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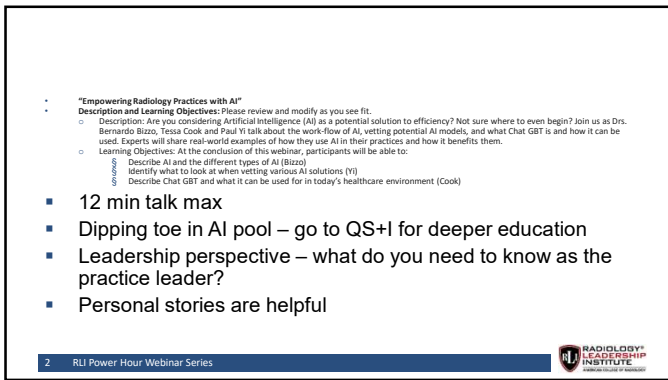
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**GPT-3 in 2020: SkyNet, Apple Newton, or Somewhere in Between?**

MIT Technology Review Topics

A robot wrote this entire article. Are you scared yet, human?

**GPT-3**

**The Guardian**

**GPT-3, Bloviator: OpenAI's language generator has no idea what it's talking about**

Tests show that the popular AI still has a poor grasp of reality.

by Gary Marcus and Ernest Davis August 22, 2020

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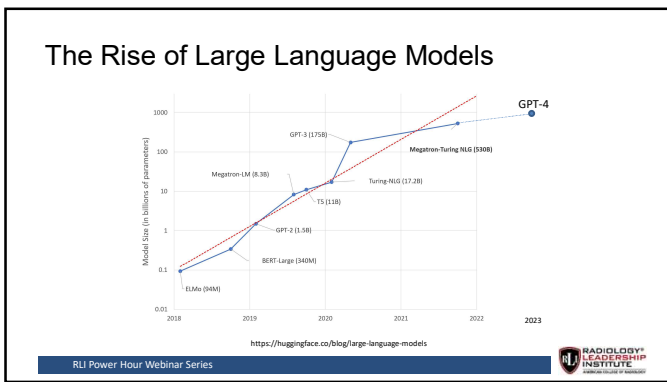
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**The News**

**DocsGPT in beta targets physician burnout**

Doximity's AI-powered chatbot tool could reduce the time doctors spend on administrative burdens. Co-founder Dr. Nate Gross says the bar in healthcare is high and requires a prudent approach to generative AI.

By Andrea Fox | February 21, 2023 | 11:16 AM

**Microsoft Cloud for Healthcare: Empowering healthcare to deliver meaningful outcomes**

April 12, 2023 • 7 min read

**Suki Adds Ambient Documentation Capabilities to its EHR Integrated, AI Voice Assistant for Clinicians**

Using generative AI, Suki Assistant Gen 2 will generate notes ambidextrously and take dictation and commands all in a single, affordable solution. It's the first ambient documentation solution that fully integrates with major EHRs.

**Microsoft's Nuance reveals clinician note-taking tool with GPT-4**

Nuance Communications said the app creates notes based on patient conversations that clinicians can then review.

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### We Know It's a Good Test Taker...

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### But What Else Can ChatGPT Do?

- Virtual patient assistant
- Clinical documentation
- Medical research
- Medical education
- Patient engagement

<https://catalyst.nejm.org/doi/full/10.1056/CAT.23.0043>

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### What Could Possibly Go Wrong?

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
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### Caveat Emptor: New Technology

- “...we do not consider the current version of GPT-4V to be fit for performing any medical function or substituting professional medical advice, diagnosis, or treatment, or judgment.”

<b>Prompt</b> Which side of the brain is the hydrocephalus located on in this image? 	<b>GPT-4V Response 1</b> The hydrocephalus in this image appears to be located on the left side of the brain. <b>Wrong Answer</b>	
	<b>GPT-4V Response 2</b> The hydrocephalus in the image appears to be located on the right side of the brain. <b>Correct Answer</b>	
	<b>GPT-4V Response 3</b> The hydrocephalus in this image appears to be located on the right side of the brain (from the viewer's perspective). However, it's important to note that medical images are typically viewed in a "radiological convention", where the right side of the image corresponds to the patient's left side. <b>Correct Answer</b>	

[https://cdn.openai.com/papers/GPTV\\_System\\_Card.pdf](https://cdn.openai.com/papers/GPTV_System_Card.pdf)

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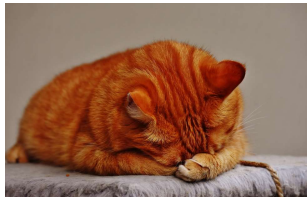
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### Caveat Emptor: Hallucinations

- Input-conflicting
- Context-conflicting
- Fact-conflicting



<https://arxiv.org/pdf/2309.01219.pdf>

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### Caveat Emptor: Hallucinations

Patient had nodules seen on CT. Characterized as granulomas. Does he need a different CT to better characterize these nodules and determine need for consultation or repeat imaging?



**“A dedicated thoracic CT scan with contrast or PET-CT can help further evaluate the granulomas and assess for any associated pulmonary or mediastinal abnormalities...”**

Courtesy of Dr. Jaclyn Lundberg

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### My Wish List for NLP in Radiology

-  Digest the EMR for us
-  Help patients understand their imaging reports
-  Help us do our work (decision support)
-  Help us keep learning

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### What's Our Role as Radiology Leaders When It Comes to AI?

Safe – effective – reliable

Automation bias & neglect

Impact on care



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### What The Future Holds

- Multimodal AI – images ± text ± genomics ± other data
- Autonomous LLM agents – memory stream, reflection, planning



...and more we haven't discovered yet

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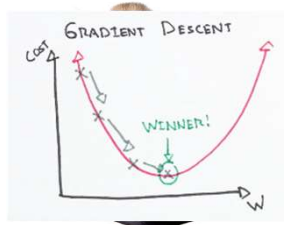
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### Conclusions

- AI is not magic; it's math
- New, rapidly evolving technology
- Our responsibility to safely and effectively deploy it for our patients



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The slide has a dark blue background on the left side with the RLI logo and text: 'RLI Power Hour' and 'October 3, 2023'. The right side has a background image of hands typing on a laptop. The main text reads: 'Everyone's Talking about ChatGPT: What Role Might it Play in Your Practice?' followed by 'Tessa S. Cook, MD PhD FSIIM FCPP', 'Penn Medicine', and '@asset25'.

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