

GENERATIVE AI LITERACY AND EMPLOYABILITY

SCENARIO

At a public university in Ghana, Professor Harry Barton Essel meets with a class of final-year students from different disciplines as part of a campus employability seminar. Many of the students are anxious about graduation. Some are worried that their degrees alone may not be enough to secure meaningful work in a labour market increasingly shaped by automation, digital transformation, and entrepreneurial self-starting. Others are curious about generative artificial intelligence but have used it only casually, to summarise notes, draft messages, or generate ideas for assignments, without a clear understanding of how it relates to professional competence.

Professor Essel introduces the concept of generative AI literacy not simply as the ability to use tools such as ChatGPT, Gemini, or Claude, but as the capacity to understand their possibilities, limitations, ethical implications, and workplace relevance. He explains that in contemporary employment contexts, graduates are increasingly expected to do more than consume technology; they must be able to work with it critically, responsibly, and productively. In his session, students analyse job advertisements, identify tasks that can be augmented by generative AI, and practice rewriting their CV bullet points, project proposals, lesson plans, business ideas, and research summaries using AI-assisted workflows.

As the discussion develops, the students begin to see that employability is no longer defined only by subject knowledge or possession of a certificate. It also involves adaptability, problem-solving, communication, digital judgment, and the ability to collaborate with intelligent tools to add value. For many of them, generative AI literacy becomes visible not as a technical luxury but as a strategic graduate attribute, one that can support job readiness, entrepreneurial thinking, and long-term career resilience in Ghana and beyond.

1 What is it?

Generative AI literacy and employability refer to the knowledge, skills, attitudes, and critical awareness needed to use generative AI effectively, enhancing

graduate readiness for work. It includes knowing how generative AI systems produce outputs, how to prompt them purposefully, how to verify and refine results, how to recognise bias or hallucination, and how to use such tools ethically within academic and professional settings. In employability terms, generative AI literacy is not limited to technical expertise; rather, it supports broader competencies such as communication, creativity, productivity, decision-making, and innovation. A graduate who is AI literate is better positioned to use these tools to improve workflow efficiency, develop professional artefacts, support research and analysis, and participate in digitally mediated workplaces.

2 How does it work?

Generative AI literacy works through a combination of functional use and critical reflection. Students first learn the mechanics of interaction: prompting, iterating, comparing outputs, editing responses, and integrating AI support into authentic tasks. They then learn evaluative practices, including fact-checking, source validation, tone adjustment, context sensitivity, and ethical disclosure. In employability-oriented settings, this literacy is developed by embedding AI use into real-world activities such as writing professional emails, preparing interview responses, generating business concepts, coding prototypes, designing presentations, analysing data, and tailoring applications to specific industries. The goal is not to replace human effort but to strengthen human capability. In this sense, generative AI becomes a cognitive and creative support tool, while the learner remains responsible for judgment, originality, and final accountability.

3 Who's doing it?

Universities, employers, professional training providers, and entrepreneurial ecosystems are beginning to treat generative AI literacy as an emerging workforce capability. Higher education institutions are introducing AI guidelines, pilot modules, digital skills workshops, and curriculum redesign efforts that move beyond simple prohibition or unrestricted adoption. Faculty in disciplines such as business, education, engineering, media, law, and computing



are experimenting with ways to teach students how to use AI meaningfully and responsibly. Employers, meanwhile, are increasingly interested in graduates who can work with digital tools to accelerate research, improve communication, support customer interaction, generate ideas, and streamline routine tasks. In contexts such as Ghana, where graduate unemployment and underemployment remain significant concerns, the relevance of AI literacy is especially notable because it can support both salaried employment and entrepreneurship.

4 Why is it significant?

Its significance lies in the way it reshapes the relationship between education and work. Generative AI literacy can help narrow the gap between what students learn in university and what workplaces increasingly expect. It supports productivity, adaptability, and confidence in environments where digital tools are rapidly changing how tasks are performed. For final-year students, it can strengthen employability by helping them present themselves more effectively, learn faster, solve problems more creatively, and respond to labour-market uncertainty with greater agility. It is also significant because employability now depends not only on what graduates know, but also on how well they can apply, translate, and extend that knowledge in complex, technology-rich settings. In entrepreneurial contexts, generative AI can also reduce barriers to entry by helping graduates brainstorm ventures, draft business plans, create marketing content, and test ideas with limited resources.

5 What are the downsides?

Generative AI literacy must be approached carefully because the tools themselves can produce inaccurate, biased, superficial, or fabricated outputs. Students may become overly dependent on AI assistance and fail to develop deep disciplinary understanding, originality, or independent problem-solving capacity. There are also ethical concerns involving plagiarism, intellectual property, privacy, misinformation, and the uncritical reproduction of stereotypes embedded in training data. From an employability perspective, misuse of AI can damage credibility if graduates submit polished but poorly understood work, rely on generic outputs, or misrepresent AI-generated products as wholly their own. There is also a risk of inequity: students with greater access to devices, connectivity, paid AI tools, and informed guidance may gain an advantage

over peers without such access. For these reasons, AI literacy must include restraint, transparency, and sound judgment.

6 Where is it going?

Generative AI literacy is likely to become part of mainstream graduate capability frameworks, digital competency agendas, and employability strategies. Rather than existing as a standalone technical topic, it will increasingly be integrated across courses, career services, internship preparation, and innovation training. Institutions may move toward teaching students how to collaborate with AI across the full cycle of academic and professional work: ideation, drafting, evaluation, revision, and presentation. Employers may also differentiate between basic AI use and advanced AI literacy, valuing graduates who can not only generate outputs but also manage risk, improve quality, and align AI use with organisational goals. In developing economies, the future significance may be even greater, as AI tools create new possibilities for self-employment, freelancing, digital entrepreneurship, and participation in global knowledge work.

7 What are the implications for teaching and learning?

For teaching and learning, the implications are substantial. Universities will need to move from reactive debates about cheating toward proactive models of capability development. This means redesigning assessments, clarifying acceptable use, teaching verification and attribution practices, and creating authentic learning tasks that require students to demonstrate both AI use and human reasoning. Faculty will need support in understanding how generative AI affects pedagogy, disciplinary practice, and assessment integrity. Students, in turn, will need to develop meta-awareness about when AI use adds value, when it weakens learning, and how to remain intellectually accountable. In employability-focused education, this shift encourages a broader understanding of graduate preparation: not merely preparing students to compete with machines, but preparing them to work wisely with them. For students such as those in Professor Essel's class, generative AI literacy can therefore become a pathway to stronger self-efficacy, better career positioning, and more innovative participation in the future of work.

