

Artificial Intelligence in Data Analytics

Artificial intelligence (AI) is a technology involved in gaming, language processing, and intelligent robots. It is a way of making computers, robots, or softwares think intelligently on their own (Artificial Intelligence - Overview). Don't fear the rise of the robots, though. Most, if not all, fall into a category called narrow AI. This term describes software which is suited for a very specific task, like recognizing speech patterns. The alternative to narrow AI is artificial general intelligence (AGI), which is the technological parallel to a jack of all trades. AGI is quite a ways out still, meaning that AI as a whole is nowhere near ready to take over the world.

However, AI is progressing. The measure of its learning is subjective, and considering that most technologies are not built for the same narrow purpose, there is no standardized way to gauge AI's growth. Certain signs indicate development instead, similar to a toddler. Mastering games is one mark of progression in artificial intelligence. In 2016, Deep Mind's AlphaGo became the first machine to defeat a human opponent in the complex Chinese game of Go (Giattino, C.). Machine learning makes this achievement possible. This concept describes how AI can learn from data rather than human input. As computers advance, large datasets become available for AI to utilize, making machine learning much easier and faster. The most promising technique of machine learning is reinforcement learning. This technique is similar to a system of trial and error, where a form of reward is earned by completing a task successfully.

Artificial intelligence expands on the possibilities of analysis of a dataset. Because machine learning focuses on patterns, AI can quickly and efficiently find trends that may not be clear to a human analyst (Kaput, M.). Overall, AI boosts the capabilities of data analytics due to its abilities to find discrete patterns.

One of the early examples of artificial intelligence is the Turing Test, introduced in 1950 by Alan Turing. In this game, an interrogator tries to discern which of two subjects is a machine through posing questions (Oppy, G. & Dowe, D.). Recently digitized, the Turing Test is now used as a basic introduction to artificial intelligence and machine learning for beginners in technology. Some more modern examples of AI include Proctorio for exams and facial recognition on phones. In the case of Proctorio, AI tracks movements and sounds during exams to hypothesize and alert the instructor when a student cheats on an exam. Facial recognition exemplifies machine learning in that the AI is provided with characteristics of a face that it summarizes into distinct patterns to unlock a phone for only its owner.

Sources

- Artificial Intelligence - Overview. (n.d.). Retrieved December 02, 2020, from https://www.tutorialspoint.com/artificial_intelligence/artificial_intelligence_overview.htm
- Giattino, C. (2019, February 06). Artificial Intelligence: An Overview. Retrieved December 02, 2020, from <https://scipol.duke.edu/learn/science-library/artificial-intelligence-overview>
- Kaput, M. (n.d.). How Is Artificial Intelligence Used in Analytics? Retrieved December 02, 2020, from <https://www.marketingaiinstitute.com/blog/how-to-use-artificial-intelligence-for-analytics>
- Oppy, G., & Dowe, D. (2020, August 18). The Turing Test. Retrieved December 02, 2020, from <https://plato.stanford.edu/entries/turing-test/>