

# Overview of Generative Artificial Intelligence & Augmented Intelligence (AI+)

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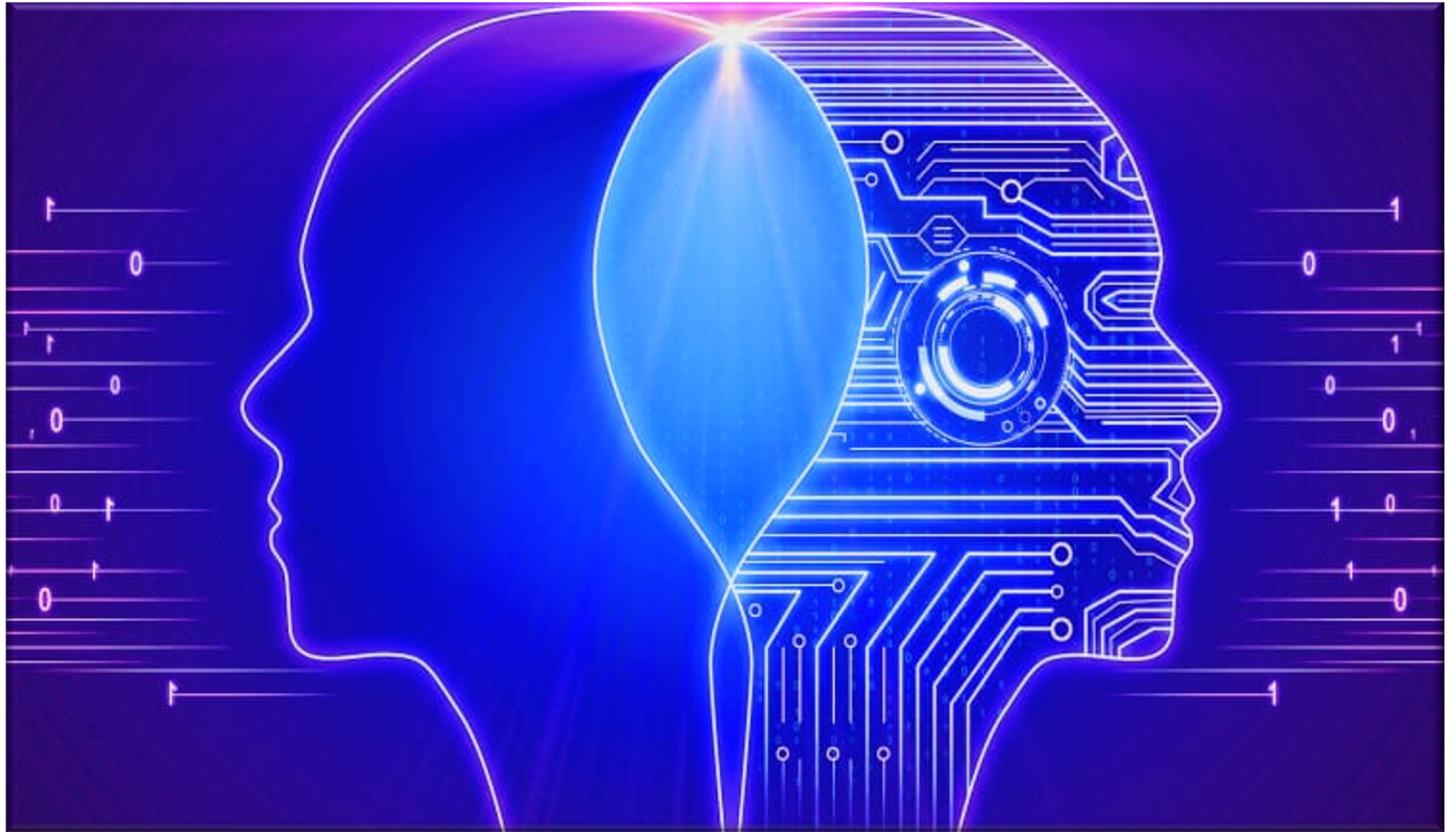
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Nashville, Tennessee, USA**



# Learning Objectives in this Part of the Lesson

- Understand the difference between generative artificial intelligence & augmented intelligence (AI+)

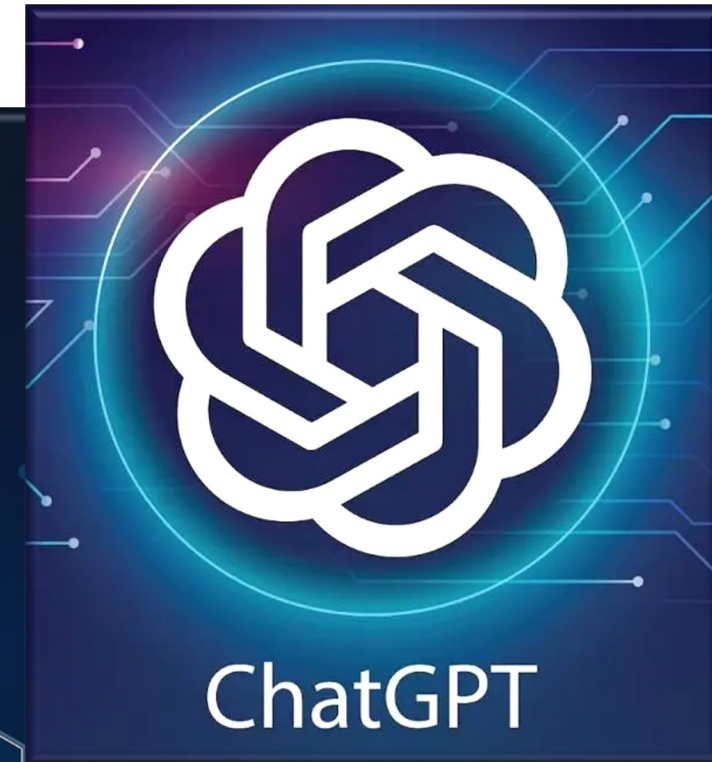


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# Overview of Generative Artificial Intelligence & Augmented Intelligence (AI+)

# Overview of Generative Artificial Intelligence

- In November 2022 ChatGPT “escaped from the lab”!

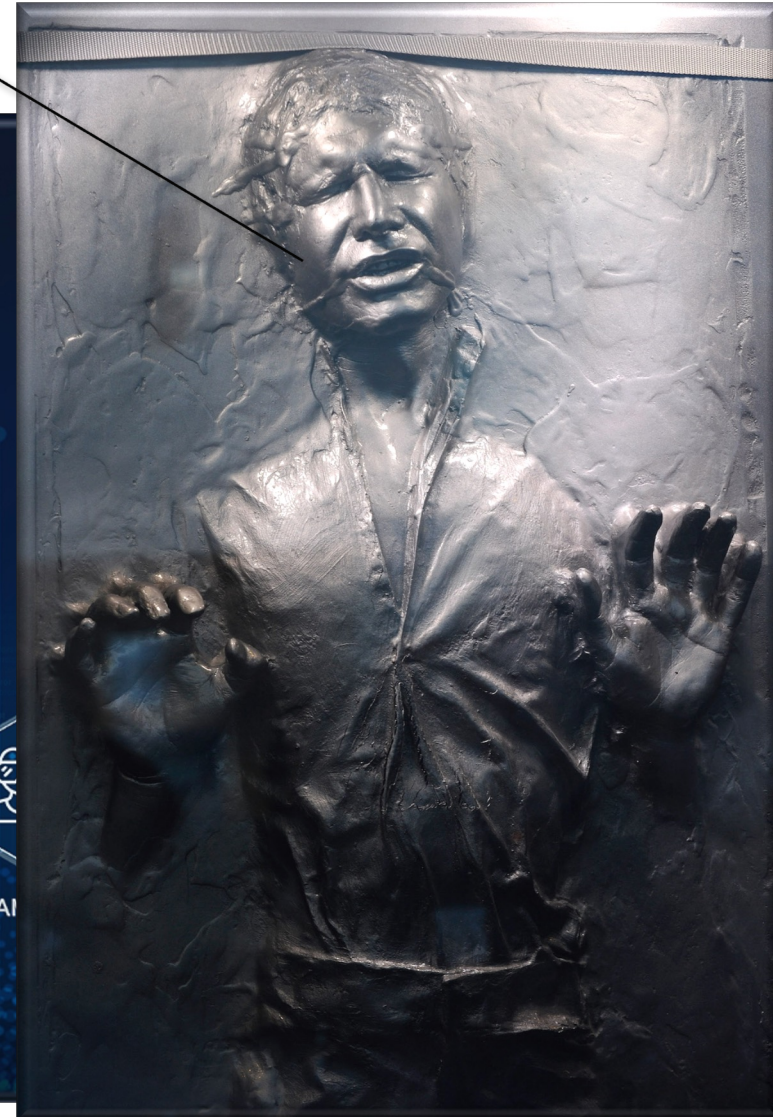


See [en.wikipedia.org/wiki/ChatGPT](https://en.wikipedia.org/wiki/ChatGPT)

# Overview of Generative Artificial Intelligence

- In November 2022 ChatGPT “escaped from the lab”!

*"Generative AI" creates models or systems that can synthesize new & original content*



See [en.wikipedia.org/wiki/Generative\\_artificial\\_intelligence](https://en.wikipedia.org/wiki/Generative_artificial_intelligence)

# Suddenly the World is Coming to an End..

## There's a Damn Good Chance AI Will Destroy Humanity, Researchers Say in a New Study

On the bright side, there are some things we can do to prevent that outcome ... *maybe*.



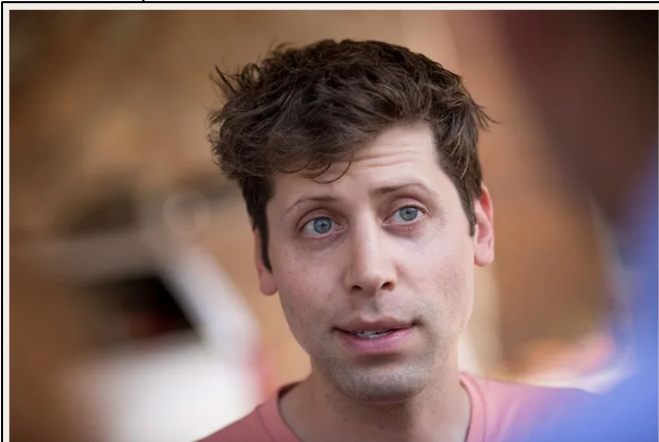
BY CAROLINE DELBERT PUBLISHED:

SAVE ARTICLE



## Is the AI apocalypse actually coming? What life could look like if robots take over

From job losses to mass extinction events, experts are warning that AI technology risks opening a Pandora's Box of horrors if left unchecked — are they right to be sounding the klaxon? Katie Strick reports



Sam Altman. (Drew Angerer via Getty Images)



## Is AI the End of the World? Or the Dawn of a New One?

*A conversation with Sam Altman, the man behind ChatGPT, about the risks and responsibilities of the artificial intelligence revolution.*

## Should We Stop Developing AI For The Good Of Humanity?

See [www.google.com/search?q=is+AI+the+end+of+the+world](http://www.google.com/search?q=is+AI+the+end+of+the+world)

# The Barrier to Entry for Applying Generative AI is Very Low



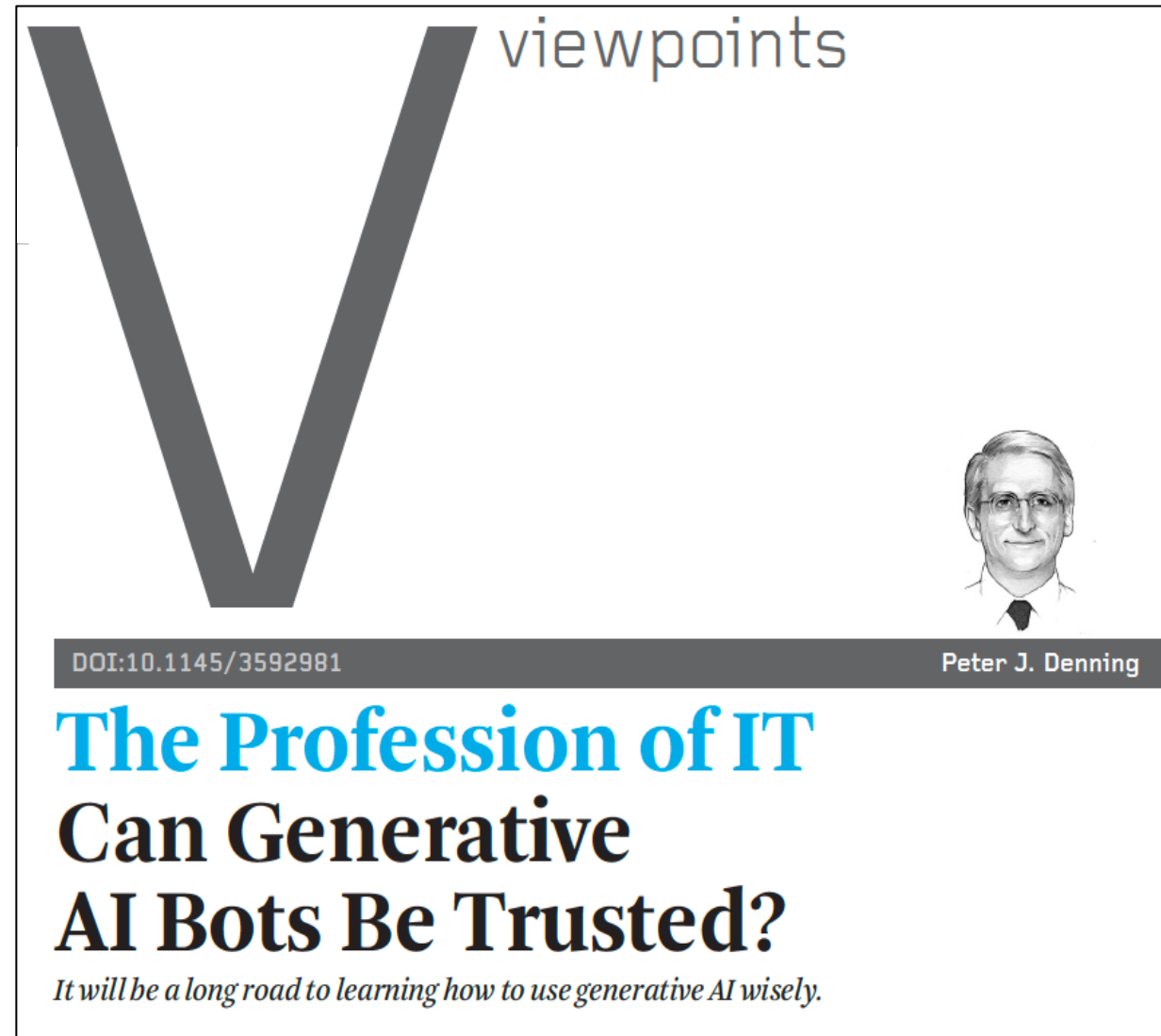
See [chat.openai.com](https://chat.openai.com), [bard.google.com](https://bard.google.com), [claude.ai/chats](https://claude.ai/chats), etc.

# However, Generative AI Tools Are Not (Yet) Flawless

- Expectations must be adjusted accordingly

*"I have noticed a certain style to the many ChatGPT documents I have read:*

- *most of what it tells you, seems like you have already heard somewhere*
- *no radical departures from what others have already said*
- *frequent excursions into nonsense*
- *speaks with great authority, even when outputting nonsense*
- *little variation in sentence structure or length*
- *often hedges by following a statement with the possibility of the opposite &*
- *often inserts weasel words"*



viewpoints

DOI:10.1145/3592981

Peter J. Denning

## The Profession of IT Can Generative AI Bots Be Trusted?

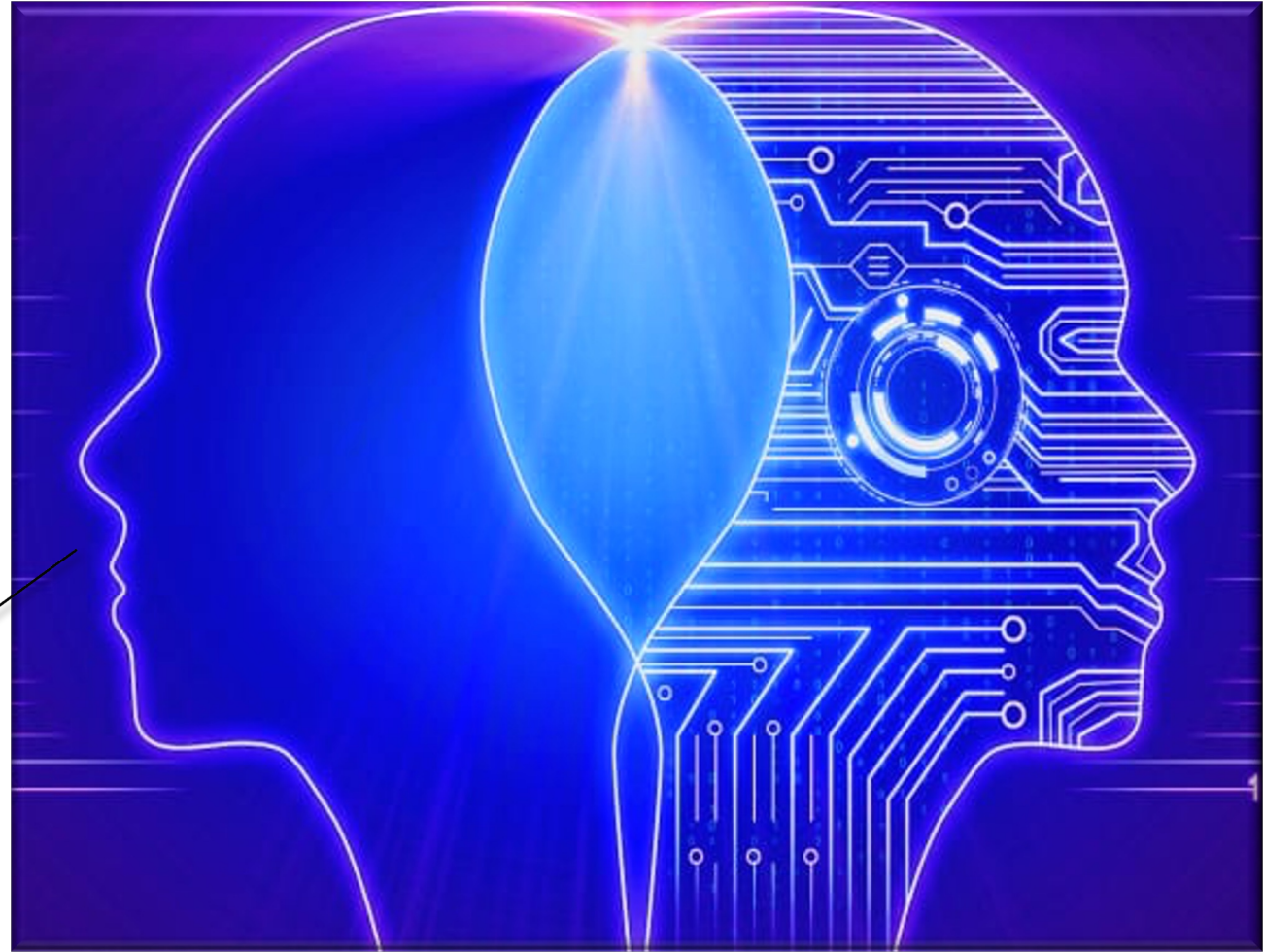
*It will be a long road to learning how to use generative AI wisely.*

See [cacm.acm.org/blogs/blog-cacm/273577-ai-does-not-help-programmers/fulltext](https://cacm.acm.org/blogs/blog-cacm/273577-ai-does-not-help-programmers/fulltext)



# Overview of Generative Augmented Intelligence (AI+)

- The outcome is much better when “AI” is interpreted as meaning “augmented intelligence” (AI+) rather than “artificial intelligence” (AI)



*“Augmented not artificial –  
Supplement not supplant”*

See [builtin.com/artificial-intelligence/augmented-intelligence](https://builtin.com/artificial-intelligence/augmented-intelligence)

# Starting Point: The SEI's Study on Future of Software Engineering

- “The current notion of software development will be replaced by one where ***the software pipeline consists of humans & AI as trustworthy collaborators that rapidly evolve systems based on programmer intent***”

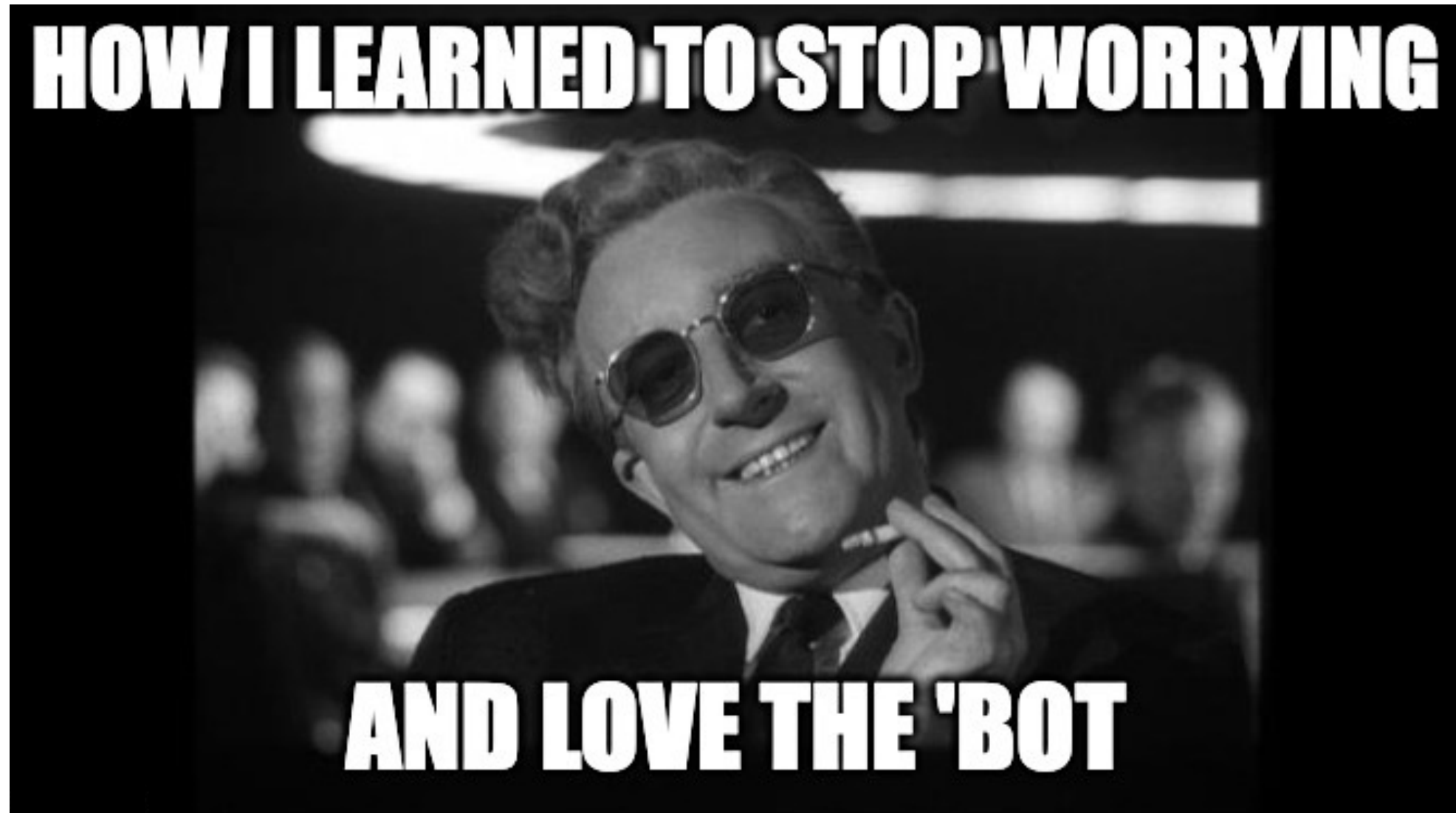


Study available at [www.sei.cmu.edu/go/national-agenda](http://www.sei.cmu.edu/go/national-agenda)

## Preview of Coming Attractions

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- Show how I'm applying AI+ to improve my CS courses at Vanderbilt



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See [en.wikipedia.org/wiki/Dr. Strangelove](https://en.wikipedia.org/wiki/Dr._Strangelove)

# Preview of Coming Attractions

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- The overall goal is to emphasize creative & “fun” aspects of teaching, while also making me more effective at the “less fun” (but essential) aspects of teaching



*Creating & giving lectures, creating & explaining code examples & programming assignments, initial code reviews*

*Creating tests, quizzes, & knowledge-check questions; final code grading; summarizing contents in lecture videos*



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# End of the Overview of Generative Artificial Intelligence & Augmented Intelligence (AI+)