why Vocational Education Is the Battleground

- The OECD's 2026 Digital Education Outlook places vocational education and training at the center of national AI workforce strategy, yet calls current adoption uneven and largely experimental.
- Apprenticeship-style AI training rose from **3 percent of AI hires in 2020 to 19 percent in 2025**, signaling strong demand for applied, credential-based pathways.
- Students using AI only as a shortcut show a **17 percent drop in learning retention** once the tool is removed, underscoring the need for structured, competency-based curriculum.

- **70 percent of U.S. workers** report receiving no formal AI training, and those most at risk of displacement are the least likely to be retrained.

IOLIBA's dual-track model, academic and vocational, targets the exact gap between AI awareness and AI application, and it reaches the workforce entrants who may never pursue a four-year degree.

The Stakes: The 2026 Kindergartener

A child starting kindergarten this year graduates high school in 2038. In those twelve years, AI will reshape every major institution.

- By 2030, AI is projected to contribute **19.9 trillion dollars** to the global economy, roughly 3.5 percent of global GDP.
- The World Economic Forum projects AI will create **170 million new jobs** while displacing 92 million existing roles, a net gain of categories that do not exist today.

The curriculum that 2038 graduate receives will be built by someone. The question this brief raises, and the question IOLIBA puts to every educator, is simple: will it be built with you, or without you?

Sources

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Research compiled from public reporting and survey data. Figures are rounded for readability. Full citation links are retained in the IOLIBA project research archive.

