



# CAN CHATGPT AND AI HELP CUSTOMERS FIND QUALITY CONTRACTORS?

A LIVE WALKTHROUGH OF PERPLEXITY AS  
AI EVOLVES TOWARD SEARCH

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February 28, 2024

## What We'll Discuss

- 1 THE EVER EVOLVING AI CHATBOT LANDSCAPE
  - Open AI's ChatGPT
  - Microsoft's Bing
  - Google's ~~Bard~~ Gemini
  - Search Specific: Perplexity
- 2 OVERVIEW: SEARCH IN ITS EVOLVING FORMS
- 3 TESTING OUT THE PERPLEXITY EXPERIENCE



# THE CHAT & AI LANDSCAPE



# General AI Chatbots



100 Million Weekly Users



# Search Specific AI Chatbots



10 Million Weekly Users



# General AI Chatbots



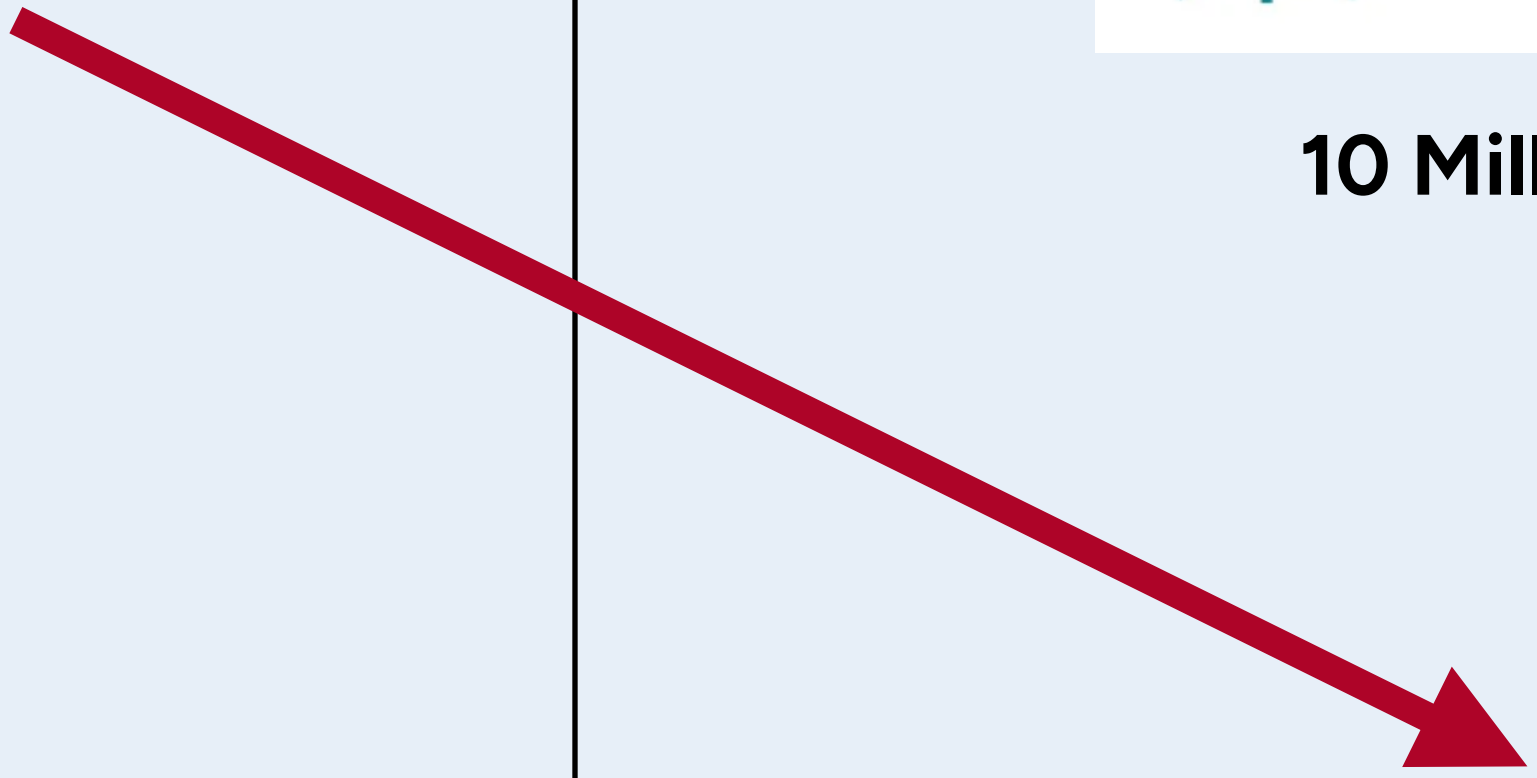
100 Million Weekly Users



# Search Specific AI Chatbots

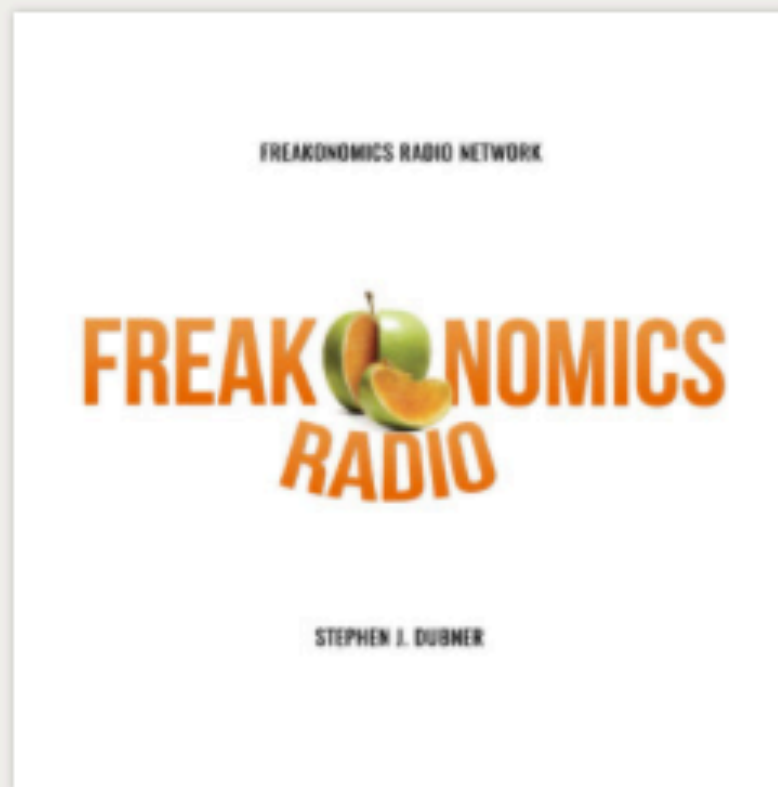


10 Million Weekly Users



# THE STATE OF GOOGLE SEARCH





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EPISODE 522

## Is Google Getting Worse? (Update)

It used to feel like magic. Now it can feel like a set of cheap tricks. Is the problem with Google – or with us? And is Google Search finally facing a real rival, in the form of A.I.-powered “answer engines”?



Feb 21, 2024

By **Stephen J. Dubner**  
Produced by **Alina Kulman** and  
**Zack Lapinski**

**Comments**

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# Blue Links and Dumb Questions

Google why should I consider electrifying my home

Videos Images News Books Maps Shopping Flights Finance

About 67,000,000 results (0.53 seconds)

Electrifying your home means replacing any gas-powered device that creates carbon emissions, such as a gas furnace or gas water heater, with a zero-emissions electric alternative that often performs better, is safer, and can be much cheaper to operate.

Palmetto Solar  
https://palmetto.com › learning-center › blog › how-to-el...  
**How To Electrify Your Home (and Save Money!) - Palmetto Solar**

About featured snippets Feedback

People also ask

- Why should I electrify my home?
- Is an all electric house a good idea?
- What are the benefits of electrification?
- What are the 5 importance of electricity?
- What are the 3 main things for electricity?
- How does electricity make your life easier?
- What household things use the most electricity?
- What are the top 10 uses of electricity?
- What are the four basics of electricity?

Feedback

Rewiring America  
https://www.rewiringamerica.org › electrify-home-guide  
**Electrify Everything in Your Home**  
Dec 15, 2021 — "Electrifying your home is an important step to take control of where your electricity comes from. This guide will lead you down the path. It is ...

Rocky Mountain Institute  
https://rmi.org › eight-benefits-of-building-electrificati...  
**Eight Benefits of Building Electrification for Households ...**





# When Query Goes Commercial: Chaos & Ads

Google heat pump installers portland maine

About 23,900,000 results (0.57 seconds)

Results for **Portland, ME** · Choose area

**HVAC Pros | Portland**

- Sponsored**  
**Pine State Services**  
GOOGLE GUARANTEED  
4.5 ★★★★★ (412)  
29 years in business  
Open 24/7
- Sponsored**  
**Aire Serv of Southern...**  
GOOGLE GUARANTEED  
4.8 ★★★★★ (427)  
117 years in business  
Open now until 5 PM
- Mack Air Pro**  
4.9 ★★★★★ (85)  
5 years in business  
Open 24/7

→ More HVAC pros in Portland

**Sponsored**  
**Efficiency Maine**  
https://www.energymaine.com

**Heat Pump Water Heaters - Cost As Little As \$429**  
Tens Of Thousands Of Mainers Own **Heat Pump** Water Heaters. Learn About In-Store Discounts. Take Advantage Of Our **Heat Pump** Water Heater In-Store Discounts.

**Pine State Services**  
https://www.pinestateservices.com › heat-pumps

**Portland Heat Pump Installation Service**  
Call Pine State Services today at (207) 747-1210 for professional **heat pump** service and installation in **Portland, ME** and surrounding areas. Why Choose Pine ...

**LaPlante Electric**  
https://laplanteelectric.com › portland-maine-heat-pum...

**Portland Maine Heat Pumps & Installation**  
Providing **heat pump** installation in **Portland Maine** to homes and businesses, including Mitsubishi Mini Split and ductless A/C systems. Serving Maine and NH.

**Yelp**  
https://m.yelp.com › ... › Heat Pump Installation

**Best heat pump installation near me in Portland, Maine**  
Best **heat pump** installation near me in **Portland, Maine** ; ASK Mechanical. 8.6 mi · PO Box 1434, Scarborough, ME 04070. (248) 953-1006 ; Mainly Electrical. 7.0 mi.

**HomeAdvisor**  
https://www.homeadvisor.com › tloc › Portland-ME

**Heat Pump Installation Contractors in Portland, ME**  
Results 1 - 9 of 9 — How much do **heat pump** installation contractors typically cost? · **Portland, Maine** Average. \$5,988 · Typical Range. \$3,000 - \$5,718 · Low End - ...

**Businesses**

Rating Hours

**Sponsored**  
**Haley's Metal Shop, Inc.**  
5.0 ★★★★★ (29) · HVAC contractor  
Biddeford, ME · (207) 284-8571  
Open · Closes 4 PM  
Website Directions

**Goggin Energy**  
4.7 ★★★★★ (30) · Heating equipment supplier  
Portland, ME · (207) 772-7557  
Open · Closes 5 PM  
Provides: **Heat Pump Installation**  
Website Directions

**Dave's World**  
4.9 ★★★★★ (173) · HVAC contractor  
Scarborough, ME · (207) 289-1170  
Open · Closes 5 PM  
Provides: **Hvac/Heat Pump Installation**  
Website Directions

**Atlantic Heating Company, Inc.**  
4.3 ★★★★★ (52) · Heating equipment supplier  
Portland, ME · (207) 797-7218  
Open · Closes 4:30 PM  
"The **installation** was completed in two days, and Bill was there every ..."  
Website Directions

More businesses →

**People also ask**

- How much does it cost to install a heat pump in Portland? ↓
- Are heat pumps worth it in Maine? ↓
- How much is a heat pump for a 2000 sq ft house? ↓



# Dialogue Based Search is More Innate in Human Linguistics



Briefly, why should I consider electrifying my home



There are several compelling reasons to consider electrifying your home:



1. **Environmental Impact:** Electricity, especially when sourced from renewable energy, is cleaner than burning fossil fuels for heating and cooking. It can help reduce your carbon footprint and contribute to the fight against climate change.
2. **Efficiency:** Electric appliances are often more energy-efficient than their fossil fuel counterparts. For example, heat pump systems for space and water heating are typically much more efficient than natural gas or oil furnaces.
3. **Health and Safety:** Electric appliances eliminate the risks associated with gas leaks and carbon monoxide poisoning. Additionally, electric stoves and ovens do not emit combustion pollutants, which can improve indoor air quality.
4. **Future-Proofing:** As the grid becomes increasingly powered by renewable energy, homes will need to transition to electric systems. Electrifying your home now can help you stay ahead of this curve.
5. **Cost Savings:** While the initial cost of electric appliances might be higher, the operational costs are often lower due to their higher efficiency. In regions with favorable electricity rates, or with home solar power, the cost savings can be significant.
6. **Simplicity and Integration:** An all-electric home can be simpler to maintain with fewer different systems. It also allows for seamless integration with smart home technologies, enhancing your control over your home's energy use.

Remember, the benefits will depend on your specific situation, including your local climate, electricity prices, and how your electricity is generated. It's also important to consider the upfront costs and potential home modifications needed to transition to an all-electric home.



OK, thanks for that. But are there characteristics of a home that would make it more or less eligible for electrification



Yes, there are several factors that can impact how suitable a home is for electrification:



1. **Age of Existing Appliances:** If your appliances are nearing the end of their life or need expensive repairs, it might be a good time to replace them with electric versions. However, if you have recently purchased new gas appliances, you might prefer to use them for their full lifespan before switching.
2. **Climate:** Homes in milder climates can benefit more from electric heat pumps, which are most efficient in such conditions. In colder climates, although modern heat pumps can still operate at lower temperatures, their efficiency drops, which might necessitate supplementary heating systems for the coldest days.
3. **Electricity Rates and Sources:** If electricity is expensive in your area, or if it's primarily generated from coal or other high-carbon sources, the economic and environmental benefits of electrification may be reduced. Conversely, homes in areas with cheap, clean electricity or potential for solar power are excellent candidates for electrification.
4. **Home Insulation:** Well-insulated homes retain heat better, reducing the heating load and making heat pumps more effective. If your home is poorly insulated, it might be worth improving insulation before or alongside electrification.
5. **Existing Infrastructure:** Homes that already have some electric infrastructure (like an electric water heater or electric stove) might find it easier and cheaper to transition to fully electric. Homes without existing infrastructure might need significant electrical upgrades to handle the increased load, which could add to the cost.
6. **Local Incentives:** Many regions offer rebates, tax incentives, or low-interest loans for home electrification or for installing specific appliances, like heat pumps or electric vehicle chargers. If such incentives are available, they could significantly reduce the cost of electrification.
7. **Future Plans:** If you're planning on major renovations or an extension in the near future, it might be more cost-effective to include electrification as part of that project.

It's always a good idea to seek professional advice before making major changes to your home's systems. They can help you assess your specific situation and make the best decisions for your home, budget, and lifestyle.



# AI'S EVOLUTION TOWARD SEARCH



# Google Generative AI Search

how do i find a heat pump contractor near me

Free Perspectives Shopping Images Maps Videos News Books Flights

Results for **Portland, ME 04101** Use precise location

Get an AI-powered overview for this search? **Generate**

**Yelp**  
https://www.yelp.com › ... › Heat Pump Installation

### TOP 10 BEST Heat Pump Installation in Portland, ME

Top 10 Best Heat Pump Installation Near Portland, Maine · LaPlante Electric · Free price estimates from local HVAC Contractors · Downeast Electrical Services.

**People also ask**

- How do I choose a heat pump installer?
- How much is Labour to install a heat pump?
- How much should I expect to pay for a heat pump?
- Why don t contractors like heat pumps?

Ask a follow up... Feedback

**HomeAdvisor**  
https://www.homeadvisor.com › lloc › Portland-ME › H...

### 5 Best Heat Pump Installers - Portland ME

Hire the Best Heat Pump Installation Contractors in Portland, ME on HomeAdvisor. Compare Homeowner Reviews from 5 Top Portland Heat Pump Install services.

**Pine State Services**  
https://www.pinestateservices.com › heat-pumps

### Portland, ME Heat Pump Installation

Call Pine State Services today at (207) 747-1210 or send us a message online for professional heat pump repair and installation in Portland, ME and surrounding ...

Get an AI-powered overview for this search? **Generate**

how do i find a heat pump contractor near me

Free Perspectives Shopping Images Maps Videos News Books Flights

Results for **Freeport** · Choose area

Generative AI is experimental. Learn more

### Freeport, Maine has many heat pump contractors, including HVAC contractors, heating contractors, and air conditioning contractors.

- Riser Heat Pumps**  
4.9 ★ (45)  
HVAC contractor  
Gray  
HVAC contractor in Gray, ME that some say has a great installation team
- Northeast Heat Pumps**  
4.7 ★ (51)  
HVAC contractor  
Brunswick  
HVAC contractor in Brunswick, ME that some say has a knowledgeable crew and fast installation process
- Brancato's Heating**  
4.8 ★ (276)  
HVAC contractor  
Brunswick  
HVAC contractor in Brunswick, ME that some say has professional technicians and timely installation
- Valley Home Services**  
5.0 ★ (23)  
HVAC contractor  
Brunswick, ME that some say has efficient installations

Map showing locations of contractors in the Freeport area.



# Microsoft Bing & Copilot

Microsoft Bing SEARCH **COPILOT** NOTEBOOK

## Copilot

Your everyday AI companion

Create a Renaissance-era painting of a farmhouse at dawn

Give me a weird fact and hypothesize what it reveals about the world

Write a joke that a toddler would find hilarious

Copilot uses AI. Check for mistakes. [Terms](#) | [Privacy](#) | [FAQs](#)

New topic Ask me anything... 0/2000



The screenshot shows the Perplexity AI web interface. At the top left is the Perplexity logo and a navigation arrow. Below it is a 'New Thread...' button with keyboard shortcuts. The left sidebar contains navigation links for 'Home', 'Discover', and 'Library'. Under 'Library', there are several search suggestions. The main content area features a large search bar with the text 'Where knowledge begins'. Below the search bar are options for 'Focus', 'Attach', and a 'Copilot' toggle. A 'Try Copilot' button is followed by four suggested queries: 'Why did dinosaurs go extinct?', 'How to fix a loose screw?', 'Swans in fairy tales and mythology', and 'Who created the yo-yo?'. At the bottom left, there is a user profile for 'peterroast pro' with a settings gear. The bottom right contains links for 'Pro', 'Careers', 'Playground', and 'Blog', along with a help icon.



# AI'S EVOLUTION TOWARD SEARCH



# Simplified Customer Journey to Contractor Selection: Query Types



*"Are heat pumps a good idea for my home?"*

*"How do I find a heat pump installer near me?"*

*"How do I learn more about, and contact, Royal River Heat Pumps?"*





# Simplified Customer Journey to Contractor Selection: Query Types



## RESEARCH

*"Are heat pumps a good idea for my home?"*

## CONTRACTOR FINDING

*"How do I find a heat pump installer near me?"*

## EVALUATION & CONTACT

*"How do I learn more about, and contact, Royal River Heat Pumps?"*



# PREPARING FOR A BRAVE NEW WORLD



# What We're Doing

## Testing, Trying and Learning

### Constant Vigilance by the Energy Circle AI Task Force

#### All the Things We Currently Do for SEO & Local but *Amplified*

- Emphasis on clear, concise, well-structured content
- Heading and subheadings to understand structure
- Keywords, keywords, keywords
- High quality, original content
- Technical SEO for accessibility
- Renewed importance of Directories



# QUESTIONS?

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