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Artificial Intelligence and Workforce Development

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Summary

In the modern era, artificial intelligence (AI) is transforming industries across the globe. Its integration across sectors increased productivity, innovation and economic growth. As AI continues to evolve, it becomes imperative to address its influence on workforce development and outline strategies to harness its potential while mitigating potential challenges.

The position paper argues for a transformative approach to higher education in Florida, advocating for universities to evolve into dynamic hubs catering to the demands of the AI-driven economy. It calls for the introduction of technical and non-technical AI degree programs with flexible curricula, equitable access to AI education through affordable certificate programs, and rigorous evaluation of AI upskilling efforts tied to industry outcomes. Emphasizing interdisciplinary AI education and workforce development, the paper proposes state funding incentives and compulsory AI training for state employees, aiming to equip individuals with the skills needed for the future workforce while ensuring inclusivity and equity.

Background

Integrating AI into the workforce presents both opportunities and challenges. Routine automation increases efficiency and productivity, allowing human workers to focus on high-value, creative and strategic activities. At the same time, as AI-powered technologies proliferate, if the workforce does not keep-up, potential benefits may be lost, leading to adverse effects on economy, productivity, and livelihoods.

The State of Florida is part of a broader sociopolitical ecosystem that is already taking steps to respond to the increasing presence of AI in all facets of life. The US President's Executive Order underscores and prefaces an impending wave of policy, political, and economic responses in the AI domain. To remain competitive and agile in the global space, the State of Florida must begin to deepen its engagement with the issues related to AI and workforce development.

¹Dr. Nicki Fraser, Alexandra Bassil, Maria Claudia Orengo, and Josie Goytisolo are contributors to this concept paper.

Position

Universities should be portrayed as hubs that extend beyond the scope of conventional academic programs, providing a wide range of educational opportunities such as ongoing learning, certification courses, and micro-credentials. These institutions need to recognize the importance of catering to the evolving requirements within industries that are increasingly integrating artificial intelligence (AI). Furthermore, it is crucial to highlight the significance of accessible and flexible pathways for learning in order to accommodate individuals at various stages in their careers. Based on the aforementioned,

1. State funded universities in Florida should consider offering technical and non-technical degree programs on Artificial Intelligence (AI) with flexible curriculum that can adapt to current and projected labor market needs. This includes:

- Onboarding faculty with competencies in AI.
- Doing research to determine the AI-related priorities for curricula.
- Develop the necessary education and training programs to fill AI related skills gaps.

2. In accordance with the principles of digital civil rights, state funded universities should offer below market rate certificate programs, MOOCs, or micro credentials that are cost effectively available to residents of the state of Florida. Such courses should be purpose fit for both upskilling and reskilling.

3. Universities need to track the effectiveness of their AI upskilling and reskilling efforts based on employment outcomes, relevance to industry. The state should make this part of the state-wide university evaluation scorecard which is used to determine state funding/allocation to universities.

4. The state legislature needs to provide additional grants, and funding to universities that:

- Prioritize AI education and workforce development.

- Provide interdisciplinary degrees that include AI.

This underscores the importance of appreciating AI as not just a computer science phenomenon, but an important consideration for public policy, humanities, arts, business, and medicine, etc.

5. AI training and sensitization should be made compulsory for state employees.

6. While it may be challenging to make AI training and sensitization mandatory for employees in the private sector, the state should consider incentives such as:

- Recognition programs for businesses that support employee upskilling

7. The state legislature should provide the fiscal space to facilitate partnerships among government, academia, and industry to identify AI skills gaps in Florida's workforce. Such partnership is the ideal venue of a state-wide AI taskforce whose mandate should include proposing and reviewing AI initiatives.

Impact

The proposed initiatives outlined in the position paper have the potential to profoundly reshape higher education in Florida, positioning state-funded universities as agile centers of learning that address the evolving demands of the AI-driven economy. By introducing technical and non-technical AI degree programs with adaptable curricula, enhancing accessibility through affordable certificate programs, and prioritizing interdisciplinary AI education, these measures can equip individuals with the skills necessary for the future workforce. Moreover, the integration of rigorous evaluation metrics into state-wide university assessments ensures accountability and alignment with industry needs, while state-funded incentives for AI education underscore a commitment to fostering innovation and competitiveness. Ultimately, these actions aim to cultivate a skilled workforce, drive economic growth, and promote inclusivity and equity in education throughout the state.

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