Chapter 9
Future Perspectives of Artificial Intelligence in Various Applications

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ABSTRACT

AI technology has a lengthy history and is continually evolving and expanding. It focuses on intelligent agents, which are composed of gadgets that observe their surroundings and then take appropriate action to increase the likelihood that a goal will be achieved. In this chapter, the authors discuss the fundamentals of contemporary AI as well as a number of illustrative applications. Artificial intelligence (AI) is the ability of computers, computer programmes, and other systems to mimic human intelligence and creativity, autonomously come up with solutions to issues, be able to reach judgements, and make choices. Additionally, there are ways in which existing artificial intelligence outsmarts humans. Additionally, it will examine the forecasts for artificial intelligence and provide viable solutions to address them in the next decades.

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1. INTRODUCTION

Today's artificial intelligence (robotics) is capable of mimicking human intellect by carrying out a variety of activities that call for learning and reasoning, solving issues, and reaching different conclusions. Robots, computers, and other similar devices that have artificial intelligence software or programmes installed in them to give them the essential thinking capabilities. However, a lot of the present robotic artificial intelligence systems are still up for discussion since their methods for tackling problems still need more study. Artificial intelligence systems or robots should thus be able to do the necessary tasks without making mistakes. Robotics should also be able to carry out a variety of activities without any guidance from or aid from humans. With high performance skills like traffic management and speed minimization, today's artificial intelligence is quickly advancing, resulting in anything from self-driving vehicles to the SIRI. This includes robotic automobiles as well. The current focus on presenting artificial intelligence in robots for them to gain human-like traits significantly increases human dependency on technology. The capacity of artificial intelligence (AI) to successfully carry out any specific cognitive activity also significantly increases people's dependency on technology. Artificial intelligence (AI) techniques that can handle massive volumes of data on computers may provide users access to and analysis of all the data.

Due to the danger that this poses today, it is much easier for someone to collect and analyse large amounts of data. In recent years, artificial intelligence has been defined as the artificial representation of the human brain that strives to emulate the human learning process. Everyone has to be reassured that artificial intelligence that is equivalent to that of the human brain cannot be produced. We have just used a portion of our powers thus far. Since information is now expanding quickly, just a small portion of the human brain is required. Because of how much more capable the human brain is than we can now comprehend or demonstrate (De Vito, 2014; Huynh, 2023). There are roughly 100 trillion electrically conducting cells, or neurons, in the human brain, giving it an extraordinary computational ability to carry out tasks quickly and effectively. According to studies, computers are now capable to multiplying in an effective way, but they are still unable to accomplish tasks like learning and altering one's understanding of the world and recognising human features. Artificial intelligence has led to a number of advances, such as robotic automobiles that don't need a driver to steer or keep an eye on them. Robotic technology (artificial intelligence) also includes intelligent devices that analyse vast amounts of data in ways that humans are not capable of doing. Robotics are already taking on routine tasks that call for intelligence and ingenuity.

Additionally, Artificial Intelligence (AI) is a confluence of many technologies that gives robots the ability to comprehend, pick up on, observe, or carry out human