# AI, jobs, and the future of higher education in Bangladesh

## Will AI eventually take the place of the human brain?

MM Shahidul Hassan

Artificial intelligence (AI) is one of the most debated subjects of today. Due to the rapid development of technology and expanding applications of AI, questions are arising in people's minds about whether it will take over human jobs.

One more issue raises serious concern that AI will eventually take the place of the human brain. What will happen if that is true? Where will we stand if such is the case?

Scientists, economists, educators, human activists, and policy-makers are finding the answer to this question. My concern as an educator is: What will be the justification for creating graduates if there are no opportunities for them? And will there still be universities?

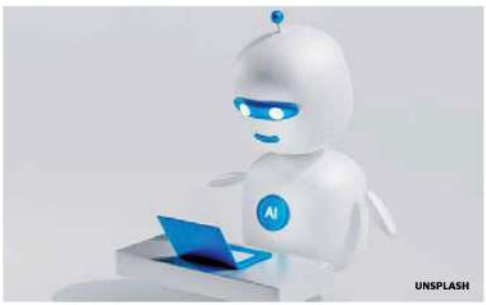
There is no denying that the world we live in is getting harder and more enigmatic. I believe AI and technology will replace human beings in routine jobs, and complete replacement of non-routine jobs will never happen. Demand of humans will eventually increase in cognitive category jobs that require higher-order cognitive and soft or socio-emotional skills. Therefore, universities will exist and continue to turn out graduates. But for universities to generate graduates with the skills necessary, for both present and future employment, their role must evolve.

It is important to understand differences and similarities between human intelligence and artificial intelligence. Knowing the fundamentals of the many sorts of memory activities of the human brain will help us to comprehend in what activities the brain outperforms AI. In order to create meaningful data that controls every part of our life, the brain transforms letters, numbers, sounds, and visuals. The brain stores information in a complex network of neurons and synapses. The brain's message processing and transmission components are called neurons, and the communication links between neurons are called synapses.

All other structures, including neurons, are encased in the cerebral cortex. The complex cognitive processes including thinking, reasoning, memory, personality traits, emotions, and language are controlled by the cortex, which is the brain's outermost layer. The sub-cortex, another layer of the brain, connects directly to the cortex and is essential for data processing and transmission.

Different types of information are stored in different segments of the brain. This can include personal experiences, sensory inputs, emotions, and learned knowledge. When our senses are triggered by a stimulus, our brains briefly store the information in the sensory memory.

Short-term memory (working memory) lasts only a few seconds. It can only hold a maximum of seven items at one time. On top of that, it also has a short time limit of about 10-60 seconds. Long-term memory is the memory that can last a lifetime. It has information that we can recall years after the event occurred.

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**We can negotiate the evolving nature of work and design a future in which humans and AI live in peace by accepting AI as a collaborating partner**

Declarative memory is for facts and general knowledge that can be consciously retrieved. It is also for personal experiences and events. Non-declarative memory is the memory for skills, habits, and procedures performed without conscious awareness. Working memory is important for intelligent behaviour.

Most cognitive tasks, like reading text or calculation, require our full attention, and we usually need a lot of time to execute them. The brain limits its processing speed and is unable to process more than seven items simultaneously. When it comes to counting or arithmetic operations, computers are thousands of times faster and better. Signals from AI systems propagate at almost the speed of light.

There are situations where computational time is not so important. For example, computational complexity is not a need for activities that are relatively straightforward for the brain (pattern recognition, perceptual-motor tasks, well-trained tasks), but AI struggles with these tasks. By contrast, using large amounts of data, a consistent set of ethical standards and goals, probabilistic reasoning, and logical analysis, AI can help find better solutions to complex problems.

We can hypothesize that, ultimately, using AI systems to assist with human decision-making may prove to be the most efficient means of encouraging people to make better decisions or create better solutions to complex problems.

The employment landscape is undergoing a significant transition as a result of technology's continuing growth, including the rise of AI. AI has the ability to automate not only physical labour but also intellectual tasks that were previously thought to be solely human territory. Concerns regarding job displacement and people's capacity to find employment in the future are raised by this possibility.

However, AI lacks many of the essential human traits that are required in various fields such as creativity, emotional intelligence, contextual understanding, common sense, adaptability, ethics, intuition, physical dexterity, interpersonal skills, adaptability, imagination, and free will. There are therefore numerous areas where AI cannot render humans obsolete or unimportant.

Hence, we can negotiate the evolving nature of work and design a future in which humans and AI live in peace by accepting AI as a collaborating partner.

Now come to Bangladesh. It can be difficult to predict how many jobs will be eliminated by AI because it relies on a number of variables, including the industry, the type of work, and the pace of AI development. Industries in Bangladesh may not be much interested to go for full automation right now. The foreseeable future may not see significant AI use in organizations and enterprises. It is, therefore, important to concentrate on adapting, upskilling, and utilizing the special attributes that make us human rather than worrying about losing jobs.

The demands of time are that universities must bring a significant change in developing curricula and teaching and learning so that graduates will learn not only subject knowledge with content but also be equipped with competencies/skills mentioned above. Universities should introduce subjects on AI, machine learning, data analytics, etc.

However, we have not felt much in changing system brought on by AI and technology. To identify the education system that will best serve today's and tomorrow's society, universities need to initiate conversations with businesses, government policy-makers, and domestic and international specialists in education.

MM Shahidul Hassan is Vice Chancellor, East West University.