

Artificial Intelligence in Industry 4.0: Applications, Impacts, and Adaptation in Various Sectors

In this era of Industry 4.0, the use of artificial intelligence, commonly known as AI, is no longer unfamiliar in various industrial fields. From journalism and media industries to seemingly small tasks like automated chat responses on social media platforms like WhatsApp, Telegram, and others, everything can now be done with AI technology.

The application of artificial intelligence technology in the retail industry can be seen in Amazon's Just Walk Out technology. Just Walk Out is a system implemented by Amazon in their stores. With Just Walk Out technology, shoppers can purchase items without queuing at the cashier. This technology combines artificial intelligence with computer vision, sensor fusion, and deep learning, enabling buyers to pick desired items and leave after completing the purchase, without the need to wait in line at the cashier like in conventional grocery stores. This is because the payment is automatically done by the Amazon system.

In the entertainment industry, there are already many AI programs designed to become influencers or "selebgram." This is achieved by combining robot technology that resembles human appearance with artificial intelligence, allowing the robot to exhibit human-like behavior.

In Indonesia, artificial intelligence technology has also begun to be implemented in various industries. For example, TV One introduced AI-powered hosts in their shows. There is also a robot influencer with artificial intelligence technology named Thalasa, who has an active following of 485 thousand.

The increasing role and use of technology in the era of the fourth industrial revolution, including the use of artificial intelligence, have significant impacts on various sectors. Furthermore, these developments also impact changes in people's lifestyles and habits, leading to complex needs and challenges faced by society (Supriyadi & Asih, 2020).

With the presence of artificial intelligence, many tasks are facilitated thanks to this technology. For example, with the presence of Github Copilot and ChatGPT, many programmers are assisted by artificial intelligence. Programmers who used to spend a long time fixing errors can now do so more quickly. ChatGPT, for instance, can even explain the causes of those errors.

As a student, it is important to adapt to these changes. There are various forms of artificial intelligence that can help ease students' daily tasks. Examples include ChatGPT developed by OpenAI, Bing AI Chatbot developed by Microsoft, Bard developed by Google, and many others.