



DeepSeek AI

[Source: TH](#)

Chinese AI startup DeepSeek has launched **generative AI** models (known as **DeepSeek**) that rival global leaders like OpenAI, Google, and Meta while **offering competitive performance at a significantly lower cost.**

DeepSeek:

- **About: DeepSeek** is a **free AI-powered chatbot** similar to **ChatGPT**, providing text-based assistance via **web, mobile, and API**.
 - **Deepseek** (AI firm) was founded by **Liang Wenfeng in May 2023** that specialises in **open-source Large Language Models (LLMs)**.
- **Recent Advanced Models: DeepSeek-V3** excels in **coding, translation, and writing**, while **DeepSeek-R1** outperforms OpenAI's o1 in reasoning, math, and logic.
- **Different With Other AI Models:**
 - **Open-Source Advantage:** Unlike **proprietary models** (OpenAI, Google), DeepSeek allows **cost-effective AI adoption without licensing fees**.
 - **Advanced Architecture:** Uses **Mixture-of-Experts (MoE)** for specialized tasks and **Multi-Head Latent Attention (MLA)** for **efficiency, reducing training and deployment costs**.
 - **Reinforcement Learning:** Enhances reasoning through **trial-and-error learning**, enabling **efficient distillation of large models**.
 - **Real-Time Computation:** DeepSeek-R1 displays reasoning in real time, outperforming **OpenAI's o1** in math, coding, and general knowledge.

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Artificial Intelligence (AI)

AI is the simulation of human intelligence in machines programmed to think and learn like humans, capable of problem-solving, reasoning, and adapting to new information.

AI Timeline - Major Milestones

- 1950s** Turing Test Proposed; First AI Programs Developed
- 1956** Dartmouth Conference Coins "Artificial Intelligence"
- 1960s** Eliza Chatbot Created; Early Neural Networks Emerge
- 1996** Deep Blue - a Chess-Playing Program
- 2012** Deep Learning Breakthrough in Image Recognition
- 2014** Generative Adversarial Networks (GANs) Introduced
- 2020** GPT-3 Demonstrates Advanced Language Generation
- 2022** Chatgpt Launches, Bringing Conversational AI to Masses
- 2023** Generative AI Boom; Major Tech Companies Release AI Models



Applications of AI

- **Healthcare:** Personalised medicine
- **Finance:** Algorithmic trading
- **Transportation:** Autonomous vehicles
- **Marketing & Customer Service:** Targeted advertising, chatbots
- **Education:** Adaptive learning systems, personalised tutoring
- **Agriculture:** Crop monitoring
- **Cybersecurity:** Threat detection
- **Energy:** Smart grid management, consumption forecasting

Concerns

- Deepfakes & misinformation
- Algorithmic bias
- Automation & job displacement
- Privacy issues
- Data ownership & liability issue
- Ethical decision-making complexes

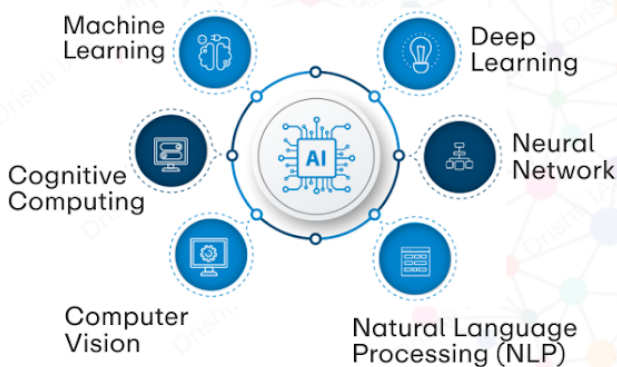
Regulating AI

- **Global Partnership on AI (GPAI)** launched in 2020
- **Bletchley Declaration (2023):** Enhance Global Collaboration on AI
- **G20 New Delhi Leaders' Declaration (2023):** Harnessing AI responsibly for good and for all
- **Hiroshima AI Process (2023)** by G7

India and AI

- **National Strategy For AI 2018**
- **AI For All:** Self-learning online program
- **GPAI Summit 2023** hosted by India
- **IndiaAI Mission 2024**
- **US India Artificial Intelligence (USIAI) Initiative:** AI cooperation in critical areas
- **AIRAWAT** (AI Research, Analytics and Knowledge Assimilation Platform): Supercomputer

KEY COMPONENTS OF AI



Read more: [Artificial Intelligence \(AI\)](#)

