

« AI, concepts and applications »

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Artificial Intelligence (AI) tends to implement on computers specific functions that are considered as intelligent : natural language and speech processing, vision, decision making, diagnostic, etc.

AI exist since the 1950s, but after long being confined to research laboratories and science fiction, spectacular successes (in chess, go, speech recognition, robotics, image understanding, language generation, video games, etc.) have recently largely mediatized this discipline.

After situating AI within the historical development of computer science, we will briefly present the three main models present in AI systems: symbolic, statistical and neural (the latter tending to overshadow the other two, with the development of deep neural networks, associated learning algorithms using the vast amounts of data now available) and generative AI. The presentation will include practical examples from various fields, with a particular emphasis to health.

The irruption of AI into our daily lives raises important questions about the harmfulness of AI systems, the moral status of machines and the determination of responsibilities. We need to avoid irrational fears and not forget that AI can save lives, improve our living and working conditions and give us a better understanding of who we are. It is on these conditions that AI, harnessed and demythologised, will be able to deliver all its potential benefits to humanity.