

ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE

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The field of Artificial Intelligence (AI) has demonstrated remarkable growth and potential, with significant implications for various industries globally. Recent advances in AI technologies have shown improvements in efficiency, data analysis, and innovations across fields such as healthcare, transportation, and robotics (Russell & Norvig, 2016). Thus, the *purpose* of this article is to study the risks and benefits of implementing AI technologies in our everyday lives.

Artificial Intelligence (AI) plays a pivotal role in advancing robotics, enabling machines to perform sophisticated tasks, learn from their environment, and operate autonomously. AI-driven robots are widely applied in various fields. Robots equipped with AI optimize manufacturing processes, manage product assembly, monitor quality, and predict equipment failures, reducing downtime. Drones and self-driving vehicles rely on AI for navigation, obstacle detection, and decision-making in real time, enhancing safety and efficiency. Robots in customer service and education interact with users, provide assistance, and offer social companionship. In transportation, autonomous vehicles powered by AI are expected to enhance safety and reduce traffic congestion.

Another notable impact area is healthcare, where AI models assist in diagnosing diseases with precision, optimizing treatment plans, and facilitating personalized care (Topol, 2019).

Despite these promising developments, the expansion of AI also introduces challenges related to data privacy, ethical considerations, and potential job displacement. Addressing these issues will require collaboration among policymakers, engineers, and ethicists to establish responsible AI frameworks that prioritize human welfare. Ultimately, the future of AI will depend not only on technological progress but also on thoughtful governance and ethical practices that

shape AI's role.

To sum up, AI technologies can make our everyday lives considerably easier. However, certain risks, that they pose, require further technological development and regulation policies to protect modern society from AI expansion.

References:

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SMART TECHNOLOGIES AS A DRIVING FORCE OF SCIENCE AND ART DEVELOPMENT

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Today smart technologies have become an integral part of not only science and art, but also everyday life in general. Their implementation not only expands opportunities for research and creativity, but also changes the very approach to these fields, creating a new era where technological innovations combine with traditional practices. Science and art, despite their significant differences, are united in a common desire to use the technological potential to find new solutions and forms of expression, which were made possible by smart technologies.

One of the most influential achievements of humanity today is artificial intelligence (AI). Machine learning algorithms and neural networks have already become the basis of many industries: from financial analysis and medical research to education, self-development, and fine arts. AI almost completely automates the