

# The Generative AI Mirror: The Five Pathologies of EdTech Discourse About New Technologies

TeachOnline.CA & Contact  
North  
Webinar

**Glenda Morgan & Phil Hill**

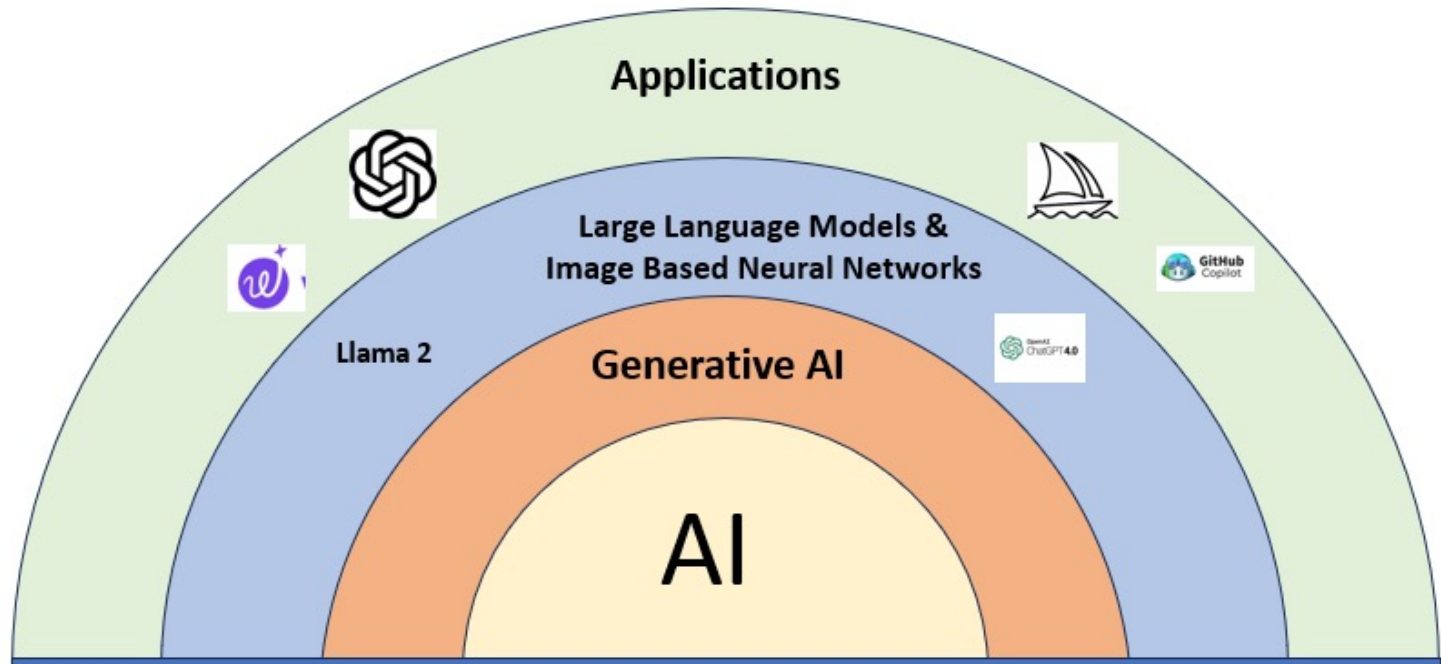
**6 September 2023**

# There is a lot of hype about AI

“more profound than fire or electricity or anything we have done in the past.”

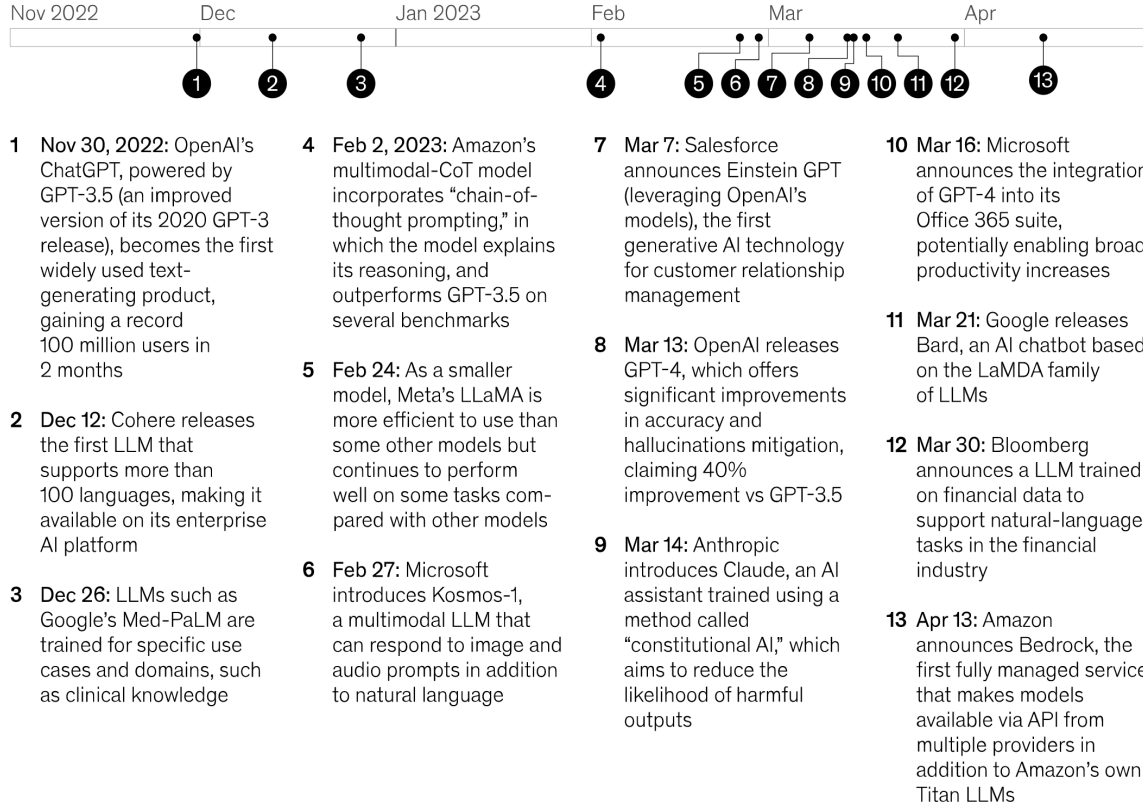
Sundar Pichai, Google CEO

# What is generative AI?



# Generative AI has been evolving at a rapid pace

## Timeline of major LLM developments since lunch of ChatGPT



<https://www.mckinsey.com/featured-insights/mckinsey-explainers/whats-the-future-of-generative-ai-an-early-view-in-15-charts?>

# Five Pathologies

- A preoccupation with trendiness
- Exaggerated results
- Technology solutionism
- Learning as the only approach to change
- Moral panics

# 1. A preoccupation with trendiness

EdTech is a bandwagon driven sector



# From bandwagon to bandwagon

MOOCs



Active Learning  
Classrooms



Learning  
Analytics



VR/AR



Generative AI



Generative AI as a Deep Agent of Chaos for Higher Education (separate registration is required)

Presenters: Bryan Alexander

Delivery Format: Preconference Workshop

Generative AI in College and Departmental Administration

Generative AI can be an important assistant in promoting excellence in the role of head.

Higher Education Leaders Explore Impact of Generative AI

By Annie Galvin Teich · Aug 29, 2023 08:20am

- ChatGPT
- Dr. Adam Fein
- University of North Texas
- Dr. Steven Crawford

Biden Admin's Budget Could Jump-Start Ed Research on ChatGPT

A recent budget proposal from the Biden administration to increase federal support for education research efforts could lead to an 'ARPA-Ed' and the discovery of new use cases for AI-driven tools like ChatGPT.



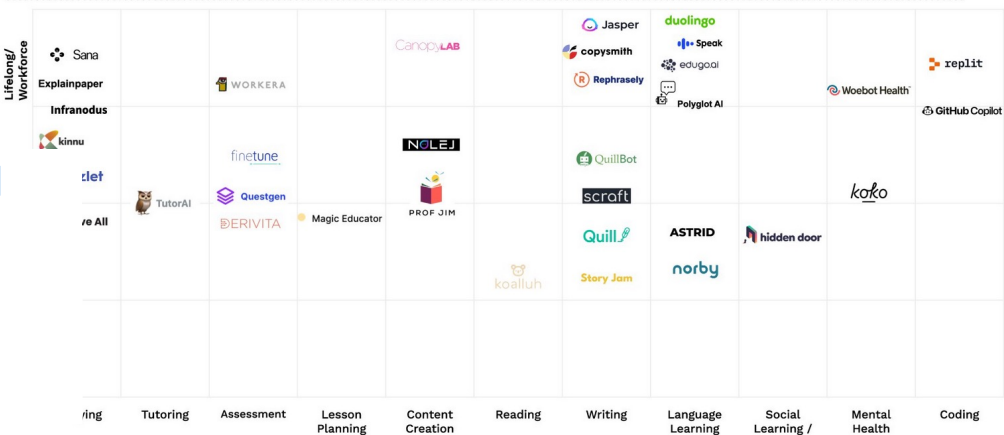
WCET - WICHE Cooperative for Educational Technologi...  
3,794 followers  
23h •

+ Follow

The biggest topic in #highered news is #artificialintelligence and what impact #AI will have on #students, #instructors, and the #education field at large. This week on

GPT/'Generative' AI Edtech Landscape

Last updated 1/9/23





# Every vendor is adding a generative AI tool

## Edtech companies jump on generative AI bandwagon

A slew of edtech companies — edX and Coursera — have announced plans to incorporate generative AI into their products.

BY LINDSAY MCKENZIE • JULY 31, 2023



coursera

Chegg®

PHIL HILL  
& Associates

edX

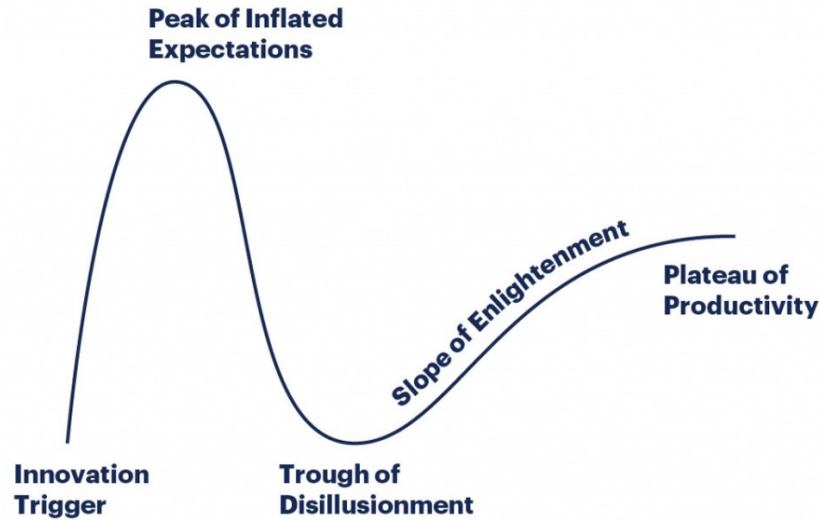
INSTRUCTURE



anthology



# No sustained attention can be problematic



To move along the cycle, you need sustained attention & working through difficulties

## Gartner Hype Cycle

## 2. Exaggerated results

*“ We think of it like a robot tutor in the sky that can semi-read your mind and figure out what your strengths and weaknesses are, down to the percentile.*

*“ We can take the combined data power of millions of students — all the people who are just like you — [who] had to learn a particular concept before, that you have to learn today — to find the best pieces of content, proven most effective for people just like you, and give that to you every single time.*

# We see exaggerated results in EdTech a great deal

## Learning Analytics



SUNY ASAP Program  
Course Signals

## Student Success



Co-Remediation  
at CUNY

## MOOCs



ASU Thunderbird  
MOOC

Problems with data analysis: Small N's: The need for success: Uncritical reporting

# It's early days but we are already seeing exaggerated claims about generative AI

- Transformation
- Ease
- Effectiveness
- Personalization & impact

# The problem with exaggerating results

- We minimize the difficulty & complexity
- We don't learn from mistakes, and so never get better
- We buy products we shouldn't
- Models with problems are replicated

# 3. Technology solutionism

Technology solutionism ...refers to the tendency to view technology as the primary or sole solution to complex problems, often without considering the broader causes, and implications of such solutions.

It involves the belief that technology can provide quick fixes and panaceas for a wide range of issues.

ChatGPT

# Tech solutionism is rife in EdTech, and not just from vendors



Student  
Success



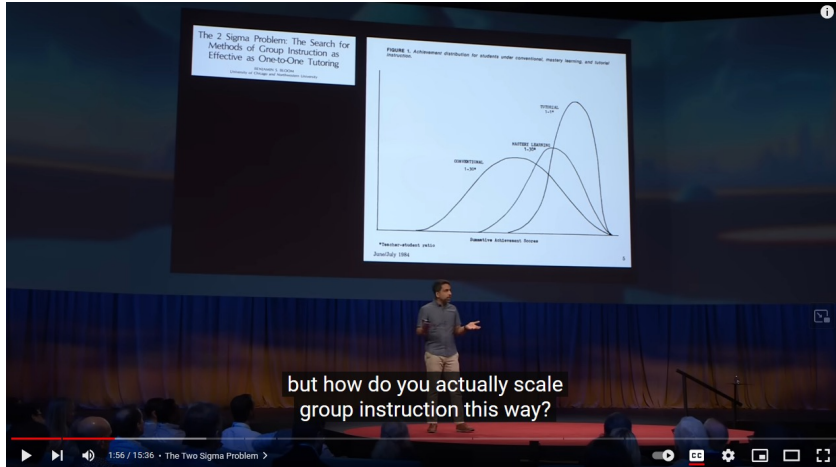
LMS



Academic  
Integrity



# Technology solutionism has taken an early & firm hold on AI EdTech discourse



- Personalization: Cost & scale
- Enrollment: Development of hyper-personalized marketing and recruitment strategies.
- Retention: chatbots & predictive analytics
- Integrity: AI as a response to AI plagiarism

How AI Could Save (Not Destroy) Education | Sal Khan | TED

<https://www.youtube.com/watch?v=hJP5GqnTrNo>



GenAI chatbots could be used to help students get direct, instantaneous answers to questions on core advising topics using one centralized tool.

## 4. Learning as the only valid application

**But is it having an impact on learning?**

Edtech is about transforming teaching and learning

But applications of technology not directly related to learning are important

- Student experience
- Time & convenience
- Social & teaching presence

And usage does flow from one type of usage to the other

# Emphasizing learning in AI

## Vendor Applications

Heavily focused on the learning aspect

- Summaries
- Tutors
- Course design
- Explanations
- Role play

Brenna discusses the tension between using AI for efficiency and for learning.

BRENNA CLARKE GRAY - 31ST AUGUST 2023

Brenna discusses the tension between using AI for efficiency and for learning. For example, are we using it to improve accessibility for a diverse population or to save on labour costs?

Brenna's key questions are:

- 1 Is the problem that we think we're solving with AI a problem of efficiencies, or of learning?
- 2 Who is harmed by the technology and how, and who benefits. Is it marginalised learners, or is it some for-profit EdTech company?
- 3 How are we living our values in the institution?

*Image credit: Jon Fulton*



<https://www.monash.edu/learning-teaching/teachhq/Teaching-practices/artificial-intelligence/10-minute-chats-on-generative-ai>

# The problem with an exclusive focus on learning

- Administration & efficiency provides a safer space to experiment
- Usage tends to flow from one to the other
- Teaching is complex & the tools aren't quite there

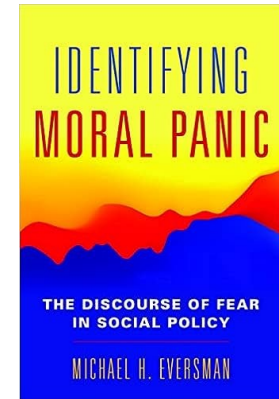
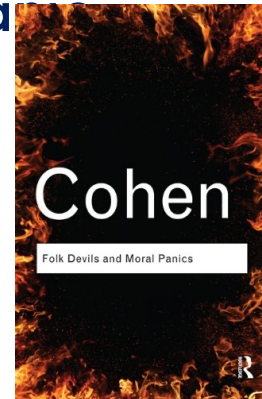


The example of the telephone

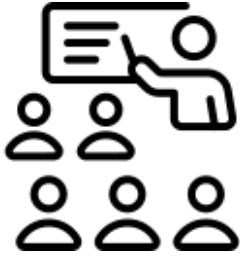
# 5. Moral panic

A moral panic is a widespread feeling of fear, often an irrational one, that something threatens the values, traditions, practices & future interests, or well-being of a community or sector by arousing social concern over an issue.

Actors such as the media but also individuals play a role in fostering and exacerbating moral panic.



# Moral panic has a long history in EdTech



Blackboards

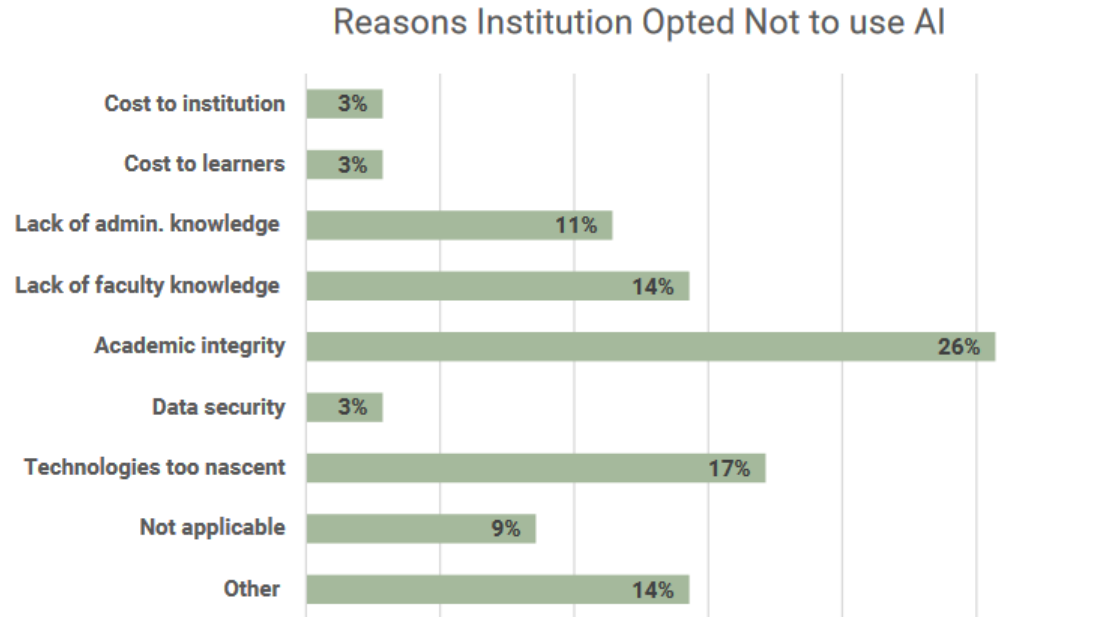


Plagiarism



Online  
Learning

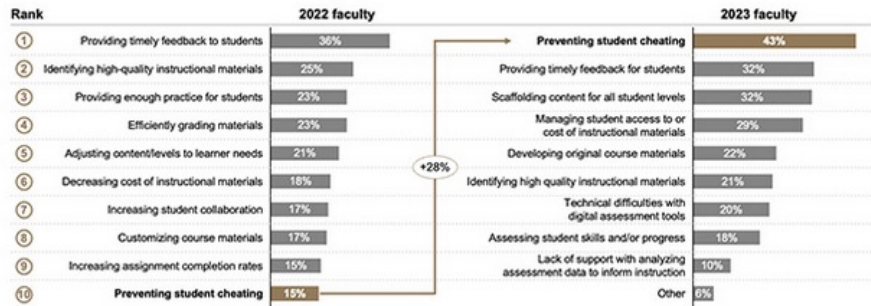
# But AI has unleashed a massive amount of moral panic around cheating



# Though moral panic does seem to subside with familiarity

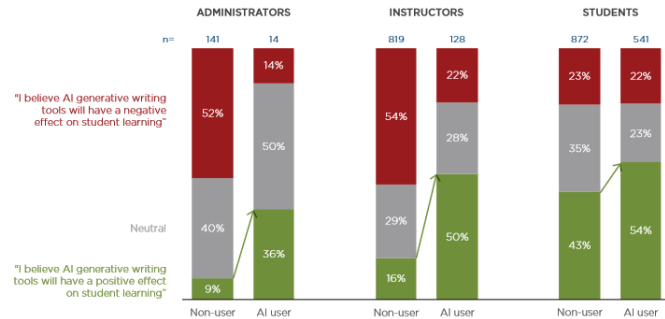
## Top 10 Challenges for Instructors in Higher Education

(2022-2023)



Notes: 2022 survey question: "Which instructional challenges are top priorities for you to address in this course? Please choose up to three." Instructor n=2,955;  
2023 survey question: "Which of the following are your greatest instructional challenges? Select top three." Instructor n=1,748  
Sources: Time for Class 2022 and 2023 survey, Tyton Partners analysis

## Beliefs about generative AI writing tools' impact on student learning, responses as of March 2023



<https://campustechnology.com/articles/2023/07/12/time-for-class-2023-report-shows-number-one-faculty-concern-preventing-student-cheating-via-ai.aspx>

[https://tytonpartners.com/app/uploads/2023/06/Time-for-Class-2023-Report\\_Final.pdf](https://tytonpartners.com/app/uploads/2023/06/Time-for-Class-2023-Report_Final.pdf)



# The problem with moral panic in EdTech

- It works against understanding root causes
- It closes down alternatives
- It creates an us versus them mindset that is not conducive to learning
- It rules out change

# What you should be focusing on instead



# Issues you should be tracking

- How generative AI is changing the marketplace
- How vendors have integrated it – and what guardrails they used to do so
- Embedded AI
- Smaller language models
- Price

What you should be doing  
to avoid the five  
pathologies

# Start developing policies about generative AI

It's always about the policy.

Morgan's Iron Laws of EdTech

Date Issued: August 11, 2023

## UK ADVANCE

### Fall 2023 Guidelines and Recommendations for Generative AI in Instructional Contexts

[https://advance.uky.edu/sites/default/files/2023-08/2023.08.11\\_ADVANCEfacultyguidelines.pdf](https://advance.uky.edu/sites/default/files/2023-08/2023.08.11_ADVANCEfacultyguidelines.pdf)

- [University of Toronto](#)
- [Wilfred Laurier University](#)
- [Harvard University](#)

[AI Observatory](#)

[Lance Eaton's Syllabus Collection](#)

# Focus on the student experience



<https://unsplash.com/photos/-2vD8lIhdnw>

- This will allow you to take a more holistic view and avoid the 5 pathologies
- Will help you focus on solving real problems
- Focus on efficiency & learning

# Do pilots, but measure impact & learn

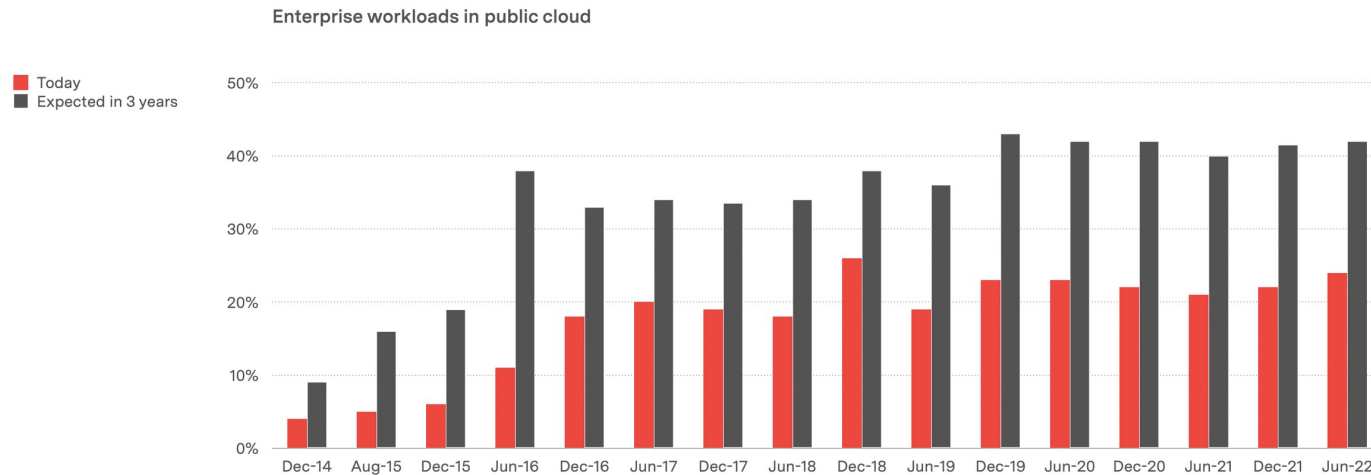
- Limited duration & an evaluation plan
- Think about what didn't work, and learn from that
- Vendors are going to disappear, plan accordingly



# Parting thought: Remember, you are in it for the long haul

## The future can take a long time

The cloud might seem like an old and boring idea, but it's still only a quarter of enterprise workloads



Source: Goldman Sachs CIO Survey

Benedict Evans -- February 2023 73



# Phil Hill & Associates

We partner with higher ed institutions, organizations, and companies on all things educational technology. From understanding the most effective uses of EdTech to addressing strategic and mission-related questions — we want to help you make the best decisions possible.

<https://philhillaa.com/>

[phil@philhillaa.com](mailto:phil@philhillaa.com)  
[morgan@philhillaa.com](mailto:morgan@philhillaa.com)

# Select Bibliography

- [Problems of Scale in CUNY and Ohio ASAP Programs](#)
- [The Problem With Horse Races](#)
- [We Don't Need Vanity-Driven MOOC 4.0 Hype](#)
- [Technology Solutionism and ChatGPT](#)
- [Neil Mosley thread on video conferencing](#)
- [CheatGPT](#)