What is Artificial Intelligence (AI)? How is it applied in daily life?

Artificial intelligence (AI) represents a technological advancement as computers are equipped with the ability to 'think'. AI allows computers to learn from experience, predict outcomes, and even suggest solutions. From natural language processing to machine vision, AI has been changing the way we interact with technology. To understand it better, let's explore what artificial intelligence is and how it's applied in life through the following article from TipsMake.

Today, artificial intelligence (AI) technology is being researched and applied extensively in various aspects of life, such as technology, machine learning, real estate, and healthcare. So, **what is AI** and how is it applied in daily life? Let's find out the answer in the article below.

What is AI? The development and applications of artificial intelligence in daily life.

Table of Contents:

1. What is Artificial Intelligence (AI)?

Artificial intelligence (AI) is a technology that simulates human thinking and knowledge acquisition processes for machines, especially computer systems. Some applications using AI include expert systems, speech recognition applications, and machine vision applications.

Artificial intelligence, or AI, was named by American computer scientist John McCarthy in 1956 at the Dartmouth Conference. Today, the term AI also includes process automation using robots and real-world robotics.

Recently, a new term called Big Data has emerged, referring to the increased speed, size, and collection of diverse business data. AI can perform tasks such as identifying patterns in data more efficiently than humans, allowing businesses to better understand their data.

What is AI-reactive technology?

2. Classification of Artificial Intelligence (AI)

Artificial intelligence is classified in many different ways; below are two typical examples of AI classification.

First, artificial intelligence (AI) can be classified into strong or weak AI systems. Weak AI, also known as Narrow AI, is an AI system designed and trained for specific tasks. Virtual assistants such as Apple's Siri are a form of weak AI.

Strong artificial intelligence, also known as Artificial General Intelligence, is an AI system equipped with the general cognitive abilities of humans, enabling it to intelligently find solutions when performing unfamiliar tasks. The Turing test, developed by mathematician Alan Turing in 1950, is a method used to verify whether a computer can think like a human, although this method is highly controversial.

The second example comes from Arend Hintze, an assistant professor of integrated biology and computer science and engineering at Michigan State University. He categorizes artificial intelligence (AI) into four types, ranging from current AI systems to sensory systems, which do not yet exist.

His portfolio includes:

Type 1: Machine Reactions . A prime example is Deep Blue, IBM's chess program that defeated Garry Kasparov in the 1990s. Deep Blue could identify pieces on the chessboard and make predictions, but it lacked memory and couldn't use past experiences to inform humans about future moves. It analyzed its own moves and those of its opponent, and chose the most strategic move. Deep Blue and Google's AlphaGO were designed for a narrow purpose and couldn't be easily adapted to other situations.

Type 2: Limited Memory . These AI systems can use past experiences to make future decisions. Some decision-making functions in self-driving cars are designed in this way. Observations are used to inform actions that will occur in the near future, such as a car changing lanes. These observations are not stored permanently.

Type 3: Theoretical. This is a psychological term. It refers to the understanding that humans have their own beliefs, desires, and intentions that influence their decisions. However, this type of AI does not yet exist.

Type 4: Self-aware. In this classification, the AI ??system is self-conscious. These machines consciously understand their current state and can use this information to infer what others are feeling. This type of AI does not yet exist.

How many types of AI are there? Details on how artificial intelligence (AI) is classified.

The development of artificial intelligence

- Automation is the process of creating systems or functions that process automatically. For example, automating processes using robots to perform high-volume tasks that humans frequently repeat. Robotic process automation differs from IT automation in that it can adapt to changing circumstances.

- Machine Learning is the science of enabling a computer to perform actions without programming. **Deep Learning** is a subset of Machine Learning, and in simpler terms, it can be considered the automation of predictive analytics.

There are three main types of Machine Learning algorithms: **Supervised Learning** , where datasets are labeled so that patterns are detected and used to label new datasets; Unsupervised Learning **,** where datasets are unlabeled and sorted by similarity or difference; and Reinforcement **Learning** , where datasets are unlabeled, but the AI ??system responds after performing one or more actions.

- Machine vision (image-based recognition and control systems) is the science that makes computers see. Machine vision collects and analyzes visual information using a camera, converts it to digital, and processes the signal digitally. It is often compared to human vision, but machine vision is not bound by biology and can be programmed to see through walls. Typical examples include machine vision used in a range of applications from signature recognition to medical image analysis. Machine vision focuses on machine-based image processing.

- Natural Language Processing (NLP) is the process of processing human language, not computer language. One of the most well-known examples is spam detection, examining the subject line and text of an email and deciding whether it is spam or not. NLP handles tasks including text translation, sentiment analysis, and speech recognition.

Pattern recognition is a part of Machine Learning that focuses on identifying patterns in data.

Robotics is a field of engineering focused on the design and manufacture of robots. Robots are often used to perform tasks difficult for humans, and are employed in assembly lines to manufacture automobiles or by NASA to transport large objects in space. More recently, researchers are using machine learning to build robots that can interact in social environments.

The development of artificial intelligence is integrated with other technologies.

3. Applications using artificial intelligence

Here are some typical applications of artificial intelligence:

- **AI trong l?nh v?c ch?m sóc s?c kh?e**: AI góp ph?n c?i thi?n tình tr?ng s?c kh?e b?nh nhân, ??ng th?i gi?m các chi phí ?i?u tr?. Các công ty ?ang áp d?ng Machine Learning ?? ch?n ?oán nhanh h?n và t?t h?n con ng??i. M?t trong nh?ng công ngh? ch?m sóc s?c kh?e t?t nh?t ph?i k? ??n IBM Watson, có kh? n?ng hi?u ???c các ngôn ng? t? nhiên và có kh? n?ng ph?n h?i các câu h?i ???c yêu c?u. H? th?ng này khai thác d? li?u b?nh nhân và các ngu?n d? li?u s?n có khác ?? t?o ra gi? thuy?t. Sau ?ó, nó s? trình bày m?t l??c ?? ?i?m tin c?y. Các ?ng d ?ng khác c?a AI bao g?m chatbot, ch??ng trình máy tính tr?c tuy?n ?? tr? l?i các câu h?i và h? tr? khách hàng, s? p x?p các cu?c h?n ho?c tr? giúp b?nh nhân thông qua quá trình thanh toán và các tr? lý y t? ?o cung c?p ph?n h? i y t? c? b?n.

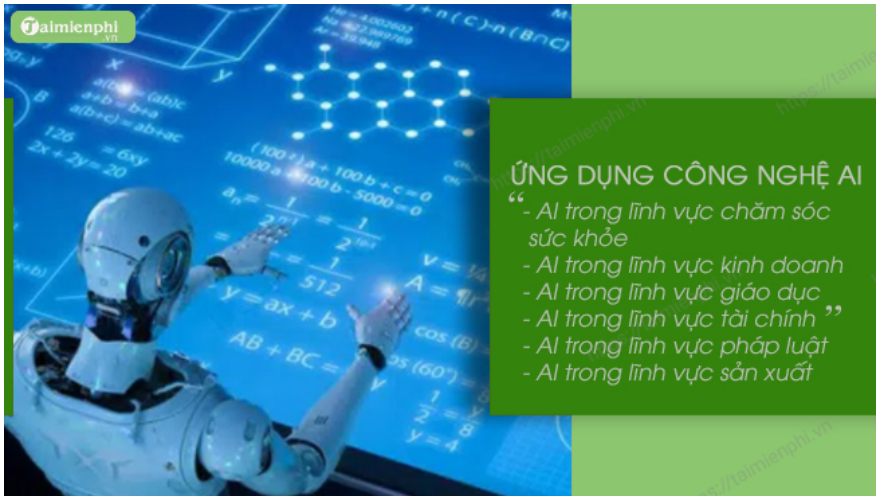
- AI trong l?nh v?c kinh doanh: T? ??ng hóa quy trình b?ng Robot ???c áp d?ng cho các tác v? mà con ng??i th?c hi?n l?p ?i l?p l?i. Thu?t toán Machine Learning ???c tích h?p trên các n?n t?ng phân tích và CRM ?? khám phá các thông tin v? cách ph?c v? khách hàng t?t h?n. Chatbots ???c tích h?p trên các trang web ?? cung c?p d? ch v? ngay l?p t?c cho khách hàng.

- AI trong l?nh v?c giáo d?c: AI có th? t? ??ng phân lo?i, giúp ng??i làm giáo d?c có th? ti?t ki?m m?t kho?ng th?i gian ?áng k?. AI có th? ?ánh giá sinh viên và thích ?ng v?i nhu c?u c?a h?. ??ng th?i AI có th? h? tr? thêm cho sinh viên làm thêm công vi?c gia s?, ??m b?o r?ng h? có th? ?i ?úng h??ng.

- AI trong l?nh v?c tài chính: AI áp d?ng cho các ?ng d?ng tài chính cá nhân nh? Mint hay Turbo Tax, t?ng c?? ng các ??nh ch? tài chính. M?t s? ?ng d?ng khác nh? IBM Watson ???c áp d?ng AI này cho các giao d?ch mua bán nhà.

- AI trong l?nh v?c pháp lu?t: Quá trình khám phá, ch?n l?c thông qua các tài li?u trong lu?t pháp th??ng áp ?? o ??i v?i con ng??i. T? ??ng hóa quá trình này giúp ti?t ki?m th?i gian và quá trình làm vi?c hi?u qu? h?n. Startups c?ng ?ang xây d?ng các tr? lý ?o cho máy tính h?i và tr? l?i các câu h?i ???c l?p trình. H?n n?a, chúng có th? sàng l?c các câu h?i ???c l?p trình ?? tr? l?i b?ng cách ki?m tra phân lo?i.

- AI trong l?nh v?c s?n xu?t: ?ây là l?nh v?c ?i ??u trong vi?c k?t h?p robot vào lu?ng công vi?c. Robot công nghi?p ???c s? d?ng ?? th?c hi?n các nhi?m v? ??n l? và ?ã ???c tách ra kh?i con ng??i.



Tìm hi?u các ?ng d?ng s? d?ng trí tu? nhân t?o trong ??i s?ng

4. Trí tu? nhân t?o ???c áp d?ng trong ??i s?ng, hi?n t?i và t??ng lai

Trí tu? nhân t?o (AI) có r?t nhi?u ?ng d?ng trong ??i s?ng hàng ngày c?a chúng ta. D??i ?ây là m?t s? ví d? v? cách AI ???c áp d?ng:

- Mobile technology and applications: Virtual assistants like Siri (Apple), **Google Assistant** , and Amazon Alexa use AI to understand and respond to user questions. AI is also used in suggesting content, predicting keywords when typing messages, and improving the user experience on mobile phones.

- Natural Language Processing (NLP): Applications like **Google Translate** use **AI** to translate different languages. Chatbots on websites and apps also use NLP to interact with customers.

- Virtual assistants in transactions: Chatbots on e-commerce websites can assist customers in searching for products, placing orders, and providing product information.

- Workflow automation: Artificial intelligence is used to automate repetitive tasks in the workplace, such as processing invoices, managing data, and tracking work schedules.

- Predicting and analyzing data: AI is used to predict trends in fields such as finance, stock markets, weather, and consumer markets. It also has the ability to analyze big data to uncover key information and hidden trends within the data.

- Machine vision: AI-powered facial recognition technology has become commonplace in unlocking mobile phones, logging into accounts, and even in identifying criminals.

- Healthcare and medical services: AI is used to diagnose diseases, predict patient health conditions, and analyze medical images such as CT scans.

- Transportation and Autonomous Vehicles: Artificial intelligence plays a crucial role in the development of autonomous vehicles and intelligent transportation systems to improve traffic safety and efficiency.

- Manufacturing industry: AI is used in manufacturing automation, product quality control, and production process optimization.

- Entertainment: Technology predicts user preferences based on browsing history and generates suggestions for entertainment content such as movies, music, books, and more. Additionally, artificial intelligence technology is also being applied by developers to photo editing and anime creation faster with just a few clicks.
+ Download **Photoshop AI** , photo editing software for PC
+ Download **Loopsie** , 3D anime creation app for Android and iOS

These are just a few basic examples of how AI is being applied in daily life. Artificial intelligence is becoming increasingly important and has a huge impact on many aspects of life and the economy.

The article above, by TipsMake, introduces you to what AI - Artificial Intelligence - is and its applications. You can download **the Artificial Intelligence textbook** to learn more about this technology. If you have any contributions or questions, please leave your comments in the section below the article. TipsMake will answer your questions as soon as possible.

You finished reading the article "**What is Artificial Intelligence (AI)? How is it applied in daily life?**" edited by the **TipsMake** team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.