

## Summary of LARC Regional Program Advisory on AI Tech and Innovation

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### Summary

The LARC Regional Advisory on AI Tech and Innovation brought together leaders from the LAEDC, the LARC community college consortium, and industry experts to address AI's transformative impact on the regional economy and workforce. Key data from LAEDC showed a tenfold increase in AI-related job postings since 2015, highlighting that AI is primarily augmenting, not replacing, middle-skill jobs. The community college system is actively responding with new AI-focused programs, curriculum integration, and a major statewide partnership with Nvidia.

The industry panel confirmed that AI has moved from experimentation to full production. The discussion underscored the evolution beyond generative AI to advanced applications like predictive analytics, hyper-personalized training, and AI as a collaborative "thought partner." The most critical themes were the need for human-centered, ethical implementation and the development of institutional AI policies that address safety, privacy, and academic integrity. Panelists universally agreed that foundational human skills—critical thinking, ethical judgment, and change management—are paramount and identified prompt engineering as a crucial new competency for the entire workforce.

### Emerging Trends

- **Integration Across All Industries:** AI is no longer a tool for just the tech sector. It's being deeply embedded into manufacturing (predictive maintenance), healthcare (diagnostics), logistics (route optimization), and creative fields (AI-generated B-roll).
- **Hyper-Personalized Training:** AI and machine learning are being used in the background to create customized learning experiences. For example, tailoring cybersecurity training based on an employee's past behavior (e.g., proneness to clicking phishing links) to improve effectiveness.
- **Predictive Analytics in Operations and Education:** AI is heavily used for predictive modeling. This includes forecasting import/export volumes and, within higher education, for student recruitment, enrollment forecasting, and identifying at-risk students to enable proactive support.
- **AI as a Collaborative "Thought Partner":** A sophisticated trend is emerging where professionals use AI not just as a tool to find answers, but as a conversational partner to brainstorm ideas, challenge assumptions, and explore business strategies.
- **AI as an Accessibility Enhancer:** Rather than just a compliance hurdle, AI is being leveraged to improve accessibility (ADA). Tools are now capable of automatically

generating accurate captions, translating content into multiple languages, and fixing design elements to be compliant, making content more accessible than ever before.

## Workforce Needs

- **AI-Fluent Professionals in Every Role:** The market requires "AI-enabled professionals" in every field. AI fluency is becoming a durable, universal skill like critical thinking, essential for everyone from healthcare technicians to business analysts.
- **Prompt Engineers:** A specific and urgent need has emerged for individuals skilled in prompt engineering—the art and science of crafting effective questions and commands to get accurate, nuanced, and useful results from AI models. Community colleges are already beginning to develop courses on this topic.
- **Change Management Leaders:** As organizations adopt AI, they need leaders who can manage the human side of the transition. This includes educating leadership, establishing a common vocabulary, addressing employee fears, and guiding the cultural shift.
- **AI Policy and Ethics Experts:** There is a growing need for professionals who can develop, implement, and oversee institutional AI policies that cover the ethical use of data, privacy, safety, and responsible deployment.
- **Upskilling the Incumbent Workforce:** A critical need exists to provide accessible and continuous training for current employees. The recommended approach is not lengthy, one-time sessions but bite-sized, regular "snippets" of learning to keep skills current.

## In-demand Skills

### Technical Skills

- **Prompt Engineering:** The most emphasized new skill. It involves the ability to structure queries, provide context, and interact iteratively with AI to achieve a desired outcome.
- **Data Analytics & Interpretation:** The ability to use AI dashboards and validate data against "hallucinations," translating AI-driven insights into actionable decisions.
- **AI/ML Platforms & Certifications:** Familiarity with major cloud-based AI platforms from vendors like AWS and Microsoft. Industry-recognized certifications, like the AWS AI Practitioner certification, are recommended for faculty and professionals.
- **Sector-Specific AI Tools:** Proficiency with tools used in specific fields, such as AI-enhanced CAD/BIM, CRM platforms, and predictive maintenance software.

### Soft Skills

- **Critical Thinking & Validation:** The most crucial human skill. It is the ability to analyze, question, and verify AI-generated content, recognizing that AI is a fallible tool that requires human judgment.
- **Change Management:** The high-level skill of guiding teams and organizations through the technological and cultural shifts associated with AI adoption, including managing resistance and fostering a positive outlook.
- **Ethical Judgment:** The ability to understand and navigate the ethical implications of AI, especially concerning data privacy, intellectual property, and potential biases.
- **Adaptability & Flexibility:** Recognizing that not all work environments will be at the cutting edge of AI, and having the foundational, non-AI skills to function effectively in any setting.

## Challenges

- **Need for Institutional AI Policies:** A major challenge for educational institutions is the lack of formal policies governing AI use. These policies are needed to address not only academic integrity but also critical issues of data privacy and safety, such as preventing sensitive student information from being entered into public AI models.
- **Authenticity and Plagiarism:** A significant challenge in both education and hiring. Students using AI to complete assignments and job applicants using it to write resumes are creating a wave of generic, indistinguishable work that is difficult to evaluate for genuine understanding or skill.
- **Faculty Resistance and the Need for Support:** Some educators are resistant to adopting AI, viewing it primarily as a tool for cheating. Overcoming this requires institutional support, professional development, and empathy for the fact that integrating AI requires significant work to redesign assignments and teaching methods.
- **Ensuring Accessibility (ADA Compliance):** While AI can be a tool for accessibility, institutions face the challenge of ensuring that any AI platform required for student use is fully ADA compliant.
- **Legal and HR Liability:** A growing concern is accountability. If an AI tool generates a document with an error, a biased statement, or a legal violation, it creates a complex liability challenge for the organization.

## Conclusion

The era of AI is not on the horizon; it is here, shaping every industry in Los Angeles County. The consensus from the LARC Regional Advisory is unequivocal: AI's ultimate value is not in the technology itself, but in the humanity that guides it. It is a powerful tool for augmentation, not a force for replacement. Success in this new landscape will be defined by our ability to blend

AI's computational power with our own irreplaceable skills in critical thinking, ethical judgement, and creative problem-solving. The challenge ahead is not simply to adopt AI, but to cultivate a workforce that can wield it wisely, ethically, and effectively.