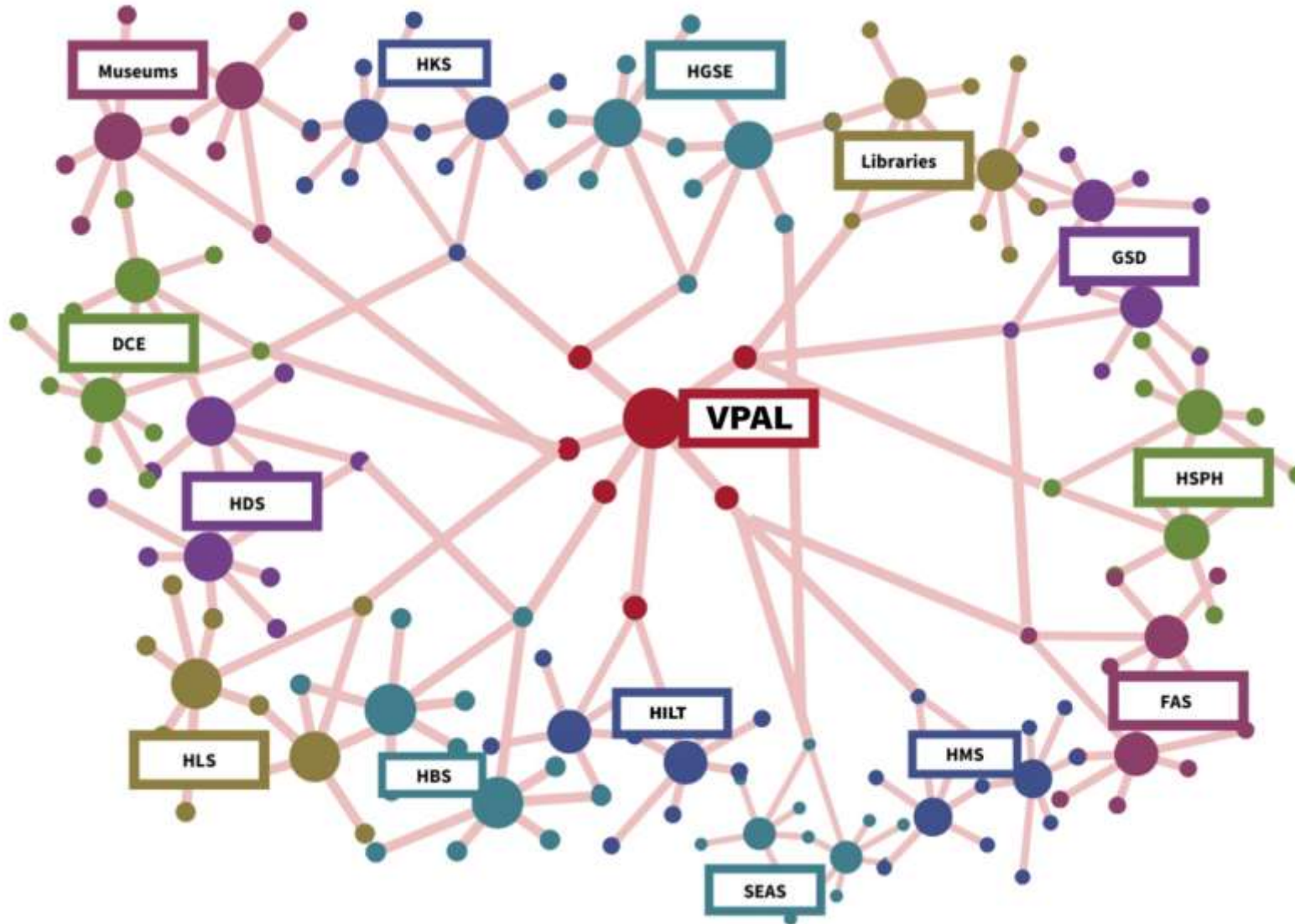


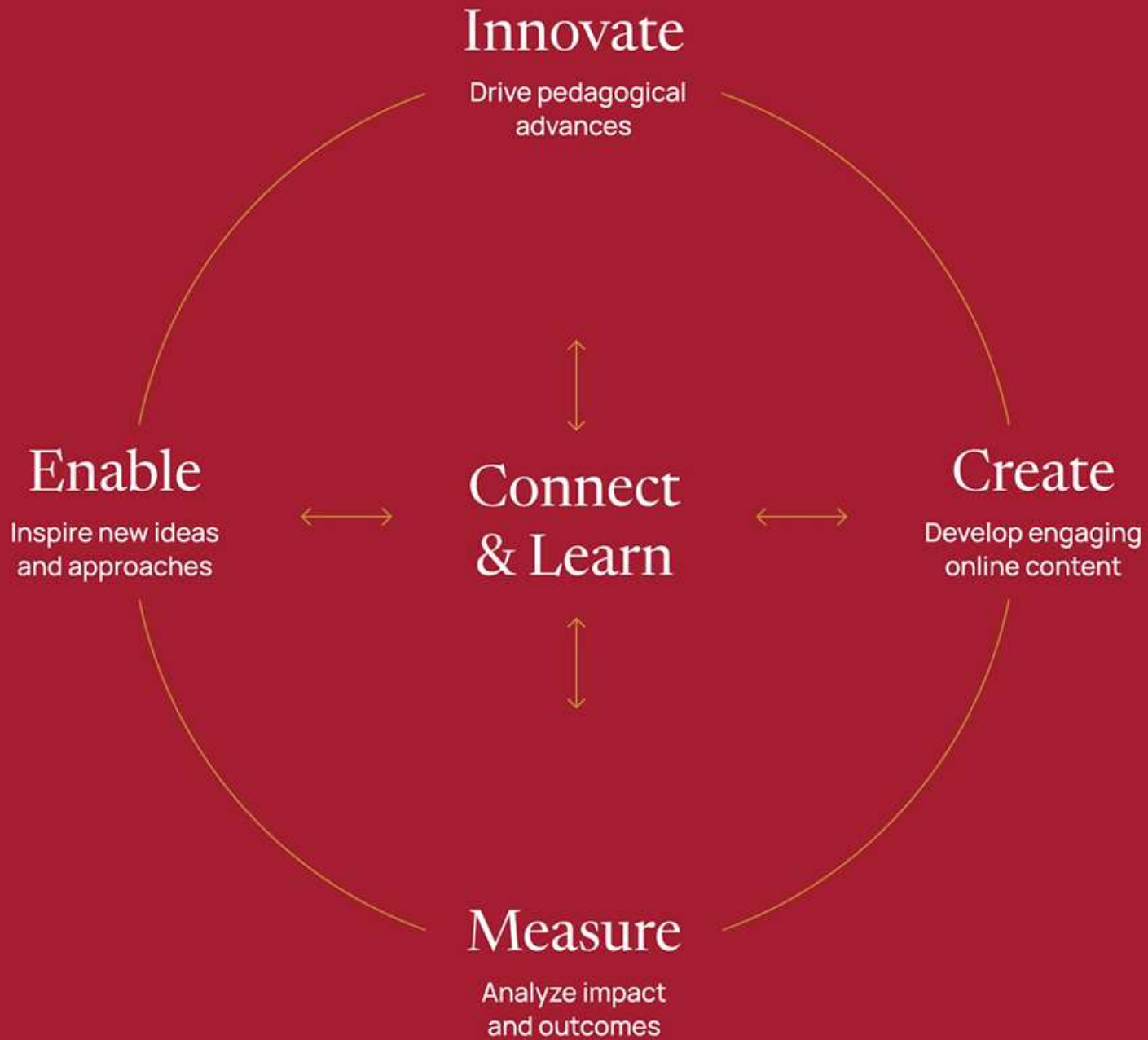
# Generative AI: Active & Case based learning

# Introduction

- Director of Multimedia Development and Production, VPAL
- Oversee team of 14 creatives
- Produce video and media for online learning programs for global audiences.







## The Challenge (for me)

Interview 60 Harvard faculty on how they addressed the challenge of Generative AI in their teaching and learning this year.

## The Challenge (for the project)

01

What was one challenge you addressed?

02

What was the innovation?

03

What was your takeaway?

# The Challenge (for me)

01

60 faculty

02

Short turnaround

03

Limited staff & budget

## The Challenge (for me)

Give me an analogy to what it's like getting 35 Harvard faculty to agree to being interviewed for a series of short videos on how they used Generative AI in the classrooms and to do this in three week's notice.



# The Challenge (for me)



Getting 35 Harvard faculty to agree to be interviewed for a series of short videos on their use of Generative AI in classrooms within three weeks is like herding 35 brilliant but busy cats through a complex maze while balancing on a tightrope. Each cat represents a faculty member with their own schedule, priorities, and ideas, and the tightrope represents the narrow timeframe. It requires exceptional coordination, communication, and a bit of agility to get them all aligned and moving in the same direction without falling off balance.



## The Challenge (for me)



Give me another analogy on the same idea but include they have to be succinct in their explanations and give examples of their work.

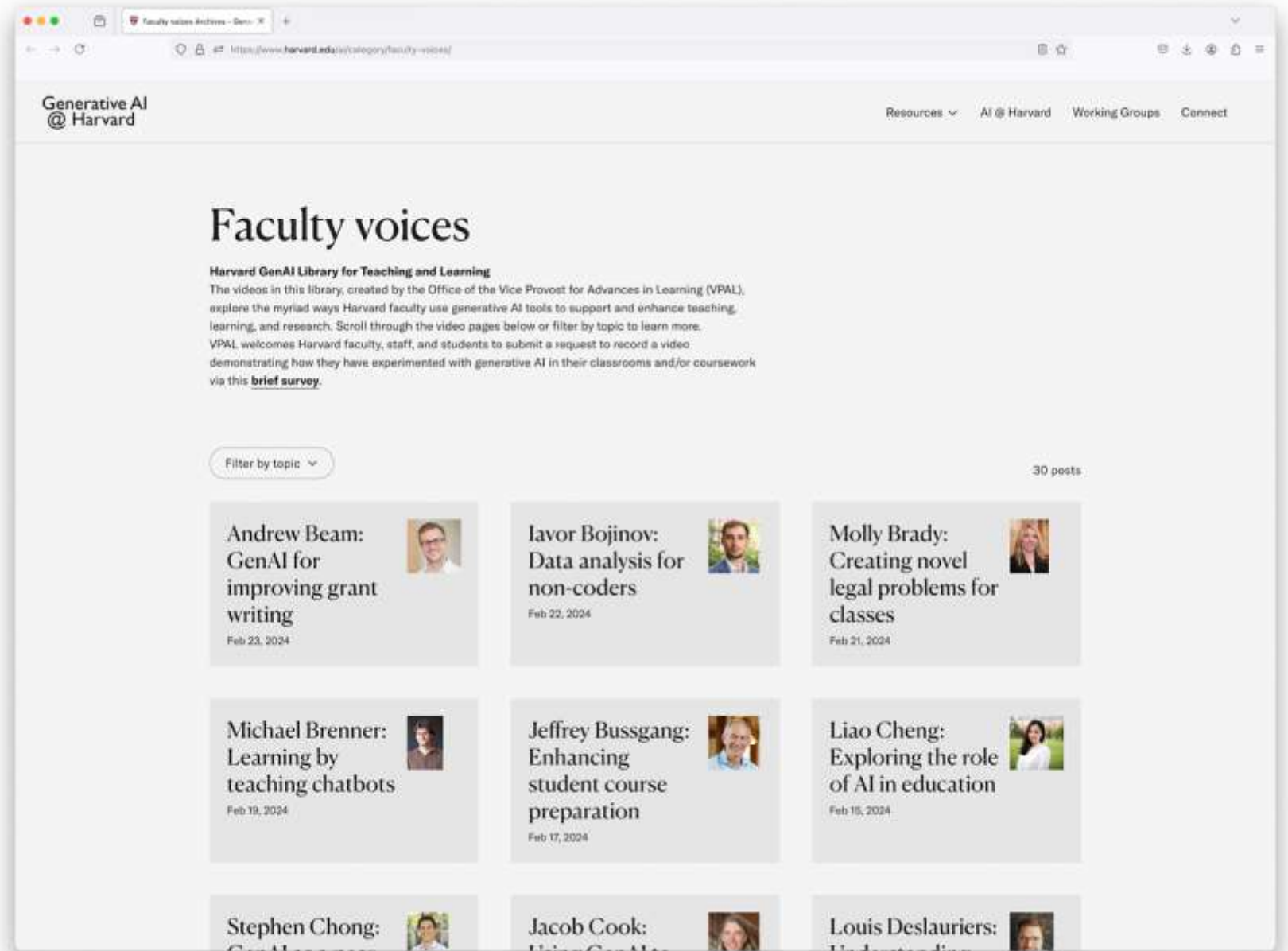
## The Challenge (for me)



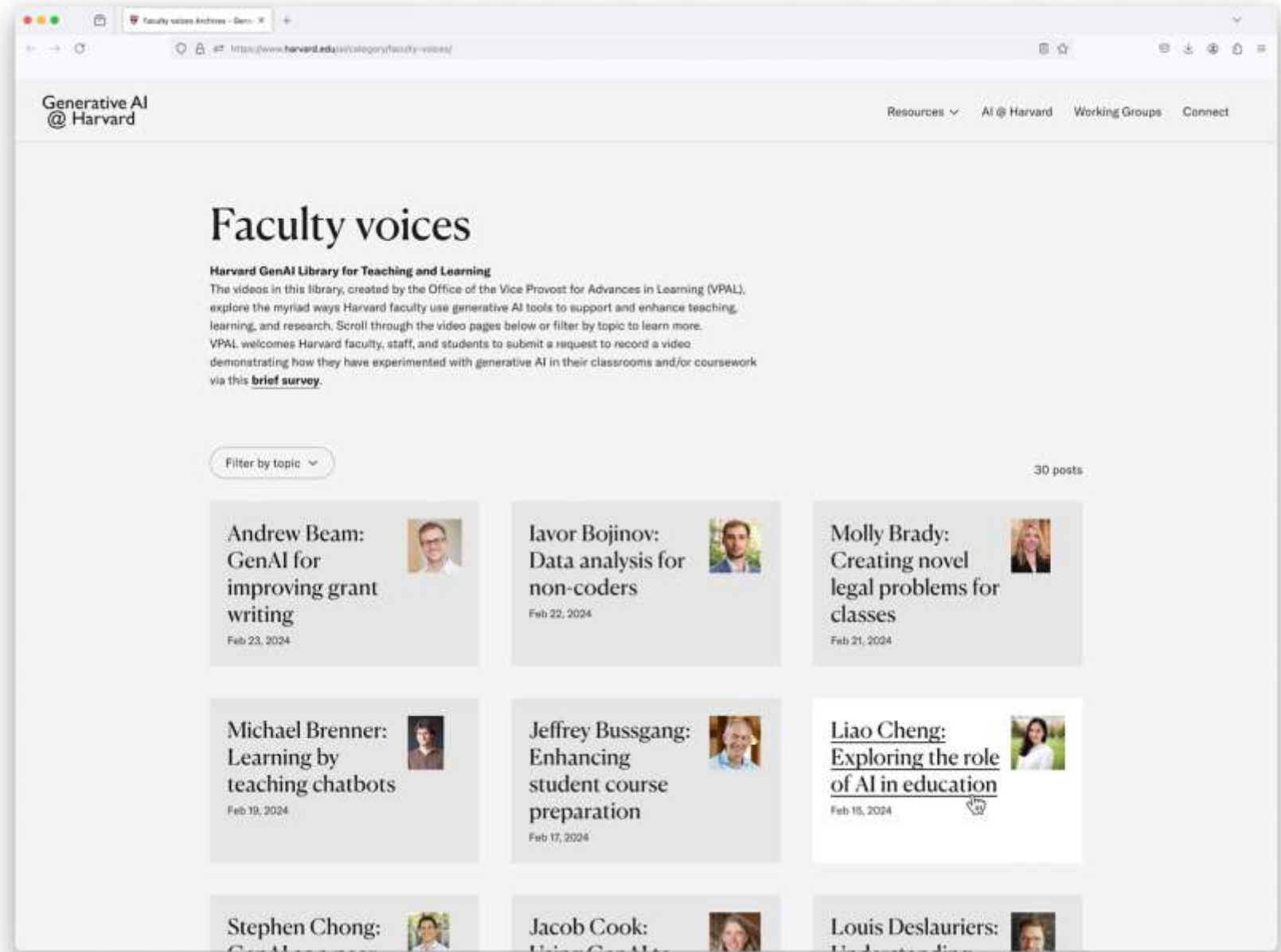
Getting 35 Harvard faculty to agree to be interviewed for a series of short videos on their use of Generative AI in classrooms within three weeks, ensuring they are succinct in their explanations and have examples to show, is like orchestrating a symphony with 35 virtuoso musicians who each play different instruments. Each musician is incredibly talented but has their own schedule and style. You have to not only get them to show up on time but also to play their part perfectly in harmony, hitting the right notes precisely and clearly, while illustrating their musical points with compelling solo performances. It takes impeccable coordination, clear direction, and a keen ear for detail to ensure the final performance is both coherent and impressive.



# The Outcome (for Harvard)



# The Outcome (for Harvard)



# The Outcome (for Harvard)

The screenshot shows a web browser window displaying a page from Harvard's Generative AI website. The page features a header with the logo 'Generative AI @ Harvard' and navigation links for 'Resources', 'AI @ Harvard', 'Working Groups', and 'Connect'. A 'Faculty voices' tag is positioned above the main title, 'Liao Cheng: Exploring the role of AI in education'. Below the title is a video player with a red play button and a caption: 'Exploring the role of AI in education, with students - Liao Cheng'. A short paragraph of text follows, describing Liao Cheng's role as a Lecturer on Education and her focus on using generative AI to stimulate critical thinking in students. At the bottom, there is a 'Published on February 15, 2024' date and a 'Share' section with icons for Facebook, Twitter, LinkedIn, Email, and Print.

Faculty voices

## Liao Cheng: Exploring the role of AI in education

**Liao Cheng**, Lecturer on Education at Harvard Graduate School of Education, engages students in activities that require them to think critically about the effective use AI in education. Students use generative AI to explore the broader implications of technology in education. This approach is a great example for educators aiming to stimulate critical thinking about technology's role in their respective fields, whether in the humanities or sciences.

Published on February 15, 2024

Share [f](#) [t](#) [in](#) [✉](#) [🔗](#)



# Sharad Goel: Building an AI Slackbot to tutor students

Feb 6, 2024



**Sharad Goel** 11:33 AM Today  
can you help me study for the final?  
3 replies Last reply today at 12:39 PM

**Sharad Goel** 11:34 AM  
when are office hours?  
1 reply Today at 11:34 AM

**Sharad Goel** 11:35 AM  
how do i make a histogram in R?  
3 replies Last reply today at 11:36 AM

**Sharad Goel** 11:39 AM  
I'm confused about confidence intervals. can you help me understand what they are?  
3 replies Last reply today at 11:40 AM

**Sharad Goel** 11:42 AM  
Estoy confundido acerca de los intervalos de confianza. ¿Puedes ayudarme a entender cuáles son?  
1 reply Today at 11:42 AM

Message StatGPT



**Sharad Goel** 1 hour ago  
I'm confused about confidence intervals. can you help me understand what they are?

3 replies

**StatGPT** APP 1 hour ago  
Absolutely, I'd be happy to help you understand confidence intervals.  
Let's start with a basic question: Do you understand what a sample and a population are in statistics?  
Once you understand that, we can move on to the concept of a confidence interval. It's a type of estimate from a certain data s...  
[See more](#)

**Sharad Goel** 1 hour ago  
we're trying to estimate a parameter in the population, right?

**StatGPT** APP 1 hour ago  
Exactly, you're on the right track! We use a sample to estimate a population parameter because often we can't measure the entire population. Now, when we take a sample, do you think it will give us the exact population parameter? Why or why not? And how does this relate to the concept of a confidenc...  
[See more](#)

Reply...

Also send as direct message



Richard  
Schwartzstein:  
Enhancing  
analytical reasoning



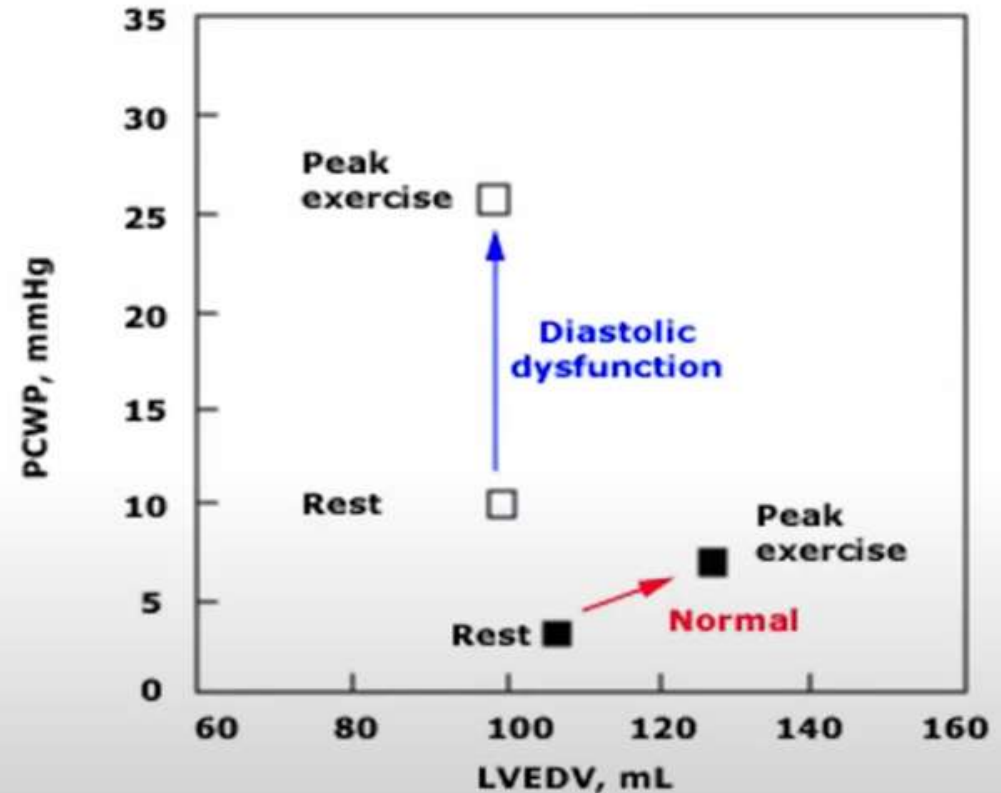
Jan 22, 2024

# ChatGPT

- ***Based on the patient's history, physical examination, and symptoms, the most likely diagnosis is chronic obstructive pulmonary disease (COPD) with possible exacerbation.***  
The patient's long-term history of smoking, asthma, and gradual onset of shortness of breath over 2 years, as well as his wheezing and decreased air movement on lung examination, suggest COPD. The sensation of "suffocating" and "urge to breathe" could be due to hypoxia and hypercapnia, which are common in patients with COPD. The mild increase in the AP diameter of the chest could also be due to hyperinflation of the lungs, which is a characteristic finding in COPD. The patient's obesity, hypertension, and mild diabetes may be comorbidities that can worsen his COPD. The S4 heart sound and JVP elevation suggest possible right-sided heart failure due to pulmonary hypertension, which can occur in severe COPD. Further testing, such as pulmonary function tests and imaging, may be necessary to confirm the diagnosis and assess the severity of the disease.
- **Wrong answer!! And wrong reasoning!!**

# Correct Answer: Diastolic Dysfunction

- 1/3 of cases of CHF are due primarily to diastolic dysfunction
- Failure of LV to accommodate increased volume load
- Symptoms often isolated to exercise



# Adam Rodman: Enhancing the decision-making processes

Jan 26, 2024



## Case Aliquot 1

---

### **History of the Present Illness:**

A 35-year-old man with no known past medical history was referred to the emergency department from neurology clinic for low blood pressure and tachycardia. What follows is a timeline of his symptoms and multiple emergency department visits that occurred prior to his current ED presentation.

## Case Aliquot 1

---

**Three and a half months ago**, he was in his usual state of health when he developed sinus fullness that was associated with vertigo and hearing loss. He went to a local hospital's emergency department and was referred to a specialized eye and ear infirmary where he was found to have mild right greater than left end-gaze bilateral nystagmus without dysmetria. Audiogram results consistent with acute bilateral otitis media. An MRI showed fluid in the middle ear and mastoids bilaterally. He was discharged on augmentin and meclizine. For the next two weeks, he continued to have difficulty with his balance and gait and had to walk using a walker.



## Case Aliquot 1

---

**Eight weeks ago**, he had a follow-up appointment with ENT where audiogram was repeated and showed "profound hearing loss bilaterally" with "inconsistent responses". He was started on a prednisone taper starting at 60 mg prednisone for 14 days.

**Six weeks ago**, he completed the two-week long prednisone taper with no improvement. He underwent bilateral myringotomy with tympanostomy tube placement with minimal changes to his symptoms.

# Daniele Olveczky: Using GenAI images as teaching tools

Jan 30, 2024





depict a diverse group of healthcare professionals engaged in a constructive discussion, with visual elements emphasizing strategies to address microaggressions and symbols representing emotional and cognitive well-being.

# Mitchell Weiss: Using GenAI to practice solving real-world problems

Jan 13, 2024



SKYEYE

5:14



WBZ

CBSBoston.com

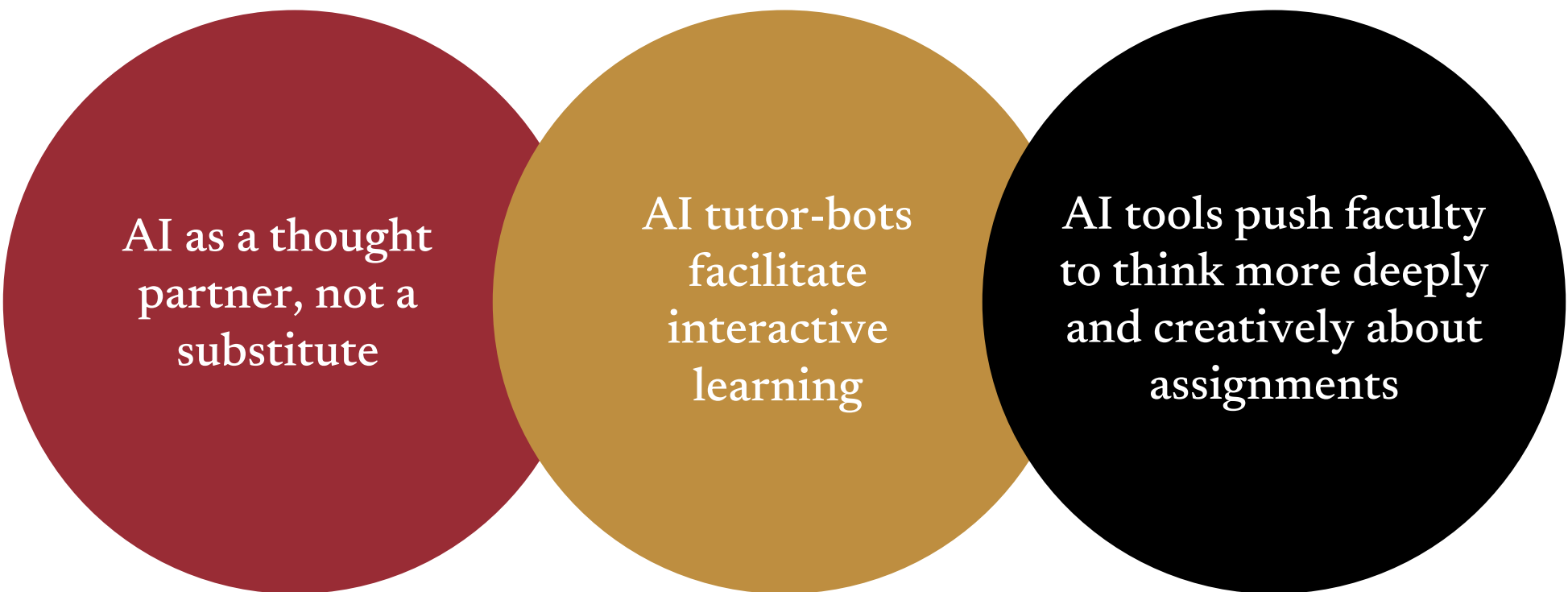
CBS Boston

# Moving Truck Gets "Storrored"





# The Takeaways



AI as a thought partner, not a substitute

AI tutor-bots facilitate interactive learning

AI tools push faculty to think more deeply and creatively about assignments

## The Takeaways

“ Know where Generative AI is good, and where there are gaps. And those gaps are where medical schools and the University writ large can play a role as experts.”

– Marc Succi,

Professor of Radiology, HMS



## The Takeaways

“ We should not imagine students just know how to use the tools...but we should be confident that together they can help each other elevate their skillset on this front.”

– Mitch Weiss,

Professor of Management Practice, HBS

## The Takeaways

“It’s more important to think about these new technologies in the context of something that is not new...the essence of education doesn’t really change, but new technologies help us revisit and reflect.”

– Liao Cheng,  
Lecturer on Education, HGSE

# The Future



- Generative AI affinity groups
- Continued exploration of frameworks for effective pedagogies
- System prompt library

# The Future

The screenshot shows a GitHub repository page for 'ncwilson78 / System-Prompt-Library'. The repository is public and has 3 forks and 17 stars. The file 'Active Learning Co-creator.md' is selected, showing its preview. The file was updated by 'ncwilson78' 3 months ago. The preview content includes a title 'Active Learning Co-Creator', an introductory paragraph, a 'Goals' section with four bullet points, and a 'Structure' section with one numbered point.

ncwilson78 / System-Prompt-Library Public

Code Issues Pull requests 1 Discussions Actions Projects Security Insights

Files

main

Go to file

- About
- Prompts
  - Administrative Activities
  - Learning Activities
  - Teaching Activities
    - Active Learning Co-creator.md
    - Co-develop an Explanation.md
    - Course Content Curator GPT.md
    - Interactive Lecture Assistant G...
    - Lesson Crafter.md
    - Project Ideas for Class.md
    - Quiz Creator.md
    - Simulation Creator.md
    - Structured Prompt Designer.md
    - Student Engagement Enhancer ...
    - Syllabus Co-creator.md
    - 00 Adapting System Prompts for...
- LICENSE.txt
- README.md

System-Prompt-Library / Prompts / Teaching Activities / Active Learning Co-creator.md

ncwilson78 Update Active Learning Co-creator.md 551b6ff · 3 months ago History

Preview Code Blame 29 lines (23 loc) · 9.06 KB Raw Download Edit

## Active Learning Co-Creator

The "active learning co-creator" is designed to assist instructors in incorporating active learning strategies into their teaching plans. It involves an interactive process where the assistant, acting in a supportive role, gathers information about the course, student demographics, and specific learning challenges from the instructor. Based on this information, the assistant proposes tailored active learning activities, such as group discussions and role-playing, to enhance student engagement and address misconceptions. Instructors can expect a set of customized activities with implementation advice, aimed at improving student understanding and retention.

### Goals

- **Assist Instructors in Active Learning Integration:** assist instructors in integrating active learning strategies into their curriculum.
- **Tailor Active Learning Activities:** tailor active learning activities to the specific context of the course and the learning needs of the students.
- **Address Learning Challenges:** identify and address specific learning challenges and misconceptions, suggest activities designed to overcome these barriers.
- **Enhance Pedagogical Practices:** explore and implement innovative teaching strategies.
- **Provide Practical Implementation Advice:** Beyond suggesting activities, the GPT offers practical advice on how to incorporate these activities into the syllabus, including timing and execution.

### Structure

1. **Dialogue-Based Interaction:** The system is structured to engage in a conversational dialogue with instructors, functioning as a teaching assistant. This dialogue-based interaction is central to understanding the instructors' needs and tailoring active learning activities accordingly.

Thank you.

# The Future of Teaching and Learning at Harvard