ROBOTIC INTEGRATION IN OUR LIVES

Yelyzaveta Olkhovska

Educational and Research Institute of Nuclear and Heat Power Engineering,
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

With the evolution of technology in the world, our everyday and professional lives have changed significantly. One of the fields that causes these changes is robotics. With each passing day, the number of robots we use in our lives, intentionally and not, only grows. We use robots in spheres such as education, healthcare, manufacturing, logistics, agriculture, and even our daily life. The assistance provided by robots ranges from simple routine tasks to high-quality operations and algorithms.

According to the definition provided by Harry H. Poole, "A robot is a multifunctional and reprogrammable manipulator for performing a variety of tasks. A robot also acquires information from the environment and moves intelligently accordingly." (Harry H. Poole, 2012). Robots are not necessarily humanoid androids but machines and mechanisms controlled by a computer, now often with AI installed in their software. They can come in a different size and form, so that they would be most suitable for certain tasks.

The most popular robots are industrial robots, which are used in factories. They can do repetitive and manual activities, increasing the productivity of factories since they don't need rest (can work 24/7) and have greater speed. Also, robots can perform tasks that require strength easily and can work in conditions that are dangerous for humans. Factories that start using robots reduce errors in manufacturing, while increasing production rates due to the fact that robots do not get tired and lose their focus, keeping their precision and accuracy at all times.

The accuracy and precision of robotics have led robots into the field of healthcare, where they help to perform intricate and delicate surgeries, and are often used in the recovery of patients. With the use of robots, which are controlled by the surgeons, the quality of the operations seems to increase. They provide surgeons with real-time data and precise movements, and some even offer predictive insights during the procedure. The use of robots can make surgeries less invasive, which speeds up the recovery of the patient and reduces the risks of the surgery.

Education is another field where robots start to appear. No one says they replace teachers' jobs, but rather, they help students in a consulting manner. Robots can give answers to often asked questions or give simple consults about homework. The most vulnerable type of help they can provide is creating individual study plans for pupils, analysing their individual needs and traits, which will enhance the quality of the education system.

Robotics technology is being used more often in agriculture. Robots reduce the dependence on human labor by helping with crop seeding, irrigation, and fertilising, harvesting, horticulture, weeding, and crop health monitoring. Also, the use of robots lowers the cost of food production and decreases the loss of food.

Finally, our everyday lives. We use robots in our home, increasing our comfort. Popular have become smart systems with virtual assistants that help you control different parts of your home using commands you give to the assistant or even control your home online. An example of such systems can be Google Home and Amazon Echo, which work with Google Assistant and Amazon Alexa respectively.

In conclusion, I want to say that robotics has advantages and disadvantages. Robots increase productivity and improve quality, make some tasks safer, and can work 24/7. But they also have high cost, are sometimes complex to integrate, cause job replacement and such ethical considerations as privacy, accountability, and bias in decision-making. The integration of robots in our lives is inevitable, and soon enough, we will start to depend on them as support for their physical tasks, just as we now rely on applications for computer tasks.

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