



New Mexico Artificial Intelligence Alliance – Education & Outreach

2024

New Mexico Artificial Intelligence Alliance

The Need

- Over 400,000 technology jobs and 71,000 college graduates
- Over 2.3 million jobs in AI
- Critical gaps in K-14 AI education
 - Convergence of K-12 CS curricula
 - No agreement on K-12 AI curricula
- Gaps amplified by lack of diversity
 - 15% of AI professionals are women
 - 80% of AI faculty are men
 - Less than 7% of UG AI degrees are Hispanic
 - Women at greater risk of job loss due to AI
- World Economic Forum – 1Billion jobs transformed by AI
- In May 2023, 5% of job losses caused by AI
- McKinsey & Co. role of primary education to transition jobs
 - AI education broader than CS or STEM
 - Early exposure, AI as problem solving, experiential learning

The Opportunity

- Early exposure to AI as a tool for critical thinking and problem solving is crucial for shaping career trajectories
- Beneficial and ethical use of AI will become an essential skill
- *New Mexico Computer Science Alliance* provides teacher professional development and culturally responsive computer science pedagogy
- PED has promoted computing and technology in classrooms through funding and legislation
- NM is well positioned to become a national leader in K-12 AI education
- NM is rich in AI research & educational expertise that has linkages to national initiatives and is focused on student success
- The team led a statewide K-12 AI professional development pilot (EdAI)



Benefits to New Mexico

- **K-14 Teachers** – create a network of programs to build K-14 teachers’ skills in AI pedagogy, AI curricula and ownership of AI content
- **K-14 Students** – Help students master AI as a critical and ethical problem-solving tool through educational opportunities
- **AI Knowledge** – lay the foundation for long-term AI knowledge creation
- **NM Economy** – AI education contributes to Priorities 3.2, 3.3, 4.3 of EDD; AI underlies industries named for Priority 6 (6.1, 6.2, 6.3, 6.4, 6.6, 6.7, 6.8, 6.9)
- **Alignment with RPSP Priorities**
 - Education & Teacher Preparation
 - Centers of Excellence



AI Alliance Mission & Vision

"Expanding Artificial Intelligence Education - one student, one teacher, one school, one partner at a time."

The **mission** of the *New Mexico AI Alliance* is to create access for all students across New Mexico to quality education in foundations, applications, and ethical uses of AI with particular emphasis on groups traditionally underrepresented in AI.

The **vision** of the *New Mexico AI Alliance* is to achieve, by 2030, presence of AI educational opportunities in New Mexico’s middle and high schools, inclusive of equitable gender representation.

New Mexico Artificial Intelligence Alliance

Through the collaboration of educators, policymakers, and industry leaders, the New Mexico AI Alliance would **establish a network to share best practices, resources, and expertise in K-14 AI education**. This Alliance would build on the existing NM Computer Science Alliance, which has been instrumental in providing state-wide professional development for K-12 teachers in computer science and promoting integration of computer science in K-12 schools.

The AI alliance would **empower teachers and students with the knowledge, skills, and ethical understanding necessary to navigate the evolving AI landscape**. By bridging the AI skills-gap and fostering innovation, the Alliance would prepare New Mexico's students to thrive in an AI-driven world and contribute to technological advancements.

A primary goal of the AI Alliance is to provide professional development for K-14 teachers, affording them the expertise necessary to ensure students develop **responsible use of AI**. By **promoting diversity and inclusion**, the Alliance would create equal opportunities for **all students** to engage in AI education, with an emphasis on expanding successful efforts to increase early participation of girls in information technology.

Establishing an AI Alliance in New Mexico would be a step towards future-proofing education, through **teacher professional development and curricula development**, enabling students to become proficient in AI, and positioning the state at the forefront of AI education and innovation.



First Year Activities

- **Launch Convening** –network formation
- **AI K-12 Cohort Formation** – recruitment of 30 K-12 teachers across the state, virtual onboarding
- **AI Book Club** – bi-weekly meetings for teachers and facilitators
- **AI Practicum** – summer camps for K-12 teachers and students to develop and test AI modules
- **Summer Convening** –network expansion, preparation for state-level advocacy; AI camps for young women
- **AI Classroom Deployment** – Fall semester deployment of AI modules, data collection
- **Evaluation and National Dissemination** – evaluation and assessment, national presentations
- **Presentation to stakeholders** – final convening of stakeholders, development of sustainability plan

AI Alliance Goals

- **Empower** New Mexico K-14 teachers from any discipline to master and teach AI concepts and tools
- Develop a state-wide **network** of educators, researchers, and practitioners to advance AI knowledge among K-14 audiences
- Develop, assess and disseminate culturally-responsive **curricula** on AI and its ethical applications
- Establish New Mexico as a **national leader** in inclusive K-14 AI education



Team

Artificial Intelligence Leads:

- Huiping Cao, NMSU
- Son Tran, NMSU
- Enrico Pontelli, NMSU

Educational Experts

- Amanda Peel, NMSU
- Irene Lee, MIT
- Paige Prescott, NM Computer Science Alliance
- Yolanda Lozano, NM Computer Science Teachers Association

Evaluation

- Sarah Hug, Colorado Research & Evaluation