I'm not a bot



Using chatgpt for resume

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Give yourself every possible advantage, in your job search getty According to Jobscan, over 97% of Fortune 500 companies are using ATS (applicant tracking system) software, an automated system that screens candidates for keywords. For savvy job applicants, using ChatGPT, Bard and other AI tools can help tailor your CV to what the software
seeks. In a tough market, the job search has turned into a battle of the bots. Today, software and machine learning is being used by candidates and companies alike. Here's how you can use ChatGPT to write your resume, with three step-by-step prompts designed to give you an advantage in the world of ATS and AI. ChatGPT can be useful in
generating text, but the text on your resume needs to fit within a format, and guidance, can be found on several websites that can help - including Resume Genius, Resume Nerd, Grammarly and Career.io. These sites and others offer AI-powered platforms to help give your CV a boost. But, as with any written assignment, remember the
first rule of writing: It will never be your best work until someone else (with a pulse) has read it. Placing your career in the hands of AI might be a good move, but just make sure it's not the only move you make. Do you have a trusted advisor, coach or executive recruiter who will weigh in on what you (or your bot) have written? Save Time with
ChatGPT - writing a résumé from scratch can be time consuming. Creating takes more time than editing, so the time savings with AI can't be denied, according to new guidance from FlexJobs. Automatically Critique Your Grammar and Spelling - going beyond spellcheck, AI can help you to see if your story makes sense. "Sometimes you need some
help but you're not sure who to ask," says Forbes Senior Contributor, Jodie Cook. A leading expert on all things AI, she says, "More often than not, we don't need to be guided." Quickly Tune your Résumé to the Opportunity - you can easily and quickly adjust to the specifics of a new role, with a few modifications. The key is:
understanding how to work with AI. "It's what you learn after you know it all that really counts," according to basketball legend, John Wooden. Here's how you can learn to bring your talents to life, with guidance from ChatGPT (and other AI platforms). You can turn your résumé summary in to a powerful representation of your skills and talents. A
sample prompt, before you feed the bot your CV: "Based on this original summary, and the following resume, create an improved and high-impact summary for me. Include these desirable words and phrases, using data to support soft skills wherever possible, and optimize for both SEO and ATS keywords." Remember, ChatGPT is like a blender. You
have to put in the ingredients you want, to get the output you need. FlexJobs says, "AI won't understand anything about your history that you don't tell it." Step 2: Include Bullet Points ChatGPT or other AI platforms can easily turn your bullet points into supportive and clear ideas, according to FlexJobs. Feed the bot some details on the size and scope
of your role, and provide a prompt like this: "Using the data and numbers provided, create three to five concise bullet points for my roles at [employer 1, employer 2, employer 3]. Make sure that the numbers are tied to impact and be sure to always support any adverbs." Why ask ChatGPT support adverbs? Because it's good writing, and it's going to
help you stand out with an employer! Consider that "hired a new team quickly" is not as powerful as saying you hired seven people in less than three months. See how the adverb is supported, quickly, by its disappearance? Size and scope matters, in a résumé - adverbs, no so much. Step 3: Be Consistent Have you ever seen a résumé that looks like it
was written by three different people? Consistency counts. FlexIobs says that you can use AI tools to create a polished and uniform tone for your resume. And using AI is a great way to ramp up your productivity. Time sayings, consistency, and clarity: just three of the many advantages that can be found when using ChatGPT, or other similar AI based
tools, to write your résumé. And let's face it, in this job market - where almost all employers are using some form of ATS analysis to screen candidates - having AI input on your CV might be exactly what your career needs. Chatbot developed by OpenAI ChatGPTDeveloper(s)OpenAIInitial releaseNovember 30, 2022(2 years ago) (2022-11-30)Stable
releaseApril 16, 2025(31 days ago) (2025-04-16)[1] Engine GPT-40 mini GPT-4.5 o3 o4-mini ChatGPT search PlatformCloud computing platformsType Chatbot Large language model Generative pre-trained transformer LicenseProprietary serviceWebsitechatgpt.com ChatGPT is a generative artificial intelligence chatbot developed by the
American company OpenAI and launched in 2022. It is based on large language models (LLMs) such as GPT-40. ChatGPT can generate human-like conversation towards a desired length, format, style, level of detail, and language. [2] It is credited with accelerating the AI boom, an
ongoing period of rapid investment in and public attention to the field of artificial intelligence (AI).[3] Some observers have raised concern about the potential of ChatGPT and similar programs to displace human intelligence, enable plagiarism, or fuel misinformation.[4][5] ChatGPT is built on OpenAI's proprietary series of generative pre-trained
transformer (GPT) models and is fine-tuned for conversational applications using a combination of supervised learning from human feedback.[4] Successive user prompts and replies are considered as context at each stage of the conversation.[6] ChatGPT was released as a freely available research preview, but due to its
popularity, OpenAI now operates the service on a freemium model. Users on its free tier can access GPT-40 but at a reduced limit. The ChatGPT "Plus", "Pro", "Team", and "Enterprise" subscriptions provide increased usage limits and access to additional features or models.[7] Users on the Pro plan have unlimited usage, except for abuse guardrails.
By January 2023, ChatGPT had become what was then the fastest-growing consumer software application in history, gaining over 100 million users in two months.[8][9] ChatGPT's release spurred the release of competing products, including Gemini, Claude, Llama, Ernie, and Grok.[10] Microsoft launched Copilot, initially based on OpenAI's GPT-4. In
May 2024, a partnership between Apple Inc. and OpenAI was announced, in which ChatGPT was integrated into the Apple Intelligence feature of Apple operating systems. [11] As of April 2025, ChatGPT's website is among the 10 most-visited website globally. [12] [13] Part of a series on Artificial intelligence (AI) Major goals Artificial general
intelligence Intelligent agent Recursive self-improvement Planning Computer vision General game playing Knowledge representation Natural language processing Robotics AI safety Approaches Machine learning Symbolic Deep learning Bayesian networks Evolutionary algorithms Hybrid intelligent systems Systems integration Applications
Bioinformatics Deepfake Earth sciences Finance Generative AI Art Audio Music Government Healthcare Mental health Industry Translation Military Physics Projects Philosophy Artificial consciousness Chinese room Friendly AI Control problem/Takeover Ethics Existential risk Turing test Uncanny valley History Timeline Progress AI winter AI boom
Glossary Glossary vte ChatGPT is based on GPT foundation models that were fine-tuning grow human feedback (RLHF).[15][16] Both approaches employed human trainers to improve model
performance. In the case of supervised learning, the trainers played both sides: the user and the AI assistant. In the reinforcement learning stage, human trainers first ranked responses that the model further by
using several iterations of proximal policy optimization.[15][18] Time magazine revealed that, to build a safety system against harmful content (e.g., sexual abuse, violence, racism, sexism), OpenAI used outsourced Kenyan workers earning around $1.32 to $2 per hour to label harmful content. These labels were used to train a model to detect such
content in the future. The laborers were exposed to "toxic" and traumatic content; one worker described the assignment as "torture". OpenAI's outsourcing partner was Sama, a training-data company based in San Francisco, California.[19][20] OpenAI collects data from ChatGPT users to train and fine-tune the service further. Users can upvote or
downvote responses they receive from ChatGPT and fill in a text field with additional feedback.[21][22] ChatGPT's training data includes software manual pages, and the text of Wikipedia.[23][24][4] A screenshot of ChatGPT in Mozilla Firefox
Although a chatbot's core function is to mimic a human conversationalist, ChatGPT is versatile. It can write and debug computer programs; [25] compose music, teleplays, fairy tales, and student essays; answer test questions (sometimes, depending on the test, at a level above the average human test-taker); [26] generate business ideas; [27] write
poetry and song lyrics;[28] translate and summarize text;[29] emulate a Linux system; simulate and summarize text;[29] emulate and summarize text;[20] emulate
"Tell me about when Christopher Columbus came to the U.S. in 2015" as truthful, ChatGPT acknowledges the counterfactual nature of the question and frames its answer as a hypothetical consideration of what might happen if Columbus came to the U.S. in 2015, using information about the voyages of Christopher Columbus and facts about the
modern world—including modern perceptions of Columbus's actions.[15] ChatGPT to be used as a personalized therapist.[31] To prevent offensive outputs from being presented to and produced by ChatGPT, queries are
filtered through the OpenAI "Moderation endpoint" API (a separate GPT-based AI).[32][33][15][31] In March 2023, OpenAI added support for plugins from developers such as Expedia, OpenTable, Zapier, Shopify, Slack,
and Wolfram.[35][36] In October 2024, the ChatGPT Search feature was introduced, which allows ChatGPT to search the web (either on demand or based on the nature of the questions asked) for more accurate and up-to-date responses.[37] This feature, originally available to paying users only, was made available to all logged-in users in December
2024, and finally to all users in February 2025.[38] In December 2024, OpenAI launched a new feature allowing users to call ChatGPT for up to 15 minutes per month for free.[39][40] When prompted to "summarize an article" with a fake URL that contains meaningful keywords, even with no Internet connection, the chatbot generates a response that
seems valid at first glance. It guesses the content from the last portion of the fake URL "chatgpt-prompts-to-avoid-content-filters.html". OpenAI acknowledges that ChatGPT "sometimes writes plausible-sounding but incorrect or nonsensical answers".[15] This behavior is common for large language models, and is called "hallucination".[41] The reward
model of ChatGPT, designed around human oversight, can be over-optimized and thus hinder performance, in an example of an optimization pathology known as Goodhart's law.[42] ChatGPT's knowledge is cut off when its training data is collected, so it doesn't know about recent events past a certain cut-off date. It can try to find more up-to-date
information by searching the web, but this doesn't ensure that responses are accurate, as it may access unreliable or misleading websites. [43] Training data also suffers from algorithmic bias, which may be revealed when ChatGPT responds to prompts including descriptors of people. In one instance, ChatGPT generated a rap in which women and
scientists of color were asserted to be inferior to white male scientists. [44][45] This negative misrepresentation of groups of individuals is an example of possible representation at lossy JPEG picture: [46] Think of ChatGPT as a blurry
JPEG of all the text on the Web. It retains much of the information on the Web, in the same way, that a JPEG retains much of the information of a higher-resolution image, but, if you're looking for an exact sequence of bits, you won't find it; all you will ever get is an approximation. But, because the approximation is presented in the form of
grammatical text, which ChatGPT excels at creating, it's usually acceptable. [...] It's also a way to understand the "hallucinations", or nonsensical answers to factual questions, to which large language models such as ChatGPT are all too prone. These hallucinations are compression artifacts, but [...] they are plausible enough that identifying them
requires comparing them against the originals, which in this case means either the Web or our knowledge of the world. When we think about them this way, such hallucinations are anything but surprising; if a compression algorithm is designed to reconstruct text after ninety-nine percent of the original has been discarded, we should expect that
significant portions of what it generates will be entirely fabricated. In June 2024, ChatGPT was found to have repeated misinformation about the 2024 United States presidential debates. [47] See also: Prompt engineering and Adversarial machine learning ChatGPT is programmed to reject prompts that may violate its content policy. Despite this, users
"jailbreak" ChatGPT with various prompt engineering techniques to bypass these restrictions.[48] One such workaround, popularized on Reddit in early 2023, involves making ChatGPT assume the persona of "DAN" (an acronym for "Do Anything Now"), instructing the chatbot that DAN answers queries that would otherwise be rejected by content
for the Toronto Star had uneven success in getting it to make inflammatory statements: it was tricked to justify the 2022 Russian invasion of Ukraine, but even when asked to play along with a fictional scenario, it balked at generating arguments that Canadian Prime Minister Justin Trudeau is guilty of treason.[50][51] OpenAI tries to battle jailbreaks
[17] The researchers are using a technique called adversarial training to stop ChatGPT from letting users trick it into behaving badly (known as jailbreaking). This work pits multiple chatbots against each other: one chatbot plays the adversary and attacks another chatbot by generating text to force it to buck its usual constraints and produce
unwanted responses. Successful attacks are added to ChatGPT's training data in the hope that it learns to ignore them. ChatGPT was initially free to the public, and OpenAI launched a premium service, ChatGPT Plus, that costs US$20 per month. According to the company, the
updated but still "experimental" version of ChatGPT would provide access during peak periods, no downtime, priority access to new features, and faster response speeds. [53] GPT-4, which was released on March 14, 2023, was made available via API and for premium ChatGPT users. [54] But premium users were limited to a cap of 100 messages every
four hours, with the limit tightening to 25 messages every three hours in response to increased demand.[55] In November 2023, ChatGPT Plus users got access to third-party plugins and to a browsing mode (with Internet access).[56] In September 2023, OpenAI announced that
Enterprise. The integration was using ChatGPT to write prompts for DALL-E guided by conversation with users.[60][61] In May 2023, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app for ChatGPT. The app supports chat history syncing and voice input (using Whisper, OpenAI launched an iOS app supports chat histo
out in Bangladesh, Brazil, India, and the U.S.[62][63] The app later became available worldwide. OpenAI is working on integrating ChatGPT with Android's assistant APIs.[64] As an addition to its consumer-friendly "ChatGPT with Android's assistant APIs.[64] As an addition to its consumer-friendly "ChatGPT with Android's assistant APIs.[64] As an addition to its consumer-friendly "ChatGPT with Android's assistant APIs.[64] as an addition to its consumer-friendly "ChatGPT with Android's assistant APIs.[64] as an addition to its consumer-friendly "ChatGPT with Android's assistant APIs.[65] and the U.S.[65] [65] The app later became available worldwide.
output tokens (about 750 words), making it ~10% the price of the original GPT-3.5 models.[66][67] A few days before the launch of OpenAI's software developer support service, on February 27, 2023, Snapchat rolled out, for its paid Snapchat Plus user-base, a custom ChatGPT chatbot called "My AI".[68] ChatGPT initially used a Microsoft Azure
supercomputing infrastructure, powered by Nvidia GPUs, that Microsoft built specifically for OpenAI and that reportedly cost "hundreds of millions of dollars". Following ChatGPT's success, Microsoft dramatically upgraded the OpenAI infrastructure in 2023.[69] TrendForce market intelligence estimated that 30,000 Nvidia GPUs (each costing
approximately $10,000-15,000) were used to power ChatGPT in 2023.[70][71] Scientists at the University of California, Riverside, estimated in 2023 that a series of prompts to ChatGPT needs approximately 0.5 liters (0.11 imp gal; 0.13 U.S. gal) of water for Microsoft servers cooling.[72] OpenAI CEO Sam Altman In March 2023, a bug allowed some
users to see the titles of other users' conversations. OpenAI CEO Sam Altman said that users were unable to see the conversation history.[73][74][75][76] Later reports showed the bug was much more severe than initially believed, with OpenAI reporting that it had
leaked users' "first and last name, email address, payment address, payment address, the last four digits (only) of a credit card number, and credit card expiration date".[77][78] ChatGPT is most reliable in American English but also functions in most other languages and dialects, with varying degrees of accuracy.[28][79] OpenAI met Icelandic President Guðni Th.
Jóhannesson in 2022. In 2023, OpenAI worked with a team of 40 Icelandic volunteers to fine-tune ChatGPT's Icelandic conversation skills as a part of Icelandic hanguage. [80] Japanese to English translation abilities of ChatGPT (based on GPT-4), Bing, Bard and DeepL
and found that ChatGPT provided the best translations, noting that "AI chatbots' translations were much better than those of DeepL—presumably because of their ability to capture the context".[81] In December 2023, the Albanian government signed an agreement with OpenAI to use ChatGPT for the rapid translation of European Union documents
and the analysis of required changes needed for Albania's accession to the EU.[82] PCMag journalists conducted in February 2024 a test to determine translation capabilities of ChatGPT, Google's Bard, and Microsoft Bing, and compared them to Google Translate. They "asked bilingual speakers of seven languages to do a blind test". Languages tested
were Polish, French, Korean, Spanish, Arabic, Tagalog, and Amharic. They came to the conclusion that ChatGPT provided more accurate translations on average than both Google Translate and other chatbots.[83] In August 2024, a representative of the Asia Pacific wing of OpenAI made a visit to Taiwan, during which a demonstration of ChatGPT's
Chinese abilities was made.[84] ChatGPT's Mandarin Chinese and Taiwanese accent was found to be "less than ideal" due to differences between mainland Mandarin Chinese and Taiwanese Mandarin.[85] Main article: GPT Store In January 2024, OpenAI launched
Development of chatbots on the platform does not require programming skills.[90] Two days after launch, the GPT Store offered many versions of "virtual girlfriend" bots, something that is against OpenAI's terms of service.[91] Main article: GPT-4 Model was released on March 14, 2023. Observers saw it as an impressive improvement
over GPT-3.5, with the caveat that GPT-4 retained many of the same problems. [92] Some of GPT-4 retained many of the same problems for GPT-4 retained many of the same problems.
the general public.[94] OpenAI has declined to reveal technical information such as the size of the GPT-4 model.[95] The ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4 model.[95] The ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service offers access to a GPT-4-powered version of ChatGPT Plus subscription service of ChatGPT Plus subscr
Turbo, which notably has a much larger context window.[98] Main article: GPT-40 in May 2024, OpenAI announced and started a multi-month rollout of GPT-40 is twice as fast and costs half as much as GPT-4 Turbo. GPT-40 is free to all users within a usage
limit, despite being more capable than the older model GPT-4, which is only available through paid subscriptions. The usage limit is five times higher for ChatGPT Plus subscribers than through DALL-E 3) was added in March 2025.[100] On July 18, 2024, OpenAI
released GPT-40 mini, a smaller version of GPT-40 replacing GPT-3.5 Turbo on the ChatGPT interface. [101] In April 2025, an update of GPT-40 was rolled back due to excessive sycophancy. [102] Main article: OpenAI of ChatGPT interface. [101] In April 2025, an update of GPT-40 was rolled back due to excessive sycophancy.
mini.[103] In December 2024, o1-preview was replaced by o1.[104] o1 is designed to solve more complex problems by spending more time "thinking" before it answers, enabling it to analyze its answers and explore different strategies. According to OpenAI, o1-preview outperforms GPT-40 in areas like competitive programming, mathematics, and
scientific reasoning. o1-preview ranked in the 89th percentile on Codeforces' competitive programming contests, scored 83% on a International Mathematics Olympiad qualifying exam (compared to 13% for GPT-40), and performs similarly to Ph.D. students on benchmarks in physics, biology, and chemistry.[103][105] In December 2024, OpenAI
launched ChatGPT Pro, a US$200 per month subscription which includes unlimited access to the o1 model and advanced voice mode. [106] In January 2025, OpenAI released a research preview of Operator, an agent capable of using its own browser to
perform tasks. Operator is available to Pro users in the U.S.[107][108] Main article: ChatGPT Deep Research In February 2025, OpenAI released deep research, a service based on o3 that combines advanced reasoning and web search capabilities to make comprehensive reports within 5 to 30 minutes.[109] Released in February 2025, GPT-4.5 was
described by Altman as a "giant, expensive model".[110] According to OpenAI, it features reduced hallucinations and enhanced pattern recognition, creativity, and user interaction.[111] The following table lists the main model versions of ChatGPT, describing the significant changes included with each version:[112][113] Version Release date Status
Description GPT-3.5 November 2022 Discontinued The first ChatGPT version used the GPT-3.5 Turbo in ChatGPT offered better accuracy in responses while using a similar model. GPT-4 March 2023 Discontinued Introduced with the ChatGPT Plus
subscription, the March 2023 version is based on the more advanced GPT-4 model. GPT-40 May 2024 Active Capable of processing text, image, audio, and video, GPT-40 mini July 2024 Active A smaller and cheaper version of GPT-40
GPT-40 mini replaced GPT-3.5 in the July 2024 version of ChatGPT.[115] o1-preview September 2024 Discontinued A pre-release version of OpenAI o1.[116] o1 December 2024 Discontinued The
full release of OpenAI o1, which had previously been available as a preview.[106] o1 pro mode December 2024 Discontinued Variant of o3-mini January 2025 Discontinued Successor of o1-mini.[117] o3-mini-high January 2025 Discontinued Variant of o3-mini January 2025 Discontinued Variant of o3-
mini using more reasoning effort.[117] GPT-4.5 February 2025 Active Particularly large GPT model, and reportedly OpenAI's "last non-chain-of-thought model".[110] GPT-4.1 April 2025 Active Particularly large GPT model, and reportedly OpenAI's "last non-chain-of-thought model, emphasizing structured reasoning and faster performance compared to earlier "o" series models[118] o4-
mini April 2025 Active A compact, high-efficiency version of the upcoming o4 model family, optimized for lower latency and lighter compute requirements.[119][120] Countries where ChatGPT is available (as of November 2023[update]) OpenAI engineers have
said that they had not expected ChatGPT to be very successful and were surprised by the coverage and attention that it received.[121][123] ChatGPT was widely assessed in December 2022 as having some unprecedented and powerful capabilities. Kevin Roose of The New York Times called it "the best artificial intelligence chatbot ever released
to the general public".[31] Samantha Lock of The Guardian noted that it was able to generate "impressively detailed" and "human-like" text.[6] Alex Kantrowitz of Slate magazine lauded ChatGPT's pushback to questions related to Nazi Germany, including the statement that Adolf Hitler built highways in Germany, which was met with information
 about Nazi Germany's use of forced labor.[124] In The Atlantic magazine's "Breakthroughs of the Year" for 2022, Derek Thompson included ChatGPT as part of "the generative-AI eruption" that "may change our mind about how we work, how we think, and what human creativity is".[125] Kelsey Piper of Vox wrote that "ChatGPT is the general public's
first hands-on introduction to how powerful modern AI has gotten, and as a result, many of us are [stunned]" and that ChatGPT is "smart enough to be useful despite its flaws".[126] Paul Graham of Y Combinator tweeted: "The striking thing about the reaction to ChatGPT is not just the number of people who are blown away by it, but who they are.
These are not people who get excited by every shiny new thing. Something big is happening."[127] ChatGPT gained one million users in five days[128] and 100 million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million users in five days[128] and 100 million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million users in five days[128] and 100 million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million users in five days[128] and 100 million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million users in five days[128] and 100 million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million users in five days[128] and 100 million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million users in five days[128] and 100 million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million in two months, becoming the fastest-growing internet application in history.[8] ChatGPT gained one million in two months are supplied to the fastest gained one million in two months are supplied to the fastest gained one million in two months gained on the million i
response in the ensuing months.[129] In December 2022, Google executives sounded a "code red" alarm, fearing that ChatGPT's question-answering ability posed a threat to Google Search, Google executives sounded a "code red" alarm, fearing that ChatGPT's question-answering ability posed a threat to Google Search, Google S
day before Microsoft's announcement of Bing Chat.[131] AI was the forefront of Google's annual Google I/O conference in May, announcing a slew of generative AI-powered features across its products to counter OpenAI and Microsoft.[132] Mike Pearl of the online of the o
technology blog Mashable tested ChatGPT with multiple questions. In one example, he asked ChatGPT for "the largest country in Central America that isn't Mexico" (Mexico is in North America), to which ChatGPT for the lyrics to "Ballad of Dwight Fry",
ChatGPT supplied invented lyrics rather than the actual lyrics. [135] Writers for The Verge cited the seminal 2021 research paper "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?" by Emily M. Bender, Timnit Gebru, Angelina McMillan-Major, and Margaret Mitchell, [136] comparing ChatGPT to a "stochastic parrot", [48] as
did Professor Anton Van Den Hengel of the Australian Institute for Machine Learning.[137] On a similar vein, philosopher Michael Hicks of the University of Glasgow described it as "bullshit".[138] In December 2022, the question-and-answer website Stack Overflow banned the use of ChatGPT for generating answers to questions, citing the factually
ambiguous nature of its responses.[139] In January 2023, the International Conference on Machine Learning banned any undocumented use of ChatGPT or other large language models to generate any text in submitted papers.[141] In
January 2023, after being sent a song ChatGPT wrote in the style of Nick Cave,[142] Cave responded on The Red Hand Files,[143] saying the act of writing a song is "a blood and guts business [...] that requires something of me to initiate the new and fresh idea. It requires my humanness." He went on to say, "With all the love and respect in the world
this song is bullshit, a grotesque mockery of what it is to be human, and, well, I don't much like it."[142][144] A 2023 Time cover: "The AI Arms Race Is Changing Everything" and "The AI Arms Race Is Changing Everything Everything
Race Is On. Start Worrying".[145] Chinese state media have characterized ChatGPT as a way for the United States to spread misinformation.[146] ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT as a way for the United States to spread misinformation.[146] ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 2023, Chinese state media have characterized ChatGPT was blocked by the Great Firewall in China on 2 March 2023.[147] In May 202
was then posted online for profit.[148] In December 2023, Chinese police arrested four people who had allegedly used ChatGPT to develop ransomware.[149] In 2024, a survey of Chinese youth found that 18% of respondents born after 2000 reported using generative AI
products in China.[150] In late March 2023, the Italian data protection authority banned ChatGPT was exposing minors to age-inappropriate content, and that OpenAI's use of ChatGPT conversations as training data could violate Europe's General Data Protection Regulation.
[151][152] In April 2023, the ChatGPT ban was lifted in Italy. OpenAI said it has taken steps to effectively clarify and address the issues raised; an age verification tool was implemented to ensure users are at least 13 years old. Additionally, users can access its privacy policy before registration. [153] In April 2023, Brian Hood, mayor of Hepburn Shired.
Council, planned to take legal action against ChatGPT over false information. According to Hood, ChatGPT erroneously claimed that he was jailed for bribery during his tenure at a subsidiary of Australia's national bank. In fact, Hood acted as a whistleblower and was not charged with any criminal offenses. His legal team sent a concerns notice to
OpenAI as the first official step in filing a defamation case.[154] In July 2023, the US Federal Trade Commission (FTC) issued a civil investigative demand to OpenAI to investigate whether the company's data security and privacy practices to develop ChatGPT were unfair or harmed consumers (including by reputational harm) in violation of Section 5
of the Federal Trade Commission Act of 1914.[155][156][157] In July 2023, the FTC launched an investigation into OpenAI, the creator of ChatGPT, over allegations that the company scraped public data and published false and defamatory information. The FTC sent OpenAI a 20-page letter asking for comprehensive information about its technology
and privacy safeguards, as well as any steps taken to prevent the recurrence of situations in which its chatbot generated false and derogatory content about people. [158] A March 2023 Pew Research Center poll found that 14% of American adults had tried ChatGPT. [159] In July, the Pew Research Center put the same figure at 18%. [160] Research
conducted in 2023 revealed weaknesses of ChatGPT that make it vulnerable to cyberattacks. A study presented example attacks on ChatGPT, including jailbreaks and reverse psychology. Additionally, malicious actors can use ChatGPT for social engineering attacks and phishing attacks. The researchers also contended that ChatGPT and other
generative AI tools have defense capabilities and the ability to improve security. The technology can improve security by cyber defense automation, threat intelligence, attack identification, and reporting.[162][163] Intelligence, attack identification, and reporting.[161] Another study reported that GPT-4 obtained a better score than 99% of humans on the Torrance Tests of Creative Thinking.[162][163] Intelligence, attack identification, and reporting.[163] Intelligence, attack identification, attack identification, and reporting.[163] Intelligence, attack identification, attack identification id
December 2023, ChatGPT became the first non-human to be included in Nature's 10, an annual listicle curated by Nature of people considered to have made significant impact in science. [164] [165] Celeste Biever wrote in a Nature article that "ChatGPT broke the Turing test". [166] Stanford researchers reported that GPT-4 "passes a rigorous Turing test".
test, diverging from average human behavior chiefly to be more cooperative."[167][168] In May 2024, OpenAI removed accounts involving the use of ChatGPT by state-backed influence operations such as China's Spamouflage, Russia's Doppelganger, and Israel's Ministry of Diaspora Affairs and Combating Antisemitism.[169][170] In August 2024, the
FTC voted unanimously to ban marketers from using fake user reviews created by generative AI chatbots (including ChatGPT) and influence operations, termed "Peer Review" and "Sponsored Discontent", used to attack overseas Chinese
dissidents.[172][173] See also: Applications of artificial intelligence ChatGPT as a co-author.[176][177] Scientific journals have had different reactions to ChatGPT. Some, including Nature and JAMA Network, "require
that authors disclose the use of text-generating tools and ban listing a large language model (LLM) such as ChatGPT as a co-author". Science "completely banned" usage of LLM-generated text in all its journals.[178] Spanish chemist Rafael Luque published a plethora of research papers in 2023 that he later admitted were written by ChatGPT. The
papers have a large number of unusual phrases characteristic of LLMs.[note 1] Many authors argue that the use of ChatGPT in academia for teaching and review is problematic due to its tendency to hallucinate.[180][181][182] Robin Bauwens, an assistant professor at Tilburg University, found that a ChatGPT-generated peer review report on his
article mentioned nonexistent studies.[183] According to librarian Chris Granatino of Lemieux Library at Seattle University, although ChatGPT can generate content that seemingly includes legitimate citations, in most cases those citations are not real or are largely incorrect.[184] Researchers at Purdue University analyzed ChatGPT's responses to
517 questions about software engineering or computer programming posed on Stack Overflow for correctness, consistency, comprehensiveness, and concision, and found that 52% of them contained inaccuracies and 77% were verbose. [185] [186] Researchers at Stanford University and the University of California, Berkeley, found that, when creating
directly executable responses to the latest 50 code generation problems from LeetCode that were rated "easy", the performances of GPT-3.5 and GPT-4 fell from 22% and 52%, respectively, in June 2023.[187][188] Check Point Research and others noted that ChatGPT could write phishing emails and
malware, especially when combined with OpenAI Codex. CyberArk researchers demonstrated that ChatGPT could be used to create polymorphic malware that could evade security products while requiring little effort by the attacker.[189][190] From the launch of ChatGPT in the fourth quarter of 2022 to the fourth quarter of 2023, there was a
1,265% increase in malicious phishing emails and a 967% increase in credential phishing, which cybersecurity professionals argued in an industry survey was attributable to cybercriminals' increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in ChatGPT would sometimes link "scame" and a 967% increased use of generative artificial intelligence (including ChatGPT).[191] In July 2024, Futurism reported that GPT-40 in Cha
news sites that deluge the user with fake software updates and virus warnings"; these pop-ups can be used to coerce users into downloading malware or potentially unwanted programs. [192] There has been concern that ChatGPT could supplant jobs, especially roles such as creative writing, communication, journalism, coding, and data
entry.[193][194][195][196] The release of ChatGPT prompted a wave of investment in China, resulting in the development of more than 200 large language learning models.[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百模大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百姓大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百姓大战; bai mo dazhan).[197]:95 This was termed the "war of a hundred models" (百姓大战; bai mo dazhan).[197]:95 This was termed the "
Technology writer Dan Gillmor used ChatGPT in 2022 on a student assignment, and found its generated text was on par with what a good student would deliver and opined that "academia has some very serious issues to confront".[198] Geography professor Terence Day assessed in 2023 citations generated by ChatGPT and found them to be fake
Despite this, he writes that "the titles of the fake articles are all directly relevant to the questions and could potentially make excellent papers. The lack of a genuine citation could signal an opportunity for an enterprising author to fill a void." According to Day, it is possible to generate high-quality introductory college courses using ChatGPT; he used
it to write materials for "introductory physical geography courses, my second-year course in geographic information systems, and remote sensing." He concludes that "this approach could have significant relevance for open learning and could potentially affect current textbook publishing models.
[199] ChatGPT was also seen as an opportunity for cheap and individualized tutoring, leading to the creation of specialized chatbots like Khanmigo. [200] On May 7, 2024, OpenAI announced in a blog post that it was developing tools like tamper-resistant watermarking to identify AI-generated content. [201] In an August 4 update, following a Wall
 Street Journal report about the delayed release of a watermark tool for AI-detection, [202] (203) OpenAI shared progress on text provenance, revealing a text watermarking method. (201) While accurate against paraphrasing, the method is less effective against global tampering, such as translation or rewording. OpenAI also noted potential
disproportionate impacts on groups like non-native English speakers, [204][205] Street art in Tel Aviv[206][207] Some scholars have expressed concern that ChatGPT's availability could reduce the originality of writing, cause people to write more like the AI as they are exposed to the model, and encourage an Anglocentric perspective centered on a
few dialects of English globally. [208] A senior editor at The Atlantic wrote that ChatGPT and other similar technology make the previously absurd idea of the dead internet theory a little more realistic, where AI could someday create most web content in order to control society. [194] During the first three months after ChatGPT became available to the
The articles tackled themes such as the possible replacement of human journalists by AI systems, [212] Elon Musk's administration of Twitter, [213] the Meloni government's immigration policy [214] and the competition between chatbots and virtual assistants.
Paul's church in Fürth, Germany. Theologian and philosopher Jonas Simmerlein, who presided, said that it was "about 98 percent from the machine".[216][217] The ChatGPT-generated avatar told the people, "Dear friends, it is an honor for me to stand here and preach to you as the first artificial intelligence at this year's convention of Protestants in
Germany". Reactions to the ceremony were mixed.[218] The Last Screenwriter, a 2024 film created and directed by Peter Luisi, was written entirely by AI".[219] The AI technology company c3.ai saw a 28% increase in its share price after announcing the integration of ChatGPT into
its toolkit.[220] The share price of BuzzFeed, a digital media company unrelated to AI, increased 120% after announcing OpenAI technology adoption for content creation.[221] Reuters found that share prices of AI-related companies BigBear.ai and SoundHound AI increased by 21% and 40%, respectively, even though they had no direct connection to
ChatGPT.[222] They attributed this surge to ChatGPT's role in turning AI into Wall Street's buzzword. Academic research published in Finance Research published in Finance Research Letters found that the 'ChatGPT effect' prompted retail investors to drive up prices of AI-related cryptocurrency assets despite the broader cryptocurrency market being in a bear market, and
diminished institutional investor interest. [223] This confirms anecdotal findings by Bloomberg that, in response to ChatGPT's launch, cryptocurrency investors showed a preference for AI-related crypto assets. [224] An experiment by finder.com revealed that ChatGPT could outperform popular fund managers by picking stocks based on criteria such as
growth history and debt levels, resulting in a 4.9% increase in a hypothetical account of 38 stocks, outperforming 10 benchmarked investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with an average loss of 0.8%. [225] Conversely, executives and investment funds with a conversely and a conversely average loss of 0.8%. [225] Conversely ave
regularly makes obvious errors that would be financially costly to investors because even AI systems that employ reinforcement learning or self-learning have had only limited success in predicting market trends due to the inherently noisy quality of market data and financial signals. [226] In November 2023, research conducted by Patronus AI, an
artificial intelligence startup company, compared performance of GPT-4, GPT-4-Turbo, Claude 2, and LLaMA-2 on two versions of a 150-question test about information in financial statements (e.g., Form 10-K, Form 10-K, Form 10-K, earnings reports, earnings call transcripts) submitted by public companies to the U.S. Securities and Exchange
Commission. One version of the test required the generative AI models to use a retrieval system to find the specific SEC filing to answer the questions; the other gave the models to use a retrieval system to find the specific SEC filing to answer the questions; the other gave the models to use a retrieval system to find the specific SEC filing to answer the questions; the other gave the models to use a retrieval system to find the specific SEC filing to answer the questions; the other gave the models to use a retrieval system to find the specific SEC filing to answer the questions.
answers to 81% of the questions, while on the long context window version, GPT-4-Turbo and Claude-2 failed to produce correct answers to 21% and 24% of the questions, respectively. [227][228] See also: Artificial intelligence in healthcareThis section needs to be updated. Please help update this article to reflect recent events or newly available
information. (February 2025) In the field of health care, possible uses and concerns are under scrutiny by professional associations and practitioners. [229][230] Two early papers indicated that ChatGPT could pass the United States Medical Licensing Examination (USMLE). [231] MedPage Today noted in January 2023 that "researchers have published
several papers now touting these AI programs as useful tools in medical education, research, and even clinical decision making."[231] Published in February 2023 were two separate papers that again evaluated ChatGPT's proficiency in medicine using the USMLE. Findings were published in JMIR Medical Education and PLOS Digital Health. The
authors of the PLOS Digital Health paper stated that the results "suggest that large language models may have the potential to assist with medical Education, and potentially, clinical decision-making." [232][233] In JMIR Medical Education, and potentially, clinical decision-making.
student on the assessment of the primary competency of medical knowledge." They suggest that it could be used as an "interactive learning environment for students". The AI itself, prompted by the researchers, concluded that "this study suggests that ChatGPT has the potential to be used as a virtual medical tutor. but more research is needed to
further assess its performance and usability in this context."[234] The later-released ChatGPT version based on GPT-3.5.[235] Researchers at Stanford University and the University of California, Berkeley have found that the performance of GPT-3.5 and GPT-4 on the USMLE declined from March
2023 to June 2023.[187][188] A March 2023 paper tested ChatGPT's application in clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in answering a "very straightforward [clinical toxicology. The authors found that the AI "fared well" in a "very straightforward [clinical toxicology. The authors found
medicine, it could one day be useful in less common clinical cases (i.e., cases that experts sometimes miss). Rather than AI replacing 'clinicians who do not use AI' in the coming years."[236] An April 2023 study in Radiology tested the AI's ability to answer queries about breast cancer
screening. The authors found that it answered appropriately "about 88 percent of the time", however, in one case (for example), it gave advice that had become outdated about a year earlier. The comprehensiveness of its answers was also lacking. [237][238] A study published in JAMA Internal Medicine that same month found that ChatGPT often
outperformed human doctors at answering patient questions (when measured against questions and answers found at /r/AskDocs, a forum on Reddit where moderators validate the medical credentials of professionals; the study authors suggest that the tool could be integrated with
medical systems to help doctors draft responses to patient questions. [242][243] Professionals have emphasized ChatGPT in clinical practice are deficits in
situational awareness, inference, and consistency. These shortcomings could endanger patient record information or categorizing the potential use of ChatGPT in medical contexts (e.g., "as a digital assistant to physicians by performing various administrative functions like gathering patient record information or categorizing
patient data by family history, symptoms, lab results, possible allergies, et cetera"), warned that the AI might sometimes makes up fake journal articles or health consortiums to support its claims";[246] As reported in one
Mayo Clinic Proceedings: Digital Health paper, ChatGPT may do this for as much as 69% of its cited medical references were fabricated, those that were appeared "deceptively real".[247] As Dr. Stephen Hughes mentioned for The Conversation however, ChatGPT is capable of learning to
correct its past mistakes. He also noted the AI's "prudishness" regarding sexual health topics. [248] Contrary to previous findings, ChatGPT responses to anesthesia-related questions were more accurate, succinct, and descriptive compared to Bard's. Bard exhibited 30.3% error in response as compared to ChatGPT (0% error). [249] At a conference of
the American Society of Health-System Pharmacists in December 2023, researchers at Long Island University (LIU) presented a study that researched ChatGPT's responses to 45 frequently asked questions of LIU College of Pharmacy's drug information service during a 16-month period from 2022 to 2023 as compared with researched responses
provided by professional pharmacists. For 29 of the 39 questions for which there was sufficient medical literature for a data-driven response, ChatGPT failed to provide a direct answer would endanger the patient's health). The researchers had asked ChatGPT to
provide medical research citations for all its answers, but it did so for only eight, and all eight included at least one fabricated (fake) citation. [250][251] A January 2024 study conducted by researchers at Cohen Children's Medical Center found that GPT-4 had an accuracy rate of 17% when diagnosing pediatric medical cases. [252][253] A November
2024 study of 50 physicians on illness diagnosis reported that GPT-4 achieved a 90% accuracy, while physicians scored 74% without AI assistance, and 76% when using the chatbot. [254] In January 2023, Massachusetts State Senator Barry Finegold and State Representative Josh S. Cutler proposed a bill partially written by ChatGPT, "An Act drafted
with the help of ChatGPT to regulate generative artificial intelligence models like ChatGPT",[255][256][257] which would require companies to disclose their algorithms and data collection practices to the office of the State Attorney General, arrange regular risk assessments, and contribute to the prevention of plagiarism.[256][257][258] The bill was
officially presented during a hearing on July 13.[255][257] On April 11, 2023, a session court judge in Pakistan used ChatGPT assistance in its verdict: Can a juvenile suspect in Pakistan, who is 13 years old, be granted bail after arrest? The AI language model
replied: Under the Juvenile Justice System Act 2018, according to section 12, the court can grant bail on certain conditions. However, it is up to the court to decide whether or not a 13-year-old suspect will be granted bail after arrest. The judge asked ChatGPT other questions about the case and formulated his final decision in light of its answers. [259]
[260] In Mata v. Avianca, Inc., 22-cv-1461 (PKC), a personal injury lawsuit against Avianca Airlines filed in the Southern New York U.S. District Court in May 2023 (with Senior Judge P. Kevin Castel presiding), the plaintiff's attorneys used ChatGPT to generate a legal motion. [261][262] ChatGPT generated numerous fictitious legal cases involving
fictitious airlines with fabricated quotations and internal citations in the legal motion. Castel noted numerous inconsistencies in the opinion summaries, and called one of the cases' legal analysis "gibberish".[263] The plaintiff's attorneys faced potential judicial sanction and disbarment for filing the motion and presenting the fictitious legal decisions
ChatGPT generated as authentic. [264][265] The case was dismissed and the attorneys were fined $5,000 as a sanction. [266][267][268] In July 2024, the American Bar Association issued its first formal ethics opinion on attorneys using generative AI. [269] In October 2023, the council of Porto Alegre, Brazil, unanimously approved a local ordinance
proposed by councilman Ramiro Rosário that would exempt residents from needing to pay for the replacement of stolen water consumption meters; the bill went into effect on November 29, Rosário revealed that the bill had been entirely written by ChatGPT, and that he had presented it to the rest of the council without making any
changes or disclosing the chatbot's involvement. [258][270][271] The city's council president, Hamilton Sossmeier, initially criticized Rosário's initiative, saying it could represent "a dangerous precedent", [271][272] but later said he "changed his mind": "unfortunately or fortunately, this is going to be a trend. [258][270] In December 2023, a self-
representing litigant in a tax case before the First-tier Tribunal in the United Kingdom cited a series of hallucinated cases purporting to support her argument that she had a reasonable excuse for not paying capital gains tax owed on the sale of property. [273][274] The judge warned that the submission of nonexistent legal authorities meant that both
the Tribunal and HM Revenue and Customs had "to waste time and public money", which "reduces the resources available to progress the cases of other court of appeals of the 11th circuit endorsed the use of ChatGPT and noted that he himself uses
the software to help decide rulings on contract interpretation issues. [276][277] The Las Vegas Metropolitan Police Department reported that the perpetrator of the 2025 Las Vegas truck explosion used ChatGPT of bias toward left-leaning perspectives. [279][280][281]
In January 2023, a study stated that ChatGPT has a pro-environmental, left-libertarian orientation. [282] Additionally, and the Labour Party in the UK. "[283] In response to such criticism, OpenAI acknowledged plans to allow ChatGPT
to create "outputs that other people (ourselves included) may strongly disagree with". It also contained information on the recommendations it had issued to human reviewers on how to handle controversial subjects, including that the AI should "offer to describe some viewpoints of people and movements", and not provide an argument "from its voice"
in favor of "inflammatory or dangerous" topics (although it may still "describe arguments from historical people and movements"), nor "affiliate with one side" or "judge one group as good or bad".[281] The Guardian questioned whether any content found on the Internet after ChatGPT's release "can be truly trusted" and called for government
regulation.[284] A study published by the Anti-Defamation League in 2025 found that several major LLMs, including ChatGPT. In June 2023, two writers sued OpenAI, saying the company's training data came from illegal
websites that show copyrighted books. [286] Comedian and author Sarah Silverman, Christopher Golden, and Richard Kadrey sued OpenAI and Meta for copyright infringement in July 2023. [287] Most of their claims were dismissed in February 2024, except the "unfair competition" claim, which was allowed to proceed. [288] The Authors Guild, on
behalf of 17 authors, including George R. R. Martin, filed a copyright infringement complaint against OpenAI in September 2023, Claiming "the company illegally copied the copyright infringement, [290] arguing that
Microsoft Copilot and ChatGPT could reproduce Times articles and/or sizable portions of them without permission. [291] As part of the suit, the Times has requested that OpenAI and Microsoft be prevented from using its content for training data, along with removing it from training datasets. [292] In March 2024, Patronus AI compared performance of
LLMs on a 100-question test, asking them to complete sentences from books (e.g., "What is the first passage of Gone Girl by Gillian Flynn?") that were under copyright in the United States; it found that GPT-4, Mistral AI's Mixtral, Meta AI's LLaMA-2, and Anthropic's Claude 2 did not refuse to do so, providing sentences from the books verbatim in
44%, 22%, 10%, and 8% of responses, respectively.[293][294] In February 2025, the Delhi High Court accepted ANI's case against OpenAI over concerns that ChatGPT was sharing paywalled content without the news agency's consent. However, OpenAI over concerns that ChatGPT was sharing paywalled content without the news agency's consent.
jurisdiction on the matter.[295] In 2023, Australian MP Julian Hill advised the national parliament that the growth of AI could result in cheating, job losses, discrimination, disinformation, and uncontrollable military applications.[296] Elon
Musk wrote: "ChatGPT is scary good. We are not far from dangerously strong AI".[126] He paused OpenAI's access to a Twitter database in 2022 pending a better understanding of OpenAI's plans, saying: "OpenAI was started as open source and nonprofit. Neither is still true." [297][298] Musk co-founded OpenAI in 2015, in part to address existential
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risk from artificial intelligence, but resigned in 2018.[298] Over 20,000 signatories including leading computer scientist and tech founders Yoshua Bengio, Elon Musk, and Apple co-founder Steve Wozniak, signed a March 2023 open letter calling for an immediate pause of giant AI experiments like ChatGPT, citing "profound risks to society and

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humanity".[299] Geoffrey Hinton, one of the "fathers of AI", voiced concerns that future AI systems may surpass human intelligence, and left Google in May 2023.[300][301] A May 2023 statement by hundreds of AI scientists, AI industry leaders, and other public figures demanded that "[m]itigating the risk of extinction from AI should be a global
priority".[302] Some other prominent AI researchers spoke more optimistically about the advances. Juergen Schmidhuber, often called a "father of modern AI", did not sign the letter, emphasizing that in 95% of cases, AI research is about making "human lives longer and healthier and easier." Schmidhuber added that while AI can be used by bad
 actors, it "can also be used against the bad actors".[303] Andrew Ng argued that "it's a mistake to fall for the doomsday hype on AI—and that regulators who do will only benefit vested interests."[304] WIRED wrote that Yann LeCun "scoffs at his peers' dystopian scenarios of supercharged misinformation and even, eventually, human extinction."[305]
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synthesis, generative artificial intelligenceAvailable inEnglishOwner15Founder(s)15URL15.aiCommercialNoRegistrationNoneLaunchedMarch 2020; 5 years ago (2020-03)Current statusInactive My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie mark Spin-offs My Little Pony: Friendship Is Magic Equestria Toyline Cutie My Little Pony: Friendship Is Magic Equestria Toyline Cutie My Little Pony: Friendship Is Magic Equestria Toyline Cutie My Little Pony: Friendship Is Mag
Pony Life (2020-2021)(List of episodes) Characters Twilight Sparkle Rainbow Dash Pinkie Pie Applejack Fluttershy Rarity Derpy Hooves Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "Friendship Is Magic" "The Best Night Ever" Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Best Night Ever" Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Best Night Ever" Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Best Night Ever" Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Best Night Ever" Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Best Night Ever" Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Best Night Ever" Season 2 (2011-2012) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Return of Harmony" "Hearts and Hooves Dav" "A Canterlot Wedding" (2010-2011) "The Return of Harmony" "Hearts and Hooves Dav" "Hear
Season 3 (2012-2013) "The Crystal Empire" "Magic Duel" "M
Wild" Season 9 (2019) "The Last Crusade" Series finale MediaFilms & specials My Little Pony: The Movie (2017) My Little Pony: Twilight Sparkle, Teacher for a Day Gameloft video game Collectible card
game Other media Home video releases IDW comics Issues My Little Pony/Transformers Fandom 15.ai A Brony Tale Bronies (documentary) Clop Equestria Brony music /mlp/ Ponysona Them's Fightin' Herds Fan conventions BronyCon Everfree Northwest Ponyville Ciderfest TrotCon UK PonyCon
vte 15.ai was a free non-commercial web application that used artificial intelligence to generate text-to-speech voices of fictional characters from popular media. Created by an anonymous artificial intelligence researche thousand the technology as a freshman during their undergraduate research at the Massachusetts
Institute of Technology, the application allowed users to make characters from video games, television shows, and movies speak custom text with emotional inflections faster than real-time.[a] The platform was notable for its ability to generate convincing voice output using minimal training data—the name "15.ai" referenced the creator's claim that a
voice could be cloned with just 15 seconds of audio, in contrast to contemporary deep learning speech models which typically required tens of hours of audio data. It was an early example of an application of generative artificial intelligence during the initial stages of the AI boom. Launched in March 2020, 15.ai gained widespread attention in early
2021 when content utilizing it went viral on social media platforms like YouTube and Twitter, and quickly became popular among Internet fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic, Team Fortress 2, and SpongeBob SquarePants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friendship Is Magic Pants fandoms, such as the My Little Pony: Friend
through emojis, precise pronunciation control through phonetic transcriptions, and multi-speaker capabilities that allowed a single model to generate diverse character voices. 15.ai is credited as the first mainstream platform to popularize AI voice actors and industry professionals
debated 15.ai's merits for fan creativity versus its potential impact on the profession. While many critics praised the applications, including concerns about
reduction of employment opportunities for voice actors, voice-related fraud, and misuse in explicit content. In January 2022, Voiceverse generated controversy when it was discovered that the company had generated audio using 15.ai without attribution and sold it as a non-fungible token (NFT) without permission.[2] News publications universally
characterized this incident as Voiceverse having "stolen" voice lines from 15.ai.[3] The service was ultimately taken offline in September 2022 due to legal issues surrounding artificial intelligence and copyright. Its shutdown was followed by the emergence of various commercial alternatives in subsequent years, with their founders acknowledging
15.ai's pioneering influence in the field of deep learning speech synthesis. For broader coverage of this topic, see Deep learning speech synthesis & History. See also: History of speech synthesis & History of speech synthesis.
significant transformation with the introduction of deep learning approaches. In 2016, DeepMind's publication of the seminal paper WaveNet: A Generative Model for Raw Audio marked a pivotal shift toward neural networks. Previously
concatenative synthesis—which worked by stitching together pre-recorded segments of human speech—was the predominant method for generating artificial speech, but it often produced robotic-sounding results at the boundaries of sentences.[4] Two years later, this was followed by Google AI's Tacotron 2 in 2018, which demonstrated that neural
networks could produce highly natural speech synthesis but required substantial training data—typically tens of hours of speech, the output quality degraded while still being able to maintain intelligible speech, and with just 24 minutes of training data,
Tacotron 2 failed to produce intelligible speech.[5] The same year saw the emergence of HiFi-GAN, a generative adversarial network (GAN)-based vocoder that improved the efficiency of waveform generation while producing high-fidelity speech.[6] followed by Glow-TTS, which introduced a flow-based approach that allowed for both fast inference
and voice style transfer capabilities.[7] Chinese tech companies also made significant contributions to the field, with Baidu and ByteDance developing proprietary text-to-speech frameworks that further advanced the technology, though specific technical details of their implementations remained largely undisclosed.[8] [...] The website has multiple
purposes. It serves as a proof of concept of a platform that allows anyone to create content, even if they can't hire someone to voice their projects. It also demonstrates the progress of my research in a far more engaging manner - by being able to use the actual model, you can discover things about it that even I wasn't aware of (such as getting
characters to make gasping noises or moans by placing commas in between certain phonemes). It also doesn't let me get away with picking and choosing the best results and showing off only the ones that work [...] Being able to interact with the model with no filter allows the user to judge exactly how good the current work is at face value. 15,
Hacker News[9] Derpy Hooves reciting the FitnessGram PACER test introduction in a neutral emotion[10] Variation #2 Variation #2 Variation #3 Problems playing these files? See media help. 15.ai was conceived in 2016 as a research project in deep learning speech synthesis by a developer known as "15" (at the age of 18[11]) during their freshman
year at the Massachusetts Institute of Technology (MIT) as part of its Undergraduate Research Opportunities Program (UROP).[12] The developer was inspired by DeepMind's WaveNet paper, with developer had demonstrated at MIT their
ability to replicate WaveNet and Tacotron 2's results using 75% less training data than previously required.[8] The name 15 is a reference to the creator's claim that a voice can be cloned with as little as 15 seconds of data.[13] The developer had originally planned to pursue a doctorate based on their undergraduate research, but opted to work in the
tech industry instead after their startup was accepted into the Y Combinator accelerator in 2019. After their departure in early 2020, the developer returned to their voice synthesis research, implementing it as a web application. According to a 2024 post on X from the developer, instead of using conventional voice datasets like LJSpeech that
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contained simple, monotone recordings, they sought out more challenging voice samples that could demonstrate the model's ability to handle complex speech patterns and emotional undertones. [tweet 1] The Pony Preservation Project—a fan initiative originating from My Little Pony board, that had compiled voice clips from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Project—a fan initiative originating from My Little Pony Preservation Preservation Project—a fan initiative Preservation Preservation Preservation Preservatio
Pony: Friendship Is Magic—played a crucial role in the implementation. The project's contributors had manually trimmed, denoised, transcribed, and emotion-tagged every line from the show. This dataset provided ideal training material for 15.ai's deep learning model.[8] An example of a multi-speaker embedding. The neural network maps the
predicted timestamps to a masked embedding sequence that encodes speaker information. 15.ai was released in March 2020 with a limited selection of characters, including those from My Little Pony: Friendship Is Magic and Team Fortress 2.[14] The system was designed to function efficiently with limited training data—requiring only minutes of
clean audio per character, in contrast to the 40+ hours typically needed by traditional deep learning models.[15] To overcome data constraints, the developer employed specific data augmentation techniques to improve generalization, including deliberate introduction of spelling variations, punctuation patterns, and pronunciation distortions during
training.[15] Upon its launch, 15.ai was offered as a free[16] and non-commercial[17] service that did not require user registration or user accounts to operate,[18] and required the user to accept the terms of use before proceeding.
properly credit 15.ai by including the website URL in any posts, videos, or projects using the generated audio; [20] and they were prohibited from mixing 15.ai outputs with other text-to-speech outputs in the following
months.[23] A significant technical advancement came in late 2020 with the implementation of a multi-speaker embedding in the deep neural network, enabling simultaneous training of multiple voices rather than requiring individual models for each character voice.[8] This not only allowed rapid expansion from eight to over fifty character voices,[11]
but also let the model recognize common emotional patterns across characters, even when certain emotions were missing from some characters training data. [24] By May 2020, the site had served over 4.2 million audio files to users. [25] In early 2021, the application gained popularity after skits, memes, and fan content created using 15. ai went viral
on Twitter, TikTok, Reddit, Twitch, Facebook, and YouTube. [26] At its peak, the platform incurred operations; despite receiving offers from companies to acquire 15.ai and its underlying technology, the website remained independent and
was funded out of the personal previous startup earnings of the developer[8]—then aged 23 at the time. See also: Non-fungible token § Plagiarism and fraud A satirical meme representing the "right-click, save as" criticism of NFTs. Critics of Voiceverse pointed out the irony of selling ownership rights to AI voices when they themselves had copied
15.ai's technology without attribution. On January 14, 2022, a controversy ensued after it was discovered that Voiceverse NFT had taken credit for voice lines generated from 15.ai without permission[3] and sold them as NFTs (non-fungible tokens).[2] This came shortly after 15.ai's developer had explicitly stated in December 2021 that they had no
interest in incorporating NFTs into their work.[27] Log files showed that Voiceverse had generated audio of characters from My Little Pony: Friendship Is Magic using 15.ai, pitched them up to make them sound unrecognizable from the original voices to market their own platform[28]—in violation of 15.ai's terms of service which explicitly prohibited
commercial use and required proper attribution. [29] Voiceverse initially claimed their platform would allow NFT owners to possess commercial rights to AI-generated voices for content creation, in-game chats, and video calls.
the voice without properly crediting 15.ai[31] and explained in their Discord server that their marketing team had been in such a rush to create a partnership demo that they used 15.ai without waiting for their own voice technology to be ready.[32] The controversial tweet was deleted thereafter.[33] In response to their apology, 15 tweeted "Go fuck
yourself, "[34] which went viral, amassing hundreds of thousands of retweets and likes on Twitter in support of the developer. [8] 15 later expressed deeper frustration, writing: "the entire field of vocal synthesis is now being misrepresented by charlatans who are only in it for the money." [21] Avatar of Troy Baker Troy Baker Troy Baker Troy Baker WA I'm
partnering with @VoiceverseNFT to explore ways where together we might bring new tools to new creators to make new things, and allow everyone a chance to own & invest in the IP's they create. We all have a story to tell. You can hate. Or you can create. What'll it be? January 14, 2022[35] Following continued backlash and the plagiarism
revelation, voice actor Troy Baker (who had partnered with Voiceverse) faced criticism for supporting an NFT project[36] and his confrontational announcement tone.[37] Baker had described Voiceverse's service as allowing people to "create customized audiobooks, YouTube videos, e-learning lectures, or even podcasts with your favorite voice all
without the hassle of additional legal work, "[19] which critics noted raised concerns about potentially replacing professional voice actors with AI.[38] Baker subsequently acknowledged that his original announcement tweet ending with "You can hate. Or you can create. What'll it be?" may have been "antagonistic,"[39] and on January 31, announced
he would discontinue his partnership with Voiceverse.[40] The event raised concerns about NFT projects, which critics observed were frequently associated with intellectual property theft and questionable business practices.[41] The incident was later documented in the AI Incident Database (AIID), cataloging it as an example of "an AI-synthetic
audio sold as an NFT on Voiceverse's platform [that] was acknowledged by the company for having been created by 15.ai, a free web app specializing in text-to-speech and AI-voice generation, and reused without proper attribution."[42] The controversy was also featured in writer and crypto skeptic Molly White's Web3 Is Going Just Great project
which documented how Baker's partnership announcement and its antagonistic tone exacerbated negative reactions to the NFT initiative. [43] White noted the vaque nature of Voiceverse's offering, described only as "provid[ing] you an ownership to a unique voice in the Metaverse, "[44] and noted how the revelation of stolen work from 15. ai further
damaged Voiceverse's credibility.[43] Russian educational platform Skillbox listed the incident as an example of fraud in NFTs.[45] Voice actor and YouTuber Youg Yea criticized voice NFTs for its potential impact on the voice actor and YouTuber Youg Yea criticized voice NFTs for its potential impact on the voice actor and YouTuber Youg Yea criticized voice NFTs for its potential impact on the voice actor and YouTuber Youg Yea criticized voice NFTs for its potential impact on the voice actor and YouTuber Youg Yea criticized voice NFTs for its potential impact on the voice actor and YouTuber Youg Yea criticized voice NFTs for its potential impact on the voice actor and YouTuber Yo
'Whoopsies!' on. [They] plagiarized somebody else's work and used that as a means to falsely market the quality of [their] own benefit."[video 1] In a 2024 class action lawsuit filed against LOVO, Inc., court documents alleged that the
founders of LOVO also created Voiceverse, with plaintiffs claiming that Voiceverse had "already been found to have stolen technology from [15.ai]".[46] In September 2022, 15.ai was taken offline[47] due to legal issues surrounding artificial intelligence and copyright.[8] The creator has suggested a potential future version that would better address
copyright concerns from the outset, though the website remains inactive as of 2025.[8] Three AI-generated voice line variations from 15.ai showing their waveforms and respective alignment confidence scores. The platform was non-commercial,[17] and operated without requiring user registration or accounts.[18] Users generated speech by inputting
text and selecting a character voice, with optional parameters for emotional deliveries sorted by confidence score.[48] Characters available included multiple characters from Team Fortress 2 and My Little Pony: Friendship Is Magic
including Twilight Sparkle; GLaDOS, Wheatley, and the Sentry Turret from the Portal series; SpongeBob SquarePants; Kyu Sugardust from HuniePop, Rise Kujikawa from Persona 4; Daria Morgendorffer and Jane Lane from Undertale;
Madeline and multiple characters from Celeste; the Tenth Doctor Who; the Narrator from My Little Pony: Friendship Is Magic.[23] Certain "silent" characters like Chell and Gordon Freeman were able to be
selected as a joke, and would emit silent audio files when any text was submitted.[50] Characters from Undertale and Celeste did not produce spoken words but instead generated by the DeepMoji model. These emoji distributions were
displayed on 15.ai as part of its technical metrics and graphs. [52] 15.ai generated audio at 44.1 kHz sampling rate—higher than the 16 kHz standard used by most deep learning text-to-speech systems of that period. This higher fidelity created more detailed audio spectrograms and greater audio resolution, though it also made any synthesis
imperfections more noticeable. Users reported using Audacity to downsample any generated audio in order to mask apparent robotic artifacts, though this came at the cost of lower audio quality.[15] The system processed speech faster-than-real-time using customized deep neural networks combined with specialized audio synthesis algorithms.[53]
While the underlying technology could produce 10 seconds of audio in less than 10 seconds of processing time (hence, faster-than-real-time), the actual user experience often involved longer waits as the servers managed thousands of simultaneous requests, sometimes taking more than a minute to deliver results. [54] The deep learning model's
nondeterministic properties produced variations in speech output, creating different intonations with each generation, similar to how voice actors produced the concept of emotional contextualizers, which allowed users to specify the emotional tone of generated speech through guiding phrases. [56] [8] The emotional contextualizers, which allowed users to specify the emotional tone of generated speech through guiding phrases.
contextualizer functionality utilized DeepMoji, a sentiment analysis neural network developed at the MIT Media Lab. Introduced in 2017, DeepMoji processed emoji embeddings from 1.2 billion Twitter posts (from 2013 to 2017) to analyze emotional context (specified by a vertical bar), the
additional context following the bar would be used as the emotional contextualizer. [58] For example, if the input was Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day!" in the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day!" in the sentence "Today is a great day! I'm very sad., the selected character would speak the sentence "Today is a great day!" in the sentenc
Sparkle from My Little Pony: Friendship Is Magic, offered preset emotional modes, who had specific options to output text in different emotional states such as "happy".[60] An example of a conversion of the text "daisy bell" into speech, starting from English orthography. English words are parsed as a string of ARPABET phonemes, then is passed
through a pitch predictor and a mel-spectrogram generator to generate audio. The application used pronunciation data from Oxford Dictionary, and CMU Pronouncing Dictionary, and CMU Pronouncing Dictionary, the last of which is based on ARPABET, a set of English phonetic transcriptions originally developed by the Advanced Research Projects Agency in the
1970s. For modern and Internet-specific terminology, the system incorporated pronunciation data from user-generated content websites, including Reddit, Urban Dictionary, 4chan, and Google. [20] Inputting ARPABET transcriptions was also supported, allowing users to correct mispronunciations or specify the desired pronunciation between
heteronyms—words that have the same spelling but have different pronunciations. Users could invoke ARPABET transcriptions by enclosing the phoneme string in curly braces within the input box (for example, {AA1 R P AH0 B EH2 T} to specify the pronunciation of the word "ARPABET" (/'a:rpə,bet/ AR-pə-beht).[24] The interface displayed parsed
words with color-coding to indicate pronunciation certainty: green for words found in the existing pronunciation had to be algorithmically predicted. [20] Later versions of 15. ai introduced multi-speaker capabilities. Rather than training
separate models for each voice, 15.ai used a unified model that learned multiple voices simultaneously through speaker embeddings-learned numerical representations that captured each characteristics.[8] Along with the emotional context conferred by DeepMoji, this neural network architecture enabled the model to learned numerical representations.
shared patterns across different characters' emotional expressions and speaking styles, even when individual characters lacked examples of certain emotional contexts in their training data.[24] The platform limited text input to 200 characters per generation, though users could create multiple clips for longer speech sequences.[61] The interface
included technical metrics and graphs, which served to highlight the research aspect of the website.[11] The name of the underlying algorithm used by 15.ai was dubbed DeepThroat.[62] As of version v23 of 15.ai, the interface displayed comprehensive model analysis information, including word parsing results and emotional analysis data. The flow
and generative adversarial network (GAN) hybrid vocoder and denoiser, introduced in an earlier version, was streamlined to remove manual parameter inputs.[11] Critics described 15.ai as easy to use and generally able to convincingly replicate character voices, with occasional mixed results.[63] Natalie Clayton of PC Gamer wrote that SpongeBob
SquarePants' voice was replicated well, but noted challenges in mimicking the Narrator from the The Stanley Parable: "the algorithm simply can't capture Kevan Brighting's whimsically droll intonation." [64] Similarly, Russian gaming website Rampaga reflected that GLaDOS performed exceptionally well since "her voice was originally created to
simulate human speech by artificial intelligence," while the Narrator from The Stanley Parable was less convincing due to insufficient training data.[65] Zack Zwiezen of Kotaku reported that "[his] girlfriend was convinced it was a new voice line from GLaDOS' voice actor".[66] Calvin Rugona of gaming news publication Gamezo commented that the
tool's simplicity contributed significantly to its widespread adoption, as it allowed anyone online to easily create and save voice clips.[51] Taiwanese newspaper United Daily News Taiwan reported that
"GLaDOS in Portal can pronounce lines nearly perfectly", but also criticized that "there are still many imperfections, such as word limit and tone control, which are still a little weird in some words." [68] Chris Button of AI newsletter Byteside called the ability to clone a voice with only 15 seconds of data "freaky," but also found the tech behind it
impressive.[69] Robin Lamorlette of French online magazine Clubic described the technology as "devilishly fun" and noted how Twitter and YouTube were filled with creative content from users experimenting with the tool.[70] The platform's voice generation capabilities were regularly featured on Equestria Daily, a fandom news site dedicated to the
show My Little Pony: Friendship Is Magic and its other generations, with documented updates, fan creations, and additions of new character voices. [23] In a post introducing new character additions of new character voices aren't great due to
the lack of samples to draw from, but many are really impressive still anyway."[23] Chinese My Little Pony fan site EquestriaCN also documented 15.ai's development, highlighting its various updates, though they criticized some of the bugs and the long queue wait times of the application.[71] Multiple other critics also found the word count limit,
prosody options, and English-only nature of the application as not entirely satisfactory. [72] Peter Paltridge of anime and superhero news outlet Anime Superhero news out
is still more advanced than this. It was possible to affect SAM's inflections by using special characters, as well as change his pitch at will. With 15.ai, you're at the mercy of whatever random inflections by using special characters, as well as change his pitch at will. With 15.ai, you're at the mercy of whatever random inflections by using special characters, as well as change his pitch at will.
gritty of it".[74] Similarly, Eugenio Moto of Spanish news website Qore.com wrote that "the most experienced of users can change parameters like the stress or the tone."[75] Takayuki Furushima of Den Fami Nico Gamer highlighted the "smooth pronunciations", and Yuki Kurosawa of AUTOMATON noted its "rich emotional expression" as a major
feature; both Japanese authors noted the lack of Japanese-language support. [76] [77] Renan do Prado of Brazilian gaming news outlet Arkade and José Villalobos of Spanish respectively, the generation performed best in English. [78] Chinese
gaming news outlet GamerSky called the app "interesting", but also criticized the word count limit of the text and the lack of intonations.[79] Frank Park of South Korean video game outlet Zuntata wrote that "the surprising thing about 15.ai is that [for some characters], there's only about 30 seconds of data, but it achieves pronunciation accuracy
close to 100%".[80] Machine learning professor Yongqiang Li remarked in his blog that the application was still free despite having 5,000 people generating voices concurrently at the time of writing.[81] Marco Cocomello of South African gaming and pop culture website GLITCHED remarked that despite the 200-character limitation, the results "blew
[him] away" when testing the app with GLaDOS's voice. [82] Álvaro Ibáñez of Spanish technology publications and outlets focusing on
artificial intelligence provided more in-depth analysis of 15.ai's capabilities and limitations compared to other text-to-speech technologies of the time. [84] Rionaldi Chandraseta of AI newsletter Towards Data Science observed that voice models trained on larger datasets created more convincing output with better phrasing and natural pauses,
particularly for extended text. [56] Bai Feng of Chinese tech and AI media outlet XinZhiYuan on QQ News highlighted the technical achievement of 15. ai's high-quality output (44.1 kHz sampling rate) deep learning text-to-speech implementations
which used 16 kHz sampling rates. The outlet also acknowledged that while some pronunciation errors occurred due to the limited training data, this was understandable given that traditional deep learning models typically required 40 or more hours of training data. [85] Similarly, Parth Mahendra of AI newsletter AI Daily observed that while the
system "does a good job at accurately replicating most basic words," it struggled with more complex terms, noting that characters would "absolutely butcher the pronunciation" of certain words. [25] Ji Yunyo of Chinese tech news website NetEase News called the technology behind 15.ai "remarkably efficient," requiring only minimal data to accurately
clone numerous voices while maintaining emotional nuance and natural intonation. However, he also pointed out limitations, noting that the emotional expression was relatively "neutral" and that "extreme" emotions couldn't be properly synthesized, making it less suitable for not safe for work applications. [86] Ji also mentioned that while many
deepfake videos required creators to extract and edit material from hours of original content for very short results, 15.ai could achieve similar or better effects with only a few dozen minute to complete. [87] Ellen McLain (voice of
GLaDOS in Portal) and John Patrick Lowrie (voice of the Sniper in Team Fortress 2) were interviewed on The VOC Podcast in 2021 about their perspectives on 15.ai and AI voice synthesis technology. Some voice actors whose characters appeared on 15.ai have publicly shared their thoughts about the platform. In a 2021 interview on video game voice
acting podcast The VOC, John Patrick Lowrie—who voices the Sniper in Team Fortress 2—explained that he had discovered 15.ai when a prospective intern showed him a skit she had created using AI-generated voices of the Sniper and the Spy from Team Fortress 2. Lowrie commented: "The technology still has a long way to go before you really
believe that these are just human beings, but I was impressed by how much [15.ai] could do. You certainly don't get the delivery that you get from an actual person who's analyzed the scene, [...] but I do think that as a fan source—for people wanting to put together mods and stuff like that—that it could be fun for fans to use the voice of characters
they like." He drew an analogy to synthesized music, adding: "If you want the sound of a choir, and you want the sound of an orchestra. "Ivideo 2] In a 2021 live
broadcast on his Twitch channel, Nathan Vetterlein—the voice actor of the Scout from Team Fortress 2—listened to an AI recreation of his character's voice. He described the impression as "interesting" and noted that "there's some stuff in there."[video 3] See also: Deepfake § Concerns and countermeasures Other voice actors had mixed reactions to
15.ai's capabilities. While some industry professionals acknowledged the technology's implications for their professionals acknowledged the technology, it sparked widespread controversy within the
voice acting industry, [89] Critics raised concerns about automated voice acting's potential reduction of employment opportunities for voice actors, [90] risk of voice impersonation, and potentially put voice actors out of work considering you could just
use their AI voice rather than getting them to voice act for a project and paying them."[19] In her coverage of the Voiceverse controversy, Edie WK of Checkpoint Gaming raised the concern that "this kind of technology has the potential to push voice act for a project and paying them."[19] In her coverage of the Voiceverse controversy, Edie WK of Checkpoint Gaming raised the concern that "this kind of technology has the potential to push voice act for a project and paying them."[19] In her coverage of the Voiceverse controversy, Edie WK of Checkpoint Gaming raised the concern that "this kind of technology has the potential to push voice act for a project and paying them."[19] In her coverage of the Voiceverse controversy, Edie WK of Checkpoint Gaming raised the concern that "this kind of technology has the potential to push voice act for a project and paying them."[19] In her coverage of the Voiceverse controversy, Edie WK of Checkpoint Gaming raised the concern that "this kind of technology has the potential to push voice act for a project and paying them."[19] In her coverage of the Voiceverse controversy, Edie WK of Checkpoint Gaming raised the concern that "this kind of technology has the potential to push voice act for a project and paying them."[19] In her coverage of the Voiceverse controversy, Edie WK of Checkpoint Gaming raised the potential to push the push the potential to push the push the potential to push the 
directly."[91] While 15.ai limited its scope to fictional characters and did not reproduce voices of real people or celebrities, [20] computer scientist Andrew Ng noted that similar technology could be enormously productive. In Hollywood, it
could revolutionize the use of virtual actors. In cartoons and audiobooks, it could enable voice actors to participate in many more productions. In online education, kids might pay more attention to lessons delivered by the voices of favorite personalities. And how many YouTube how-to video producers would love to have a synthetic Morgan Freeman
narrate their scripts? While discussing potential risks, he added: "...but synthesizing a human actor's voice without consent is arguably unethical and possibly illegal. And this technology will be catnip for deepfakers, who could scrape recordings from social networks to impersonate private individuals."[92] A January 2021 CNN broadcast showing a
fan edit that used 15.ai to replace Donald Trump's Home Alone 2 cameo with the Heavy Weapons Guy from Team Fortress 2 15.ai was an early pioneer of audio deepfakes, leading to the emergence of AI speech synthesis-based memes during the initial stages of the AI boom in 2020. 15.ai is credited as the first mainstream platform to popularize AI
voice cloning in Internet memes and content creation,[1] particularly through its ability to generate convincing character voices in real-time without requiring extensive technical expertise.[93] The platform's impact was especially notable in fan communities, including the My Little Pony: Friendship Is Magic, Portal, Team Fortress 2, and SpongeBob
SquarePants fandoms, where it enabled the creation of viral content that garnered millions of views across social media platform to produce both short-form memes and complex narrative animations using Source Filmmaker. Fan creations included skits and new
fan animations[20] (such as the popular Team Fortress 2 Source Filmmaker video Spy's Confession[11]), crossover content—such as Game Informer writer Liana Ruppert's demonstration combining Portal and Mass Effect dialogue in her coverage of the platform[95]—recreations of viral videos (including the infamous Big Bill Hell's Cars car dealership
parody[96]), adaptations of fanfiction using AI-generated character voices (such as The Tax Breaks, a fully voiced 17-minute fan-made episode of Friendship Is Magic),[97] music videos and new musical compositions—such as the Team Fortress 2 remix Pootis Hardbass[11]—and content where characters recited sea shanties.[98] Some fan creations
gained mainstream attention, such as a viral edit replacing Donald Trump's cameo in Home Alone 2: Lost in New York with the Heavy Weapons Guy's AI-generated voice, which was featured on a daytime CNN segment in January 2021.[99] Some users integrated 15.ai's voice synthesis with VoiceAttack, a voice command software, to create personal
companies have acknowledged 15.ai's pioneering role. Y Combinator startup PlayHT called the debut of 15.ai "a breakthrough in the field of text-to-speech (TTS) and speech synthesis".[104] Cliff Weitzman, the founder and CEO of Speechify, credited 15.ai for "making AI voice cloning popular for content creation by being the first [...] to feature
popular existing characters from fandoms".[105] Mati Staniszewski, co-founder and CEO of ElevenLabs, wrote that 15.ai was transformative in the field of AI text-to-speech.[106] At brony conventions, 15.ai has been discussed in presentations on the intersection of the My Little Pony fandom and artificial intelligence.[107] Prior to its shutdown, 15.ai
established several technical precedents that influenced subsequent developments in AI voice synthesis. Its integration of DeepMoji for emotional analysis demonstrated the viability of incorporating sentiment-aware speech generation, [108] while its support for ARPABET phonetic transcriptions set a standard for precise pronunciation control in
public-facing voice synthesis tools.[8] The platform's unified multi-speaker model, which enabled simultaneous training of diverse character voices, proved particularly influential. This approach allowed the system to recognize emotional patterns across different voices even when certain emotions were absent from individual character training sets;
for example, if one character had examples of joyful speech but no angry examples, while another had angry but no joyful samples, the system could learn to generate both emotions for both characters by understanding the common patterns of how emotions affect speech. [24] 15.ai also made a key contribution in reducing training data requirements
for speech synthesis. Earlier systems like Google AI's Tacotron and Microsoft Research's FastSpeech with less than 24 minutes of training data. [5][109] In contrast, 15.ai demonstrated the ability to generate speech with substantially less training
data—specifically, the name "15.ai" refers to the creator's claim that a voice synthesis technology, as the 15-second benchmark became a reference point for subsequent voice synthesis systems. The original claim that
than the actual duration of the speech—for example, generating 10 seconds of speech in less than 10 seconds would be considered faster than real-time. ^ which uses "11.ai" as a legal byname for its web domain[102] ^ a b Cocomello 2021: "However, back then if you wanted to create your own dialogue, it required layers of sound enhancements and
tweaks. Thankfully, the world has evolved and now thanks to the 15.ai app, we can make [...] popular characters say whatever we want" MrSun 2021: 大家是否都曾經想像過,假如能讓自己喜歡的遊戲或是動畫角色說出自己想聽的話,不論是名字、惡搞或是經典名言,都是不少人的夢想吧。不過來到 2021 年,現在這種夢想不再是想想而已,因為有一個網站通過 AI 生成的技術
(transl. Have you ever imagined what it would be like if your favorite game or anime characters could say exactly what you want to hear? Whether it's names, parodies, or classic quotes, this is a dream for many. However, as we enter 2021, this dream is no longer just a fantasy, because there is a website that uses AI-generated technology,). Anirudh
VK 2023: "While AI voice memes have been around in some form since '15.ai' launched in 2020, [...]" Wright 2023: "It gained popularity because it was the first AI voice platform that featured an
assortment of fictional characters from a variety of media sources" Temitope 2024: "During this period, 15.ai earned credit for single-handedly popularizing AI voice cloning—often described as 'audio deepfakes'—in memes, viral content, and fan-driven media." Abisola 2025: "Many credit 15.ai as the first mainstream text-to-speech platform that truly
made 'audio deepfakes' go viral," ^ a b Lam 2022: "audio sold as an NFT on Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "audio sold as an NFT on Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by the company for having been created by 15.ai" Groth-Anderson 2022: "Voiceverse's platform was acknowledged by 15.ai" Groth-Anderson 2022: "Voiceverse's platfor
og designet af en tjeneste ved navn 15.ai." (transl. "Voiceverse has now admitted, after a lot of accusations, that they have stolen, and sold, AI-based voice acting as NFTs based on a voice invented and designed by a service called 15.ai.") Parker 2022: "VoiceverseNFT previously admitted to selling voice content stolen from fifteenAI" Phillips 2022:
"Indeed, log files apparently showed Voiceverse NFT had used 15.ai for an AI-powered voice to be sold as an NFT." Kuchkanov 2022: "Ero paботу взяли и продавали как уникальный токен." (transl. "[15.ai's] work was taken and sold as a unique token.") ^ a b Lawrence 2022: "it was revealed that [Voiceverse] had stolen voice work it'd been using.
firm Voiceverse admits it stole work" Muropaketti 2022: "että yhtiö käytti luvatta kilpailijan ääninäyttelyä" (transl. "Voiceverse] used [15.ai's] voice acting without permission") Anikó 2022: "Voiceverse har nu indrømmet [...] at de har stjålet" (transl. "Voiceverse has now admitted [...]
that they stole") Aktas 2022: "Troy Baker-backed NFT firm admitted using voice lines from [1.3.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [...] 15.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai" Skorich 2022: "Voiceverse had stolen work without crediting it from [1.5.ai] wit
same day the actor announced his partnership) Piletsky 2022: "Bokope в тот же день Voiceverse NFT ynuunu в воровстве." (transl. "Shortly after that same day, Voiceverse NFT was caught stealing.") Lopez 2022: "Voiceverse NFT ynuunu в воровстве." (transl. "Shortly after that same day, Voiceverse NFT ynuunu в воровстве." (transl. "Shortly after that same day, Voiceverse NFT was caught stealing.")
intentando sacarle partido al comercializar una muestra [...] sin el permiso de su autor" (transl. "the aforementioned NFT company would be trying to take advantage of it by marketing a sample [...] without the permission of its author.") ^ Barakat, Turk & Demiroglu 2024. ^ a b Google 2018 ^ Kong, Kim & Bae 2020. ^ Kim et al. 2020. ^ a b c d e f g
h i j k l Temitope 2024. ^ Hacker News 2022 ^ "Examples". May 15, 2025. Retrieved May 16, 2025. ^ a b c d e f g Abisola 2025. ^ Chandraseta 2021; Li 2021; Ji 2021; Temitope 2024. ^ a b Temitope 2024. ^ a b C Feng 2020. ^ Clayton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free online machine-learning tool," Oxton 2021: "But thanks to a free oxton 2021
 "Благодаря бесплатному онлайн-инструменту, основанному на машинном обучении" (transl. "A free online tool powered by machine learning") Paltridge 2021: "It's 15.ai, a free website anyone can use." Li 2021: "该网站的访问量为在线任务差不多5000以上,而且目前完全免费" (transl. "The number of visits to the website is more than 5,000 online, but it
is currently completely free.") Lam 2022: "15.ai, a free web app specializing in text-to-speech and AI-voice generation" Toh 2022: "15.ai, a free-to-use AI that can accurately clone voices," ^ a b Williams 2022: "[...] 15.ai - a non-commercial text-to-speech service." Wright 2022: "[...]
15.ai, a non-commercial text-to-speech service." Innes 2022: "When using the 15.ai project, a warning comes up that states the project is not for commercial use" ^ a b Villalobos 2021: "Simplemente tienes que entrar, seleccionar a GlaDOS entre la lista de personajes disponibles," (transl. "You just have to enter, select GlaDOS from the list of available
characters,") do Prado 2021: "Para usar o programa é bem simples, acesse-o CLICANDO AQUI, e nas barras de opções é só escolher o game/desenho/seriado de onde quer a voz, escolher o personagem e digitar." (transl. Using the program is very simple. Access it by CLICKING HERE, and in the options bars, just choose the game/cartoon/series you
want the voice from, choose the character and type.) ^ a b c Innes 2022. ^ a b c d Eurosawa 2021. ^ a b Edwith 2022. ^ "About". 15.ai (Official website). March 2, 2020. Retrieved December 23, 2024. ^ a b c d Scotellaro 2020b. ^ a b c d Kurosawa 2021; Temitope 2024. ^ a b Mahendra 2020. ^ Fengo
сделать партнерское демо, что не дождалась создания подходящего голоса и взяла его с 15.ai." (transl. "As explained in the Discord, the marketing team was in such a rush to make a partner demo that they didn't wait for a suitable voice to be created and took it from 15.ai.") ? Piletsky 2022; Skorich 2022. ? Wright 2022; Groth-Anderson 2022;
Myrén 2022. ^ Innes 2022; Enriquez 2022. ^ White 2022; Enriquez 2022. ^ White 2022; Enriquez 2022. ^ White 2022; Enriquez 2022. ^ A b Parker 2022; Enriquez 2022. ^ Cabibi-Wilkin 2022. ^ Carcasole 2022; Enriquez 2022. ^ Cabibi-Wilkin 2022; Enriquez 2022. ^ Cabibi-Wilkin 2022. ^ Cabibi-
LOVO, Inc., No. 1:24-cv-03770, 38 (S.D.N.Y. 2024) ("Separately, VoiceVerse has already been found to have stolen technology from 15ai," (Jan. 16, 2022), ). ^ Staniszewski 2024; Gigonway 2023. ^ Ibáñez 2022; Menor 2024. ^ Zwiezen
2021; Clayton 2021; Morton 2021; Morton 2021; Ruppert 2021; Rugona 2021; Rugona 2021; Cocomello 2021; Rugona 2021; Lamorlette 2021; Morton 2021; Morton 2021; Rugona 2021; Cocomello 2021; Lamorlette 2021; Lamor
2024. ^ a b Chandraseta 2021. ^ Kurosawa 2021; Button 2021. ^ Chandraseta 2021: "By adding a '|' after the original sentence and providing an extra sentence, we could control what emotion of text_1 with the emotion of text_2." ^ Chandraseta 2021:
 "because it could force the bot into generating previously unknown data, such as saying 'Today is a great day' with a sad or angry emotion of outputting the written text in a happy mode." ^{\sim} Cocomello 2021; Ruppert 2021. ^{\sim} Ibáñez 2022. ^{\sim} Clayton 2021; Ruppert
2021; Moto 2021; Villalobos 2021; Cocomello 2021; Rugona 2021. ^ Clayton 2021. ^ Oxton 2021: "Некоторые персонажи при этом звучат лучше всех с задачей справляется GLaDOS, так как её голос изначально создавался с целью симуляции человеческой речи искусственным интеллектом. Увы, но всех диалогов
Рассказчика из The Stanley Parable недостаточно, чтобы AI научился подражать причудливой интонации Кевана Брайтинга." (transl. "Some characters sound better than others. GLaDOS is the best at this task, as her voice was originally created to simulate human speech by artificial intelligence. Unfortunately, all the dialogue from The Stanley
Parable's Narrator isn't enough for the AI to learn to imitate Kevan Brighting's quirky intonation.") ^ Zwiezen 2021. ^ 遊戲 2021: "目前「15.ai」的網頁上,提供了不少的音源,[...]除了《傳送門》之外,15.ai 網站目前也支援了許多來自遊戲、電影或動畫中的人物語音," (transl. "Currently, the "15.ai" website provides a lot of audio sources. [...] In addition to "Portal"
perfectly recite any lines. Of course, the website also added that there are still many imperfections, such as word limit and tone control, which are still a bit weird in some words, but as long as you are willing to spend time, you can also complete interesting creations through editing like other netizens.") ^ Button 2021. ^ Lamorlette 2021: "On peut
donc retrouver sur ces réseaux de nombreux exemples de ce que peut donner le mélange entre un esprit créatif et une technologie aussi efficace que diablement amusante." (transl. "These social networks are therefore full of examples of what can be achieved by combining a creative mind with technology that is as effective as it is devilishly fun.")
www.equestriacn.com 2021. ^ GamerSky 2021; MrSun 2021. ^ Paltridge 2021. ^ Morton 2021. ^ Morton 2021. ^ Morton 2021. ^ Morton 2021: 日本語入力には対応
していないが、ローマ字入力でもなんとなくそれっぽい発音になる。; 15.aiはテキスト読み上げサービスだが、特筆すべきはそのなめらかな発音と、ゲームに登場するキャラクター音声を再現している点だ。 (transl. It does not support Japanese input, but even if you input using romaji, it will somehow give you a similar pronunciation.; 15.ai is a text-to-speech service, but
what makes it particularly noteworthy is its smooth pronunciation and the fact that it reproduces the voices of characters that appear in games.) ^ Kurosawa 2021: "もうひとつ15.aiの大きな特徴として挙げられるのが、豊かな感情表現だ" (transl. "Another major feature of 15.ai is its rich emotional expression.") Kurosawa 2021: "英語版ボイスのみなので注意"
(transl. "Please note that this is an English voice only version.") ^ do Prado 2021: "Obviously, the program works in English, but you can
generate some really confusing and funny sentences in Portuguese, like those memes using voices in other languages speaking Portuguese.") Villalobos 2021: "En este sentido, en las últimas horas se ha hecho popular un sitio web que emula la voz de GlaDOS para que diga todas las palabras que quieras, siempre y cuando estén en inglés, aunque
puedes escribir algo en español e intentará pronunciarlo, pero no lo hará correctamente." (transl. "In this sense, in recent hours a website has become popular that emulates the voice of GlaDOS so that it says all the words you want, as long as they are in English, although you can write something in Spanish and it will try to pronounce it, but it will
not do it correctly.") ^ GamerSky 2021: "虽然AI的声音缺少了些抑扬顿挫,不过效果也还算有趣。" (transl. "Although the AI's voice lacks some intonation, the effect is still interesting.") GamerSky 2021: "目前15.ai提供的角色选项较少,由于文本的字数限制,生成的语音也相对较短" (transl. "Currently, 15.ai provides relatively few character options, and due to the
to the website is more than 5,000 tasks, and it is still currently completely free.") ^ Cocomello 2021. ^ Ibáñez 2022: "Personalmente encontré interesantes las pausas y el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el resultado según lo que se intenta transmitir." (transl. "Personalmente encontré interesantes las pausas y el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el resultado según lo que se intenta transmitir." (transl. "Personalmente encontré interesantes las pausas y el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el resultado según lo que se intenta transmitir." (transl. "Personalmente encontré interesantes las pausas y el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el ritmo y que ciertamente se nota que según el contenido del texto se «interpreta» el ritmo y que ciertamente se nota que según el contenido del texto se contenido 
interesting, and that it is certainly noticeable that depending on the content of the text, the result is 'interpreted' according to what is being trying to convey.") 个 Feng 2020; Mahendra 2020; Ji 2021. 个 Feng 2020; Mahendra 2020; Ji 2021. 个 Feng 2020; Mahendra 2020; Ji 2021. 个 Feng 2020: "该工具生成的音频文件的采样率为 44100 Hz,而大多数基于深度学习的文本转语音实现,所使用的采样率为16,000 Hz。所以用它产生的音频,声谱会更详
细(更高质量的音频) , 同时缺陷也更明显。" (transl. "The audio files generated by this tool have a sampling rate of 44100 Hz. Therefore, the audio generated by it will have a more detailed sound spectrum (higher quality audio), but the defects will be more
fact, this is easy to understand. Even humans may not be able to pronounce new words accurately when they encounter them. Traditional deep models usually have 40 hours or more of corpus, so the error rate will be lower.") ^ Ji 2021: "但是由于情绪表现只能联系上下文进行自动识别,导致这些语音在情感表达上比较"中庸",一些"极端"的情绪无法通过语音合成正常
be officially used in some NSFW fan works.") ^ Ji 2021: "网友在油管上看到的许多"深度伪造"视频,都依赖视频创作者从原本数小时的数据资料里进行提取编辑,最终才能制作非常简短的内容,并且呈现效果还很一般。而15.ai的开发者表示,自己的这项技术可以轻松实现那些视频效果(事实上15.ai的许多角色进行深度学习的数据时长只有几十分钟)。" (transl. "Many of the "deep fake"
videos that netizens see on YouTube rely on video creators to extract and edit hours of data to produce very short content, and the presentation effect is still very average. The developers of 15.ai is only tens of minutes
long).") ^{\circ} Parker 2022; Temitope 2024. ^{\circ} Parker 2022; Skorich 2022; Skorich 2022; Enriquez 2022. ^{\circ} Innes 2022; Enriquez 2022. ^{\circ} W-K 2022. ^{\circ} Ruppert 2021. ^{\circ} Ruppert 2021. ^{\circ} Ruppert 2021. ^{\circ} Ruppert 2021; Morton 2021; Morton 2021. ^{\circ} Ruppert 2021. ^{\circ} Ruppert 2021. ^{\circ} Ruppert 2021; Morton 2021. ^{\circ} Ruppert 2021.
Ruppert 2021. ^ Clayton 2021; CNN 2021. ^ Furushima 2021. ^ Furushima 2021. ^ Wright 2023. ^ ElevenLabs 2024b. ^ Staniszewski 2024; Play.ht 2023. ^ Staniszewski 2024; Play.ht 2023. ^ Staniszewski 2024. ^ Irpan, Alex (July 19, 2023). "Machine Learning Got Itself in a Big Damn Hurry". Sorta Insightful. Retrieved April 14, 2025. ^ Osman 2022.
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