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**T::T MARKETING
TRENDS**

ARTIFICIAL INTELLIGENCE: MARKETING'S NEW SUPERPOWER



WHERE WILL THE

FUTURE TAKE US?!

TABLE OF CONTENTS

02 What is AI?

03 History of AI

04 AI Concerns = A Tale as Old as Time

05 Quelling the Fears

06 With Great Power Comes Great Responsibility

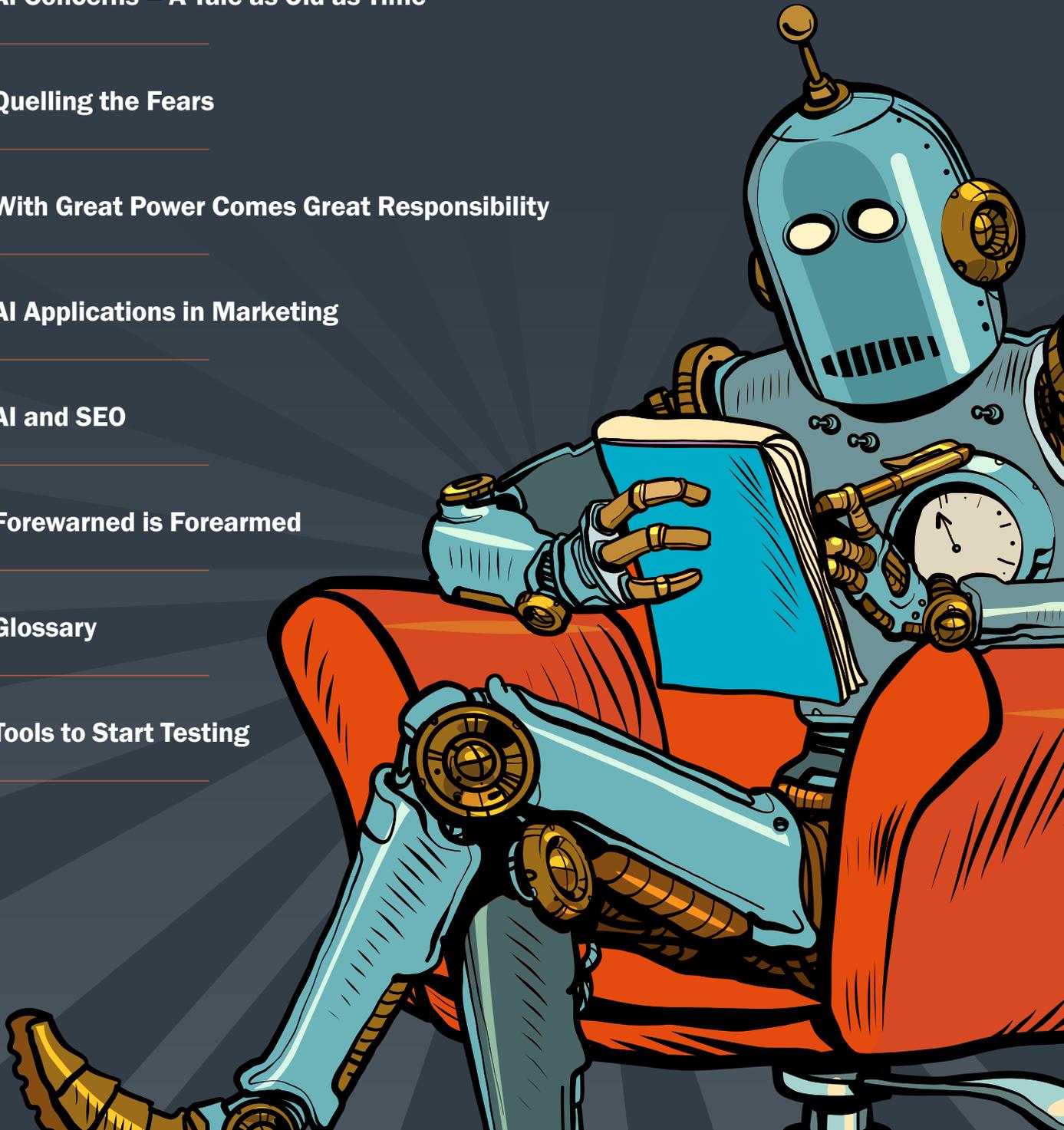
07 AI Applications in Marketing

09 AI and SEO

10 Forewarned is Forearmed

11 Glossary

12 Tools to Start Testing



WHAT IS AI?

The term Artificial Intelligence (AI) conjures up all kinds of ideas, from social media algorithms to Iron Man's assistant, JARVIS. Recently, AI is getting renewed attention in public, professional and academic discourse as a result of the emergence of [ChatGPT](#), an AI chatbot developed by [OpenAI](#) that generates text in response to user prompts.

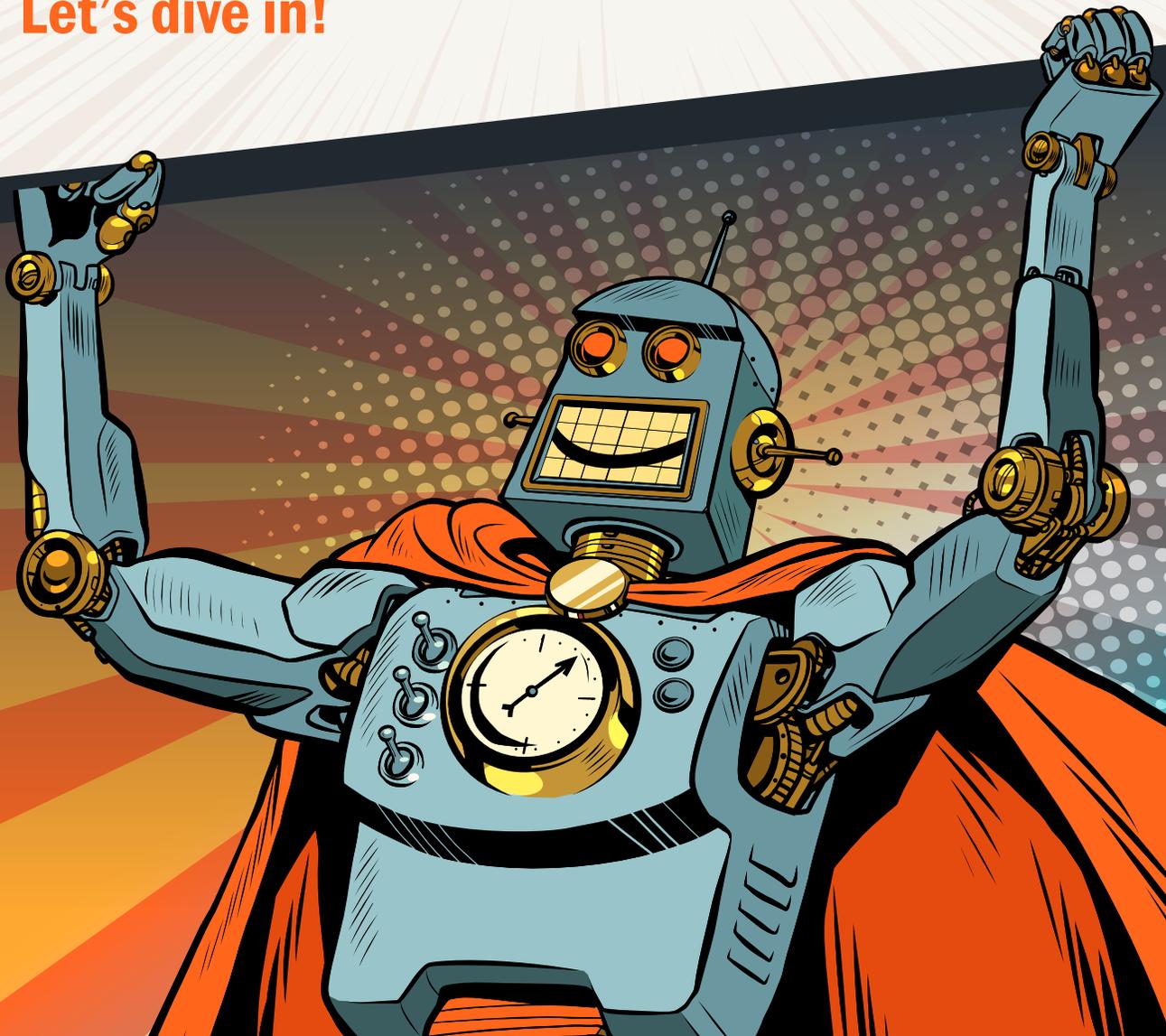
These prompts can be conversational or purposeful. For example, a person may type in, "Should I go to the park today?" and receive the bot-generated response, "If the weather is pleasant and you're able to safely and responsibly visit the park, it could be a great way to spend your day!"

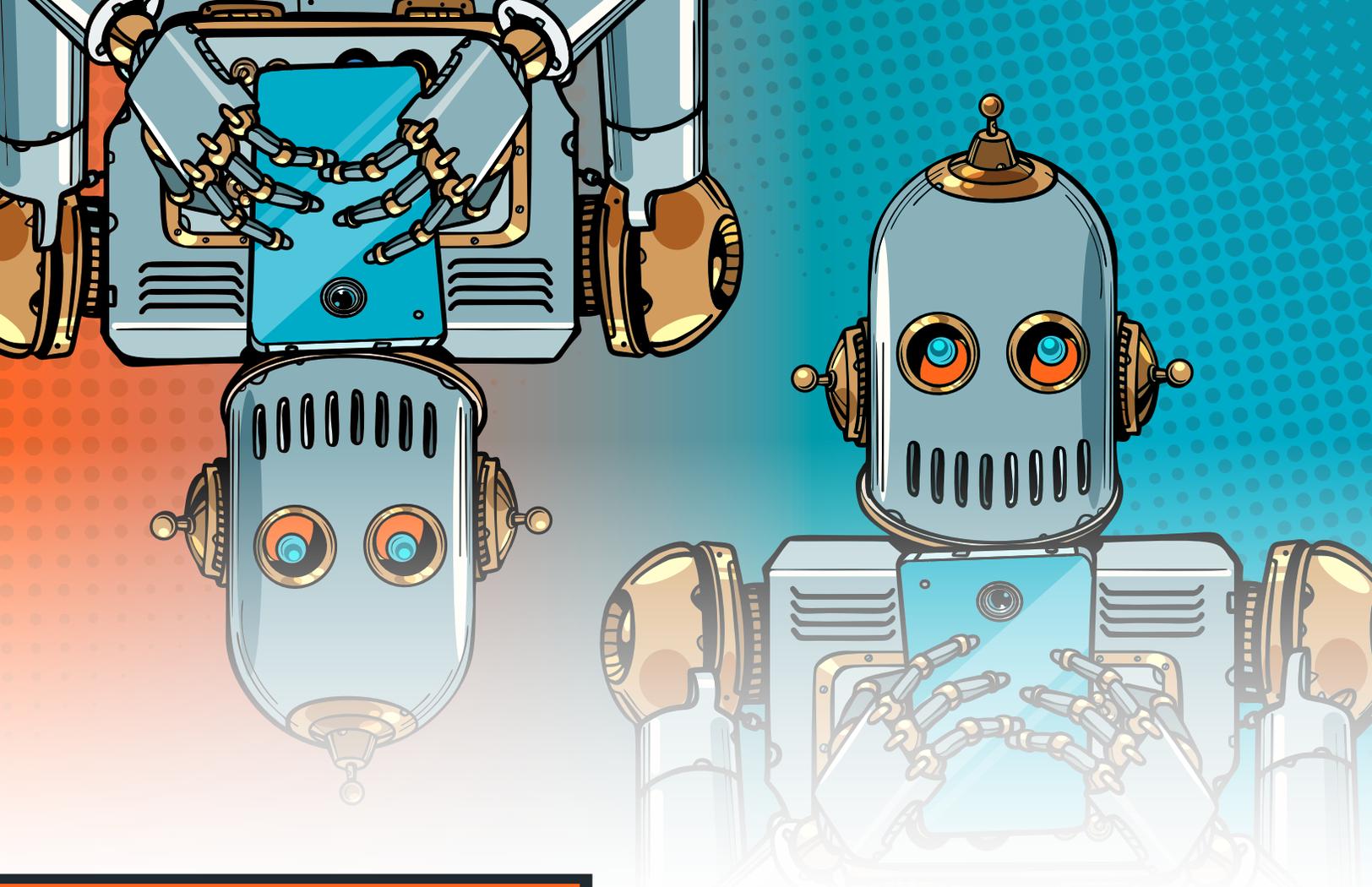
The natural, human-like response is what separates an AI system such as ChatGPT from a search engine like Google that would respond with the weather forecast and parks in the area.

On the other hand, in response to the command, "Write an essay that explains the historical circumstances that led to the American Revolution," ChatGPT will generate several paragraphs complete with an introduction, thesis statement and conclusion in less than 20 seconds.

There's no denying that ChatGPT and similar AI tools are making waves due to their ability to imitate human creators. But what is AI, really, and how does it relate to how we work?

Let's dive in!





HISTORY OF AI

AI is an umbrella term that refers to a certain branch of computer science and the technologies it studies and creates. In other words, AI technology can learn to make decisions and carry out actions without the direct involvement of human beings. It may sound spooky, but many industries already rely on AI technologies to automate specific processes and manage large amounts of data (and many of us may not even recognize it when we see it).

It's nothing new. The study of AI traces back to the 1950s when researchers began to explore the idea of creating machines that could think and learn like humans. In 1956, John McCarthy coined the term Artificial Intelligence at the Dartmouth Summer Research Project on

Artificial Intelligence (DSRPAI). Experts at this time laid the foundation for the ongoing study of AI by establishing breakthroughs in areas like logic, decision-making and problem-solving.

Since then, AI has evolved considerably, driven by advances in computing power and new techniques for processing and analyzing data. These days, the capabilities of AI are typically only limited by the computing power supported by the available hardware. Modern AI varies greatly regarding purpose and scope, creating distinctions between Weak AI, which performs a set of specific functions, and Strong AI, which is more versatile.

The AIs that have stirred up international attention over the past few years fall into the "Weak" category, despite their

hold on our collective imagination. For instance, Deep Blue, the chess-playing program that defeated grandmaster and World Chess Champion Garry Kasparov in 1997, is considered Weak AI because its functionality is limited to the rules and actions of chess. The current tech darling ChatGPT also defines Weak AI because it only processes and generates text based on language patterns in its dataset.

Strong AI technologies, however, can interpret and react to a large variety of inputs, making decisions more similarly to the way a human does. According to IBM, General AI — Strong AI that can truly think as a human does — remains a theoretical concept; existing AIs are still too limited in their functionality to qualify.

Phew. For now. ::

AI CONCERNS = A TALE AS OLD AS TIME

We've all seen the headlines – [IBM to freeze hiring as CEO expects AI to replace 7800 jobs](#) or the predictions that **14 million jobs** worldwide will vanish in the next five years. It seems people are panicking and jumping to conclusions.

A quick glimpse into history will tell you that the current hysteria over AI is a tale as old as time. The uproar over the invention of the printing press in the 15th century had many of the same implications:

Fear of Disrupting the Status Quo:

The printing press disrupted the traditional power structures of the

time by making it easier for people to access and distribute information.

Job Losses:

The printing press led to the mass production of books, which in turn created new jobs in the publishing industry. However, some people also feared that it would lead to the loss of jobs for scribes and copyists who had previously been responsible for copying manuscripts by hand.

Worries Over Loss of Control:

There was a near frenzy over the worries that the printing press would make it easier for people to access and disseminate information. Even more,

they worried that it would enable the government to monitor and control the flow of information.

Today, we know the printing press was actually much more a hero than a villain. It brought many positive effects, like promoting literacy and the spread of knowledge. Many inventions soon followed and similarly met with the same skepticism and worries: radio, TV and the internet, just to name a few. History has an interesting way of repeating itself, so let's not write off AI as sinister just yet. ::



QUELLING THE FEARS

Now for the reassurance: Experts agree that current AI tools pose no risk of replacing humans in the workplace. We're not in an age where AI can eliminate the need for human writers or agencies run by human marketing experts.

Ann Handley, Chief Content Officer at MarketingProfs and author of the best-selling novel "Everybody Writes," reflected on the supposed AI takeover.

"The Promise of the 'ease' of AI writing is a false trap," she said. "Writing is a full-body contact sport. You need to participate fully. Your brain. Your hands. Your personality. Your voice. All of it."

We can't simply toss a few words and phrases into the box and expect the next piece of trending content to emerge, and there's certainly a limit to how many times you can smash the "generate more content" button before AI starts spitting back the exact same text. AI is "artificial" for a reason — it still needs the intelligence of the human brain to prompt it if you want to create anything of substance.

While tech industries report high volume layoffs that [some commentators](#) have linked to AI investments, the typical rationale of economic peaks and valleys is [more likely to explain](#) these job losses.

If companies were to lay off workers due to the availability of AI-developed content, it would be a mistake. AI tools simply can't currently perform the way that a human worker can. But they can provide a tool for marketers to leverage as a resource.

Cathy McPhillips, Chief Growth Officer at the Marketing Artificial Intelligence Institute, said AI content creation tools are a supplemental resource, not a competitor for human marketers.

"Think of all the tasks we as marketers do every day: repetitive tasks and processes, data-driven projects including data entry and analysis," she explained. "AI can take some of the things we don't love doing and can help us focus on things that are uniquely human: creativity, connection, culture."

These uniquely human activities form the basis for marketing strategy and client or customer engagement. They rely on contexts and interactions that AI can neither replicate nor interpret. For example, AI can generate leads and segment customers, but it's up to the marketer to analyze the data and develop marketing strategies based on the insights provided by the AI platform.

This kind of collaborative relationship between human marketing experts and AI content development tools means that humans have to tell their AI tools what to write or develop and

then evaluate the output and make adjustments based on the needs of the clients and their customers. The quality of the AI output is determined as much by the information fed to it by the human writer as by its own capabilities.

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"If you put garbage in," McPhillips said, **"AI is going to spit garbage back out."**

No AI tool aims to produce ready-made content without human interference. In fact, McPhillips explained, "Marketers and companies that use AI-generated text verbatim are being penalized by search engines, and they are likely going to lose business and clients for publishing mediocre content. Worse, they run the risk of crossing legal lines by not ensuring that content is accurate and attributed as needed."

Other more interactive applications of the technology have the potential to save marketers time and maximize the utility of AI tools while still maintaining high-quality content and client relationships.

The bottom line: while AI may save time and speed up execution, it will never replace human creativity, emotional intelligence, subjectivity, adaptability or authenticity. ::



WITH GREAT POWER...

COMES GREAT RESPONSIBILITY

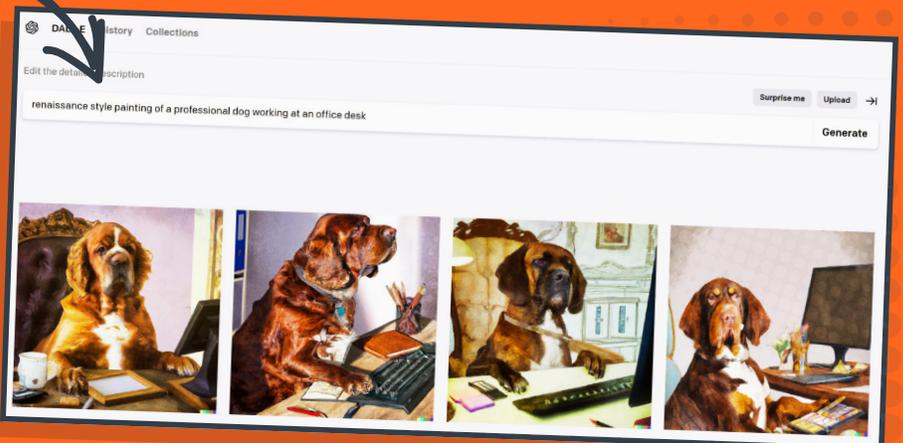
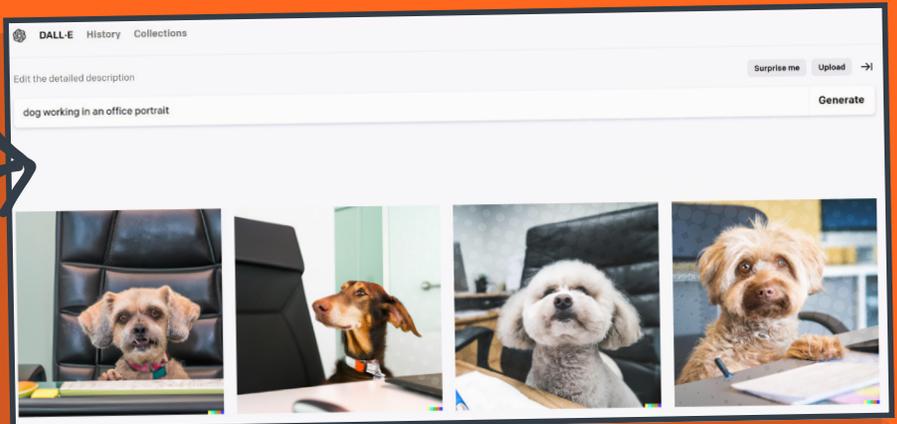
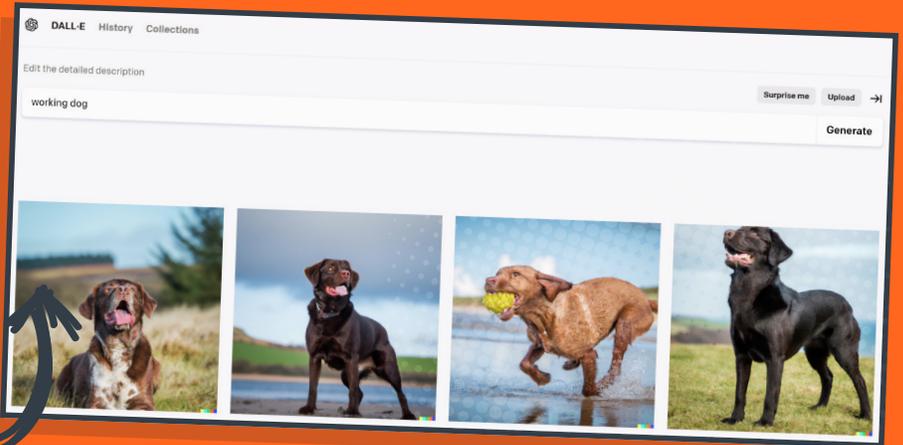
We're big fans of jumping right in to test things out and hands-on learning here at thunder::tech, and that's exactly what we recommend you do to get started. By playing around with different software, we became better at understanding how AI thinks and how to work our prompts to receive the output we're looking for.

For example, we wanted an artistic representation of our love for dogs at the office, so we turned to the AI platform [DALL-E 2](#) to find a piece to hang by our desks. The initial prompt was simple: **working dog**. But what came back was not what we had in mind. Instead of depicting dogs working at a desk in an office, the platform came back with photorealistic images of "working dogs," as in, the dog breed group.

In take two, the phrase specified, "**dog working in an office portrait**," to change the direction of the images generated to focus on "office" dogs and the creative element of portraits. But, while this produced images significantly closer to what we had in mind, we could do better.

Finally, we typed in "**Renaissance style painting of a professional dog working at an office desk**," and out popped what we were looking for! Beautiful paintings of a sophisticated looking dog hard at work.

With this process, you learn the importance of the words you put into the prompt to the impact they have on the outcome. Just like McPhillips mentioned, if you give AI trash, it'll give trash right back. It's the responsibility of the writer or content creator to take the time to craft an effective prompt to generate the appropriate result. You still need those critical writing skills to optimize your AI tool, and only a human brain has that ability. ::



AI APPLICATIONS IN MARKETING

Here comes the radioactive spider ready to activate your spidey-senses, or shall we say – AI senses. As we've learned, AI is only as good as the content we put in and it's our responsibility to know how our superpower's capabilities work if we want to put it into action.

Marketing developers can use AI as a tool for idea generation, background data collection and analysis and similarly generative processes. The important thing to remember is that these applications are all interactive, relying on input, feedback and revision from the marketer to produce high-quality work.

McPhillips described her first experience using an AI content writer: "I was hoping something great would come up, and I got pages and pages of short form and long form email and blog post ideas. I used none of it directly for the project. But some talking points were good, and I wouldn't have thought to say it that way."

Like any other collaborator, AI provides a strategy for moving past writer's block and bringing new ideas and voices to a project. It also can apply criteria consistently to create content that conforms to a strategy in a short amount of time. Here are some examples:

Writing Code

AI can generate code to automate marketing tasks such as data analysis, lead generation and customer segmentation. Machine learning algorithms can learn to identify patterns in data and automatically write code to perform specific marketing assignments, reducing the time and effort required by marketers. This strategy can help marketers be more efficient in their work and focus on creative and strategic tasks.

AI can also be used to assist human programmers in writing code by

providing suggestions and automating repetitive tasks. For example, some programming tools use AI to suggest code completions, identify potential errors, automate code refactoring and even translate one programming language into another. AI-generated code is not a people replacement. It's a tool to assist in work. Human programmers are still needed to provide context, creativity and critical thinking to ensure that the code meets the needs of the project and functions as intended.



Creating Imagery

AI's capabilities go beyond letters and numbers. Machine learning algorithms can generate logos, pictures and other graphics. Just like with our "working dog" masterpiece, marketers can input design preferences and brand guidelines into an AI platform to generate multiple images that align with the brand's visual identity. For tasks such as logo design, an AI approach may save time and effort in the discovery phase to help you find the right direction that aligns with your brand's values and aesthetics.

But that's just the beginning of AI's imagery capabilities. You can use a headshot generator to create digital portraits to update your LinkedIn profile picture with photo-realistic images of yourself. Or maybe you have a photo

featuring a summer scene. Photoshop's Landscape Mixer can transform the image into a snowy winter view. These capabilities allow you to edit in just a fraction of the time it did before.

Social Posts

Not only can AI generate social media posts but the posts also are optimized for engagement and reach. Machine learning algorithms can analyze past social media performance and develop content likely to perform well based on sentiment, topic and timing. This tactic may help marketers create social media content more efficiently and effectively, increasing their presence and engagement.

Programmatic Advertising

AI already helps with programmatic advertising, which uses algorithms to buy and place online ads in real time. Programmatic advertising can save time and effort while also providing more targeted and personalized advertising to users. Machine learning algorithms can analyze user behavior data to predict which ads will likely be most effective for a particular user, increasing the likelihood of conversions.

Email Marketing

By leveraging AI tools such as [Rasa.io](#), marketers can take customer personalization to the next level. With the ability to analyze customer data such as demographics, purchase history, and website behavior, these tools can generate replies and personalized content that are tailored to the individual subscriber. In addition, AI-powered segmentation can be used to divide email lists into smaller, more targeted groups, creating more relevant experiences for consumers and increasing the effectiveness of email campaigns. Ultimately, by utilizing AI in email marketing, businesses can build stronger relationships with customers and improve the overall performance of their campaigns.

Video Content

User data and preferences added to AI software can create personalized video content. Machine learning algorithms can analyze user behavior data to determine which video content is most engaging and generate content tailored to the user's preferences. This approach can help marketers create more effective video campaigns that resonate with their target audience. Platforms such as [Murf.ai](#) can take your videos to the next level by generating studio-level voice audio simply from your written text.

Video Editing

As any experienced video editor knows, creating a polished final product often requires hours of sifting through footage to arrive at a rough cut. But now, with the advent of AI tools like [Gling.ai](#), marketers can streamline the process by uploading their raw footage and letting the software handle tasks such as deleting unwanted takes and filler words. This leaves more time for adding a personal, human touch to the video and ensuring that it aligns

with the brand's image and messaging, ultimately resulting in a more effective and engaging final product.

Written Content

One of the most popular and well-known applications of AI is for written content such as blogs and articles. Machine learning algorithms can analyze data and develop content optimized for search engines. In contrast, algorithms used in AI text generators, like Large Language Models (LLMs), can mimic tone and voice patterns commonly associated with specific topics, manufacturing resonance with an audience.

Need help coming up with new topics to write about? Simply type your request into a platform like ChatGPT asking for blog ideas about your industry and you've got a whole new list to work from. Take the next step and use the same method to help create the outline for your next article.

Transcription

We often post summaries of webinars,

videos or podcasts to accompany a longer piece online. AI can comb the transcription and spit out an accurate summary in the desired length within seconds, saving time on an otherwise manual and tedious task.

Whatever applications for AI tools marketing agencies choose to engage with, it's important always to check and modify the output to ensure that it conforms to your agency's desired brand image, marketing goals and ethical standards. In particular, you'll want to check to ensure you're not inadvertently plagiarizing, as AI often pulls from content created and shared online (and doesn't provide sources).

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“Like a good journalist, marketer, or content creator, you're still going to want to proof the work for accuracy, edit for grammar, add context and your voice, and more,” McPhillips said. **“We did this before generative AI, and we'll do it with generative AI.”** ::



AI AND SEO

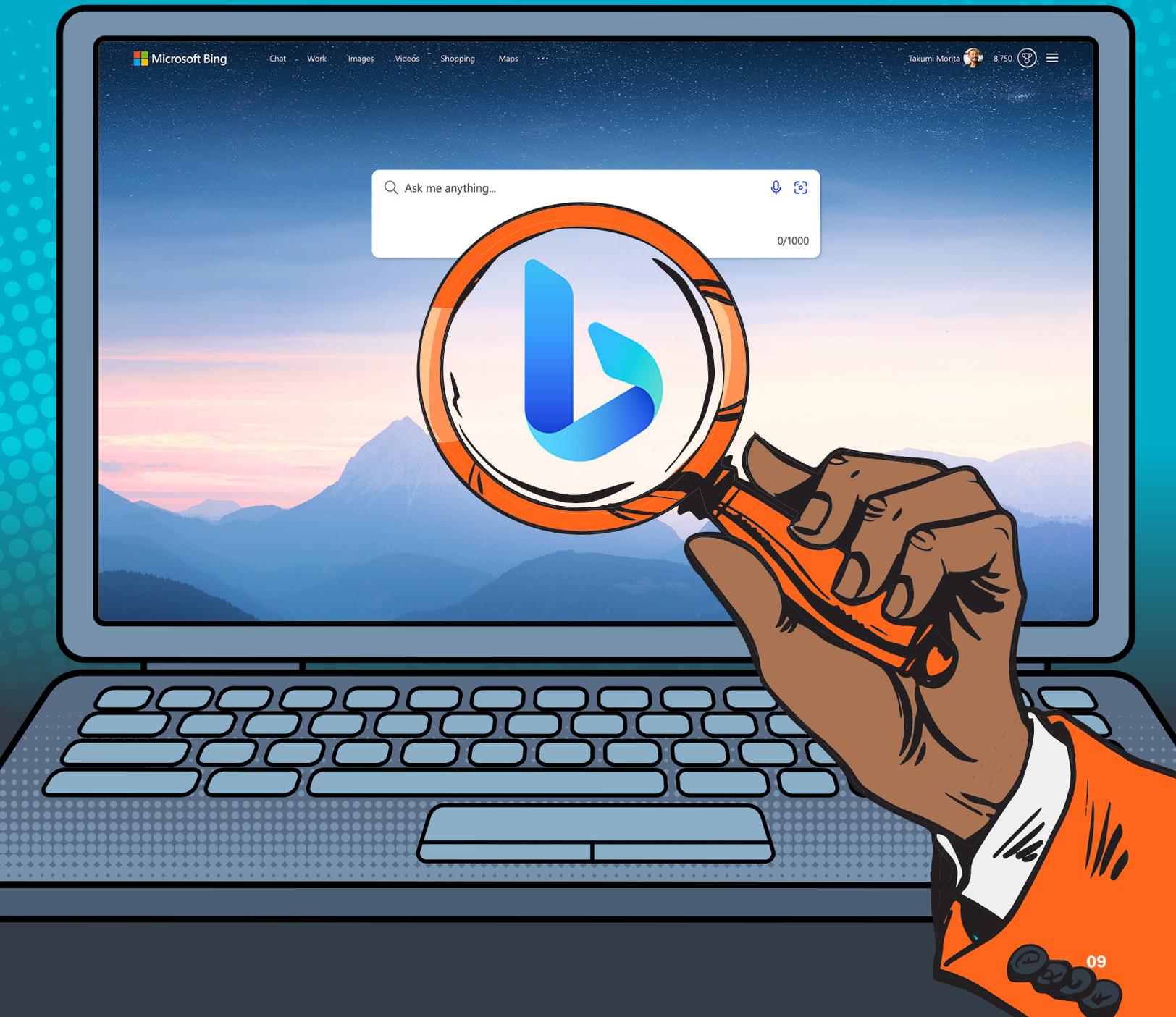
Now that AI has entered the chat, there's one more thing to keep an eye on: Bing has launched an AI-powered chatbot/search hybrid tool that is turning SEO on its head. With this tool, a user can type in a question, and Bing will pull information from the entire internet. Users can then refine results by asking more specific follow-up

questions to get the necessary answers. No more scrolling through pages and pages of links.

Is this a *"Marketers rejoice!"* moment, or a threat? As digital content producers, SEO is always top of mind, but boy, has it been difficult to keep on top of as the rules constantly change. If

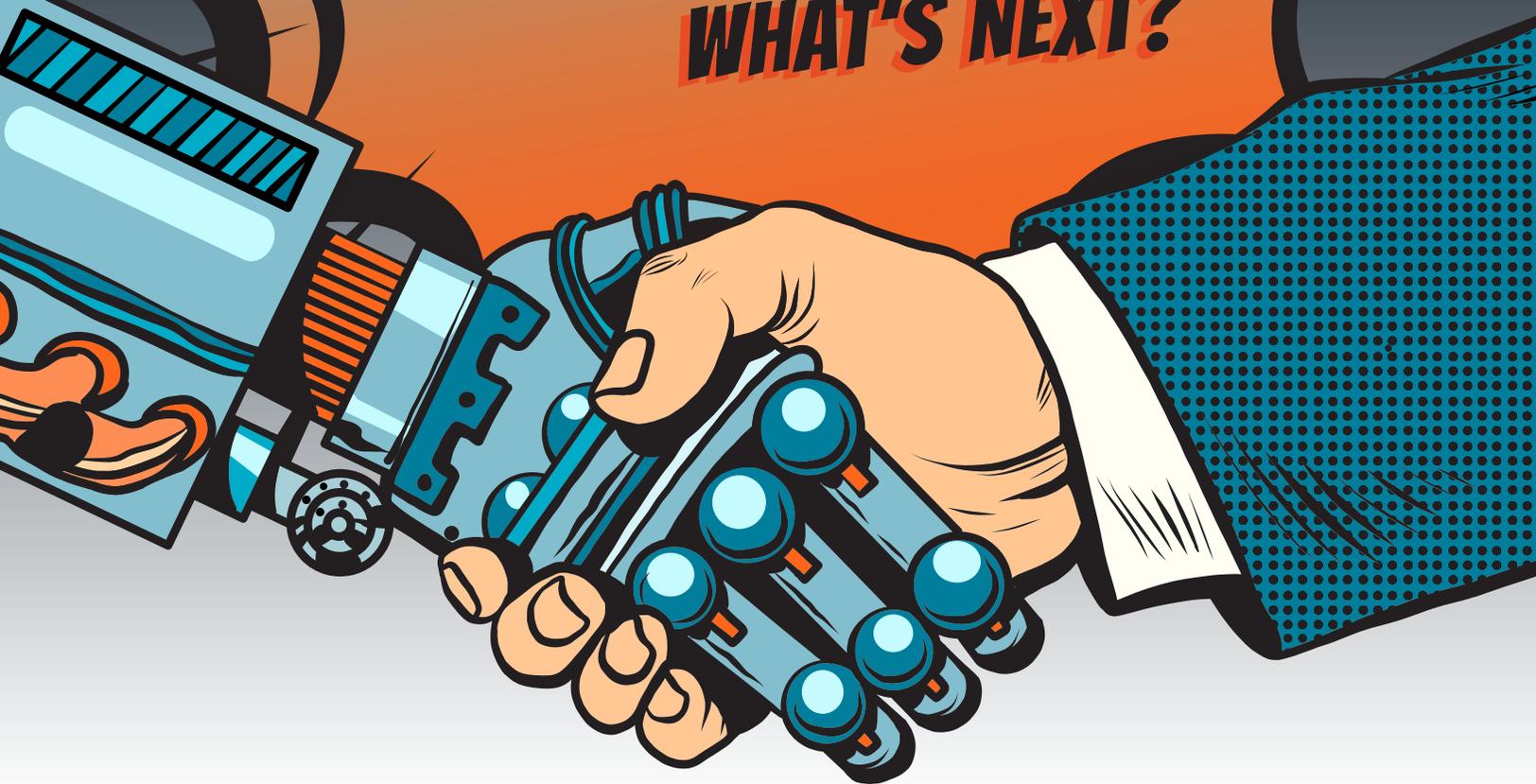
the AI-powered Bing turns into the go-to search method, marketers may need to rethink SEO strategy to focus on how we're answering specific questions with our content.

This is all still in its infancy, so time will tell how it unfolds. In the meantime, quality content will always be king. ::



FOREWARNED IS FOREARMED

WHAT'S NEXT?



As much as we'd love to see into the future, that superpower is still developing.

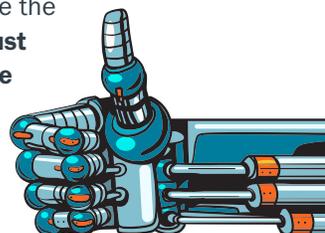
While AI can make decisions, it's essential to recognize that human input is still crucial in determining the direction and success of marketing strategies. AI excels in tasks that require speed and efficiency, such as data analysis and content organization, but it cannot replace the creativity and strategic thinking that human marketers bring to the table.

Therefore, the most effective marketing approaches are those that leverage the strengths of both AI and human expertise. Companies can develop more targeted and effective marketing campaigns by combining AI's ability to process vast amounts of data quickly and accurately with human insights and intuition.

Overall, AI tools offer plenty of potential for enhancing the effectiveness of marketing efforts. Marketers can make better

decisions, writers can kickstart their creative juices, and brands can streamline workflows simply by plugging into AI's strengths.

So go on and play. Experiment. Cut some of your manual tasks. AI is here, and is definitely sticking around, but it's not going to be taking anyone's job anytime soon. It needs us to complete the creative package – **just think of it as our little buddy that will help us level up.** ::



GLOSSARY OF AI TERMS

A

Algorithm

a set of rules a machine follows to learn how to do a task

Autonomous

a machine that can perform the task(s) without the need of human intervention

B

Bias

a type of error caused if an output is skewed due to the model's training data

C

Chatbot

a program designed to communicate with humans via text or voice commands that mimics human conversation

D

Data Mining

the process of analyzing datasets to discover new patterns to potentially improve the model

E

Emergent Behavior

unexpected or unintended abilities due to the model's learning patterns and rules coming from the training data

G

Generative A.I.

technology that identified patterns to create original content such as text, code, images and video

H

Hallucination

when a system provides factually incorrect, irrelevant or illogical answers due to the limitations of the training data

L

Large Language Model

a neural network that learns skills by analyzing an extensive amount of text across the internet such as writing code and generating conversations by predicting the next word in a sequence

M

Machine Learning

a subset of AI focused on developing algorithms to help machines learn and change in response to new data without help from a human

N

Natural Language Processing (NLP)

a machine's ability to perform conversation tasks used by large language models to recognize and generate human language

P

Parameter

the numerical values within the model that help it make predictions

Pattern Recognition

the process of finding trends and patterns in data

Predictive Analytics

the process of forecasting what will happen within a given timeframe based on historical data and trends

Python

a popular computer programming language often used to build websites and software, automate tasks and analyze data

T

Test Data

the unlabeled data used to check that a machine learning model can perform the assigned task

Training Data

all the data used during the training process of a machine learning algorithm



AI TOOLS TO START TESTING



ChatGPT: a conversational interface that responds to text prompts including questions or instructions

Copy.ai: generates high-quality copy based on your text prompts

Cleanup.pictures: retouch photos to remove imperfections or unwanted background objects or people

DALL-E 2: transforms text prompts into graphics, including images, photos, drawings, paintings, etc.

Deep Nostalgia: animates faces in photos to make new facial expressions such as smiling, laughing or blinking

Fireflies: automates note taking and transcribing conversations happening over video conference tools such as Teams or Zoom

Gen-1: takes the videos you upload and applies the edits and effects you prompt the platform to add to your video

Google's ML Kit: machine learning for mobile developers to help build features on Android and IOS phones

Lalala.ai: extracts vocals, music and specific instruments from any audio or video content

Legal Robot: translates complex legal language into straightforward language to help understand legal documents

Looka: a logo creator to reflect your brand and messaging

Lumen5: a drag and drop style video creation tool to make educational or marketing related video content

MarketMuse: performs content audits while analyzing your competitors' topics and content to find what they missed

Murf: text-to-speech engine to create a natural-sounding voice over in multiple languages, voices and dialects

Podcastle: records and edits audio to clean up messy sounds and auto generate transcripts

Scikit Learn: an open-source library used to perform machine learning in Python

Soundraw: generates royalty-free music by based on the mood you want to set, length of track and genre

Stable Diffusion 2: a text to image generator with the ability to switch out elements of the image