

Ready or not, here AI comes: Meaningful AI integration needs collaboration of universities and industry

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Abstract: If millennials help troubleshoot computer problems, will Gen Z and Gen Alpha be the ones troubleshooting AI problems in the workplace? While higher education grapples with ever-pervasive AI technologies, their Gen Z students are already using AI, even when they may not be allowed to. On the other hand, businesses employing these new graduates regard AI as an opportunity to transform how we work in technical fields. Even while AI pilots in businesses currently (2025) overwhelmingly fail, meaningful AI integration is only a matter of time, and therefore businesses are preferably hiring graduates who are AI literate (Challapally et al., 2025).

Teaching AI skills in higher education and integrating AI in a productive way in industry, beyond basic tasks, seems challenging: higher education grapples with ethical concerns and a debate about fundamental skills, and businesses are slowly discovering how to integrate AI into their processes. AI integration starts with users learning necessary skills and higher education and industry need to enter into closer two-way collaboration to identify what AI skills are necessary to create industry-ready graduates.

However, as the push for AI accelerates, higher education seems slow to adapt and some employees in businesses have not yet acquired fundamental AI skills. Both sectors need to identify what students and employees should learn to gain AI literacy, and we argue that general learning objectives, and specifics such as ethical use of AI, are similar for both sectors.

Here, we present perspectives from teaching AI literacy in a modelling and data analysis course with an industry partnership, and the design and implementation of a "coding with AI" university-wide course (Miller et al., 2025). From the industry side, we present an example of what AI skills employees want to learn, and what the perceived barriers to entry are. In all three cases, collaborations between university and industry were critical, either through direct collaboration or through "connectors" working across both sectors (O'Brien et al., 2025).

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