

RESEARCH WORK

ARTIFICIAL INTELLIGENCE AND ITS EFFECTS ON HUMANS

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Introduction

Artificial Intelligence (AI) is a field of computer science that focuses on creating systems, machines, or software that can perform tasks that typically require human intelligence. AI encompasses many subfields and techniques, including machine learning, deep learning, neural networks, natural language processing, computer vision, and more. AI can be applied to various domains, including healthcare, finance, autonomous vehicles, customer service, and many others, to automate tasks, improve efficiency, and make predictions based on data. It has the potential to revolutionize various industries and aspects of daily life.

Chat GPT- AI

Did you even notice that an Artificial Intelligence app explained what AI is? It is interesting how that works, right? Just how much **does** AI influence today's world?

Artificial intelligence is transforming society by replacing 7 million jobs in the UK from 2017-2037 while creating 7.2 million new ones. This transformation has significant economic, legal, political, and regulatory implications, including determining responsibility for autonomous vehicles and managing global autonomous arms races. The potential for AI to become super-intelligent and lose control is a concern, but unforeseen consequences are expected. Ensuring AI doesn't cross ethical or legal boundaries is crucial, as it could negatively impact society if it achieves its intended goals in a destructive yet efficient way. AI algorithms are powered by data, which can compromise privacy and lead to social oppression if businesses and governments make decisions based on this intelligence. Therefore, AI must be built to align with the overarching goals of humans and avoid compromising privacy.

B. Marr-World renowned futurist, influencer, and thought leader in the fields of business and technology.

Pros and Cons

What we can conclude from that information, is that Artificial Intelligence can bring both positive and negative effects. Let's take a look at this self-made graph.

PROS

- AI, when programmed correctly, can reduce errors, increase accuracy, and achieve precision in decision-making. However, humans are responsible for designing and programming algorithms, and AI can still make mistakes or produce biased outcomes.
- AI can save time by making faster decisions and collaborating with other technologies. As AI makes more decisions, it improves future decision-making processes.
- AI systems rarely need sleep, unlike humans. Despite occasional downtime for maintenance and optimization, their continuous availability can significantly boost company productivity.
- AI robots can undertake hazardous tasks, minimizing human risks, such as mining coal, exploring deep seas, defusing bombs, and entering volcanoes.
- AI can automate repetitive tasks in manufacturing and email responses, allowing workers to focus on productivity and creativity, freeing up time for other human-requiring skills.

CONS

- AI replaces repetitive jobs, benefiting companies but also affecting employment by phased-out traditional roles, leading to unemployment and a loss of previously available job opportunities.
- AI's current capabilities in pattern recognition and data generation are limited in creativity and innovation. While some predict AI will surpass human capabilities, human wisdom and creative thinking remain highly valued in various industries worldwide.
- AI-enhanced machines, while efficient, lack emotion-incorporation, hindering human connection in digital marketing strategies. While some systems recognize and respond to emotions, they remain largely rational.
- AI's limitations in incorporating ethics and morality, allowing bias and discrimination, necessitate ongoing research and discussion to develop ethically-based AI systems.
- AI systems require vast amounts of data, raising privacy and security concerns due to potential unauthorized access, breaches, and misuse of sensitive information.

<https://rockcontent.com/blog/artificial-intelligence-pros-and-cons/>

AI in various fields

ART

Furthermore, I would like to talk about the use of Artificial Intelligence in various fields.

Art: Artificial intelligence (AI) art is digital art, such as audio and visual compositions, that is produced or improved through the use of AI techniques. Art is created using machine learning techniques, especially generative adversarial networks (GANs), which are used to create new works of art or alter preexisting ones. This poses ethical and legal questions as well as challenges the conventional wisdom that humans are the only ones who can create art. AI art is made possible by technologies like Dall-E and Stable Diffusion, which enable text-to-image generation and allow for quick creation while expanding the frontiers of creativity.

The genesis of AI art may be traced back to the late 1960s, with significant advancements emerging in 2014 and the years that followed, including the introduction of Artbreeder and Google's DeepDream. A big step forward was made in 2021 when OpenAI's Dall-E made AI art available to the general public. Large software providers like Adobe joined the market in 2023 with GAN-based products.

Machine learning, data training, and the application of natural language processing to user interfaces are all components of the AI art process. Art therapy, the democratization of art creation, education, the improvement of already-existing works, totally AI-generated art, and the inspiration for new works of art are just a few of its many uses. Artists have the option to employ pre-trained models or use certain datasets to train their own AI models.

While there are many benefits to AI-generated content, there are also some drawbacks, such as authorship disputes, bias in training data that could lead to prejudice, copyright challenges, and disagreements over how original AI-generated works are. Legal battles, like the one in which Getty Images sued Stable Diffusion for copyright infringement, bring to light the moral and legal quandaries surrounding AI art.

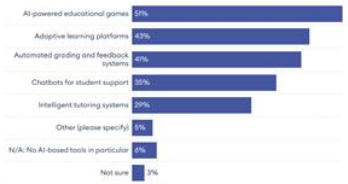
<https://www.techtarget.com/searchenterpriseai/definition/AI-art-artificial-intelligence-art>

AI in various fields

EDUCATION

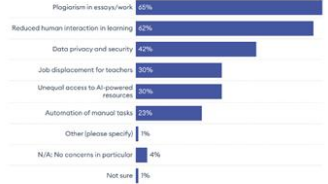
Education: AI integration in education is a two-edged sword that has both advantages and disadvantages. Positively, AI enhances individualized learning experiences by adjusting to the unique demands and pace of each student, letting them learn at their own pace and concentrate on the areas that need more help. AI automation streamlines administrative duties, allowing teachers to focus more on instruction. Additionally, by providing specialized resources like text-to-speech tools and adaptive learning platforms, AI improves accessibility for students with a range of learning needs. Its ability to evaluate large datasets makes data-driven decisions for bettering instructional strategies and student outcomes easier. AI-powered solutions also make it possible to access instructional materials continuously, which benefits distant or non-traditional learners by providing flexible learning options.

What AI-based tools or applications have you encountered in educational settings?



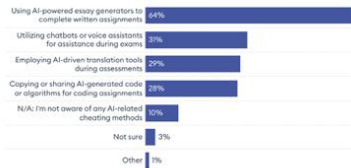
Source: Forbes Advisor **Forbes** ADVISOR

What concerns do you have about the use of AI in education?



Source: Forbes Advisor **Forbes** ADVISOR

Which of the following AI-related cheating methods do you believe are most prevalent in your educational institution, if any?



Source: Forbes Advisor **Forbes** ADVISOR

In your opinion, how has AI influenced the teaching and learning process in classrooms?



Source: Forbes Advisor **Forbes** ADVISOR

On the other hand, the drawbacks of AI in education include privacy issues that result from the gathering and processing of student data. Protecting students' right to privacy and ensuring the secure management of sensitive information is critical. AI algorithms may be biased as a result of the data used to train them, which increases the possibility of unjust results, especially in the grading or admissions processes. Overreliance on AI technologies raises apprehensions about a decreasing emphasis on traditional teaching techniques and human interaction, potentially harming the development of critical social and interpersonal skills in pupils. Financial difficulties also arise from the use of AI in education, since the accompanying expenses lead to differences in the availability of high-quality education across various locations or schools. Concerns around job displacement are also present.

In conclusion, careful evaluation of ethical, privacy, and accessibility issues is necessary for the successful integration of AI in education. Education could undergo a revolution if thoughtful implementation is put into place, offering individualized, effective, and inclusive learning experiences. However, some risks and difficulties must be carefully balanced.

<https://www.forbes.com/advisor/education/artificial-intelligence-in-school/>

AI in various fields

SPACE

Space: AI has brought about a radical change in space exploration, a far cry from the dangerous human missions of the past. This new era is defined by the convergence of robotics, machine learning, and powerful computing, which allows us to push the envelope in terms of cosmic exploration. AI is a transformational force that uses sophisticated algorithms, machine learning strategies, and neural networks to unravel the mysteries of the cosmos. Its unmatched speed in analyzing astronomical data allows it to map out the distribution of dark matter and anticipate the behavior of galaxies, among other patterns and cosmic events.

AI in Space: Past and Present

1959 | Deep Space 1

The first-ever case of AI being used in space exploration. The Remote Agent algorithm was used to diagnose failures onboard the probe.

1997 | Pathfinder

AI was used to control the Sojourner rover on Mars. The rover's software used AI to navigate the Martian surface and to identify and collect samples.

2004 | Spirit and Opportunity

AI was used to control the Spirit and Opportunity rovers on Mars. The rovers' software used AI to navigate the Martian surface, identify and collect samples, and perform experiments.

2006 | Stardust

AI was used to control the Stardust spacecraft as it collected samples from the comet Wild 2. The spacecraft's software used AI to navigate the comet's tail and collect samples without damaging the spacecraft.

2008 | Kepler

AI was used to analyze the data from the Kepler spacecraft. The spacecraft's software used AI to identify exoplanets in the Kepler field of view.

2011 | Curiosity

AI is being used to control the Curiosity rover on Mars. The rover's software uses AI to navigate the Martian surface, identify and collect samples, and perform experiments.

2016 | Juno

AI is being used to control the Juno spacecraft as it orbits Jupiter. The spacecraft's software uses AI to navigate Jupiter's atmosphere and to collect data on the planet's atmosphere and interior.

2018 | TESS

AI is being used to analyze the data from the TESS spacecraft. The spacecraft's software uses AI to identify exoplanets in the TESS field of view.

2020 | Ingenuity

AI is being used to control the Ingenuity helicopter on Mars. The helicopter's software uses AI to navigate the Martian atmosphere and perform autonomous flights.

2023 | Future missions

AI is expected to play an increasingly important role in future space missions. AI will be used to control spacecraft, to analyze data, and to make decisions.

The integration of AI becomes increasingly important as space missions become more ambitious. Because space is so large, it requires sophisticated systems that can handle large amounts of data, adjust to changing conditions, and make snap judgments. With the use of artificial intelligence (AI), we can ensure success and safety beyond Earth by lowering human error, increasing efficiency, and enabling autonomous decision-making. Artificial intelligence (AI) has transformed robotic probes into smart allies that can traverse hazardous environments, gather samples, and send crucial information. AI-driven rovers and landers transform astronomical research by negotiating difficult terrain and revealing details about the makeup and past of extraterrestrial worlds.

Artificial Intelligence greatly benefits satellites by improving navigation and control systems, which leads to increased dependability and flexibility. They are essential to the monitoring of Earth's ecology because they gather information on vegetation growth, natural disasters, and climatic patterns. Astronomical discoveries are accelerated by space telescopes' use of AI for automated data analysis, pattern recognition, target selection, and exploration.

AI is essential to spacecraft autonomy because it makes intelligent navigation, decision-making, and onboard diagnostics possible. By effectively allocating resources, minimizing fuel consumption, and evaluating mission feasibility, optimization techniques, simulations, and predictive models improve mission planning. Artificial intelligence (AI) adds a new level to our cosmic travels by analyzing data from satellites, probes, and telescopes to find possible indicators of life in the quest for extraterrestrial life.

Artificial Intelligence (AI) tackles the problem of digesting various data formats and deriving significant insights from the vast amount of space data. Data mining techniques enable AI algorithms to identify minute changes, forecast cosmic events, and uncover insightful information. AI developments will have a profound impact on space exploration in the future, opening up countless opportunities such as intelligent mission planning and autonomous rovers. Because of its sophistication, flexibility, and capacity for learning, artificial intelligence (AI) will play a critical role in defining space exploration in the future, solving puzzles, and motivating future explorers.

<https://www.linkedin.com/pulse/artificial-intelligence-space-exploration-blockchaincouncil>

AI in everyday life

I think now it is time to discuss the importance of AI in our everyday life. You will be surprised to find out how often we use artificial intelligence and don't even know about it.

Artificial Intelligence (AI) has been transforming various industries and aspects of modern life, from healthcare to entertainment, and from transportation to education. The impact of AI is vast, and it has become an essential part of our everyday lives. This article will discuss the importance of AI in everyday life, how it affects us, and the benefits it provides.

Personal Assistants: AI-powered digital assistants on smartphones like Siri, Google Assistant, or Bixby can help manage daily tasks, set reminders, provide information, send texts, and more.

Online Shopping: AI is used in online shopping platforms to provide personalized recommendations based on your browsing and buying history.

Navigation and Traffic: AI is used in apps like Google Maps and Waze to analyze real-time traffic data and provide the fastest routes.

Email Filtering: AI helps filter out spam emails, categorizing incoming emails, and even suggesting quick replies in some email platforms.

Security and Fraud Detection: AI can identify patterns of fraudulent activity in banking and online transactions. It can also enhance home security systems through facial recognition technology.

Entertainment: Streaming services like Netflix and Spotify use AI to recommend shows, movies, or music based on users' previous viewing or listening habits.

Artificial Intelligence (AI) has brought numerous changes and improvements to the social media landscape. Here are some ways AI is shaping and improving social media:

1. **Personalization and Targeting:** AI algorithms analyze user behavior, interests, and connections to deliver personalized content and advertisements. This increases the relevance of the content for each user and helps businesses target their ads more effectively.
2. **Image and Video Recognition:** AI technologies like computer vision are used to analyze and interpret images and videos. For instance, Facebook uses image recognition technology to identify and tag people in photos.
3. **Predictive Analysis:** AI is used to predict future user behavior based on past patterns. This can be used for various purposes like identifying potential customer leads, predicting trending topics, or anticipating user needs for customer service.

<https://www.linkedin.com/pulse/importance-artificial-intelligence-everyday-life-infosense-ai>

AI VS real art

Besides the research I have provided from various websites, I have also interviewed two of my friends who live in different countries. Here is their intake on AI, and some fun and interesting exams they have provided me with.

Eliza Kalamdaryan, 16 (United States, California)

“My latest use of AI was a few days ago when I used chat GPT to help me remember a part of a book I read.”

“My opinion on artificial AI varies. Anything can have pros and cons and AI is one of them. I am not so fond of AI. As a digital artist, I have noticed that AI steals and ruins art. It overall ruins the value of art and steals jobs. However, it could be helpful in animation. For example, the new Kung Fu Panda movie was based mostly on AI. The movie did not connect with me as much since the artwork didn’t sit right with me. Overall, AI makes jobs easier, but the quality drops significantly in the process.”

AI-generated art



Real digital drawing



AI has no limits

Zhanna Abrahamian, 16 (Russia, Rostov)

“My latest AI search was a month ago, I asked for book recommendations from chat GPT.”

“I don’t use AI much, besides for entertainment. I think AI can be handy and helpful though, you can ask it anything and it will give you quick replies. Sometimes it doesn’t give precise answers and I have to try asking it other ways to help me get the information I seek. For example, when I asked it for book recommendations I wasn’t delighted with the books it recommended. They were very outdated and didn’t interest me.”

AI created These outfits of what certain celebrities would wear to the Met Gala. (app used-gencraft.com)

Tom Cruise



Taylor Swift



Lady Gaga



Reviews from Students

Continuing on the topic of others' opinions about artificial intelligence, here are some reviews from students from middle school.

Do you know what Artificial Intelligence means?	Do you use artificial intelligence in your daily life?	What is the benefit or harm of artificial intelligence?
AI is now popular for applications that perform complex tasks like customer communication and playing online chess.	Yes, I use it. I use Chat GPT intelligence.	It's useful for gaining knowledge, but harmful when schoolchildren use it to avoid doing their homework.
I know that artificial intelligence knows everything and can answer any question.	Yes, I use artificial intelligence in my life, for example, it helps me to do my lessons.	It is a very useful program, but from time to time it prevents a person from developing
It is the use of complex algorithms and computer programs in the analysis of medical data.	No.	It is the use of complex algorithms and computer programs in the analysis of medical data.
Artificial intelligence makes life easier by helping you find information online.	I don't use artificial intelligence.	It's a shame because if people have a question, they immediately ask him and don't learn.

https://docs.google.com/spreadsheets/d/1Dxjd88w_HKqJuvPX6f_wAV_Zud2YgyWuR0xKrQGFmk/edit#gid=345860866

AI in my day-to-day life

Now that we have gotten a pretty good view of AI, allow me to give examples of using Artificial Intelligence in my life.

Artificial Intelligence (AI), has been beneficial for me. I mostly use AI when in need of information for essays. I do not however copy-paste the text, I use it as a tool and paraphrase the text myself. I would agree with the point that AI is very helpful when someone might get lazy, and not want to look for information on the internet or books, but I am against taking the entire article by AI and faking it as your work.

Besides essays, I also use AI to help in creative writing. I have been working on some short stories in my free time, and messaging AI helps me come up with better scenarios and creative dialogue. I sometimes message AI chat bots to make the conversation in my short stories sound more realistic, and help me come up with the stories themselves, for example, the settings in which some scenes take place, character names, and more advanced speech in writing.

As an artist, I also use AI for art inspiration. I don't take an AI-generated image and pretend I drew it, instead, I take the image and use it as a reference to draw one in my style. Most people argue that soon enough Artificial Intelligence will take over people's jobs, but I don't completely agree with that statement. Just like I said, we humans can use AI to make our work easier, instead of thinking of it as "replacing humanity with robots".

Conclusion and summary

To summarize this research work on “Artificial Intelligence and Its Effect on Humans”, I think that Artificial intelligence (AI) has rapidly become a significant part of our everyday lives, influencing various activities and industries. Originally, tasks that required human intellect and decision-making, such as customer service interactions or playing strategic games like chess, are now efficiently handled by AI systems. This advancement has led to AI being embedded in various applications, making complex tasks simpler and more accessible.

AI's utility extends beyond just simplifying tasks; it has also become a crucial tool for gaining knowledge. For example, if you need to find specific information online and can't locate it through traditional search methods, AI can provide tailored answers, enhancing the efficiency of information retrieval. This ability to interact and receive precise information has revolutionized how we access and process data, making AI an invaluable resource in the digital age.

However, the widespread use of AI also brings certain drawbacks, particularly in educational settings. While AI can be an excellent aid for learning and expanding knowledge, it can become a crutch for students. Instead of using AI to supplement their learning, some students rely on it to complete assignments, undermining their educational development. This misuse of AI technology can lead to a superficial understanding of subjects and a lack of critical thinking skills essential for personal and academic growth.

The rise of artificial intelligence has undeniably transformed various aspects of our lives, making complex tasks more manageable and information more accessible. Its ability to perform functions that once required human intervention has positioned AI as a cornerstone of modern technology. However, the benefits of AI come with significant responsibilities. As we integrate AI into more areas of our lives, it's crucial to balance leveraging its capabilities for efficiency and ensuring it is used ethically and responsibly.

In educational contexts, particularly, it is important to foster an environment where AI is used as a tool for enhancement rather than a shortcut. Encouraging students to engage with AI to deepen their understanding rather than complete their tasks can help maintain the integrity of their learning process. By doing so, we can ensure that AI continues to be a beneficial force in society, supporting both technological advancement and human development.

<https://www.techtarget.com/searchenterpriseai/definition/AI-art-artificial-intelligence-art>

<https://www.linkedin.com/pulse/artificial-intelligence-space-exploration-blockchaincouncil>

<https://www.linkedin.com/pulse/importance-artificial-intelligence-everyday-life-infosense-ai>

https://docs.google.com/spreadsheets/d/1Dxjd88w_HKqpJuVPX6f_wAV_Zud2YgyWuR0xKrQGFmk/edit#gid=345860866