ARTIFICIAL INTELLIGENCE (AI)

Survey of AI-Powered Didactic Tools: A Comprehensive Overview of Educational Applications

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National Czech Programme | eosc

This presentation was created by Key Activity 7 of the project National repository platform for scientific data (NRP)
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(collaboratively created by Michal Podhoranyi and Pavlina Tassanyi during an AI didactics activity. It reflects their joint efforts in exploring AI-driven learning.).

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MINISTRY OF EDUCATION, YOUTH AND SPORTS

NRP project registration number
CZ.02.01.01/00/23_014/0008787

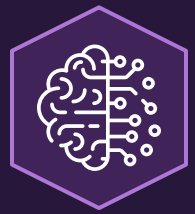
INTRODUCTION

Artificial Intelligence (AI) is revolutionizing education, reshaping traditional teaching and learning methods while offering innovative solutions to enhance pedagogical outcomes. From personalized learning platforms to intelligent tutoring systems and automated grading tools, AI has transformed how knowledge is delivered and consumed. This document, *The Best AI Applications for Education and Didactic purposes (survey)*, aims to provide a comprehensive exploration of the current and potential uses of AI within educational contexts.

WHAT IS THE MAIN POINT OF THE DOCUMENT?

RESOURCES

Know useful resources



IMPROVE

Improve your skills in AI didactics and education

METHODS

Apply new methods in AI didactics and education in your work

LEGEND

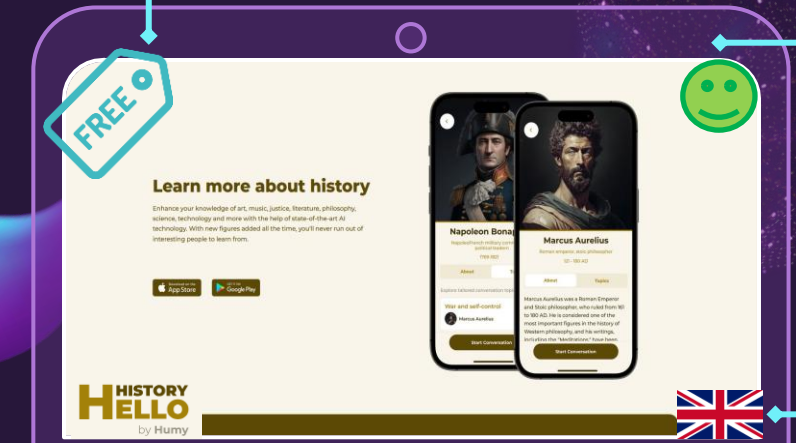
Symbol explanations
(Infographics)

Content

Free & Paid

Expert Level

Beginner, Intermediate, Advanced



Language

EN & CZ

Logo

Logo of
application/resource

TABLE OF CATEGORIES

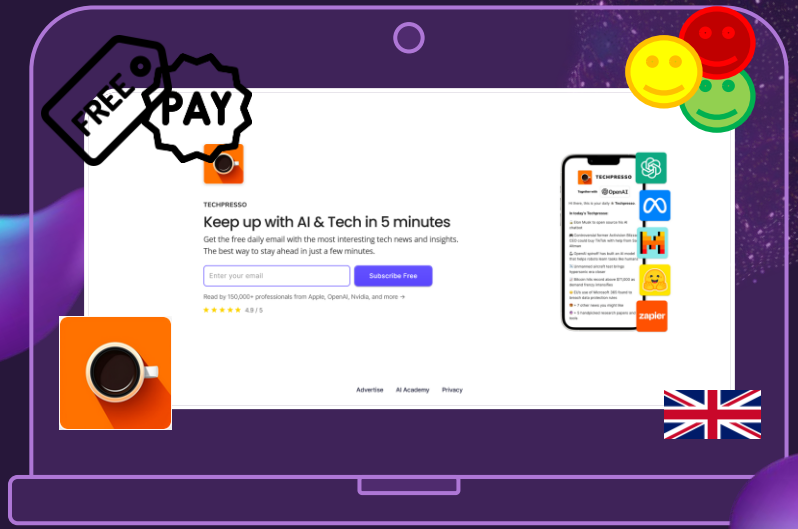
01	AI News & Articles & DB's	Latest AI News and Advancements
02	Online AI Courses	Online courses to demystify AI
03	Gamification in education	Interactive games to teach AI
04	Chatbots	Uncover the role of Chatbots in education
05	Course Creation	Automated creation of courses
06	AI in Education	Research, developments, and educational content on AI

01

AI News & Articles & DB’s

Stay updated with the latest in AI: news, expert articles, and curated AI databases covering advancements, trends, and insights into artificial intelligence and its applications.

#1 NAD (News)



dupple.com/techpresso

Get the free daily email with the most interesting AI news and insights. The #1 AI and Tech newsletter

#2 NAD (News)

edsurge.com/news/topics/artificial-intelligence

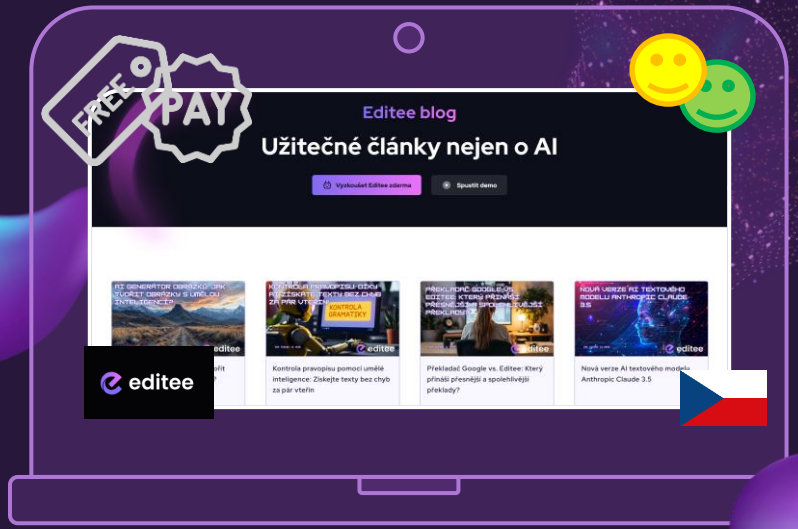
News and resources on AI in education

#3 NAD (News)

artificialintelligence-news.com

Artificial Intelligence News provides the latest *AI news* and trends. Explore industry research and reports from the frontline of AI technology news.

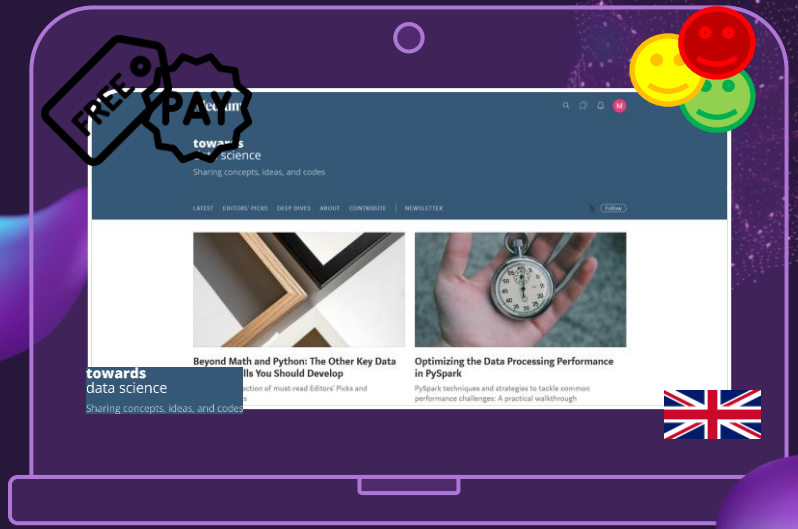
#4 NAD (articles)



editee.com/blog

Useful articles about AI and more.

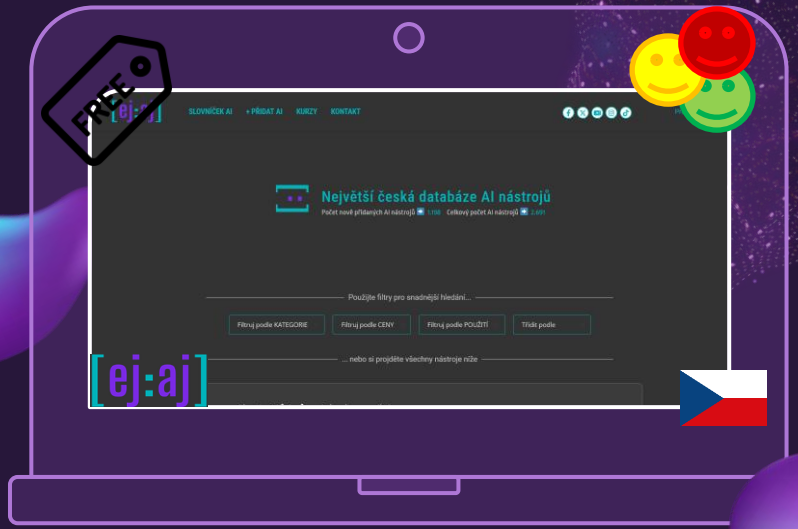
#5 NAD (articles)



towardsdatascience.com

Tutorials and articles on AI, machine learning, and data science. Towards Data Science is a popular Medium publication that offers practical tutorials, case studies, and explanations on AI techniques, models, and real-world applications.

#6 NAD (DB)



ejaj.cz

The largest Czech database of AI tools.

#7 NAD (DB)

futuretools.io

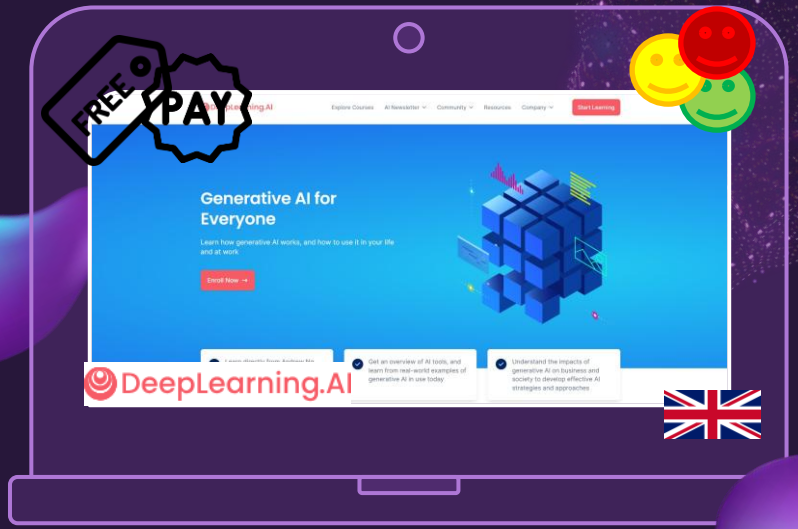
FutureTools Collects & Organizes All The Best AI Tools So YOU Too Can Become Superhuman!

02

Online AI Courses (OAC)

The gamification of learning is **an educational approach that seeks to motivate students by using video game design and game elements in learning environments**. The goal is to maximize enjoyment and engagement by capturing the interest of learners and inspiring them to continue learning.

#1 OAC



deeplearning.ai

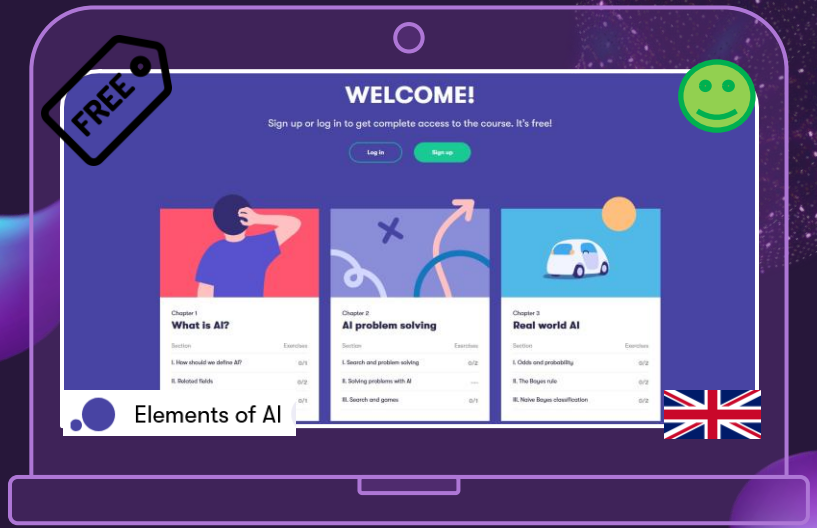
Grow your AI career with foundational specializations and skill-specific short courses taught by leaders in the field.

#2 OAC

codecademy.com/catalog/subject/artificial-intelligence

Dive into the world of generative *AI* (*artificial intelligence*) and learn how to leverage *AI* with Codecademy's *AI courses* and tutorials.

#3 OAC



elementsofai.com

A free online course created by the University of Helsinki and Reaktor, designed to demystify AI. It covers the basics and provides a solid foundation in AI concepts

#4 OAC

datacamp.com/category/artificial-intelligence

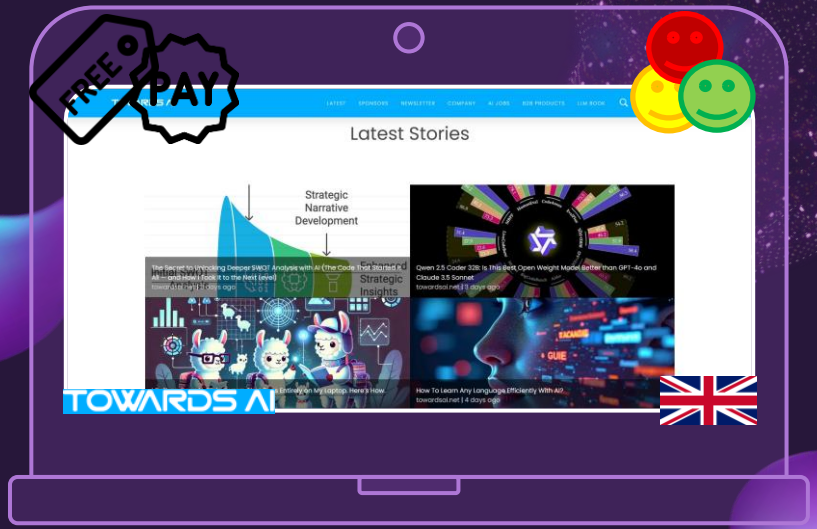
AI courses delve into the theory and application of algorithms that enable machines to mimic human intelligence and perform tasks autonomously. Build your skills in topics such as generative AI, prompt engineering, deep learning and more.

#5 OAC

oxfordhomestudy.com/courses/ai-courses-online/ai-courses-online-free

Oxford Home Study Centre offers **AI courses online for free**, providing access to cutting-edge AI education from anywhere in the world. Whether you're a beginner or looking to deepen your knowledge, our courses cover a wide range of AI topics.

#6 OAC



towardsai.net

AI and LLM courses, blogs, tutorials, books, newsletter & community.
Since 2019 we helped teach over 400k AI. Now we also help corporate teams with LLM training and consultancy.

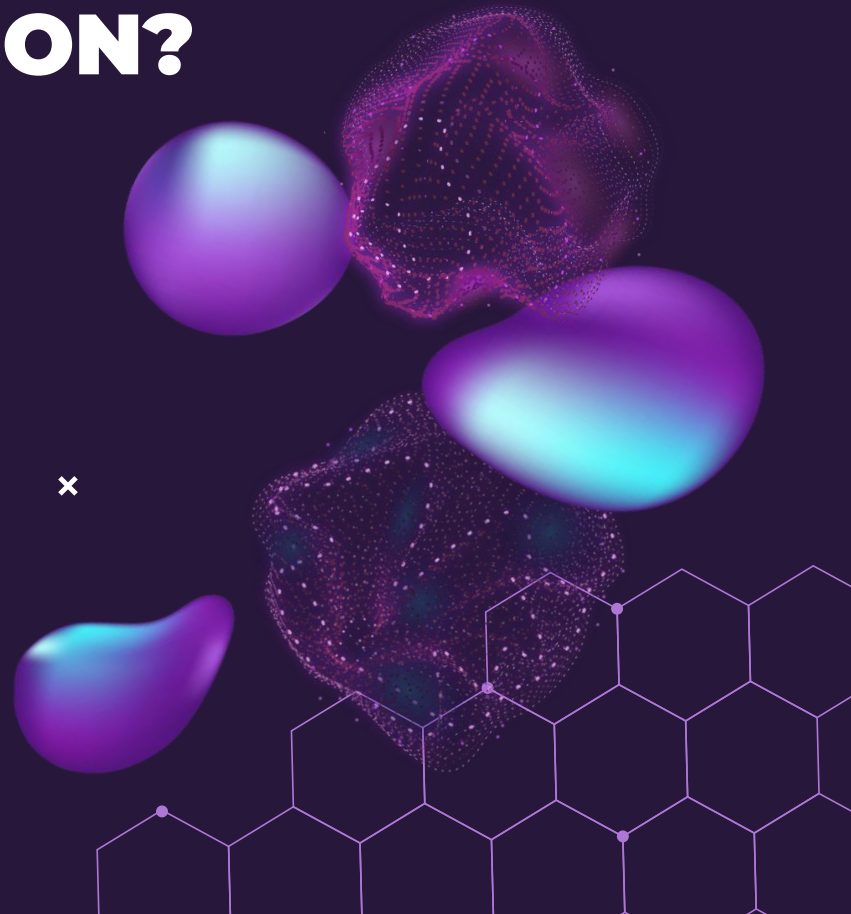
03

Gamification in education

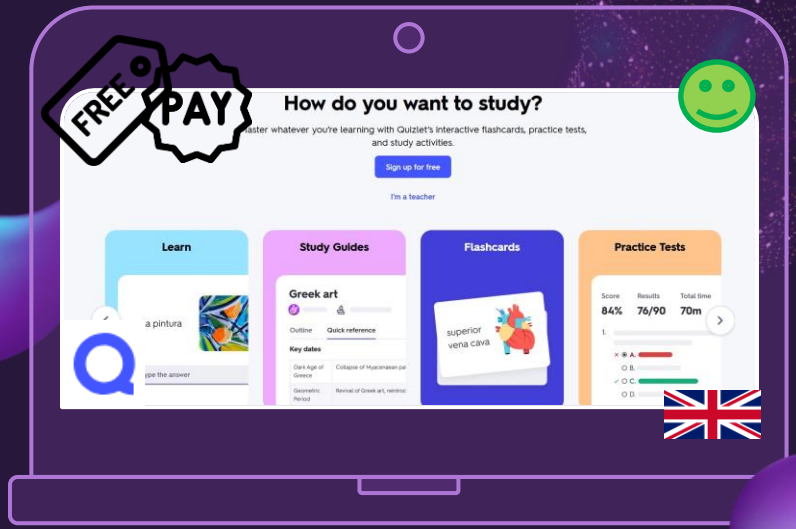
The gamification of learning is **an educational approach that seeks to motivate students by using video game design and game elements in learning environments**. The goal is to maximize enjoyment and engagement by capturing the interest of learners and inspiring them to continue learning.

HOW IS GAMIFICATION USED IN EDUCATION?

- **Personalized Learning Paths -** AI algorithms analyze student performance, preferences, and progress to create individualized learning paths.
- **Adaptive Challenges** - AI dynamically adjusts the complexity of tasks or quizzes to suit a student's skill level.
- **Virtual Tutors and Game Masters** - AI-powered assistants guide students through tasks, answer questions, and provide hints during challenges.
- **Gamified Analytics** - AI visualizes progress and achievement data in game-like dashboards, motivating students to reach higher scores or unlock badges.



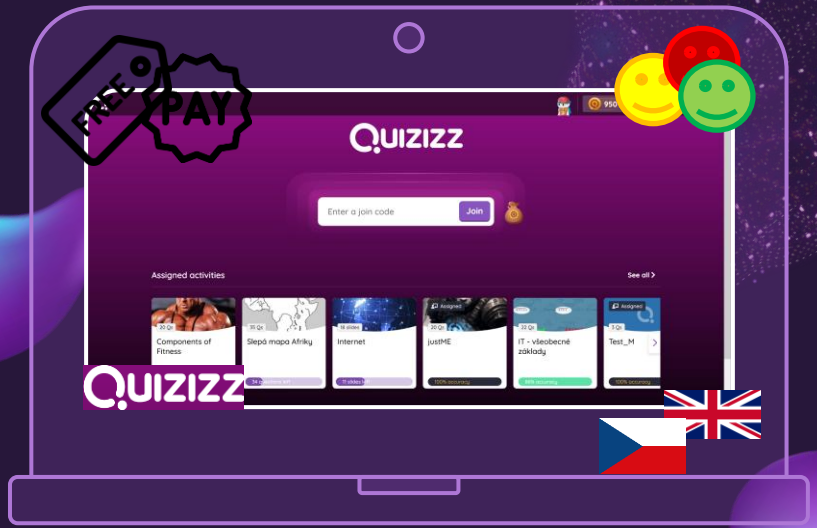
#1 GiE



quizlet.com

Master whatever you're learning with Quizlet's interactive flashcards, practice tests, and study activities.

#2 GiE



quizizz.com

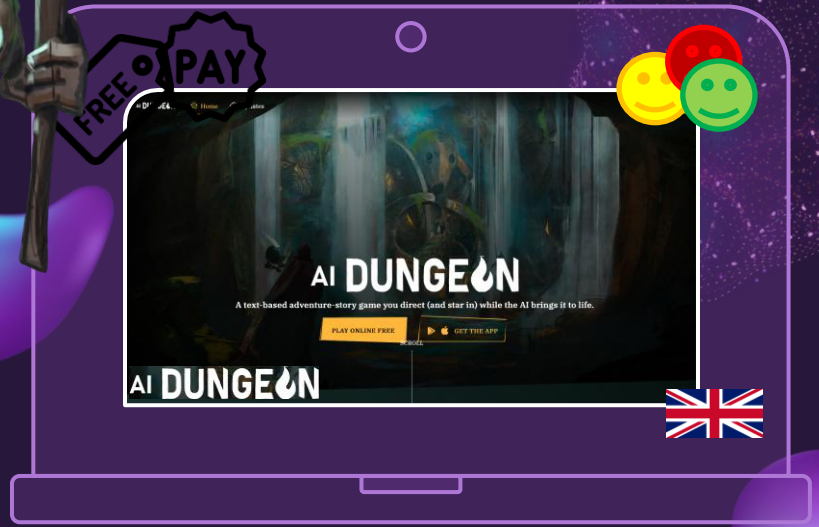
Make a quiz with different question types to engage students in a classroom, train employees at work, or play trivia with friends.

#3 GiE

gamizign.com

Gamizign is an AI gamification platform that empowers instructors to build many games through their content in few steps for more engaging eLearning, more memorable, and more fun.

#4 GiE



aidungeon.com

A text-based adventure-story game you direct (and star in) while the AI brings it to life.

#5 GiE

aixploria.com/en/category/games-en/

The list of the best AI-powered games.

#6 GiE

rosebud.ai/education

AI GAME CREATION FOR EDUCATORS. Integrate AI educational game design with Rosebud Game Maker platform. Rosebud uses generative artificial intelligence to enable students and educators to create engaging AI video games just by chatting with our assistant.

#7 GiE

educaplay.com

Make learning games in no time. **Educational game generator to engage your audience with your own gamified content**

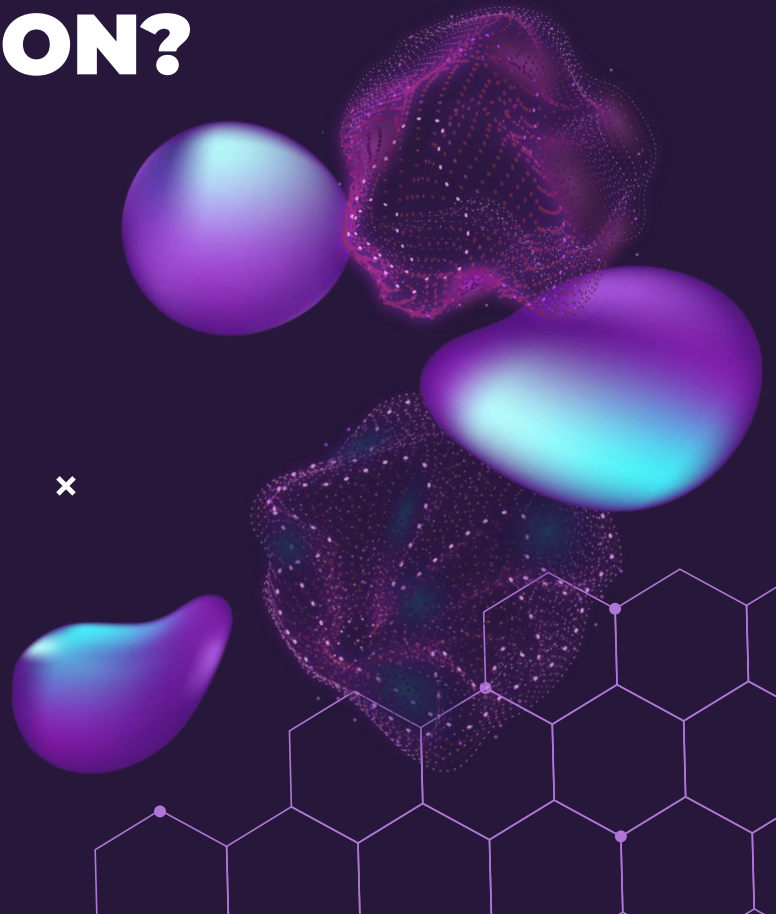
04

Chatbots

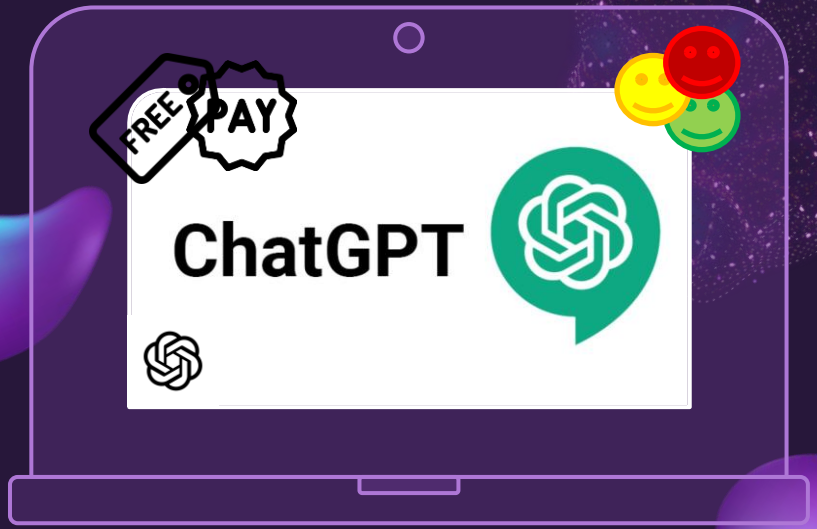
A chatbot is a software application designed to simulate human-like conversations with users, typically through text or voice, to provide assistance, answer questions, or perform tasks.

HOW TO USE CHATBOTS IN EDUCATION?

- **Personalized Learning Support**: Chatbots can act as virtual tutors.
- **Gamified Learning Experiences**: Chatbots can incorporate gamification elements like challenges, and rewards.
- **24/7 Access to Resources**: Chatbots can serve as round-the-clock assistants for accessing study materials, lecture summaries, or educational videos.
- **Language Learning Partner**: They can engage students in conversational practice for foreign languages, and correcting grammar.
- **Brainstorm ideas, Interactive Quizzes, Homework Assistance .....**



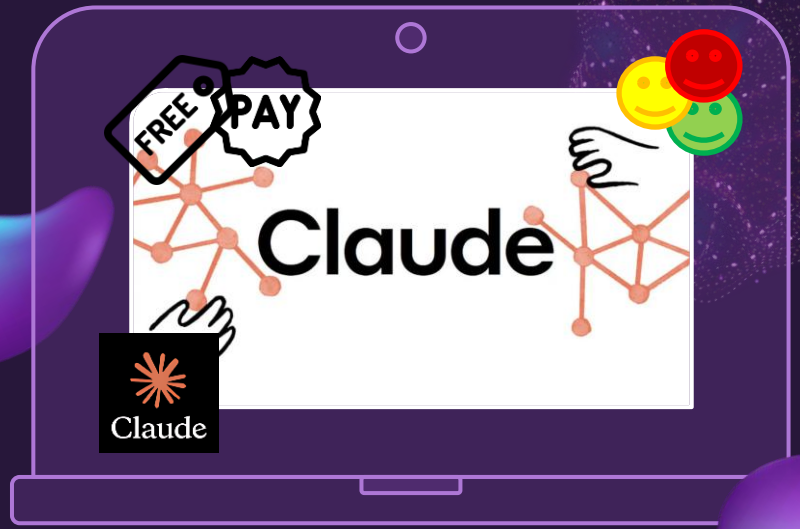
#1 ChatBots



chatgpt.com

ChatGPT is an AI language model developed by OpenAI, designed to understand and generate human-like text. It can assist with answering questions, providing explanations, creative writing, programming help, language translation, and more.

#2 ChatBots



Claude.ai

Claude is #1 alternative to ChatGPT. Claude AI, developed by **Anthropic**, is an advanced conversational AI model designed for natural language derstanding and generation. It is used for tasks like customer service, content creation, coding, and more, aiming to balance power with safety and accessibility.

#3 ChatBots

gemini.google.com

ChatGPT competitor by Google. Gemini AI, developed by **Google DeepMind**, is an advanced artificial intelligence system designed to merge the capabilities of large language models (LLMs) with advanced problem-solving and reasoning abilities.

#4 ChatBots

x.ai

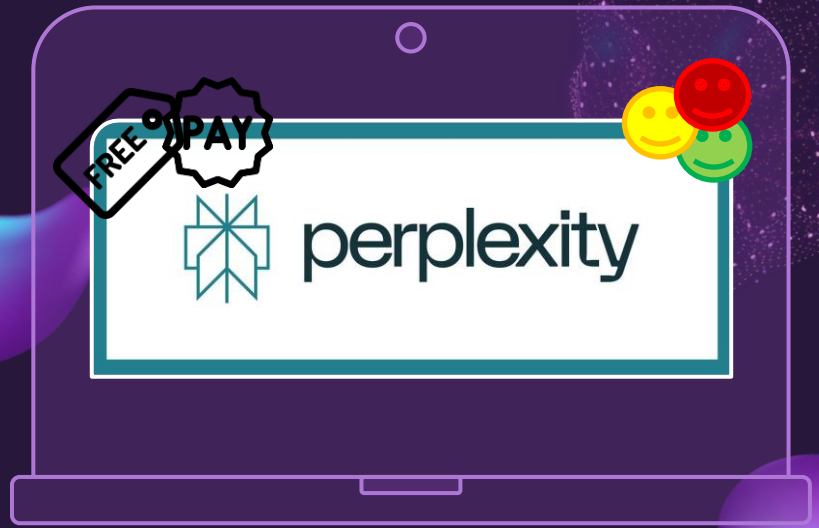
Elon Musk’s OpenAI competitor. Grok AI, developed by **X (formerly Twitter)** under Elon Musk's leadership, is an AI chatbot integrated with the platform. It focuses on delivering **real-time conversational support** for social media-related tasks, such as answering questions, generating content, and analyzing trends.

#5 ChatBots

jasper.ai

Jasper AI is not primarily a chatbot but rather a **content generation platform** designed to assist with tasks like writing, marketing, and creative work. While it does have an **interactive chat feature**, its primary focus is on generating written content—such as blog posts, ads, and emails.

#6 ChatBots



perplexity.ai

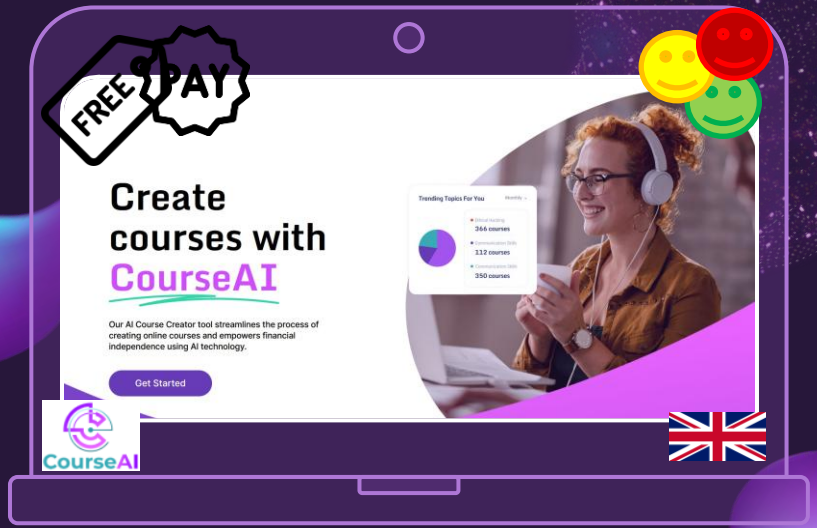
The best AI alternative to Google. **Perplexity AI** is a conversational search engine that uses large language models (LLMs) to answer queries. Its developer, Perplexity AI, Inc., is based in San Francisco, California. Whether you're seeking quick answers, conducting in-depth research, or looking for creative inspiration, Perplexity has you covered.

05

Course Creation

Easily create online *courses* with an AI-powered *creators* and share your knowledge with video, audio, text, and other modules.

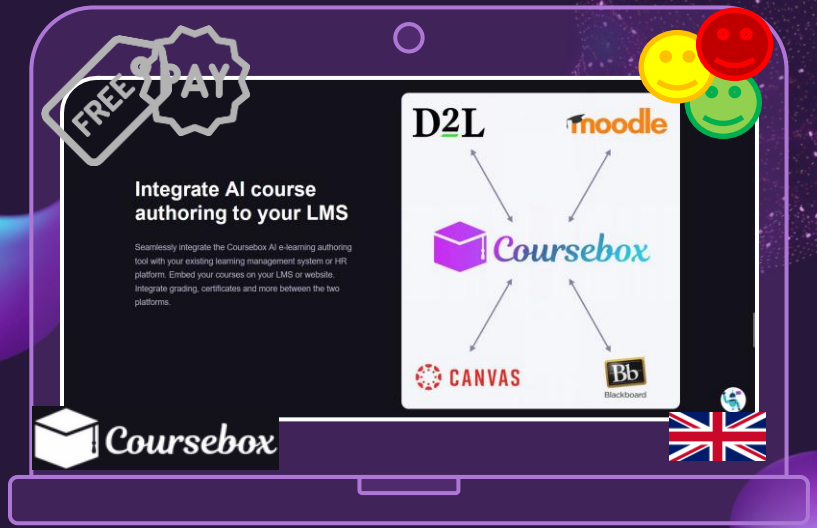
#1 CC



courseai.com

CourseAI is a cutting-edge platform that lowers the barriers to entry in creating and selling online courses. Through leveraging AI technology, we've reduced the skills gap needed to create high-quality content and market online courses.

#2 CC



coursebox.ai

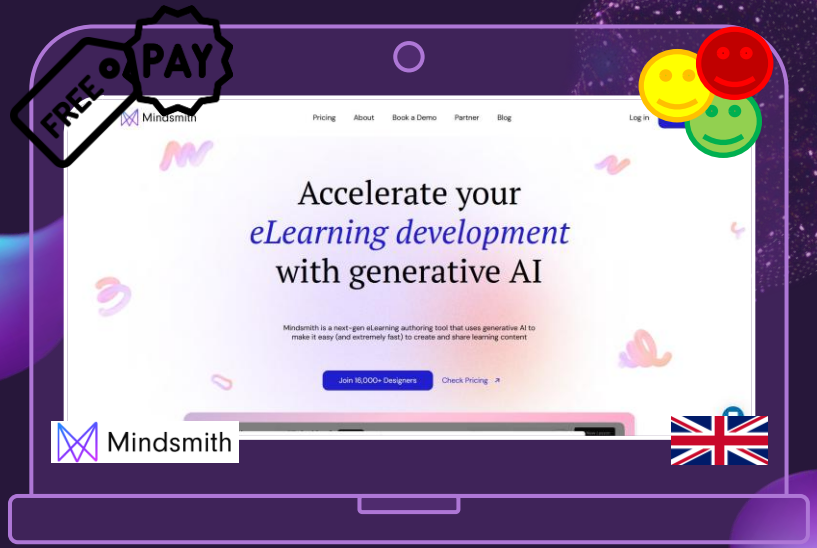
AI Course Creator which helps you build your online course in minutes. Automate assessment, course authoring and convert files to eLearning.

#3 CC

lingio.com

The quickest way to train frontline workers. Achieve 12x higher course completion rates with mobile-based Employee Training Software.

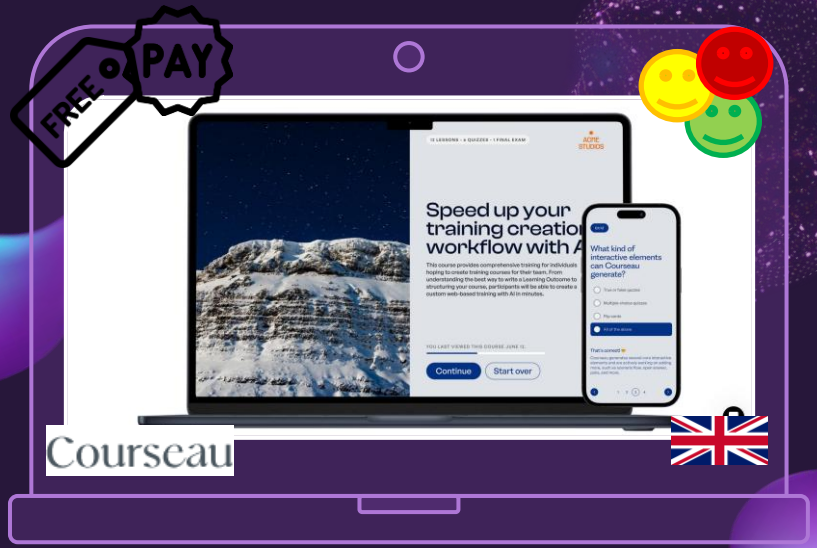
#4 CC



mindsmith.ai

Mindsmith is a next-gen eLearning authoring tool that uses generative AI to make it easy (and extremely fast) to create and share learning content

#5 CC



courseau.co

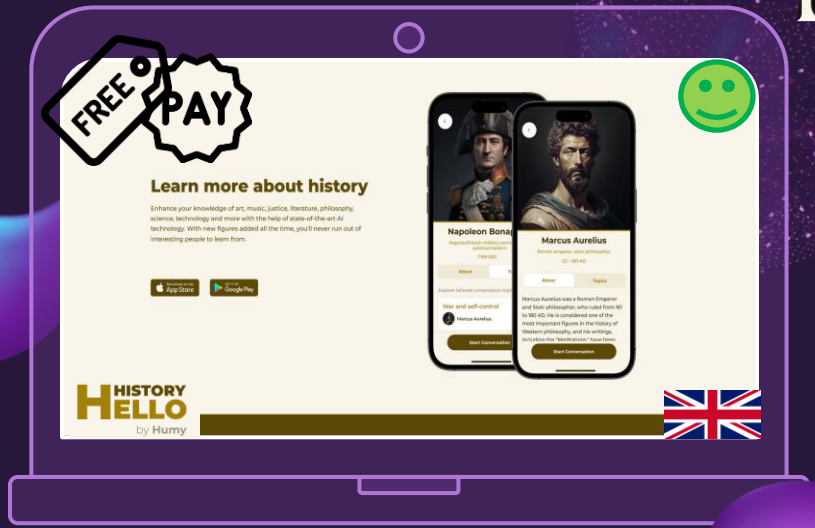
Using the power of GPT 3.5 and GPT-4, Courseau makes creating mini-courses a piece of cake. All you have to do is give it a quick course description and this free course creator jumps in and hands you a well-outlined course with proper AI-assisted transcription.

06

AI in Education (AiE)

Useful applications and web pages related to AI in education (unclassified)

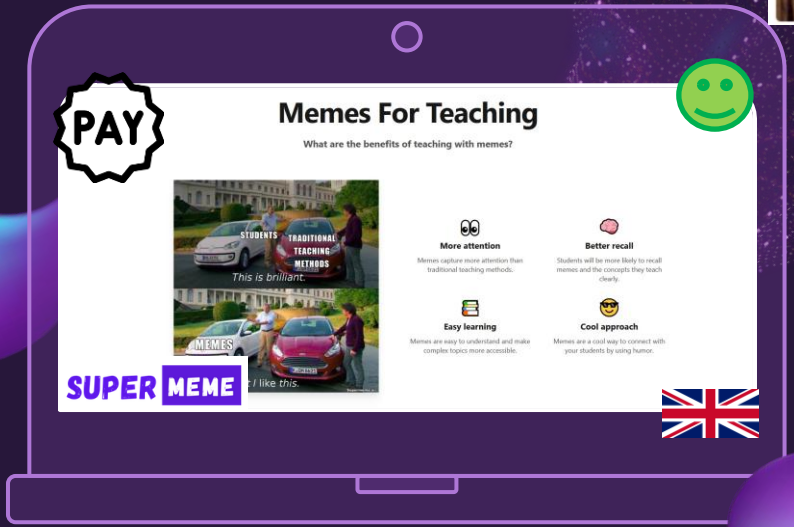
#1 AiE



hellohistory.ai

An AI powered app that lets you have life-like conversations with historical figures. Teaching Tool – "talk" to historical figures, asking them questions and getting AI-generated responses

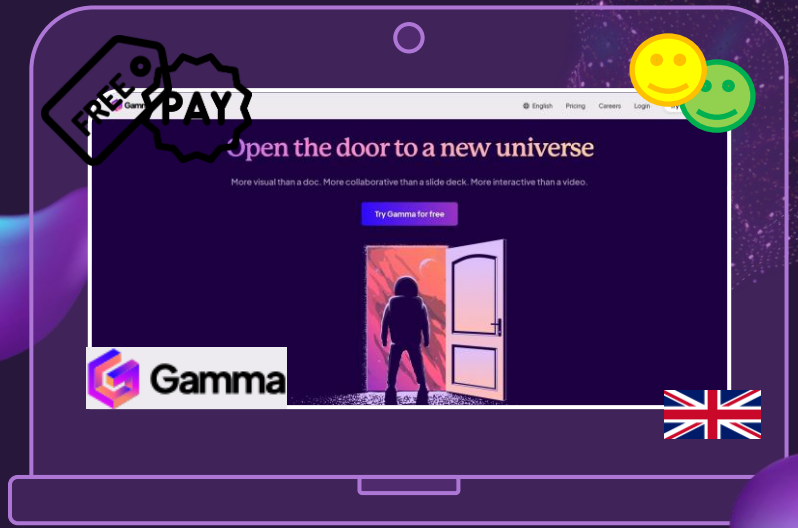
#2 AiE



supermeme.ai

What are the benefits of teaching with memes? Teaching -> Powerful Educational Tool (with Memes). Humor can be a powerful tool for enhancing memory

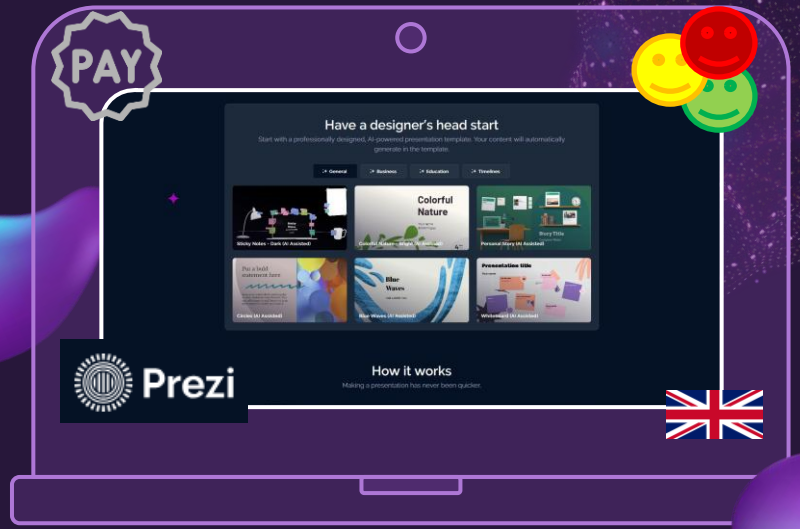
#3 AiE



gamma.app

Beautiful presentations, documents, and websites. No design or coding skills required.

#4 AiE



prezi.com

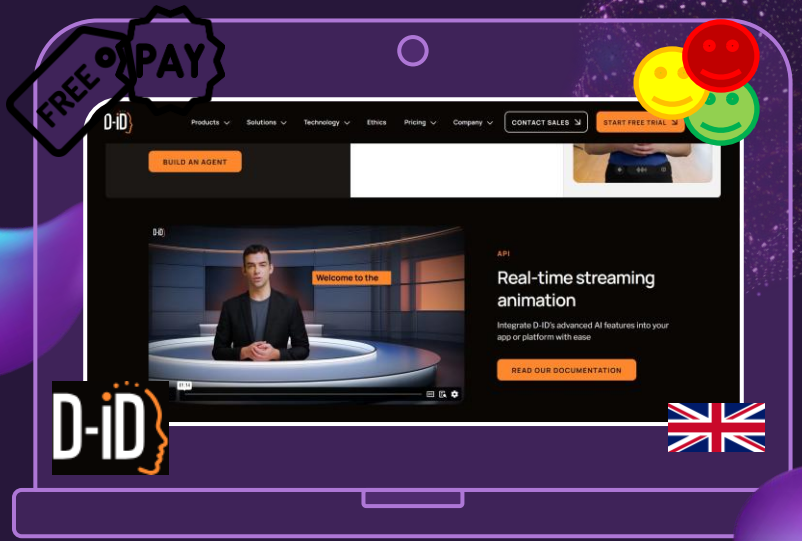
Make a great presentation in no time. Just describe your idea and we'll design your presentation in mere minutes. Nailing tomorrow has never been quicker.

#5 AiE

magicslides.app

Enter Topic, Youtube URL, PDF, or Text to get a beautiful PPT in seconds.

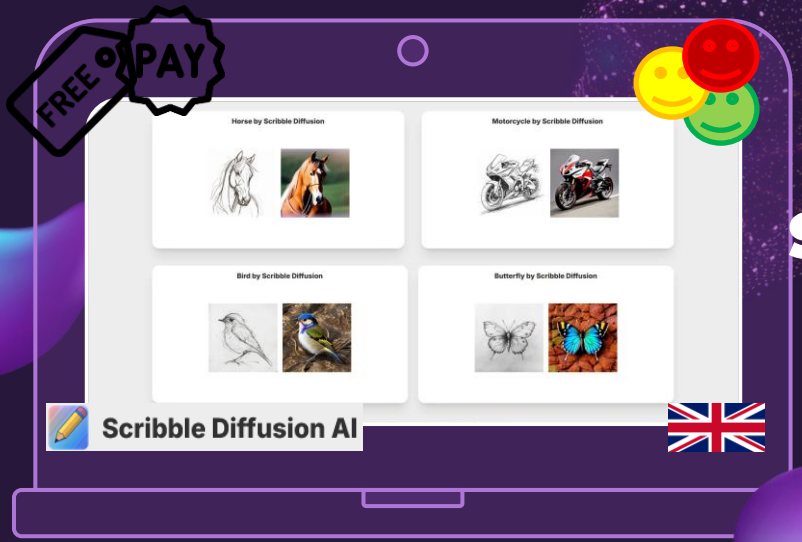
#6 AiE



d-id.com

Create AI Avatars from a photo or video.
This AI-powered animation tool turns static photos and moving videos into dynamic, lifelike Avatars for all your content needs.

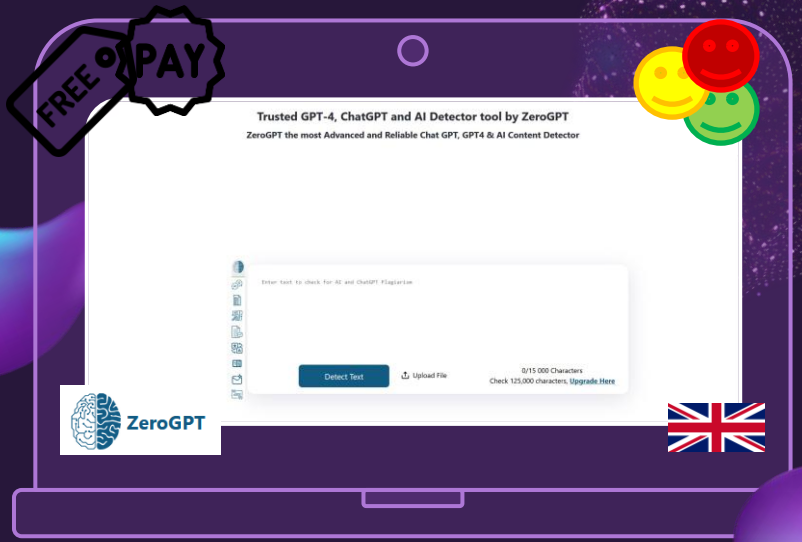
#7 AiE



scribblediffusion.ai

Turn your sketch into a refined image using AI

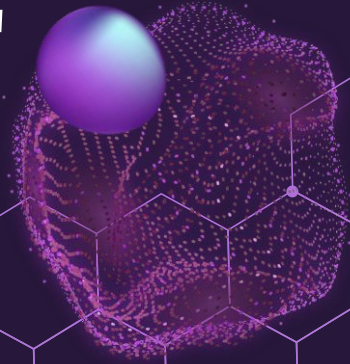
#8 AiE



zerogpt.com

ZeroGPT the most Advanced and Reliable Chat GPT, GPT4 & AI Content Detector. Every sentence written by AI is highlighted, with a gauge showing the percentage of AI inside the text.

"AI in education empowers minds, transforming learning into a journey as unique as each student."



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NRP project registration number
CZ.02.01.01/00/23_014/0008787

THANKS!

DO YOU HAVE ANY QUESTIONS?

michal.podhoranyi@vsb.cz

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