IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, October 2026
Impact Factor: 8.2

AI in Daily Life: Applications, Benefits, and Challenges

Mrs. J G Dabhade, Janavi Vijay Kawad, Shravani Tanaji Harpale
Department of Information Technology
Government Polytechnic Awasari (kh), Pune, India
janavikawad@gmail.com

Abstract: *Artificial Intelligence (AI) has become an important part of everyday life, often operating in the background of mobile phones, online services, homes, transport systems, education, and healthcare. This paper reviews common applications of AI in daily activities and explains how techniques such as machine learning, natural language processing, computer vision, and recommendation algorithms support convenience, personalization, and faster decision-making. It considers examples including voice assistants, navigation, digital payments, online shopping, content recommendations, smart-home devices, learning tools, and health-support applications. The paper uses a descriptive review approach based on selected publications and guidance from international organizations. It also discusses key limitations, including inaccurate outputs, biased decisions, privacy risks, cybersecurity concerns, unequal access, over-reliance, and changes in work. The review indicates that AI can provide meaningful support when systems are designed responsibly and users remain involved in important decisions. Practical recommendations include protecting personal data, verifying AI-generated information, providing human oversight, improving AI literacy, and making systems accessible and accountable. AI should therefore be understood as a tool that can assist people rather than replace human judgment, responsibility, or social interaction.*

Keywords: Artificial Intelligence, Daily Life, Machine Learning, Smart Devices, Privacy, Responsible AI

I. INTRODUCTION

Artificial Intelligence (AI) refers to computer-based systems designed to perform tasks that commonly require human abilities such as recognizing patterns, understanding language, making predictions, generating content, or supporting decisions. AI is not limited to robots or advanced research laboratories. It is increasingly embedded in familiar digital services that people use to communicate, study, travel, shop, manage money, and organize their homes. A map application that estimates traffic, an email service that filters spam, or a streaming platform that recommends a programme may use AI even when the user does not notice it.

The expansion of AI has been supported by the availability of large datasets, improved computing power, connected devices, and advances in machine learning. These developments allow systems to identify patterns in data and adapt their outputs to a task or user. The Organisation for Economic Co-operation and Development (OECD) describes AI applications across sectors such as transport, healthcare, finance, and public services, where data analysis can support efficiency and decision-making [1]. At the same time, the effect of AI depends on the quality of data, the design of the system, the context in which it is used, and the safeguards around it.

This paper aims to explain how AI appears in daily life, identify its major benefits, examine the risks that accompany its use, and suggest practices for responsible adoption. It focuses on widely encountered applications rather than on the technical design of a single AI model.

Copyright to IJARSCT
www.ijarsct.co.in

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, October 2026
Impact Factor: 8.2

II. OBJECTIVES AND REVIEW METHODOLOGY

A. Objectives

The main objectives of this paper are: (1) to describe everyday applications of AI; (2) to explain the benefits AI may offer to individuals and communities; (3) to identify social, ethical, and technical challenges; and (4) to recommend practical steps for safer and more effective use.

B. Methodology

This paper follows a descriptive literature-review approach. It draws on selected reports and guidance from the OECD, the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the U.S. National Institute of Standards and Technology (NIST), alongside a conceptual review of common consumer applications. These sources were selected because they discuss AI applications, education, privacy, and risk management. The paper does not present a new experiment, survey, or measured performance result; its findings are a qualitative synthesis of the reviewed material.

III. MAJOR APPLICATIONS OF AI IN DAILY LIFE

A. Smartphones and Personal Assistants

Smartphones combine several AI-enabled functions. Speech recognition allows a device to interpret spoken commands, while natural language processing helps virtual assistants respond to questions, set reminders, create calendar events, or provide directions. Camera software may recognize scenes, improve image quality, group photographs, or apply automatic enhancements. Predictive text and autocorrect estimate likely words and help users type more efficiently. These features can make devices easier to use, although their accuracy may vary with language, accent, background noise, connectivity, and the complexity of a request.

B. Search, Social Media, and Entertainment

Search engines rank results in response to a query, while social media and video platforms use recommendation systems to select posts, clips, music, or other material that a person may find relevant. These systems can reduce the effort needed to discover information and entertainment among large collections. However, personalization can also narrow the range of viewpoints a person encounters, encourage prolonged screen use, or amplify misleading content if engagement is prioritized over quality. Users should understand that recommended content is selected by a system and is not necessarily the most accurate, balanced, or important content available.

C. Navigation and Transportation

Navigation applications estimate journey times by combining location information, road networks, historical patterns, and current traffic reports. AI-based prediction can help identify congestion and suggest alternative routes. In transport operations, data analysis may support fleet scheduling, maintenance planning, and demand forecasting [1]. Driver-assistance features may detect lane markings or nearby objects, but their capabilities and limitations differ between vehicles. Drivers remain responsible for attention, obeying traffic rules, and following the manufacturer's safety instructions; automated assistance should not be treated as a guarantee that an accident will be prevented.

D. Shopping, Banking, and Digital Payments

Online retailers use recommendation algorithms to suggest products based on searches, browsing activity, or purchase patterns. Customer-service chatbots answer routine questions, and inventory systems can forecast demand. In financial services, machine-learning systems may flag transactions that differ from established patterns and help prioritize fraud checks. These tools can make services quicker and help identify suspicious activity, but a flagged transaction may be legitimate and an unusual fraud pattern may go undetected. Financial decisions should not rely solely on an automated recommendation. People should also check transaction alerts, protect authentication details, and contact their financial institution through verified channels when something seems wrong.

E. Education and Learning

AI can support learning through adaptive practice, automated feedback, translation, speech-to-text, text-to-speech, and tools that help learners brainstorm or summarize complex material. A learning platform may adjust question difficulty

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 6, Issue 5, October 2026 Impact Factor: 8.2

based on a student's previous answers. Generative AI tools can explain a concept in different ways, provide examples, or help a student plan a project. UNESCO emphasizes that educational use of generative AI should be human-centred and should consider privacy, age-appropriate use, equity, and pedagogical value [2]. AI output can be incomplete or false, so learners should verify facts, consult textbooks and teachers, and submit work that reflects their own understanding.

F. Healthcare and Personal Well-being

Healthcare applications include analysis of medical images, clinical decision-support tools, remote monitoring, and wellness applications that summarize activity or sleep data. AI may help clinicians find patterns in large amounts of information and prioritize cases for review. It can also make health information easier to access. Nevertheless, a wellness application is not a substitute for professional medical advice, and an AI-generated explanation is not a confirmed diagnosis. Medical systems require appropriate testing, privacy safeguards, and human oversight. The OECD notes that healthcare AI carries risks such as biased data, security problems, limited transparency, and insufficient oversight, even where potential benefits are substantial [3].

G. Smart Homes and Everyday Devices

Smart speakers, thermostats, lighting systems, cameras, and home appliances may use AI to recognize voice commands, learn preferred settings, detect activity, or optimize energy use. Connected systems can improve convenience and may help users monitor household conditions. Yet microphones, cameras, and connected sensors can collect sensitive data. Weak passwords, outdated software, or poorly configured access permissions can expose a household to privacy and security risks. Users should review device permissions, update software, use strong unique passwords, and disable features they do not need.

IV. BENEFITS OF AI IN EVERYDAY ACTIVITIES

A. Convenience and Time Savings

AI can automate repetitive tasks such as sorting messages, filtering spam, suggesting routes, organizing photos, and answering common questions. This may free time for activities that require human attention. The benefit is greatest when automation is reliable, understandable, and easy to correct when it makes a mistake.

B. Personalization and Accessibility

Personalized recommendations and adaptive interfaces can make digital services more relevant to an individual's needs. Speech recognition, captions, translation, screen-reading support, and image descriptions can also improve access for people with different languages, abilities, and learning preferences. These benefits are not automatic: systems must be designed and tested for diverse users, including those whose languages or circumstances are underrepresented in the data.

C. Faster Pattern Recognition and Decision Support

AI systems can process large quantities of information and identify patterns that would be difficult to notice manually. In transport, finance, education, and healthcare, this capability can help people prioritize tasks or investigate unusual events. However, pattern recognition is not the same as understanding the full situation. Context, values, and consequences often require human judgment.

D. Potential Efficiency and Resource Benefits

Forecasting demand, optimizing routes, and managing energy use may reduce wasted time or resources. In public services and scientific work, AI may help analyze complex data and support planning [1]. These outcomes depend on how systems are implemented and measured; AI does not guarantee lower costs, better environmental outcomes, or improved service quality.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, October 2026
Impact Factor: 8.2

V. CHALLENGES AND RISKS

A. Privacy and Data Protection

Many AI services rely on personal information such as location, voice recordings, search history, images, or transaction records. When data collection is excessive or unclear, users may lose control over how information is stored, shared, or reused. NIST highlights that AI can create privacy risks, including stronger inferences about individuals and expanded possibilities for tracking [4]. Organizations should collect only necessary data, explain its use, secure it, and provide meaningful controls. Users should avoid entering passwords, financial details, private records, or other sensitive information into tools unless they understand and trust the service's data practices.

B. Bias and Unfair Outcomes

AI learns patterns from data and design choices. If training data underrepresents some groups or reflects historical inequalities, a system may produce less accurate or unfair results for those groups. This can affect recommendations, screening, translation, image recognition, and other tasks. Fairness requires representative evaluation, ongoing monitoring, clear routes to appeal decisions, and participation by people affected by the system.

C. Errors, Hallucinations, and Limited Explainability

Generative AI may produce fluent answers that contain invented facts, incorrect calculations, or references that do not support a claim. Other AI systems may misclassify an image or make a poor prediction when conditions differ from their training data. Users should check important claims against reliable sources and seek qualified human review for high-impact decisions. Developers and service providers should communicate system limits and make it possible to report errors.

D. Cybersecurity and Manipulation

AI can assist defensive security work, but it can also be used to create convincing scam messages, imitate voices, or generate misleading images and videos. A familiar voice or realistic-looking image is not, by itself, proof of authenticity. People should verify unusual requests using a separate trusted channel, avoid opening suspicious attachments, and use multi-factor authentication where available. Organizations should test systems for misuse and maintain incident-response plans.

E. Over-Reliance, Skills, and Employment

If people accept automated suggestions without checking them, they may weaken their own ability to evaluate information or make independent decisions. In education, using AI to complete every task can reduce opportunities to practice writing, reasoning, and problem-solving. In workplaces, AI may automate some tasks while changing or creating others; the effects can differ by occupation and organization. Training, transparent workplace policies, and opportunities to develop new skills can help people adapt.

F. Digital Divide and Environmental Considerations

The benefits of AI may be uneven when people lack reliable internet access, suitable devices, digital skills, or support in their language. Systems may also consume substantial computing resources, depending on how they are trained and used. Responsible adoption should consider accessibility, energy efficiency, local needs, and the needs of communities that may otherwise be excluded.

VI. GUIDELINES FOR RESPONSIBLE USE

Responsible AI use requires action by developers, institutions, governments, and individual users. First, privacy should be built into systems from the beginning, with clear information about data collection, retention, and sharing. Second, systems used in consequential settings should be tested for accuracy, safety, bias, and security before deployment and monitored after release. UNESCO's Recommendation on the Ethics of AI highlights privacy, human rights, accountability, and appropriate safeguards as important principles for AI governance [5].

Third, people should maintain human oversight where outcomes affect health, education, money, employment, or safety. AI can assist a decision, but responsibility should remain clear and there should be a way to question or correct an automated outcome. Fourth, schools and workplaces should teach AI literacy: how systems work at a basic level,

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, October 2026
Impact Factor: 8.2

where they may fail, how to verify outputs, and how to use them without misrepresenting authorship. Fifth, users should apply simple digital-safety habits, including reviewing permissions, using strong passwords, updating devices, checking sources, and avoiding the unnecessary sharing of personal information.

Finally, AI tools should be evaluated for their real-world value rather than adopted only because they are new. A useful evaluation asks whether a system solves a genuine problem, who benefits, who may be harmed, what data it needs, how errors are handled, and whether a non-AI alternative would be simpler or safer. These questions encourage balanced decisions and help keep technology aligned with human needs.

VII. DISCUSSION

The reviewed applications show that AI in daily life is not one single technology. It is a collection of methods used for different purposes, from ranking search results to interpreting speech and generating text. Its effects therefore cannot be judged uniformly. A spelling suggestion has relatively limited consequences, while an automated decision affecting a person's health, finances, or access to services requires stronger evidence, safeguards, and accountability.

The main theme across the literature is the need to balance usefulness with human control. Convenience and personalization are valuable, but they should not obscure the ways data are collected or how recommendations are produced. Likewise, the ability of AI to generate content does not guarantee truth, originality, or fairness. A practical approach is to match the level of human review to the level of risk: routine tasks may need light checking, while consequential decisions need independent verification and qualified oversight.

There are also limits to this review. It is descriptive and based on selected secondary sources, not on a systematic database search or direct measurement of user outcomes. AI products change quickly, and performance differs across languages, devices, providers, and contexts. Further work could include surveys of user awareness, comparative testing of common applications, or case studies examining privacy and accessibility in local communities.

VIII. CONCLUSION

Artificial Intelligence has become part of many ordinary activities, including communication, entertainment, navigation, shopping, banking, education, healthcare support, and home automation. When well designed and appropriately used, it can save time, assist with information processing, personalize services, and improve accessibility. At the same time, AI can produce errors, reproduce bias, expose personal data, enable manipulation, and encourage over-reliance. Its benefits are therefore not automatic; they depend on good design, reliable evaluation, effective safeguards, and informed users.

The most suitable approach is neither to accept every AI output nor to reject the technology entirely. People should use AI as a supporting tool, verify important information, protect personal data, and preserve human judgment in decisions with significant consequences. Developers and institutions should build systems that are transparent, secure, inclusive, and accountable. With these measures, AI can contribute positively to daily life while respecting human dignity, choice, and responsibility.

ACKNOWLEDGMENT

The author acknowledges the publicly available reports and guidance from international organizations that informed this descriptive review.

REFERENCES

[1] Organisation for Economic Co-operation and Development (OECD), Artificial Intelligence in Society. Paris, France: OECD Publishing, 2019. Available: https://www.oecd.org/en/publications/artificial-intelligence-in-society_eedfee77-en.html

[2] F. Miao and W. Holmes, Guidance for Generative AI in Education and Research. Paris, France: UNESCO, 2023. Available: https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, October 2026
Impact Factor: 8.2

[3] Organisation for Economic Co-operation and Development (OECD), "Scaling Artificial Intelligence in Health," OECD, 2025. Available: https://www.oecd.org/en/publications/scaling-artificial-intelligence-in-health_a436e12d-en.html

[4] National Institute of Standards and Technology (NIST), "Cybersecurity, Privacy, and AI," U.S. Department of Commerce. Available: https://www.nist.gov/itl/applied-cybersecurity/cybersecurity-privacy-and-ai

[5] UNESCO, "Recommendation on the Ethics of Artificial Intelligence," 2021. Available: https://www.unesco.org/en/legal-affairs/recommendation-ethics-artificial-intelligence