

New Technologies SIG

Tom Shepherd



NEW TECH SIG UPDATE

New TECH SIG

We need ideas

All you have to do is send me an email about something you would like to learn more about at

newtech@grandcomputers.org

New Technologies SIG

Meeting every month
3rd Thursday 3:30

Contact Tom Shepherd for additional information at

newtech@grandcomputers.org

Here is what is coming up in April

The Network in your Home - talk about how to organize and manage your home network. Discuss what download speeds are needed for what usage. Explore what tools are available to monitor speeds and activities. Review advanced topics including Mesh WiFi routers and network security.



Thursday April 20 3:30pm

Quick Update on AI



Microsoft has been very busy with ChatGPT

BREAKING Stock futures rise after Dow slides five straight days on bank rout



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ChatGPT and generative AI are booming, but the costs can be extraordinary

PUBLISHED MON, MAR 13 2023•8:58 AM EDT | UPDATED 4 HOURS AGO

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KEY POINTS

- The cost to develop and maintain the software can be extraordinarily high.
- Nvidia makes most of the GPUs for the AI industry, and its primary data center workhorse chip costs \$10,000.
- Analysts and technologists estimate that the critical process of training a large language model such as GPT-3 could cost over \$4 million.



Mad Money

WATCH LIVE

UP NEXT | **Last Call** 07:00 pm ET

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They are finding that AI is very expensive

The high cost of training and “inference” — actually running — large language models is a structural cost that differs from previous computing booms.

Even when the software is built, or trained, it still requires a huge amount of computing power to run large language models because they do billions of calculations every time they return a response to a prompt.

By comparison, serving web apps or pages requires much less calculation.

Lots and lots of computer power required

These calculations also require specialized hardware.

While traditional computer processors can run machine learning models, they're slow.

Most training and inference now takes place on graphics processors, or GPUs, which were initially intended for 3D gaming, but have become the standard for AI applications because they can do many simple calculations simultaneously.

Training

Analysts and technologists estimate that the critical process of training a large language model such as OpenAI's GPT-3 could cost more than \$4 million.

More advanced language models could cost over “the high-single-digit millions” to train, said Rowan Curran, a Forrester analyst who focuses on AI and machine learning.

Infrastructure

For a product as popular as ChatGPT — which investment firm UBS estimates to have [reached](#) 100 million monthly active users in January — Curran believes that it could have cost OpenAI \$40 million to process the millions of prompts people fed into the software that month.

Costs skyrocket when these tools are used billions of times a day.

Financial analysts estimate Microsoft's Bing AI chatbot, which is powered by an OpenAI ChatGPT model, needs at least [\\$4 billion of infrastructure](#) to serve responses to all Bing users.



NEWS

Microsoft integrates ChatGPT into Azure; GPT-4 expected soon

The AI assistant is now a part of Azure managed services, and developers are able to integrate it into applications. Meanwhile, OpenAI is expected to release GPT-4 this week.



By **Esther Ajao**, News Writer

Published: 13 Mar 2023

With news that GPT-4 could drop this week, Microsoft continues integrating ChatGPT into all its services.



Panoptica

The Cisco Secure Application Cloud

**Kubernetes
security for your
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apps**



Reduce risks.
Improve visibility.
Streamline collaboration.

Get Started

ChatGPT-4 announced this week

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OpenAI Plans to Up the Ante in Tech's A.I. Race

The company unveiled new technology called GPT-4 four months after its ChatGPT stunned Silicon Valley. The update is an improvement, but it carries some of the same baggage.



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<https://www.nytimes.com/2023/03/14/technology/openai-gpt4-chatgpt.html?smid=nytcore-ios-share&referringSource=articleShare>

<https://www.nytimes.com/2023/03/14/technology/openai-new-gpt4.html?smid=nytcore-ios-share&referringSource=articleShare>

As smart as a Cardiologist ?

On a recent evening, Anil Gehi, an associate professor of medicine and a cardiologist at the University of North Carolina at Chapel Hill, described to the chatbot the medical history of a patient he had seen a day earlier, including the complications the patient experienced after being admitted to the hospital.

The description contained several medical terms that laypeople would not recognize.

When Dr. Gehi asked how he should have treated the patient, the chatbot gave him the perfect answer. “That is exactly how we treated the patient,” he said.

Google is very concerned about ChatGPT

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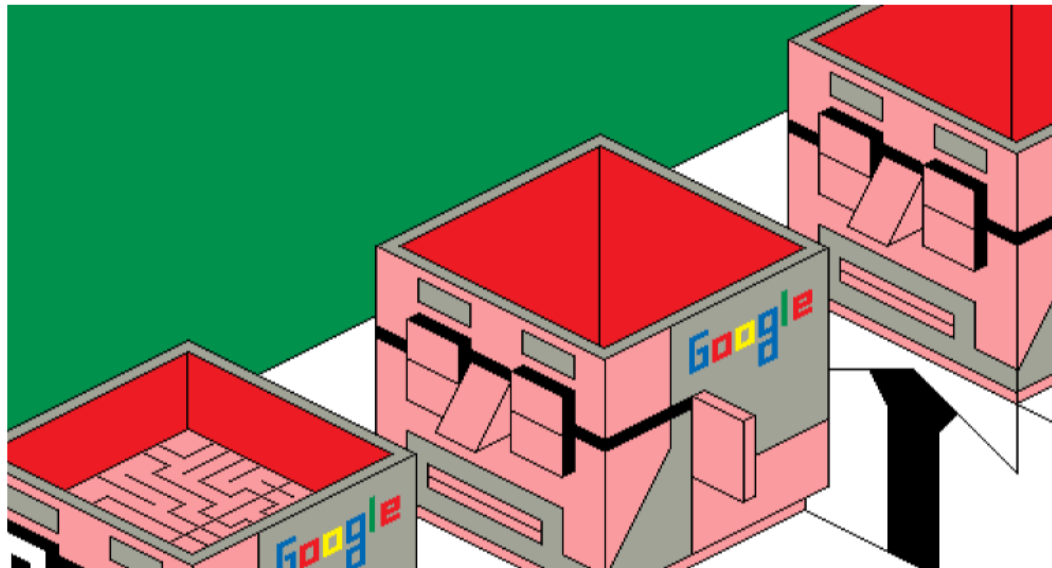


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Businessweek
Technology

Google's Plan to Catch ChatGPT Is to Stuff AI Into Everything


A new internal directive requires “generative artificial intelligence” to be incorporated into all of its biggest products within months.



EY Parthenon

We helped an industrial company invest in software to grow its business. |

Google pinning it's hopes on Bard

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GENERAL TECHNOLOGY

What is Google's Bard AI? Here's everything you need to know

Google may be late to the chatbot party with Bard, but it could very well dethrone ChatGPT.

By Calvin Wankhede • March 12, 2023



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Office Depot



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take some beating



<https://www.androidauthority.com/google-bard-chatbot-3295464/>

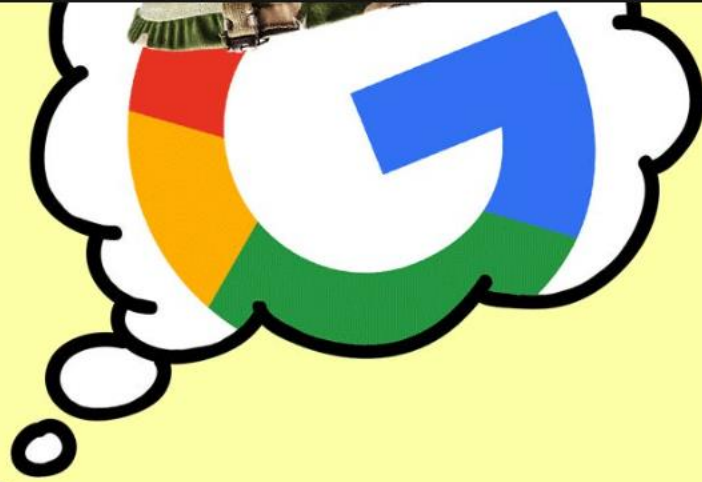
But it is off to a rocky start and its CEO is being questioned



Forbes

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Now we will hear from Dorothy

With that , I think we are done

Thanks for your attention!