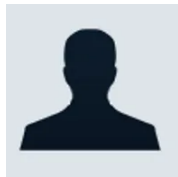ZDNET

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# Consider algorithms other than Soundex

**Oracle SQL string functions have included the Soundex function for a long time. Soundex is a phonetic normalization function that was invented for the 1880 U.S. Census to get around the problem of sorting information by last names with different spellings but similar or identical sounds, such as Smith and Smythe.**

Written by  **ZDNet Staff,** Contributor  on May 25, 2005

Oracle SQL string functions have included the Soundex function for a long time. Soundex is a phonetic normalization function that was invented for the 1880 U.S. Census to get around the problem of sorting information by last names with different spellings but similar or identical sounds, such as Smith and Smythe.

Since then, it's become one of the more popular ways of searching for similar sounding names in genealogy and government applications.

However, this algorithm was created when such algorithms were performed by hand, so there are some weaknesses that have been overcome by alternate algorithms.

One of the problems is that it always takes the first letter, despite the sound. So, Cline and Kline are completely different codes. Soundex reduces all English sounds to six-integer values after the first letter, so the number of possible matches is quite large and might not be obvious.

One popular alternative to Soundex is Metaphone, which was first described by Lawrence Philips in the December 1990 edition of Computer Language magazine.

It uses a rough phonetics algorithm that reduces names to 16 consonants. While keeping the

accuracy the same, the ranges of values are greatly reduced. (Metaphone has actually been used as the basis of several spell checkers.) Philips has gone on to write Double Metaphone, which also deals with extended accent characters and more rules.

For this article, I'll stick to the original Metaphone specifications for brevity.

Many people have ported the original version (in BASIC) to other languages, including Java and PL/SQL. It can be scary to look at the algorithms out there, so check out **Listing A**, which shows my different approach of encoding a set of rules. **Listing B** offers an example of its usage.

*Scott Stephens worked for Oracle for more than 13 years in technical support, e-commerce, marketing, and software development.*

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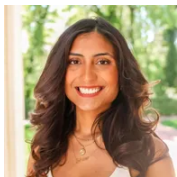
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# ChatGPT vs. Bing Chat: Which AI chatbot should you use?

**Wondering what the main differences are between these two popular AI chatbots? Here's how to choose the right one for your use case.**

Written by **Sabrina Ortiz,** Associate Editor  on March 23, 2023

Reviewed by **Alyson Windsor**

ZDNET

Since <u>ChatGPT</u> launched in November, <u>AI chatbots</u> have been the talk of the internet. ChatGPT's abilities to <u>generate text</u>, <u>talk conversationally</u>, <u>write code</u> and do so much more caused a <u>huge demand</u> for the chatbot.
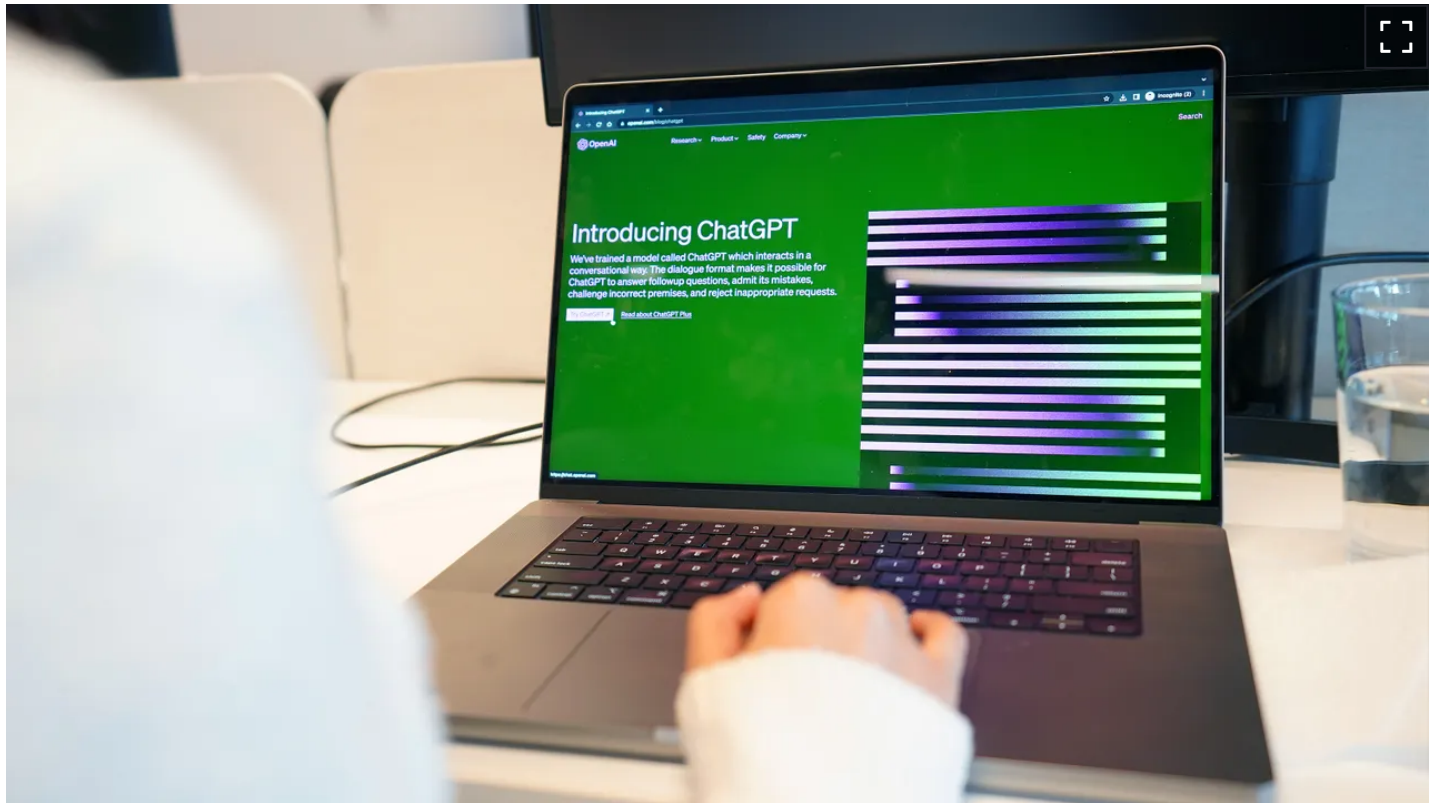
Naturally, seeing ChatGPT's massive success, other companies rushed to compete in the <u>generative AI space</u>.

**Also: <u>The best AI chatbots of 2023: ChatGPT and alternatives</u>**

In February, Microsoft announced its integration of ChatGPT to its Bing search engine called <u>Bing Chat</u>. This chatbot has some major differences from ChatGPT, with the biggest difference being access to the entirety of the internet.

So which chatbot should you reach for your AI needs? We compared ChatGPT (the free version) and Bing Chat to help you make your decision easier.

4/3/23, 9:59 AM

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# You should use ChatGPT if...



June Wan/ZDNET

## 1. You want to experience the hype for yourself

ChatGPT has been the leading AI chatbot since its launch and has served as the blueprint for the many AI chatbot spinoffs that have entered the space since. The hype is well deserved. ChatGPT is a very capable chatbot able to provide insight and assistance on a wide variety of topics including technical spaces such as writing and coding.

### Also: How to use ChatGPT to write code

ChatGPT is currently free to use and does not include a pesky waitlist to get access. Therefore, if you are curious about how an AI chatbot could benefit you, you can try ChatGPT today to see for yourself.

## 2. You want clarity on topics or events from before 2021

ChatGPT was trained on the entirety of the web before 2021. Therefore, if you have any questions about topics or events that occurred before 2021, ChatGPT will be able to provide you a thorough, conversational response that covers all of your question's bases.

**Also: How does ChatGPT work?**

Your input prompts don't have to be limited to standard search engine entries, but can include specific math and coding prompts as well.

This ChatGPT ability can be specially useful when you need clarity on an established topic that you are learning or researching since ChatGPT can thoroughly explain a topic the way a tutor would. The best part is that unlike a tutor, ChatGPT is available at all times and is able to answer as many questions as you'd like.

## 3. You want long, in-depth responses

In our testing experience, ChatGPT provides the most in-depth responses compared to its competing chatbots, including Bing Chat.

**Also: How to use ChatGPT**

For example, if you ask ChatGPT a loaded question such as "What is life?" the chatbot will provide you with several paragraphs explaining different aspects and interpretations of the concept.
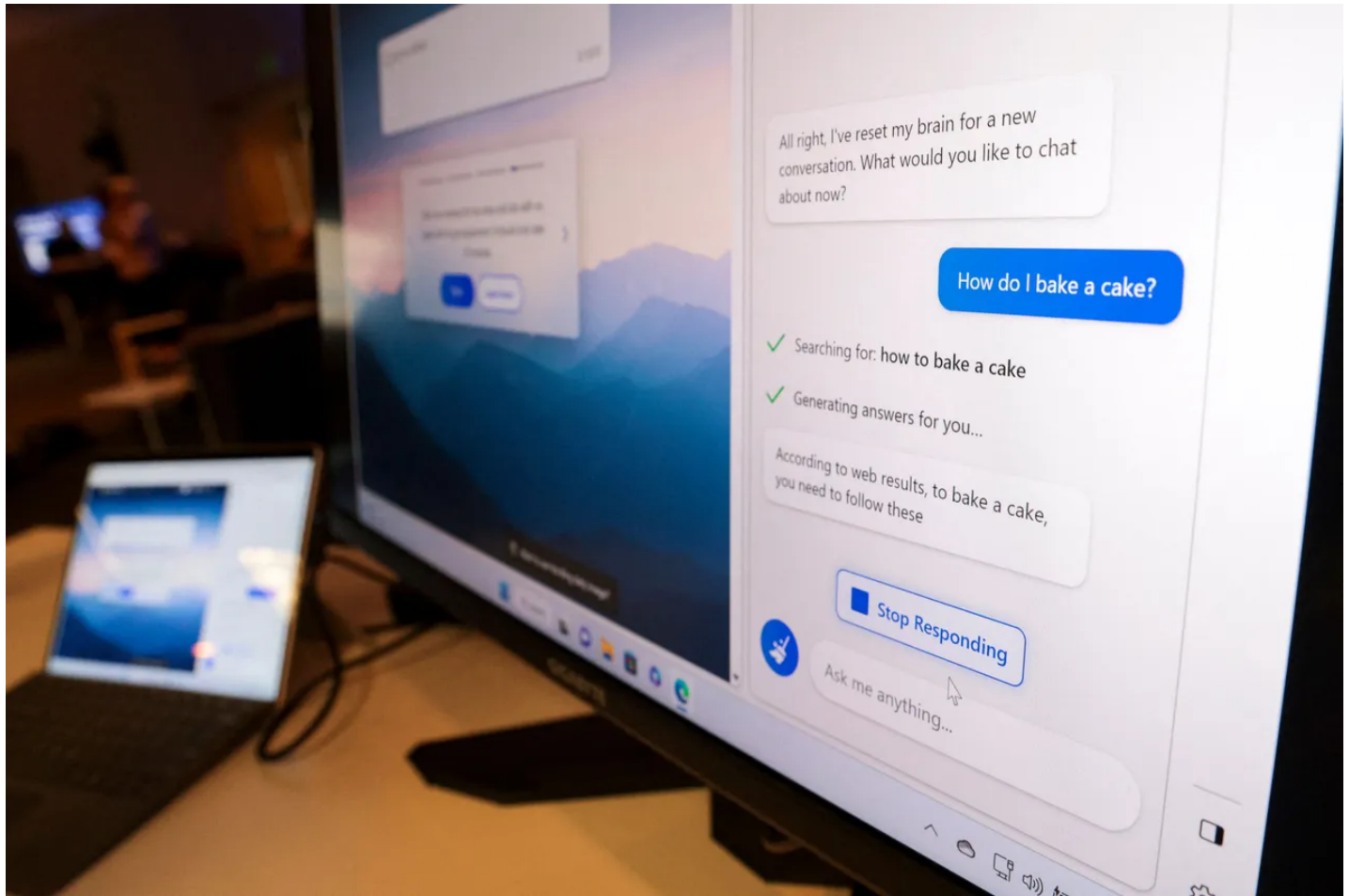
When you plug the same question into Bing Chat, you only get a three sentence response:

> **Life is the aspect of existence that processes, acts, reacts, evaluates, and evolves through growth (reproduction and metabolism). The crucial difference between life and non-life (or non-living things) is that life uses energy for physical and conscious development. Is there anything specific you would like to know about life?**

**Also: 5 ways to use chatbots to make your life easier**

In addition to answering questions more thoroughly than other chatbots, ChatGPT does not have a query cap, unlike Bing Chat, putting no limits on your curiosity. No matter how many follow up questions you have, ChatGPT will answer them all with an in-depth response.

# You should use Bing Chat if...



Getty Images/Jason Redmond

### 1. You want information on current events

If you have any questions relating to current events, Bing Chat is your go-to chatbot.

In order to generate an answer, Bing Chat indexes the entirety of the web. As a result, the chatbot has access to the latest events, stories and research available at the very moment you asked your question.

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**Also: What is the new Bing? Here's what you need to know**

Like ChatGPT, Bing Chat will provide human-like, conversational responses to answer your question. This skill can be especially helpful in answering questions about news going on right now. We have all heard something on the news before that left us with follow-up questions. That is where Bing Chat can really shine.

**2. You want to confirm your sources**

A big concern with using ChatGPT is that you can't confirm the accuracy of its responses since it does not provide sources for its responses.

**Also: How to make ChatGPT provide sources and citations**

OpenAI has admitted in the past that its chatbot is prone to hallucinations and inaccurate responses as, after all, it is an AI model capable of making mistakes. Bing Chat attempts to solve that issue by providing sources.

When you ask a question in Bing Chat, it will generate a response with footnotes that lead you back to the exact source it got its response from. As soon as you hit the footnote, you will be brought directly to the web article in another tab.

**Also: I tried Bing's AI chatbot, and it solved my biggest problems with ChatGPT**

This capability is especially useful when using the chatbot for tasks where accuracy is crucial such as a workplace or academic deliverable, research, or just a casual conversation to know what you are talking about .

**3. You want free access to OpenAI's latest model -- GPT 4**

GPT-4 is the newest version of OpenAI's language model systems, more advanced and reliable than GPT-3.5, the large language model (LLM) ChatGPT runs on.

**Also: What is GPT-4? What you need to know**

There are only two ways to access GPT-4's text-input features: ChatGPT Plus which has a cost of $20/month and Bing Chat which is free.

Therefore if you want to see what OpenAI's latest model is about without paying for it, Bing Chat is your only option. The day OpenAI announced its latest language model, Microsoft revealed that since its launch, Bing Chat has been running on GPT-4.

## Alternatives to consider

Open to other AI chatbot prospects? There are plenty of other generative AI tools on the market that offer different strengths. Here are a few others you can try:

**Google Bard**

**View now at Google**

**Chatsonic by Writesonic**

**View now at Writesonic**

**You Chat**

View now at You

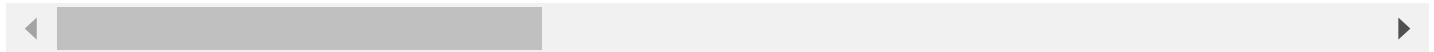## / see also

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