



Artificial Intelligence in Everyday Life

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Abstract- Artificial Intelligence (AI) has rapidly transformed from a theoretical concept into a pervasive force shaping everyday human life. This comprehensive review synthesizes findings from three key research papers to examine AI's wide-ranging impact across healthcare, education, finance, transportation, retail, journalism, manufacturing, and environmental sustainability. The paper explores the core technologies underlying AI — including Machine Learning (ML), Natural Language Processing (NLP), Computer Vision, Robotics, Expert Systems, and Deep Learning — and analyzes how these technologies are deployed in real-world settings.

Keywords: Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Automation, Smart Systems, Everyday Applications, Ethics, Healthcare, Education, Finance.

I. INTRODUCTION

Artificial Intelligence (AI) refers to the capability of machines to perform tasks that typically require human intelligence, such as learning, reasoning, problem-solving, perception, and language understanding. Over the past decade, rapid advancements in AI technologies have made them a part of everyday devices like smartphones, smart home appliances, and digital assistants [1]. From personalized recommendations on streaming platforms to AI-powered healthcare diagnostics, AI's presence in daily life is undeniable.

AI has transitioned from a speculative field of study to a transformative force that profoundly influences how individuals interact with technology, how businesses operate, and how societies function [2]. The integration of AI into everyday processes enhances human productivity and decision-making while creating vast opportunities for innovation and economic growth. As noted by Shravani V. [3], AI technology rules our daily activities from dawn to sunset — many people reach for AI-enabled devices as the first act of their day, often without fully recognizing the extent of AI's involvement.

II. RELATED WORK

Research on AI's impact across different domains has grown substantially. Existing literature collectively highlights AI's contributions to automation, intelligent decision-making, and data-driven prediction across virtually every sector of modern life.

Jaybhay et al. [1] explored AI applications in smart homes, education, finance, healthcare, and transportation through secondary research, demonstrating how AI bridges efficiency and innovation in daily life. Their work emphasizes real-world use cases like voice assistants, predictive text, and autonomous vehicles.

Shravani V. [3] provided a statistical overview of AI's global market impact, highlighting revenue projections and quantifying AI's penetration into areas such as data security, fraud detection, and customer service. The paper notes that worldwide AI revenue from software was projected to reach US

Past studies across these works also emphasize the ethical dimensions of AI, including fairness, transparency, accountability, and the societal implications of automation-driven job displacement. This review builds upon these foundations to deliver a consolidated understanding of AI's relevance and challenges in everyday life.

III. CORE AI TECHNOLOGIES

The diverse applications of AI in everyday life are driven by a set of foundational technologies, each contributing uniquely to AI's capabilities:

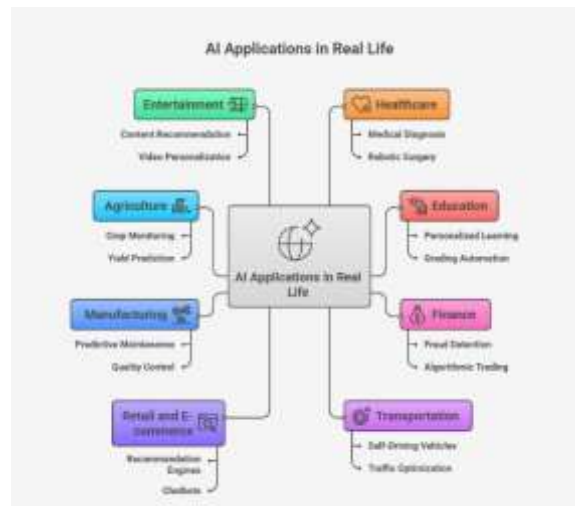
IV. MACHINE LEARNING (ML)

Machine Learning enables computers to continuously improve their performance by learning from enormous volumes of data without being explicitly programmed [2]. ML is crucial for developing recommendation systems used by streaming services like Netflix and e-commerce platforms such as Amazon, where sophisticated algorithms predict user preferences and behaviors. ML also plays a vital role in fraud detection by analyzing transactional data to identify unusual patterns, and in healthcare by personalizing medical treatments.

Natural Language Processing (NLP)

NLP has become indispensable for enabling machines to understand and generate human language. NLP powers chatbots, virtual assistants like Siri and Alexa, and advanced language translation tools [2]. By facilitating smoother human-machine communication, NLP technologies have made technology more accessible and user-friendly, allowing for more

V. INTUITIVE EXPERIENCES ACROSS VARIOUS PLATFORMS.



VI. COMPUTER VISION

Through computer vision, AI systems can emulate human visual perception by interpreting and comprehending visual data, including photos and videos. Applications such as medical imaging, driverless cars, and facial recognition depend on this capability [2]. In security, computer vision enhances surveillance, while in healthcare it improves diagnostic accuracy by analyzing medical images more efficiently than human experts.

Robotics



AI-powered robotics has seen significant advancements, with intelligent machines now performing tasks autonomously across manufacturing, healthcare, and space exploration. Robotics is especially valuable in environments that are hazardous, repetitive, or require high precision, thereby increasing productivity and safety [2]. Integration of AI in robotics is leading to more adaptive machines capable of complex decision-making.

Expert Systems

Expert systems simulate human expertise in specialized fields such as medical diagnosis or financial planning. These systems utilize vast knowledge bases and inference rules to provide reliable recommendations, helping professionals make informed decisions more efficiently [2]. They allow expert-level decision-making to be scaled across various domains.

Neural Networks and Deep Learning

Deep learning excels in recognizing patterns and making predictions through layers of interconnected nodes that simulate the human brain's structure. It is essential for image recognition, speech recognition, and autonomous driving [2]. These technologies have propelled AI to achieve remarkable accuracy, driving innovation in both consumer and industrial applications.

VII. AI APPLICATIONS IN EVERYDAY LIFE

AI has revolutionized healthcare by offering tools for more accurate diagnostics, personalized treatment plans, and enhanced patient care. AI-powered imaging systems have demonstrated significant potential in early cancer detection, improving patient outcomes by enabling earlier intervention [2]. AI-driven predictive analytics are increasingly used to anticipate patient deterioration, thereby preventing adverse events. In everyday contexts, AI-driven assistants and wearable devices enable continuous health monitoring.

customer service. Machine learning algorithms are more effective than conventional techniques at detecting fraudulent activity in online transactions [2]. AI-driven financial advisory services are also becoming prevalent, offering personalized investment strategies. According to projections cited by Shravani V. [3], AI will be used to trade approximately half of all financial instruments by 2025.

AI is transforming education by automating administrative processes and delivering individualized learning experiences. AI-powered platforms such as adaptive learning systems help bridge educational gaps by tailoring content to individual student needs, resulting in improved learning outcomes [2]. AI-driven tools streamline grading and provide real-time feedback, freeing educators to focus on higher-order teaching activities. Jaybhay et al. [1] highlight that intelligent tutoring systems adapt dynamically to student progress.

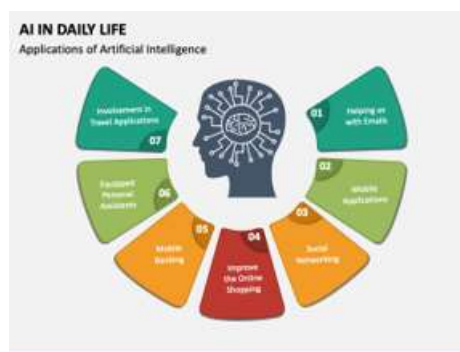
AI-driven assistants like Alexa and Google Assistant simplify daily tasks through natural voice interactions [1]. Smart home devices use AI to automate lighting, security, energy management, and appliance control. AI algorithms embedded in platforms like Netflix, Amazon, and Gmail continuously personalize user experiences behind the scenes, as noted by Shravani V. [3].

AI has a significant impact on transportation through the development of intelligent traffic control systems and driverless cars. Autonomous vehicles, guided by AI-powered sensors and algorithms, are capable of navigating complex driving situations [2]. AI-driven traffic management systems optimize traffic flow in cities by predicting traffic patterns and adjusting signals accordingly, reducing congestion and emissions.

Social media platforms leverage AI to enhance user experience through personalized content curation and improved moderation systems. AI algorithms analyze user behavior and preferences to display more relevant content on users' feeds. However, this also raises ethical concerns about censorship and the spread of misinformation [2].

AI is increasingly shaping journalism by automating content creation, fact-checking, and data analysis. Automated journalism, powered by natural language generation (NLG), enables production of data-driven news articles with minimal human intervention [2]. AI's role in detecting fake news and flagging misleading information on social media platforms is also growing in importance.

AI-driven robotics and machine learning algorithms are being deployed to optimize production processes, enhance quality control, and predict equipment failures before they occur [2]. This predictive maintenance helps manufacturers avoid costly downtime and improve overall productivity. It is also enabling smart manufacturing systems where machines communicate autonomously, leading to more agile production lines



VIII. METHODOLOGY

This review adopts a secondary research methodology, drawing from peer-reviewed journal articles, IEEE publications, academic reports, and institutional research. Three primary source papers were selected based on their relevance, recency, and coverage of AI in everyday life contexts:

Jaybhay et al. (IARJSET, 2025): Secondary research through IEEE journals and academic publications, categorizing AI by application domain and analyzing the AI system lifecycle including data collection, preprocessing, model training, testing, and deployment.

Yadav et al. (BORI, 2024): Comprehensive review of recent literature covering AI across 10+ domains, with examination of challenges and opportunities supported by real-world scenarios.

Shravani V. (IJRTI, 2023): Statistical analysis of global AI revenues and market penetration, complemented by survey-based data on AI application usage.

Data from these sources were categorized by application domain, technology type, and challenge area. Each sector was analyzed for its AI-driven functionalities and social impact, enabling a holistic and balanced synthesis.

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The synthesis of the three source papers reveals several consistent and reinforcing findings:

First, AI technologies have demonstrably improved human lifestyle quality across virtually every sector. Voice assistants simplify daily tasks, machine vision enhances medical diagnostic accuracy, intelligent tutoring systems adapt to individual student progress, and AI-driven analytics predict financial market trends [1].

IX. CONCLUSION

This comprehensive review confirms that Artificial Intelligence has established itself as a transformative force in everyday life, influencing sectors ranging from healthcare and education to finance, transportation, retail, journalism, manufacturing, and environmental sustainability. The core technologies of ML, NLP, Computer Vision, Robotics, Expert Systems, and Deep Learning collectively drive AI's ability to automate complex tasks, personalize experiences, and enhance decision-making at scale.

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