

ChatGPT, AI-driven World and the New Reality of Online Education

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In this short essay, we explore many facets of the AI-driven world in the context of online education. We make three points: 1) ChatGPT represents a rising tide of many applications that will revolutionise online learning and education by changing how educators and students work; 2) the winning strategy is to brace for this tide and leverage it as an opportunity-creating technology rather than a threat-making one; 3) proactively identifying and tapping into opportunities will allow us to stay ahead of the competitive curve.

ChatGPT, AI and Revolution in Teaching and Learning

As aptly summarised by Stahl (2022), “*Robots and artificial intelligence (AI) are expected to permeate our daily lives by 2025. This could have huge implications on several business sectors, most notably healthcare, customer service and logistics. Already, AI is responsible for medical research breakthroughs and climate research, not to mention self-driving cars*”.

ChatGPT is another AI-driven tool. It is essentially a type of robot called Chatbot that uses large language models based on self-attention mechanisms and a large amount of training data to generate natural language responses to the text input in a conversational context (Thorp, 2023; van Dis, Bollen, van Rooij, Zuidema, & Bockting, 2023). It was developed with an AI technique called Reinforcement Learning from Human Feedback to train the language model, enabling it to be very conversational (Thorp, 2023). However, like any other AI-driven tool, it is far from perfect. In fact, it sometimes writes plausible sounding but incorrect or non-

sensical answers.” Several examples show glaring mistakes that it can make, including referencing a scientific study that does not exist (Susnjak, 2022; Thorp, 2023). Regardless, it is particularly effective at handling long-range dependencies and generating coherent and contextually appropriate responses to various questions. As such, it has revolutionised the education industry by writing essays and letters, and even answering student questions, and commenting on manuscripts, papers, and codes. What is clear is that ChatGPT is ringing alarm bells across industries as being in the front of a rising tide of AI-powered tools that are replicating jobs and performing procedures hitherto done by human. Just recently in the news, one of the key publishers of sci-fi books announced that they rejected 500 pitches in January 2023 and their ‘authors’ banned, as influencers promote ‘get rich quick’ schemes using AI. They had to closed themselves to submissions after a deluge of AI-generated pitches overwhelmed the editorial team (Hern, 2023). Similarly, Susnjak (2022) found that, *“ChatGPT is capable of exhibiting critical thinking skills and generating highly realistic text with minimal input, making it a potential threat to the integrity of online exams, particularly in tertiary education settings where such exams are becoming more prevalent. Returning to invigilated and oral exams could form part of the solution, while using advanced proctoring techniques and AI-text output detectors may be effective in addressing this issue, they are not likely to be foolproof solutions”* (P. 1). In summary, AI-powered tools like ChatGPT have become a revolutionary force to be reckoned with across industries and online education is no exception.

Bracing for the Tide of AI-Generated Tools

Building on the point we made in the previous section; the next question is how to turn this tide into an opportunity. History suggests that the winning strategy when a revolutionary technology is introduced and is gaining momentum is to brace for it. To stay ahead of the curve, we need to get in sync with it. Teece (2006) in his ground-breaking work on profiting from technological innovation argues that strategic boundaries on intellectual properties,

roles of new technologies in strategic framework of the firm, its marketing strategies and venison are essential to avoid falling into a strategic complacency trap. According to Larson (2019), leaders including those of educational institutions need to be aware of three factors that could fuel competency when new technologies like ChatGPT affects their strategy, market position, and competitive powers. The first trap is the reflexive loop. That is, overlooking something that's amiss. Specifically, we tend to notice things that confirm our assumptions and beliefs, and tend to miss things that contradict them. For example, when we believe that trust is strong, we'll notice signs of trust and miss signs of distrust. In the context of AI-generated tools, we need to be aware of different ways they can, have, and will affect our procedures and devise frameworks and action plans to address them. Missing these will lead to competitive disadvantages which affect both short and long run performance of the business. The second factor is the errors of omission or errors of inaction — the failure to make a decision or to respond to a situation. This implies that, businesses must be fast in responding to AI-generated tools, understand how these tools like ChatGPT impact different stakeholders and come up with approaches to respond them on a timely manner before competition. Lastly, leaders must be able to release themselves from the weight of guilt and shame when they deflected responsibility or failed to take action. In conclusion, leaders must learn to adjust their strategies to embrace AI and its generative and transformative power. ChatGPT must not be considered a fad or a peripheral technology. It must be studied, analysed and placed at the core of how businesses strategize their market position and strategic postures in the industry.

Strategic Proactivists: Maximizing the Impact.

Knowing that ChatGPT is only the beginning and embracing its power are important learnings and central in how one can frame a winning strategy, but successful execution of such a strategy requires proactivity. Strategic proactiveness has long been connected to success in face of technological deregulation, environmental shocks, and industrial changes

(Aragón-Correa, 1998; Elkhwesky, 2022). A business must move away from being reactive to technological changes such as the rise of ChatGPT to become proactive in initiating changes that leverage the power of AI in creating new opportunities and channelling its power and capacities into exploiting those opportunities. For instance, incorporating AI into teaching material, using AI and chat bots like ChatGPT in student projects not as a threat and tool to avoid but as a subject of study, research and inspiration can go a long way in implementing a winning strategy. Such proactivity must be built into the DNA of the business and become a part of its culture in order to maximize its capacity to benefit from opportunities and learn from failures. Businesses which are proactive also exhibit a strong discovery-driven work environment where employees are encouraged to experiment new methods to utilize new technologies and tools, leading to opportunities for business model innovation in ecosystem which promotes technology-driven creativity and synergistic innovation within an industry (McGrath & McManus, 2020). All in all, executing a winning strategy which leverages the power of AI to turn tools like ChatGPT into strategic opportunities require a proactive approach where training, experimentation and creativity are core ingredient of strategic plans, activities, and projects. This must be the essence of the new reality to accept and adapt to.

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