

ROBOTIC INTEGRATION IN OUR LIVES

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Robotics is one of the most important innovations of the present-day science and technology contributing much to the post-industrial society. Robotic systems have application in all sectors, healthcare, home automation and more, thus impacting the economic and social sectors. This topic is relevant as the projections of the global market indicate that the robotics industry will expand by 25% in the next decade.

This paper aims at analyzing the effects of robotics in different sectors of life, evaluating the current uses of robots, and considering possible future developments in the field of robotics.

Robotic systems are applied in many fields such as manufacturing industries, health, and farming. Information from the sources had been published not earlier than five years before the present researches were collected, and analytical and comparative analysis of the current level of robotic implementation in these fields was conducted.

There are lots of advantages of robotic systems. They have higher efficiency than human labor in conditions that need high accuracy and repetitive work. There is less demand for human resource as automation minimizes the demand for human employees. The current level of automation is about 85% at modern production factories and plants.

In healthcare, robotic systems, such as the Da Vinci surgical system, are used in operations that are minimally invasive and very precise. Such surgeries also reduce risks that are linked to complicated operations and give patients safer choices (Mayo Clinic, 2023).

In agriculture there are automation tools that help in the harvesting process, for instance, Agrobot. In industrial organizations, robots optimize production by rearranging the line of production, minimizing mistakes by 28%, and optimizing

operations.

Robotics is gradually changing the landscape of what can be accomplished using automation in various industries. It is for this reason that in the future there will be more innovations that will result in the integration of robots in many sectors of our lives. The application of artificial intelligence in robotics is expected to produce robotic systems that are more intelligent and self-sufficient to perform various tasks on their own. As the robots get smarter, they are expected to be used not only in monotonous operations but also in decision making processes including those in customer relations, or in health care. Besides, the trends of collaborative robots or cobots show that robots are safe to work with human beings, increasing productivity and at the same time reducing the risks of operations (World Robotics Report, 2023).

The integration of robotic solutions in different fields make industries more efficient and safer. This paper's review of academic and business literature shows that robotic technology delivers substantial benefits and creates new possibilities for the development of the society.

References:

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