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Thinking Beyond the Prompt: Critical Thinking for an AI-Driven Future

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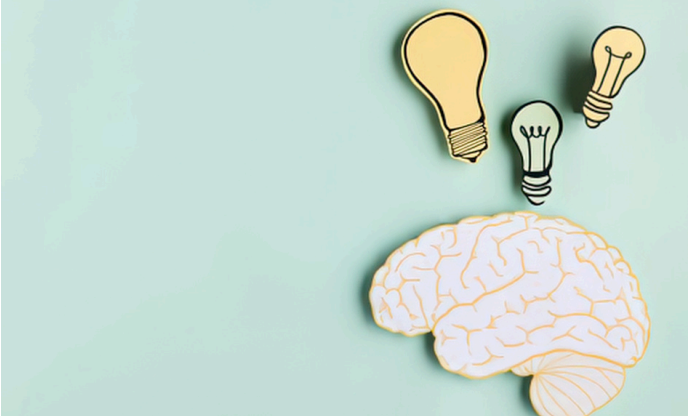

AI Is Changing the Future - But Thinking Still Matters

Artificial intelligence (AI) is rapidly becoming part of how we learn, work, communicate and solve problems. Within seconds, generative AI can draft text, summarise information, generate ideas, analyse data, and help with routine tasks. For students and fresh graduates, the ability to use AI is therefore becoming an increasingly valuable form of digital literacy. Yet education for a better future cannot merely mean teaching students how to use AI tools available online. What should be emphasized is that it must also prepare them to decide when to use AI, how to question its output, and whether the information produced is accurate, relevant, ethical and appropriate, which is a common struggle in the classroom nowadays.

This is where critical thinking becomes indispensable. Although AI can produce a convincing answer, it is not necessarily correct or well-reasoned. Users still need to examine assumptions, evaluate evidence, recognise limitations, and make informed judgements. UNESCO (2024) similarly places human-centred judgement, ethics, and critical evaluation at the heart of students' competencies for generative AI. In other words, AI literacy and critical thinking should not be treated as competing skills; they need to develop together.

What Will Employers Expect from Graduates?

The changing workplace strengthens this argument. The World Economic Forum's Future of Jobs Report 2025 identifies analytical thinking as the most sought-after core skill among employers, while AI and big data are among the fastest-growing skills (World Economic Forum, 2025). Not surprisingly, employers have sought analytical thinking for years. The combination of AI and analytical thinking is significant. Graduates should shift their perspective from viewing themselves as individuals whom employers need merely to operate new technologies to recognizing that employers need them to interpret information, solve unfamiliar problems, make sound decisions, communicate their reasoning, and adapt to changing circumstances.

For fresh graduates, critical thinking can therefore become a form of professional readiness. In the workplace, employees may be expected to compare alternatives, respond to unexpected problems, justify recommendations, and evaluate information before acting on it. Undergraduates often overlook these vital aspects, as many rely too heavily on AI to do the thinking for them. Despite the support AI provides in these processes, they should realise that the final judgement remains theirs. This is where many graduates fail to grasp that working faster with AI does not mean the work is better. When a graduate questions, verifies, improves, and contextualises the response, it shows they use AI as a tool. However, if they don't think, it shows they are surrendering judgement to it.

AI Becomes More Valuable When Humans Think Critically

Educators used to debate whether students should be allowed to use AI. The real educational challenge now, however, is how they should think

while using it, because preventing them from using AI will deprive them of opportunities to develop the AI literacy they will need in their future workplace. Critical thinkers can ask better questions, refine prompts, compare AI-generated answers with other sources, identify missing perspectives, and recognise when an answer requires verification. Research on large language models in education has highlighted both their potential and their risks, including inaccurate information, bias and overreliance (Kasneci et al., 2023). These limitations strengthen the need for human judgement.

A useful principle for students is simple: ask, examine, verify and improve. They should know they can ask AI for assistance, examine its reasoning and evidence, verify key claims against credible sources, and improve the output using their own disciplinary knowledge and judgement. This encourages a shift from passive consumption to active intellectual engagement with AI.

The Role of Educational Institutions



Educational institutions at every level play a vital role in building this habit of mind. Since many school kids are exposed to AI at home, schools can encourage questioning, evidence-based reasoning, and responsible technology use from an early stage. Higher education institutions carry greater responsibility because they prepare students for professional practice. Therefore, universities should move beyond policies that emphasise only whether AI is permitted. They also need to design learning activities and assessments that make students' thinking visible.

Instead of asking only about the ‘what’, universities can achieve this through problem-based tasks, discussions, case analyses, reflective writing, and assessments that require students to explain how and why they reached a conclusion. One recommended activity is reflective writing. Reflective writing is particularly useful because it encourages learners to revisit experiences, examine decisions, consider alternatives and assess what they have learned. Nevertheless, to reach a critical-thinking level, educators must guide this writing effectively. Merely recalling experiences without properly evaluating the situations encountered may not help students enhance their critical thinking skills. Such guidance becomes even more relevant in the AI era, when producing text is easy because students use prompts, but demonstrating genuine thinking is increasingly important.

Educating for a Better Future

Making students compete with AI at tasks machines can perform efficiently should not be the objective of education for a better future. Ideally, AI should strengthen the distinctly human capacities needed to use technology wisely: curiosity, judgement, reflection, ethical awareness, creativity, and critical thinking. In general, though, AI can extend what learners and employees can do, but its value depends largely on the quality of the human thinking behind its use.

AI literacy alone is not enough for future graduates. Their ability to question AI, collaborate with it, challenge it, and know when not to rely on it is far more important. Higher education needs to cultivate these abilities so AI does not weaken human thinking. When used critically, it can become a powerful partner in learning and work, while human judgement remains firmly in the driver's seat.

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