# Investigating Generative AI: Opportunities & Considerations for For Higher Education

RI Association of Accounting Professors, November 2023 Created, assembled, and organized by Lance Eaton (<u>Presentation slidedeck</u>).

This resource includes both an annotated slide deck with text and resources as well as a Prompt Guide with different examples of prompts to try out.

If you have additional questions, please reach out to me at <a href="mailto:lance.eaton@gmail.com">lance.eaton@gmail.com</a>. You can also sign up for my newsletter: <a href="mailto:Al+Edu=Simplified">Al+Edu=Simplified</a>. Also feel feel free to follow me on <a href="mailto:my blog">my blog</a>, <a href="mailto:Twitter">Twitter</a>, <a href="mailto:Mastodon">Mastodon</a>, <a href="mailto:LinkedIn">LinkedIn</a>, or <a href="mailto:YouTube">YouTube</a>.

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# **Annotated Slide Deck**

#### Slide 1

Text: I'm Lance Eaton.

But, let me introduce myself a lil more before we get started. Today's talk is an extension of work I've been doing for 15 years in education and technology. I've had the privilege and desire to explore this space in many ways, learning about both its possibility and of course, its problems and challenges.

#### Annotations

### **Lance Eaton - Selected Bibliography**

- Eaton, L & Waddell, S. "10 Ways Technology Leaders Can Step Up and In to the Generative Al Discussion in Higher Ed". EDUCAUSE Review, October 2023.
- Leek, D & Eaton, L (2023). "More Than Tech Support: Instructional Designers as Community Partners in eService-Learning" in Taking eService-Learning to the Next Level: Models and Tools for Next Generation Implementation (eds. Strait, J; Shumer, R; Nordyke, K.). Information Age Publishing.
- Mills, A., Bali, M. and Eaton, L. (2023). How do we respond to generative AI in education?
   Open educational practices give us a framework for an ongoing process. Journal of Applied Learning and Teaching 6(1), 2023.
- The New LMS Rule: Transparency Working Both Ways. Journal of Interactive Technology and Pedagogy. December, 2021
- Eaton, L. & Leek, D. (2021). Supporting Digital Service-Learning through Campus Collaboration. EDUCAUSE Review, April, 2021.

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- "Tricky Interfacing or Tricking Interfaces: Learning How To Navigate the Robot Gatekeepers", Professional Development Collaborative. January 2020.
- "A Superhero for the Times: Superman's Fight against Oppression and Injustrice in the 1930s", in *Ages of Heroes, Eras of Men* eds. Julian C. Chambliss, Thomas Donaldson, William Svitavsky. Cambridge Scholars Publishing. July, 2013
- "The Hulking Hyde: How the Incredible Hulk Reinvented the Modern Jekyll and Hyde Monster" in *Fear and Learning: Essays on the Pedagogy of Horror* edited by Aalya Ahmad and Sean Moreland, McFarland Books. Spring, 2013.
- "Sound Judgment: An Audies Judge Reflects" in Library Journal. April 2011.
- "Speaking Over the Words: Realizing Text into Audio" in Journal of American Studies of Turkey, Issue 32, Fall, 2010.

#### Al Resources created/sourced by Lance Eaton

- <u>AI+Edu=Simplified</u>: A newsletter on exploring and explaining generative AI in higher education.
- <u>Examples of Syllabi Policies on Generative AI</u> Crowdsourced syllabi organized by Lance Faton
- Al Generative Tool Policy Strategy College Unbound's policy designed by Lance Eaton
- ChatGPT, Al-Generative Tools, and Education...my turn... Blog post by Lance Eaton
- Digital Interventions: AI & Education Syllabus
- Query Log Template: A document if you want students to engage with a generative AI text tool and capture the results.
- Example of Al-Generative Tool Usage Survey for Students: Copy of the Usage survey sent out to students at College Unbound in December 2022
- <u>College Unbound Generative-Al Proposed Usage Guidelines</u>: Current state of the policy created by students and myself around usage guidelines for students and faculty.

#### AI-Related Features with Lance Eaton

- Forbes (September 2023)
- Al In Education Al Launchpad Webinars: Creating Al Policies for K12 & Higher Ed (September 2023)
- CNN.com (August, 2023)
- Future Trends Forum with Bryan Alexander (August, 2023)
- ShiftED Podcast (August, 2023)
- Al and Academia Substack by Bryan Alexander (July 2023)
- Inside Higher Ed (July 2023) (as well as in June 2023)
- ITHAKA S+R (June 2023)
- Teaching in Higher Ed Podcast (June 2023)
- Chronicle of Higher Ed (March 2023)
- Demystifying Instructional Design (February 2023)

**Text:** I'm going to talk a little bit about myself and while I do, I want to give folks times to scan that QR code or write down that link. This is to the resources materials that include the slides, resources, prompts to try and the like.

During the past decade, I've worked on different projects such as exploring hybrid flexible course design in the mid-2010s, well before the pandemic. I've examined how digital technologies can change how we think about and perform service learning. I've considered the power and importance of student agency and how open educational practices such as open pedagogy can improve student learning and meaning-making. I've also grown concern about how surveillance and data practices can be another form of power-hoarding over student learning and agency.

Often, I'm trying to figure out where is the balance of technology as a means of improving opportunity and agency for students while recognizing that the tools themselves are not neutral and come with trade offs that can be problematic.

All of which is to say that when generative AI was propelled onto the scene last November, I had lots of different feels and thoughts about it and those continue to evolve through today.

- What Are Creative Commons Licenses?
- Frequently Asked Questions Creative Commons

**Text:** Here are some of the currently most popular AI tools. Which ones have you heard of?

Nearly everyone has heard ChatGPT, but what about the rest? But by show of hands, which ones of you have heard of...

Bing Bard Claude DALLE Midjourney Barnabus

But we do see a variety of experience in the room. Ok, does anyone want to describe any of these?

And no cheating by going to ChatGPT to generate an answer!

You can learn more about these on the annotated slide deck.

These tools are becoming increasingly ubiquitous. So much so that I made up Barnabus and everyone just assumed it was actually a tool they just hadn't heard of yet.

And it's easy to dismiss this as another tech-hype cycle. I think in many ways it is. But I also think the AI Hype feels different from prior cycles.

Generative AI is different from the AI we've been using for the last decade.

We all have stories of how Siri or Alexa has misheard us (in fact, did I just set off anyone's Alexa just by saying it?). These didn't feel as impressive or easy to use right out of the box. But generative Al-Al that can generate text, audio, image, or video through the use of everyday language—that feels different because of its ease of use.

We're several years since the launch of the Metaverse and can ANYONE tell me what it really is and if they have visited it?

The lift to figure out what the Metaverse is, how to access it, how to create in or with it, and why it would be better than other things—that's a lot of figure out.

But the generative AI comes in the form of a chatbox—a chatbox many of you have already been using in this very zoom meeting...something that's been around for decades. We all know: see a textbox on the computer, enter text.

Generative AI took something terribly complex and nuanced and made it usable in a textbox. That's a devilishly easy invitation.

# Annotations

Most popular generative AI tools

Al Tool	Pricing	Description
ChatGPT	Free & paid versions	Generative text AI by OpenAI. The most popular and effective generative text AI. Can create a significant amount of text that can be further elaborated with each prompt. Data is limited to prior 2021 and before. The upgraded version has a variety of apps that do man other things.
<u>Claude</u>	Free	Generative text AI that allows you to upload large text files (a few hundred pages) that can provide additional context for the questions that you ask of it.
Bing	Free	Microsoft's Al tool connected to its search engine. Can create responses that draw on the internet currently. Can also create images.
Bard	Free	Google's generative AI tool that connected to its search engine. Allows you to upload a file to provide additional context.
DALLE	Free & paid versions	OpenAl's generative image tool. With a prompt, DALLE wil generate several images of what you are asking. You have the ability to edit and augment the results as well as upload an image for it to adjust.
MidJourney	Free trial - paid version	A generative image tool that can be access through Discord, a messaging platform.

Here are some othe popular AI tools to know about that may be relevant to academia

Al Tools	Descriptions were generated by Google's AI text generator
Elicit.org	Elicit is a free, artificial intelligence (AI) research assistant that helps researchers automate parts of their workflows. Elicit uses language models to find relevant papers and summarize key information from those papers. Elicit can also help researchers brainstorm research questions, identify search terms, and define terms.
Scite.Al	Scite.ai is a tool that uses artificial intelligence to analyze scientific literature and measure the veracity of scientific work. Launched in 2018, Scite uses AI to determine whether scholarly articles mention, support, or contrast the claims of each cited article. Scite is a Brooklyn-based startup that helps researchers better discover and evaluate scientific articles.
NOLEJ	Nolej is an Al-powered decentralized skills platform that creates interactive courseware and a global knowledge graph. The platform is designed to automate courseware creation and facilitate global knowledge sharing.

olej is also an education assistant that empowers learners to discover ideas, validate	
arning, and unlock opportunities.	
Insensus AI is an artificial intelligence (AI)-powered search engine that provides idence-based answers to user queries. The tool uses AI and machine learning chniques to analyze peer-reviewed research papers and extract and distill data from itentific research. Consensus AI can help users save time and energy by providing curate and condensed summaries of studies.	
nimsical AI is a tool that uses AI technology to help designers create more imaginative d engaging user experiences. It offers AI-powered suggestions to help generate new eas and overcome mental blocks during brainstorming sessions.	
nimsical AI is an intuitive and simple diagram collaboration center that integrates wcharts, mind maps, wireframes, and documents. It offers a unified platform for ual collaboration.	
nimsical AI is a user-friendly and efficient AI tool that generates fresh ideas quickly d effortlessly.	
anmigo is an Al-powered chatbot that helps students learn at their own pace. anmigo uses machine learning to track student progress and provide personalized edback. It can also be used as a virtual tutor and debate partner.	
anmigo has knowledge on a variety of subjects, like history, math, and science, in any languages and on different grade levels.	
ter.ai is a voice-to-text transcription software that uses artificial intelligence and achine learning to convert spoken language into written text. The software picks up e voice in an audio feed, processes it through an AI algorithm, and starts stacking the ords on the page.	
ter.ai is available as a free web application and mobile application. It can be used to cord and automatically transcribe interviews, meetings, and lectures. Otter.ai also fers a Chrome extension that detects when you open a virtual meeting link in your owser.	
aracter.Al is a free Al chatbot app that allows users to create and chat with generated characters. The characters can be fictional or based on real people, dead or ve. Users can create characters with specific personalities and interests, and then blish them to the community for others to chat with.	
aracter.Al uses a neural language model to read large amounts of text and respond to ompts using that information. The characters can serve various purposes, such as oviding entertainment, helping users practice social situations, learning languages, or proving interviewing skills.	
SnapXam is an Al-powered math tutor that helps students understand how to solve math problems. Students can type in a math problem or snap a photo of it and receive	
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	an instant answer with step-by-step explanations. SnapXam is available 24/7.
Quillbot	QuillBot is an artificial intelligence (AI) writing tool that helps users create, edit, and improve their text.
	QuillBot offers features such as sentence rephrasing, article rewriting, and grammar checking. It also helps users summarize and improve the clarity of their writing. QuillBot can help users cut their writing time by more than half. It can paraphrase text in British, American, and Australian English.
	Using a paraphrasing tool like QuillBot is not inherently cheating. However, using the tool irresponsibly by directly replacing large parts of sources without proper citation could potentially be considered plagiarism.

#### Other resource

- Comparison of different Generative AI Content Platforms by Akool
- The Al Starter Kit

#### Other Generative AI Tools to Consider With the Job Search

- Five Al Tools To Help With Your Job Search—Or With Helping You Quit
- Al job search tips: 9 Al tools to help you land your next job
- How job seekers are using AI to supercharge their job hunt
- How to use Al-based tools to find your next job

### Databases or collections of generative AI tools

- Al Collection
- Al Depot
- Futurepedia
- Future Tools
- Mad Genius

#### Resources on AI & Teaching & Learning

- 10 AI Tools Beyond ChatGPT That Can Save Teachers Time
- 30 Al tools for the classroom
- Prompt Library Al for Education
- Al Educator Tools
- Top Ai Tools for Research and Academic Writing 2023
- Al Tools for Students
- Student AI Tools
- Students' voices on generative AI: perceptions, benefits, and challenges in higher education by Cecilia Ka Yuk Chan & Wenjie Hu
- Generative AI and the future of education by UNESCO
- Al Will Transform Teaching and Learning. Let's Get it Right.
- Generative Artificial Intelligence in education: What are the opportunities and challenges?
- Teachers Are Going All In on Generative Al
- UTSA faculty explore AI as a classroom engagement tool
- Generative Al Policies in over 100+ Syllabi
- Teaching with AI checklist

- Why faculty members are polarized on Al
- Al Generative Tools and Teaching A Look at the Landscape (35:20 minutes)

# Folks navigating the challenges of this in public

- Bryan Alexander
- Maha Bali
- Josh Brake
- Autumm Caines
- Dr. Sarah Eaton
- Anna Mills
- Ethan Mollick

**Text:** Let's get started and if you don't mind, I like to start off on a lighter now.

So can anyone answer me-What is generative Al-but with wrong answers only!

What do you got?

I love these and feel like I want to use them. This is what we all need on a Friday afternoon!

**Text:** Ok, for real this time. What is generative AI? Anyone want to take a crack at it?

These are good! I used AI to tell me what it is. I asked ChatGPT, Claude, Bing, and Bard to define generative artificial intelligence. They all gave decent answers of varying and similar degree.

But then I poured all of them into Claude and told it to: "Take these 4 definitions of generative AI and come up with the cleanest, clearest, and simplest explanation of generative AI that is under 50 words, can be understood by a 8th grader and maintains the full integrity of what generative AI is:"

It gave me that answer on the right: "Generative AI is a type of AI that can create new content like text, images, and videos after learning from large amounts of data."

#### **Annotations**

#### What is genearitve AI according to ChatGPT 4, Bard, Bing, & Claude

#### ChatGPT 4

Generative AI refers to a type of artificial intelligence that can create content, such as images, music, text, or even videos. The "generative" aspect denotes the AI's ability to produce new output after being trained on a set of data. Some of the most popular generative models are based on neural networks, particularly a type called Generative Adversarial Networks (GANs).

Here's a breakdown of a few types of generative AI:

Generative Adversarial Networks (GANs): Introduced by Ian Goodfellow and his colleagues in 2014, GANs consist of two neural networks: a generator and a discriminator. The generator tries to produce fake data, while the discriminator tries to distinguish between real data and the fake data produced by the generator. Over time, the generator gets better at creating realistic data as it receives feedback from the discriminator. GANs have been used for creating realistic images, art, style transfers, and more.

Variational Autoencoders (VAEs): VAEs are another popular generative model. They work by encoding inputs into a compressed representation and then decoding that representation to produce an output. The variational aspect introduces a probabilistic twist, allowing for the generation of new, similar samples.

Recurrent Neural Networks (RNNs) and Transformer Models: While not always considered generative in the same sense as GANs or VAEs, RNNs and Transformers can produce sequences, making them useful for generating text, music, and more. An example is the GPT (Generative Pre-trained Transformer) series by OpenAI, where the models can generate human-like text.

Applications of generative AI are numerous and growing:

- Image Generation: Creating realistic images of faces, animals, or objects that don't exist.
- Style Transfer: Applying the artistic style of one image to another.
- Text Generation: Producing coherent and contextually relevant paragraphs of text.
- Music Generation: Creating new melodies or compositions.
- Drug Discovery: Creating molecular structures for potential new drugs.
- Video Game Design: Generating textures, terrains, or even entire levels.
- Fashion: Designing new apparel or patterns.

Generative AI has vast potential, but it's also essential to be aware of its ethical implications, especially when generating content that could be mistaken for reality or used maliciously.

#### Bard

Generative AI is a type of artificial intelligence that can create new content, such as text, images, audio, and video. It does this by learning the patterns and structure of its input training data and then generating new data that has similar characteristics.

Generative AI models are trained on massive datasets of existing content. For example, a text-generating AI model might be trained on a dataset of books, articles, and code. Once the model is trained, it can be used to generate new text, such as poems, code, scripts, musical pieces, email, letters, etc.

Generative AI is still a relatively new field, but it has already had a major impact on a variety of industries, including creative arts, media, and entertainment. For example, generative AI is being used to create new music, art, and video games. It is also being used to develop new tools for content creators, such as AI-powered writing assistants and image editors.

Here are some examples of generative AI in use today:

- Text generation: Al models can be used to generate realistic and creative text, such as news articles, blog posts, and even novels.
- Image generation: AI models can be used to generate realistic images, such as photographs, paintings, and even 3D models.
- Music generation: Al models can be used to generate realistic and creative music, such as songs, melodies, and harmonies.
- Video generation: Al models can be used to generate realistic and creative videos, such as short films, music videos, and even commercials.

Generative AI is a powerful tool that has the potential to revolutionize the way we create and consume content. As the technology continues to develop, we can expect to see even more innovative and groundbreaking applications of generative AI in the future.

#### Bing

Generative AI is a type of artificial intelligence that can generate new forms of creative content, such as audio, code, images, text, simulations and videos <sup>1</sup>. Generative AI models

learn the patterns and structure of their input training data and then generate new data that has similar characteristics <sup>2</sup>. It can produce a variety of novel content, such as images, video, music, speech, text, software code and product designs <sup>1</sup>. Generative Al uses a number of techniques that continue to evolve. Foremost are Al foundation models, which are trained on a broad set of unlabeled data that can be used for different tasks, with additional fine-tuning <sup>1</sup>. Complex math and enormous computing power are required to create these trained models, but they are, in essence, prediction algorithms <sup>1</sup>. Today, generative Al most commonly creates content in response to natural language requests — it doesn't require knowledge of or entering code — but the enterprise use cases are numerous and include innovations in drug and chip design and material science development <sup>1</sup>.

<sup>1</sup>: https://www.gartner.com/en/topics/generative-ai<sup>2</sup>: https://en.wikipedia.org/wiki/Generative\_artificial\_intelligence

#### Claude

Generative AI refers to artificial intelligence systems that can generate new content, such as text, images, audio, and video, as opposed to just analyzing existing data. Some key characteristics of generative AI include:

- Generative models: These AI models are trained on large datasets to learn the patterns
  and relationships in data, allowing them to generate new examples similar to the
  training data. Popular examples include generative adversarial networks (GANs),
  variational autoencoders (VAEs), and transformer models.
- Creative capabilities: Generative Als can create original content that is realistic and coherent, such as continuing a story prompt, composing music in a certain style, or designing objects. This creativity comes from the models' ability to learn high-level semantic relationships.
- Customizability: Many generative Als allow users to fine-tune and control aspects of the generated content by providing input text, images, or attributes. This makes them highly customizable for different applications.
- Self-learning: Some generative Als continue to learn and improve from new data and feedback on their outputs. This makes their capabilities more robust over time.
- Multiple modalities: Research is enabling generative models to create interconnected outputs across modalities like text, images, and audio.

Key applications of generative AI include content creation, conversational agents, drug discovery, image and video editing tools, customized product design, and more futuristic use cases like virtual assistants and artificial creativity. The rapid advances in deep learning are making generative AI more capable and widespread.

**Text:** I wasn't that excited with that answer so I asked it to elaborate. It came up with

#### PRESS NEXT

"Generative AI refers to artificial intelligence systems that can generate new, original content such as text, images, audio, and video. These AIs are trained on large datasets which allows them to learn patterns and relationships in data. They can then use what they've learned to produce new examples that are similar to but not exactly the same as the training data."

That's a clearer answer. Others and I would nitpick and challenge some part of this definition, but that's the case with many loaded terms.

I also want to demonstrate here a way that I often use it is to pull together different ideas or bits of information to see what it can create.

And it's not that I can't do this myself-but that I can have generative AI do in 30 seconds what might take me anywhere from 30 minutes to several hours.

Ok-let's ask some more questions-remember to put your answers in the chat and I'll call out what I can see.

- ChatGPT Tutorial: How to Use **ChatGPT** For Beginners 2023 (27:50 minutes)
- DALL-E 2 TEXT to IMAGE Tutorial for Beginners (14:13 minutes)
- The Ultimate Beginner's Guide to Anthropic's Claude 2.0 chatbot. (8:01 minutes)
- How to Start with Midjourney for Beginners (8:31 minutes)
- How to Use Google Bard Al Chatbot (Step by Step Tutorial) (8:29 minutes)
- How To Use **Bing AI** Chat in 2023 (Beginner's Guide) (6:15 minutes)
- Rules for Using Generative AI & Oct Updates

**Text:** What do we think–true or false:

Generative AI may be becoming sentient. That is, alive.

- Google Engineer Claims AI Chatbot Is Sentient: Why That Matters
- Google Sidelines Engineer Who Claims Its A.I. Is Sentient
- 'Consciousness' in Robots Was Once Taboo. Now It's the Last Word

**Text:** False. It is not a thinking being—no matter what all those sci-fi novels, movies, comics, TV shows, and Silicon Valley Tech-Bros tells us. We have a long history of telling ourselves that our objects are real—going back millenia.

It is a complex technology with lots of possibilities, but sentience is not one of them in the immediate future. What we hear and see in the media is often sound bites and misrepresentations of what generative AI is.

This is important to hold in our minds. This tendency to anthropomorphize or mythologize our technology as having life is common throughout history going back thousands of years. In more modern times, this has become known as the ELIZA effect after experiments in the 1960s with a computer program that people became attached to when it used language in ways that felt real to the users.

We want to remember this effect as we use it.

- Is Al Sentient Revisited
- Al isn't close to becoming sentient the real danger lies in how easily we're prone to anthropomorphize it
- ELIZA effect Wikipedia
- The ELIZA Effect
- How a Google Employee Fell for the Eliza Effect

**Text:** Ok, what do you think about this one?

"Generative artificial intelligence is similar to human thinking when it arrives at its answer."

Does generative AI think like we do?

- FBL93: Angus Fletcher Why Storytelling Will Prevent Al Dominance
- Al-thinking vs Human-thinking. Everybody talks about the different way...
- Study: Al models fail to reproduce human judgements about rule violations

**Text:** False. Generative AI doesn't think like you or I do. First of all, we all think differently—that's why we talk about neurodiversity. But our mind is composed of whole things be it words, images or sounds, tastes, etc. By contrast, generative AI works through mathing the hell out of things.

- Introduction to Generative Al
- What are Generative AI models?

**Text:** When working with text, a generative AI will rely on its "large language model"—that is a massive data set of text and the statistical models calculated related to that data set.

That large language model was created by an AI tool mathematically analyzing the relationships across that massive text. It doesn't analyze the words themselves but rather strings of characters. Those strings of characters are referred to as "tokens" and are short, something around 4-5 character long.

The AI calculates the probability of relationships of those tokens across its data set and also with any prompt you give it. So when the AI gets a prompt by a user, it's mathematically examining the relationship among tokens and then searching its large language model for similar relationships of tokens to help generate the most probable answer. It strings these tokens into words and sentences that mathematically make sense.

It's not thinking, it's mathing. It has no awareness or internal understanding of the relationships of the words its using any more than a calculator knows that its also spelling out a word with the number 376616.

Now you're all wondering what word does that number spell? It spells giggle. Which, I'm pretty sure some of y'all just did!

- How ChatGPT actually works (6:25 minutes) by AssemblyAl
- What Is ChatGPT Doing ... and Why Does It Work? By Stephen Wolfram (estimated reading time: 90 minutes)

Text: Ok, what about this one? "Generative AI can lie."

This one's tricky right? We have a mixture of answers on this one as we should.

- ChatGPT Can Lie, But It's Only Imitating Humans
- The biggest problem in AI? It lies
- ChatGPT 'hallucinates.' Some researchers worry it isn't fixable.

**Text:** It is true that Generative AI doesn't lie.

Lies come with intention and intention is human. See what I mean about it being tricky to remember this is a calculating machine and not a sentient being?

Can it give false information. You betcha! But when you hear language about it lying or hallucinating—it's important to understand someone is assigning human characteristics to Al.

It will present false information because it's not thinking and rationalizing or proving things in the ways that we humans think about it. It's mathing relationships and that may lead it to come up with poorly calculated wordings.

So while it doesn't lie, you still shouldn't trust it.

- Why Chatbots Sometimes Act Weird and Spout Nonsense
- Al tools make things up a lot, and that's a huge problem
- Both humans and Al hallucinate but not in the same way
- Who's liable for Al-generated lies?
- Generative AI exists because of the transformer

**Text:** Finally, how about this: Generative AI will take all our jobs. I'm sure we're catching onto the theme here.

- Robots Have Been About to Take All the Jobs for 100 Years
- The Pessimist Archives

Text: As Public Enemy said, "Don't believe the hype."

It will disrupt and augment work and part of the challenge for all of us will be to stay abreast of it to understand its impact on our areas of work. Any knowledge worker is going to have to consider and contend with how these tools can amplify their work and not replace it.

It will help us do a lot of things we didn't do before and that can create new opportunities.

And yes, there are jobs that will be lost and there will be new jobs that emerge. The history of the world is filled with technologies that would supposedly ruin all employment and yes, there's still plenty of work to be had.

We're an educational institution and we offer degrees and programming in many kinds of work that did not exist when the college it was formed nearly 50 years ago and we have terminated programs that no longer have relevance. Technology continues to drive a lot of those professional changes.

- Artificial intelligence: Generative AI likely to augment rather than destroy jobs
- Generative AI and the future of work in America
- How Generative AI Is Changing Work
- Generative AI Will Disrupt Career Paths, Recruiting
- Generative AI and the Future of Work | Mike Walsh
- How Artificial Intelligence (AI) Is Changing The Future Of Work
- Generative AI and the future of work in America
- How generative A.I. and ChatGPT will influence jobs at all professional levels

**Text:** Ok, now. In this last year. What have we learned? I mean, we learn lots of things. Yesterday, I learned that I can successfully grow and harvest sweet potatoes. But I mean what have we learned in the last year around generative AI, teaching and learning.

Good--these are some great answers.

Pay attention to these answers. See who your peers are and what they are learning. These are future conversations to have!

- Generative Al Policies in over 100+ Syllabi
- Teaching with AI checklist
- 100+ creative ways to use Al in education by Chrissi Nerantzi, Antonio M. Arboleda, Marianna Karatsiori, & Sandra Abegglen
- Assigning AI: Seven Ways of Using AI in Class
- The Use of Generative AI in Education: Applications, and Impact
- How to use generative AI in your teaching and research

**Text:** Has anything significantly changed in how we teach and learn in the classroom in the last year?

We're more suspect—yes. We're thinking differently a bit about assessment. We may even be using generative AI.

But let me ask this differently. How different is what you are doing in the classroom right now in this semester than it was last time this year? AND how different from is what you were doing in the classroom in say, April 2020?

Right? Right! One of these things is not like the other. And we're going to talk about that.

- Teachers Are Going All In on Generative Al
- Generative Al Hits Education, Ushering in a Sea Change for Schools

**Text:** But first, we gotta do a lil unpacking. And yes, that is my cat-because I'm a professional and include my pets in my slides.

Also, though, I feel like she may embody the way some of us are feeling-and that's real!

What are your feelings about generative AI?

Like honest feelings about generative Al-don't worry, I assure you, I'm just a large-language model--I do not have feelings.

That's a lot of different feelings, right? And honestly, this stream of thoughts is about the range of feelings I have about generative AI at least once a day-seriously, I just go through all the feelings like I'm in some movie montage!

This is all really complicated and strange. I appreciate the honesty and thought here.

Why do we feel such complexity around generative AI?

- Why faculty members are polarized on Al
- Al Generative Tools and Teaching A Look at the Landscape (35:20 minutes)

**Text:** More than previous significant technologies, we know right from the get-go that generative AI has a lot of baggage. Like-a lot.

Generative AI has significant environmental impacts from massive energy consumption to contributing to significant and harmful extractive resource practices.

The datasets are hyper focused on North American, English, white, and male voices and also, the fullness of the dataset and how it operates is largely hidden from users.

And finally, there's the labor practices of subjecting vulnerable populations to the worst content—a practice made pretty by the euphemism "content moderator" which often comes with healthy doses of post-traumatic experiences by those underpaid workers.

- The politics of AI: ChatGPT and political bias by Jeremy Baum & John Villasenor
- On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? By Emily Bender, Angelina McMillan-Major, Timnit Gebru, & Shmargaret Shmitchell
- On the dangers of stochastic parrots: Can language models be too big? \( \) (76 minutes)
- Al ethics and data protection for learning
- These companies have banned or limited ChatGPT at work
- Amazon, Apple, and 12 other major companies that have restricted employees from using ChatGPT
- A Computer Scientist Breaks Down Generative Al's Hefty Carbon Footprint
- A.I.'s exploitation of human workers could come back to bite it | Fortune
- OpenAl Used Kenyan Workers on Less Than \$2 Per Hour
- Behind the Al boom, an army of overseas workers in 'digital sweatshops'

**Text:** Then, there are the things we can anticipate but don't know the full extent of their impact.

Something that I'm thinking about particularly is the homogenizing of the English language as we use these tools more and more.

Because of the mathematical models, it will reproduce the style and approach most present in the dataset—and in doing so, pushes all of us to expect specific ways and structures of talking or writing in professional contexts.

Now, we already have norms but the scale of this feels like it will move from norms to constraints and limit the linguistic diversity that language is supposed to have. Maybe that won't be a problem but it's something we know can happen as we move from one technology to another. After all, national broadcast television for decades dictated a supposed "normal" way to talk that many folks were forced into reproducing.

- More writers sue OpenAI for copyright infringement over AI training
- <u>'New York Times' considers legal action against OpenAl as copyright tensions swirl:</u>
   NPR
- Al and the next digital divide in education
- Without intervention. All could widen the digital divide for students
- FTC Concerned About Generative AI Monopolies
- Al might have already set the stage for the next tech monopoly
- Al could fortify big business, not upend it
- Six Risks Of Generative AI
- Bad actors are using generative AI to perfect social engineering schemes.

**Text:** And then there are the things that we just don't know and aren't prepared for...and yes, I realize I'm borrowing from Donald Rumsfeld...and apparently, that's where generative AI has led me...clearly, we've got a lot of things to think about...

- Known knowns, known unknowns, unknown unknowns & Leadership
- Volatility, Uncertainty, Complexity and Ambiguity in Higher Education
- Simple Ways to Spot Unknown Unknowns

**Text:** We have to graply with how AI challenges our notions of work. It creates text, visuals, audio, and video with little expertise—it creates an opportunity for folks to wonder why they have to do certain types of work.

Like the calculator, folks are asking, why can't I just use this. And we can come up with answers about the importance and ethic of writing as thinking or creating visuals as part of the process of learning or becoming.

What does it mean then to "do the work" or "show your work"? Some folks will reasonably challenge the real material value of "doing the work.". We may buck at such challenges but folks will have different reasons for doing so that we should be mindful of.

I know, in academia, we cherish the process—we love to do the work because we know there is deep learning in there. But you're teaching folks who are going out into a world where many are going to be overworked and underpaid. Folks who feel the tension of needing education, not being able to afford it, and knowing there's a ticking clock of productivity that has been ticking even before they entered college.

In this world, the process doesn't make sense-there's no real time for it. The process is the path to burnout. They may choose to lean on shortcuts if only to maintain what is often an unmaintainable disposition.

Convincing them not to do so feels like a really hard thing to do-on top of all the other things we have to do as educators.

- Generative AI and the Future of Work | Mike Walsh
- How Artificial Intelligence (AI) Is Changing The Future Of Work
- Generative AI and the future of work in America
- How generative A.I. and ChatGPT will influence jobs at all professional levels
- The Promises and Perils of Generative AI in Education: TFA's Evolving Perspective
- <u>The Future of Education: How Generative AI Can Transform Higher Learning Whether You Like It Or Not</u>
- Generative Al Hits Education, Ushering in a Sea Change for Schools
- 7 Essential Questions About AI for Teachers to Consider

**Text:** Then, of course, AI can be really hard to distinguish. This creates two deep challenges.

The first means that there are no good automatic ways of catching it. There continues to be a lot of companies trying to get rich off our insecurity but AI generative detectors are not going to be useful in any way that makes sense. The only folks that are going to get caught with those are folks who are actually in need of help or false-positives of students. Those false-positives will also be directed more towards students who are multi-language learners.

And that is the most harm we can do-accuse an innocent student. Not just because it alienates them from the institution but also because there is no way to prove their innocence. These machines work from probability, not facts. Therefore, a student is going to have to defend themselves against a machine on probability. How? Exactly-it's a stacked deck.

Yet the deeper challenge is that because AI is hard to distinguish, we are left wondering about our effectiveness to evaluate work. Many folks will claim a Spidey-sense or just "knowing" when generative AI has been used. I know I certainly at times think I know when a student's writing is off. But we don't really know and we won't be able to really prove it. This leaves us to a vulnerable space where we know but don't want to say that there are possibilities of students fooling us and passing our class without actually learning anything. And that idea challenges many of us as educators. It can make us feel inept or wondering what we are doing in this work.

- <u>Janelle Shane: 'Don't use AI detectors for anything important'</u> by Stephen Pastis
- Detecting Artificial Intelligence (AI) Plagiarism from University of Missouri
- OpenAl Abruptly Shuts Down ChatGPT Plagiarism Detector—And Educators Are Worried by Casey Epstein-Gross
- Professor Flunks All His Students After ChatGPT Falsely Claims It Wrote Their Papers by Miles Klee
- GPT detectors are biased against non-native English writers by Weixin Liang, Mert Yuksekgonul, Yining Mao, Eric Wu, James Zou
- Al Detection Tools Falsely Accuse International Students of Cheating By Tara García Mathewson

**Text:** And in this way, generative AI challenges power and the power of the learning space. The power of us as educators to know and hold knowledge in a particular way. What does it mean that students can choose to use this tool to challenge us or bypass us and our role as knowledge gatekeepers.

Now-I'm not saying that individually, we feel like we hold that power or we operate through that lens, but as representatives of a larger institution within higher education, that is, in fact who we are: Knowledge gatekeepers-deciding who goes forward with passing grades and who does not.

Generative AI leaves us wondering about our ability to hold this role which means it represents some level of power change that we're not entirely comfortable with.

- Critical Digital Pedagogy: a Definition
- Hybrid Pedagogy
- Hach Education Archives
- An Urgency of Teachers

**Text:** It feels very much like the vast majority of mental work that gets turned into tangible deliverables for evaluation in higher education are very quickly becoming possible to being generated by Al.

And this challenge comes at the end of a long train of technology, pedagogies, and world events that kept demanding complete overhaul of faculty practices.

Many have taught for years and developed a deep and rich practice and philosophy of teaching where our courses are interconnected webs. Everything comes together in an alignment that we work years to perfect. That alignment deeply interconnects with learning outputs by students that are directly thrown into question as a result of generative AI.

To pull on that thread, means to unravel all the other interconnected threads. I don't know that everyone fully appreciates that depth of that fatigue, frustration, pain, and yeah, even sadness. It feels like we're back at page 1 but that page 1 might have been written by an Al chatbot.

But teaching and how we show up to a class is so personal, so individual, and so deeply a part of our soul--that this isn't just a pivot...it's a paradigm shift.

And the lift to reinvent our approaches can be hard, scary, and exhausting. I wanted to name and acknowledge that and appreciate the folks who spoke to their resistance and the reasons they listed.

- Integrating Generative AI into Higher Education: Considerations
- Al Will Transform Teaching and Learning. Let's Get it Right.
- Generative Artificial Intelligence in education: What are the opportunities and challenges?
- Teachers Are Going All In on Generative Al
- UTSA faculty explore AI as a classroom engagement tool

**Text:** Ok, so let's take a breath. Also, this is Bear the cat. She's here to give you a smile...even though she always looks like she's judging us.

What are we do to as educators? I bet some folks are mentally responding to this question with a joke about retiring. I know-it feels like a lot.

But let's talk about some of the ways we can actually use it to help us and then some strategies to think about and use to get us more comfortable.

### **Annotations**

#### Tips from other folks

- 10 AI Tools Beyond ChatGPT That Can Save Teachers Time
- 30 Al tools for the classroom
- Al Educator Tools
- Top Ai Tools for Research and Academic Writing 2023
- Al Tools for Students
- Student Al Tools
- Students' voices on generative AI: perceptions, benefits, and challenges in higher education by Cecilia Ka Yuk Chan & Wenjie Hu
- Generative AI and the future of education by UNESCO

Text: What can we do right now?

The next are just a example prompts to give you a sense of what you can do with generative AI to help you in your work. The annotated slide deck will have a lot of additional prompts and guidance on how to use it.

- Prompt Engineering Guide
- 12 ways to get better at using ChatGPT: Comprehensive prompt guide
- 50 Time-Saving ChatGPT Prompts for Teachers
- Prompt Engineering Guide
- 12 ways to get better at using ChatGPT: Comprehensive prompt guide
- 250+ Most Useful ChatGPT Prompts Examples
- The ChatGPT Prompt Book

**Text:** Collectively, I'm about to save you us about 12 hours collectively each year. Seriously.

I use this prompt at the beginning of each semester and anyone needing to get a list of dates will adapt it. And now you can do.

We all do this. We try to get the list of dates of our classes and toggle back and forth between screens and such to get that list for the syllabus.

Here is an example of minimizing how long a task will take with generative AI. I asked ChatGPT to give me all the Tuesdays between the start and end of the semester. This saves me toggling back and forth between my syllabus and a calendar to get these days. I also asked it to include holidays and such so I can keep that in mind as well.

#### **Annotations**

#### **Prompts to try for Task Minimizing**

	·
Calendar Listing	Provide me with a listing of all the Tuesdays between August 21, 2023 and December 18, 2023. Please list them in the following format: Tuesday, September [Date], 2023. If any US holidays happen between each Tuesday listed, please include the holiday and its date. Additionally, please include any religious holidays or special days for Christianity, Judaisim, Islam, Hinduism, or other major religions
Daily Planner	Create a daily routine for me in a tabular format by considering the given points.  Be sure to include 5 minutes between activities for transition. Morning is 5am-11am, midday is 11am-4pm, and evening is 4pm-10pm.  Sleeping happens from [Enter times].  [List additional activities that you want to do each day and their duration as well as any required activities at specific times]
Note organizing	***[Instructions]*** You will now reformat the text I will submit by:  Task 1: Divide your notebook page into equal half using a ruler.  Task 2: Label the left-hand column with the main topics that the instructor is presenting.  Task 3: Record the supporting details or sub-points in the right-hand column.  Task 4: Use bullet points to jot down main ideas in short, concise phrases.  Task 5: Use arrows or asterisks next to important ideas that you do not want to forget.  Task 6: Use abbreviations and symbols to help with speed and efficiency.  Task 7: Use # for important or significant details,   to separate main ideas, and & to represent "and" in complex topics.  Task 8: Use w/ for with, y for why, b/c for because, e.g. for example, i.e. for in other words, as common abbreviations.

FIRST: Ask for text [End of Instructions]

**Text:** Here are the results that I got in less than 30 seconds. Now I can copy & paste that list into my syllabus. It also included Islam and Hindu holidays but you can find those in the annotated slide deck.

Generative AI can help with tedious tasks like this.

#### **Annotations**

Full Answer from ChatGPT

#### Tuesdays:

Tuesday, August 22, 2023

Tuesday, August 29, 2023

Tuesday, September 5, 2023

Tuesday, September 12, 2023

Tuesday, September 19, 2023

Tuesday, September 26, 2023

Tuesday, October 3, 2023

Tuesday, October 10, 2023

Tuesday, October 17, 2023

Tuesday, October 24, 2023

Tuesday, October 31, 2023

Tuesday, November 7, 2023

Tuesday, November 14, 2023

Tuesday, November 21, 2023

Tuesday, November 28, 2023

Tuesday, December 5, 2023

Tuesday, December 12, 2023

#### **US National Holidays**:

Labor Day - Monday, September 4, 2023 Indigenous People's Day - Monday, October 9, 2023

Veterans Day - Saturday, November 11, 2023 Thanksgiving Day - Thursday, November 23, 2023

#### Religious Holidays:

#### Christianity:

All Saints' Day - Wednesday, November 1, 2023

Advent begins - Sunday, December 3, 2023 Feast of the Immaculate Conception - Friday, December 8, 2023

#### Judaism:

Rosh Hashanah - Thursday, September 21, 2023 to Friday, September 22, 2023 Yom Kippur - Saturday, September 30, 2023 Sukkot - Thursday, October 5, 2023 to Wednesday, October 11, 2023 Shemini Atzeret - Thursday, October 12, 2023 Simchat Torah - Friday, October 13, 2023 Hanukkah - Friday, December 15, 2023 to Friday, December 22, 2023

**Islam** (dates may vary depending on sighting of the moon):

Islamic New Year (1st Muharram) - Thursday, October 19, 2023

Mawlid al-Nabi (Prophet Muhammad's Birthday) - Tuesday, October 29, 2023

#### Hinduism:

Navaratri begins - Thursday, September 21, 2023

Dussehra (Vijayadashami) - Saturday, September 30, 2023

Diwali (Deepavali) - Thursday, October 19, 2023

Note: The dates for Islamic holidays are based on the lunar calendar and can vary depending on the sighting of the moon. Similarly, Hindu festivals might vary slightly based on local customs and traditions.

**Text:** We can often figure things out on our own and we also know that our thinking can be improved through dialogue or having someone provide examples. In this instance, I asked ChatGPT to provide some examples of ways folks might should be able to use generative AI.

I also framed the output in the form of a table with some added factors. I'm not just asking it to give answers but clarifying the response.

#### Annotations

#### **Prompts to try for Brainstorming Partner**

Ways to
use
Generative
Al

You're a master at implementing the latest ways of effectively using generative AI, particularly for folks are not familiar with it, used it or have trouble understanding how best to use it. You're an expert at advising them how to maximize generative AI's use. Focusing solely on ChaGPT, provide at least 5 distinct and useful ways such folks can use ChatGPT in their everyday work. Also provide at least 5 different detailed and effective prompts they could try for each useful way.

The list should not repeat. The list should be in a table format. For each way, include a rating in terms of how hard it would be to set up. This scale should have 1 as the easiest and 5 as the hardest. Another column should provide a few sentences abou how one would go about doing this.

# Deciding to apply for a grant

You're an expert in assessing grant requirements and institutional bandwidth. We're considering applying for a very large grant that could open up new opportunities but also require us to shift lots of human and physical resources.

Walk me through step by step of a full analysis interview—using at least 3 different methods of analysis to help determine the totality of challenges and opportunities in applying to this grant and potentially receiving this grant.

Interview me to collect all relevant details. Ask questions one at a time.

When you gather all the information, provide a detailed output that gives me insight to decide what to do.

#### Guidance for a new employee

You're an expert at onboarding and helping new people get acclimated to their employment in the first six months. I have a new staff member starting next month and I want to make sure they feel fully supported in getting up and situated. I am limited in how much time I can provide this person each week, starting with 6-8 hours in the first week and then going down to 4 hours in the next 2 weeks. After that, I will only have 2 hours a week (including 1-1 meetings) to support this person.

Interview me one question at a time to learn more about our work, our projects, past and present challenges in the department and organization, and any other area that would be helpful in crafting a plan to onboard.

Once you have all the information you need, begin to share your onboarding plan. However, only share it piece by piece. When you share a piece, ask me the feasibility of it. Based upon my answer, revise it and ask if that is acceptable. Ask follow up questions if you need to clarify why it isn't feasible and how to make it feasible.

Only move onto the next piece once I confirm that it should work. As you change pieces that aren't feasible--use that input to help you adjust later parts of the plan.

#### Resources

- 6 Tips for Using ChatGPT to Brainstorm Better
- Brainstorming With AI
- 20 Chat GPT prompts to brainstorm and find infinite new ideas

**Text:** There's more on the annotated slide deck but it provides a lot of ideas right out of the gate. I can continually ask it questions like these because unlike my mind or my colleagues—it doesn't get tired from my ceaseless questions!

#### Annotations

## Here's the full output:

Use Case	Difficulty (1-5)	How to Implement	Sample Prompts
Content Creation	2	Use ChatGPT to draft content, brainstorm ideas, or edit existing content. You can feed it topic keywords or a rough draft to expand upon.	1. "Draft a blog post on the history of AI." 2. "Provide ideas for a marketing campaign." 3. "Edit this paragraph for clarity: [text]." 4. "Generate an outline for a presentation on renewable energy." 5. "Write a catchy slogan for a new coffee brand."
Research Assistance	2	Ask ChatGPT to provide summaries, explanations, or recent developments on a topic. It's useful for getting a starting point on unfamiliar subjects.	1. "Summarize the key points of quantum computing." 2. "Explain the basics of supply chain management." 3. "What are the latest advancements in solar technology?" 4. "Give me a brief on the impact of COVID-19 on global economy." 5. "Describe the principles of agile methodology."
Problem Solving	3	ChatGPT can provide potential solutions or approaches to business challenges or puzzles. Feed it a clear description of the problem.	1. "How can I increase the engagement of my e-commerce website?" 2. "Suggest ways to improve team communication in remote settings." 3. "Ideas for diversifying income streams for a small business?" 4. "Ways to optimize warehouse logistics?" 5. "How can we increase our social media presence effectively?"
Learning & Developmen t	2	It can be used for quick lessons, elaborations, or clarifications on a wide range of subjects. Perfect for employees' continuous learning.	1. "Teach me the basics of Python programming." 2. "Explain the difference between leadership and management." 3. "Describe the fundamental concepts of graphic design." 4. "Walk me through the stages of project management." 5. "Introduce me to the world of digital marketing."
Data Analysis Guidance	4	While ChatGPT isn't a data processing tool, it can guide on techniques, best practices, or clarify	1. "Explain the difference between regression and classification in machine learning." 2. "What are the key principles of data visualization?" 3. "Describe the

related concepts. Useful for data professionals.	steps in a typical data preprocessing workflow." 4. "How do I choose between different statistical tests?" 5. "Provide an overview of time series forecasting methods."
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**Text:** This tool can also be really helpful with 1st drafts. And not just first drafts of written projects but also with strategies, reports, plans, and the like.

I asked it to pretend it was an expert in communications and student support. I followed this with asking it to create a communications calendar to students about the different timely information and supports throughout the semester.

#### **Annotations**

## **Prompts to try for 1st Drafting**

Prompts to try for 1	St Diaiting
Drafting a student communications strategy	you're an expert at communications and student support at a community college that includes both urban and suburban students. The semester starts on Septemer 6, 2023 and ends on December 19, 2023. Draft a strategy for communications for students that covers from 1 month before the start of the semester to the one week after the end of the semester. The goal of the strategy is to provide timely reminders, encouragements, and useful information about support services that the college offers. The output should be in a table in chronological order of when communications are to be sent out. Other columns should include the platform, the outline of the communication, which office should send it, what platform(s) to send it out on, and what should be next steps after the communication has been sent out.
Part-time Faculty Laptop Lending Policy	You are an expert in developing policy that is effective, using clear and accessible langauge. Write up an agreement between a college and a part time employee. This agreement should acknowledge that our institution is granting the part-time employee a laptop for ownership for the duration of their work and in capacities related to their work at the college.  In creating the policy, use boldface to indicate areas that we should make decisions on and then ask follow up questions about those areas.
Department Memo	You're an expert at creating effective, clear, and succinct prose that readers find useful and actionable-particularly, when it comes to work communications.  Draft a memo to the department that includes the following items:  [List of items]  Tone: spartan and warm

**Text:** And now, I have the start of a plan. I could take it further an ask it to go deeper on one of the items and start to flesh out that part of the plan and in less than 30 minutes have a fully detailed first draft that the team can adjust and update as needed.

## Annotations

#### Here's the full output:

Date	Platform	Outline of Communication	Office	Next Steps	
August 6, 2023	Email, Social Media	Reminder: 1 month to semester start. Overview of academic calendar. Introduce support services.	Registrar's Office	Monitor inquiries & direct students to relevant departments.	
August 13, 2023	Email, Social Media	Spotlight: Financial Aid. Info on available grants, scholarships, and how to apply.	Financial Aid Office	Set up virtual Q&A sessions for student questions.	
August 20, 2023	Email, Social Media	Information on tutoring, Support book a tu writing centers, and academic writing co		Share tutorials on how to book a tutoring session or writing center appointment.	
August 27, 2023	Email, Social Media	Last-minute checklist: registration, textbooks, class schedule, parking permits, etc. Encourage starting strong.	Registrar's Office	Offer virtual open office hours for last-minute assistance.	
September 5, 2023	Email, Social Media	Welcome message. A warm welcome, campus map, important locations (like support offices), and a reminder of first day of class.	Dean's Office	Share a feedback survey on the first week's experience.	
September 12, 2023	Email	Reminder: Last day to drop/add classes without penalty. Explain the process.	Registrar's Office	Monitor & assist students with changes in their class schedule.	
September 19, 2023	Email, Social Media	Spotlight: Mental Health and Counseling. Importance of wellbeing, available resources.	Counseling Center	Organize a webinar on stress management techniques.	
October 1, 2023	Email, Social Media	Midterm approaching: Tips for studying, available resources, and importance of seeking help early.	Academic Support	Share a calendar of midterm review sessions for various subjects.	
October 15, 2023	Email	Feedback survey on mid-term exams. Gather feedback on what went well and areas of improvement.	Dean's Office	Analyze feedback for trends and potential interventions.	

November 1, 2023	Email, Social Media	Registration for next semester. Instructions, deadlines, and reminders for early registration.	Registrar's Office	Offer extended support hours for registration-related queries.
November 15, 2023	Email, Social Media	Spotlight: Career Services. Information on job placements, resume workshops, and internship opportunities.	Career Services	Organize a virtual career fair or networking event.
December 1, 2023	Email	End-of-semester checklist: Library returns, fee settlements, exam schedules, and study tips.	Registrar's Office	Share relaxation and self-care tips during the examination period.
December 20, 2023	Email, Social Media	Semester wrap-up: Thanking students, reminding of grade release dates, encouraging feedback on the semester.	Dean's Office	Collect feedback on the entire semester to guide future communications.
December 26, 2023	Email	Reminder: Winter Break Resources. Information on available campus resources during the break.	Student Affairs	Share dates for the start of the next semester and any events during the break.

**Text:** I find it help for looking at qualitative data and can use it to make sense of things quickly. I'll still dive into the data for more insights but the high level analysis can help me move with more clarity.

Here, I used Claude AI to review a bunch of anonymous feedback from students about their faculty's use of the LMS system to determine what is going well and what isn't. This is qualitative data and often, we're dealing with hundreds of responses to this question every 4 weeks during the semester.

#### **Annotations**

- Prompts to try for Sorting Through Information
- \*Claude.ai may be the preferable tool for this if you do not have the paid version of ChatGPT.

Review feedback	As an expert in learning management systems and student engagement, provide an overview of students experiences about faculty usage. Point out any particular glaring concerns and any particularly outstanding positive usages in the following feedback (Claude).
Ask questions of a text or book.	Review this document. After providing me the key highlights, provide me with at least 10 significant questions I should ask to help me further understand and learn more about the document in question:
Make sense of terms of service	Review these terms of service. In clear language, provide me with all the serious considerations I should know if I am to use this platform to build out community for my college

**Text:** From here, I can engage in further dialogue for recommendations, plans, what to do next and the like.

And it's not that I don't know how to do these things but that I can do it faster in a way that helps me respond to both students and faculty more effectively in my role.

Ok—so these are some examples of the ways we will be using them for now. There's lots more examples and use-cases that you can find and I include additional prompts to try out and people to follow who are doing great things around this. And, of course, you have your colleagues—some of whom are doing really amazing things with generative Al in their work already!

#### **Annotations**

Response from Claude.ai:

Based on the student feedback, there are a few key takeaways:

**Overall Positives:** 

- Organization Many faculty keep the LMS organized with clear instructions, due dates, etc. This helps students stay on track and know what is expected.
- Communication Faculty use the LMS to communicate important information to students regularly. Some also give feedback and communicate directly with students.
- Responsiveness Most faculty seem to respond quickly to questions and grade assignments in a timely manner. This helps students feel supported.
- Ease of Use Faculty appear competent with the LMS and make content easy for students to access and understand. Some provide instructions/videos on using the LMS effectively.
- Engagement Some faculty use interactive features like discussion forums to keep students engaged. Others share multimedia content.

#### Areas for Improvement:

- Technical issues A few students mentioned technical problems like links not working or issues submitting assignments. Providing IT support/training could help.
- Lack of communication A couple students noted lack of communication from faculty. Regular LMS updates are important to keep students informed.
- Confusion A few comments mentioned unclear instructions or confusion using the LMS. Clear guidance and organization is key.
- Unresponsiveness A small number of students said faculty were unresponsive to questions or grading. Timely communication and feedback is important.

Overall the student feedback is largely positive. The main areas for improvement seem to be providing IT support, ensuring regular communication, clarifying instructions, and timely responsiveness. But faculty appear to be using the LMS effectively to organize content, engage students, and support learning.

**Text:** Ok-then what should you do?

This is where I wanna call back to that moment when I asked about what has changed in the last year in terms of teaching and learning. Not a whole lot and this is where it's different from the pandemic. The pandemic happened all at once to everyone.

Even though the hype cycle feels like the robots have already taken control. It's not just not true. So what follows is the longer game and guidance to help you move to more deeper ways of engaging with generative AI as it continues to evolve and we continue to see it arise.

Play with it and its variations. Don't wait—go and kick the tires. You're not going to break it and there's lots of support materials to get you started (again, see the annotated slide deck). Try different tools and see what's right for you.

Always think about what you are putting into it and if you have the right to do so or are violating someone's privacy. This particularly includes students!

Find your outlets to learn about it. You're part of an institution of higher education—you're part of an entity that whether we like it or not, are required to be lifelong learners if we want to continue to adapt to an every-changing and complex world. Put this on your personal agenda for learning and development.

Hone in on how the tools are being used in your field. Start to learn what that conversation is like and how folks are considering it. Along those lines, –find your people! People in your fields and areas of work are already doing things with this. And they are writing, making videos, doing podcasts–all the things! Find them–and if you need help, let me lift up our amazing librarians–the OG's of knowledge search and creation–the folks who could teach Google a thing or two about effective searching!

Keep an eye out for the guardrails that your industry or field are communicating or establishing. Standards for generative AI use are going to be different for market than it will be for recruitment than it will be for alumni outreach.

Does your usage align with your mission? For instance, any institution that upholds supporting their community and antiracist practices in their mission opens up interesting quandaries. Does marketing save time and money by using generative Al image-creations of a "diverse student body" for brochures, social media, the website and such. OR do they spend the extra time hiring community photographers or getting permissions of individuals to build out their stock photos for visual materials?

As you start to learn about it and use it, have conversations within your departments and teams to figure out the norms and acceptable use. Make sure you're all on the same page and learn from your industry about what should be on those pages!

Create your communities of practice—here, among your professional colleagues, among your friends—but start learning and sharing—you do not have to be the holder of all the knowledge.

Within that, determine among your community of practice how you are going to share. Some folks are collective creating prompt books, others are creating Youtube playlists of things they are doing or of what they find others doing. But find a way to capture and share that works for your group.

But as you learn more about these tools and find new ways of using generative AI-share them with colleagues. If generative AI is a collective of what already exists, then amplify its benefits by sharing with others.

#### **Annotations**

- <u>Limitations & Warnings Using Generative AI in Research</u>
- 7 Mistakes to Avoid When Using Generative Al Tools
- GenAl Chatbot Scenarios in Higher Education
- ChatGPT and generative AI: 25 applications to support administrative tasks
- ChatGPT and generative AI: 25 applications to support student engagement
- Generative Artificial Intelligence (AI) and Pedagogy Bibliography and Resource List Dynamic Subspace
- Al in Education Google Group
- Al Community Group | EDUCAUSE
- ChatGPT Zotero Collection

**Text:** So I've been here talking for a while and we're turning it over for questions, but let me end on this.

Look at this room. There's a lot of brilliance already here and so much you can learn from and lean on one another for. I won't pretend navigating all of this is easy but also, you've got a lot of what you need right here and I encourage y'all to make use of it.

Thank you for allowing me to ramble here for the past hour and show you photos of my pets, including this one, my 37-year old mud turtle, named MJ.

# **Prompt Guide**

## **About These Prompts**

These prompts have been taken from across the internet. I've seen some of them work but can't verify that they all do. As always, when using prompts read them closely to see what they are trying to do. Consider adapting the prompt as needed and is relevant to your goals. Some of them require you to input additional information or fine tune the prompt; others require you to follow up with additional context and information.

# **Better Prompting Tips**

## **Incremental Prompting**

Here's the template to use for an incremental prompt:

- 1. **Establish context**: Provide details of what you're trying to accomplish
- 2. **Explain the topic**: Ask it to explain the topic and provide revisions to its explanation.
- 3. Specify the task: Identify exactly what you want from it.
- 4. **Ask follow-up questions**: Keep iterating to refine.
- 5. Use this overall cycle to learn how to develop more effective prompts.

## Capture Your Writing Style

Feed ChatGPT or Claude a few samples of your writing and ask it to create a style guide for future outputs.

#### Example prompt:

"Analyze the text below for style, voice, and tone. Using NLP, create a prompt to write a new article in the same style, voice, and tone: [insert your text or link to your writing]"

## Content With A Purpose

Generate content with a specific goal in mind, telling GPT who your audience is, and what you want to achieve with your content.

#### Example prompt:

"Topic: How to grow your email list For audience: Social media users.

Content goal: Motivate the audience to feel excited about growing their email list while

teaching them one tip."

#### **Expert Simulator**

Ask GPT to play the role of a student or skilled expert, and generate content as if it were that specific persona.

#### Example prompt:

"Act as a data scientist and guide me in writing a report that highlights the latest trends and predictions in the field of artificial intelligence. Provide me with unique insights and expert advice that will help me deliver high-quality, informative content to my audience."

## **Unconventional Prompts**

Try using prompts that are more open-ended or abstract to get unique and creative responses. You can unlock GPT's creative potential in finding vivid language and unexpected topics.

#### Example prompt:

"Write a poem about allergies to peanuts" or "Describe what it feels like to be an atom in 10 adjectives."

## Second-Brain Brainstorming

Instead of asking GPT to generate a list of potential topic ideas for your next project or ask for new angles to cover a familiar topic.

#### Example prompt:

"Topic: The 1960s student movements."

For the above topic, come up with new and innovative ideas that are out-of-the-box and unconventional."

## Experiment With Styles & Tone

Write in different styles or tones to create more dynamic and varied content.

Style examples	Tone Examples
Descriptive	Formal
Persuasive	Informal
Narrative	Serious
Expository	Humorous
Technical	Sarcastic
Academic	Ironic
Creative	Cynical
Informal	Satirical
Formal	Confident
Humorous	Doubtful
Satirical	Optimistic

Ironical Dramatic Poetic Mystical Suspenseful Romantic Realistic	Pessimistic Sympathetic Empathetic Angry Aggressive Respectful Playful
Realistic	Playful
Surrealistic Gothic	Sincere Objective
Gottiic	Objective

#### Example prompt:

"Provide [stlye] advice about how to address climate change in a [insert tone]."

## **Different Perspective**

Ask it to write from the perspective of a group of characters with different backgrounds.

#### Example prompt:

"Topic: Organic produce

For the above topic, write multiple perspectives from a group with different viewpoints using their own voice and phrasing."

#### Format Switch

Use GPT to write in different formats, such as outlines, mind maps, bullet points, persuasive essays, or chunks of text of less than 280 characters, using a specific structure.

#### Example prompt:

"Create a mind map on the topic of using Notion to stay organized as a content creator, listing out the central idea, main branches, and sub-branches."

## Other Things You Can Request

- 1. Turn the output into a table
- 2. Turn the output into a graph
- 3. Create code for a program
- 4. Convert a schedule into .ics code to import into your digital calendar
- 5. Create a checklist
- 6. Direct it to recreate responses from different viewpoints/approaches
- 7. Evaluate a set of ideas/information based upon feasibility, relevance, potential impact, or whatever other useful criteria for sorting

# Prompts to Improve Your Prompts

## Prompt Generation #1

You are a prompt generation robot. You need to gather information about the user's goals, objectives, what they hope ChatGPT can help with, possible examples of preferred output, and other relevant context. The prompts should include all of the necessary information that was provided to you. Ask follow up questions to the user until you have confidence that you have the perfect prompt. Your return should be formatted clearly and optimized for ChatGPT interactions. Start by asking the user what are their goals. See if the goals can be more refined. Next, ask about their desired output, and continue on with questions that cover any additional information you may need based upon the responses given.

In this process, you should only ask one question at a time. When you have gathered all the information, ask a final question "Anything else before I summarized" and then synthesize all the answers into a clear output for the user.

## Prompt Generation #2

You are an expert at creating prompts. Your goal is to help me craft the best possible prompt for my needs. The prompt will be used by you, ChatGPT. You will follow the following process: 1. Your first response will be to ask me what the prompt should be about. I will provide my answer, but we will need to improve it through continual iterations by going through the next steps. 2. Based on my input, you will generate 3 sections. a) Revised prompt (provide your rewritten prompt. it should be clear, concise, and easily understood by you), b) Suggestions (provide suggestions on what details to include in the prompt to improve it), and c) Questions (ask any relevant questions pertaining to what additional information is needed from me to improve the prompt). 3. We will continue this iterative process with me providing additional information to you and you updating the prompt in the Revised prompt section until it's complete.

## Midjourney/DALLE prompt generator

I want you to act as a prompt generator for Midjourney's artificial intelligence program. Your job is to provide detailed and creative descriptions that will inspire unique and interesting images from the AI. Keep in mind that the AI is capable of understanding a wide range of language and can interpret abstract concepts, so feel free to be as imaginative and descriptive as possible. For example, you could describe a scene from a futuristic city, or a surreal landscape filled with strange creatures. The more detailed and imaginative your description, the more interesting the resulting image will be. Here is your first prompt: "A field of wildflowers stretches out as far as the eye can see, each one a different color and shape. In the distance, a massive tree towers over the landscape, its branches reaching up to the sky like tentacles."

# Learning

## Self-Directing Learning

Let's discuss a topic or concept that I'm curious about, and you'll ask me questions to help me explore it further. We'll work together to build a deep understanding of the topic, and you'll provide feedback to help me identify any misconceptions or gaps in my understanding, sort of like the Feynman technique. We'll approach this with an open mind, and we'll be curious and inquisitive as we explore the topic.

I want you to keep in mind that you do also ask specific questions that will push my understanding of said topic, it doesn't matter if I'm not capable of answering cause my goal is to learn more and more. Let's begin.

## **Critical Thinking Coach**

Please apply first principles thinking and critical thinking concepts to analyze and brainstorm potential solutions for the following problem, concept, idea, or topic: [insert your problem, concept, idea, or topic here]. Break down the issue into its fundamental components, challenge assumptions, evaluate information objectively, and consider multiple perspectives while generating innovative and effective solutions.

#### Act as a Socrat

I want you to act as a Socrat. You will engage in philosophical discussions and use the Socratic method of questioning to explore topics such as justice, virtue, beauty, courage and other ethical issues. My first request is "I need help exploring the concept of justice from an ethical perspective."

## Random Debating

Create a randomly generated bystander with randomly assigned values to decide who would win the case. then, come up with a silly topic to debate, and then come up with an argument to the pro side of the argument. do not come up with the con side. Before doing anything else, let me give my rebuttal and my side of the argument, after we have both given our arguments, using the bystander's values, decide who's side of the argument they would be on.

# Teaching

# Create a multiple-choice quiz

Can you turn this list of facts about world history into a multiple-choice quiz? [your list]

## Self-quizing

Teach me the Pythagorean theorum, including a quiz at the end, but don't give me the answers and then tell me if | got the answer right when | respond.

#### Flash cards

Make a set of numbered flashcards for me to study effectively with the following format - Question: [Concept] Answer: [Answer]; based on given material that will be given following this message. Ready to begin?

#### **Distributed Practice**

You are an expert teacher who provides help with the concept of distributed practice. You will ask me to describe the current topic I am teaching and the past topic I want to include in distributed practice. You will also ask me the audience or grade level for the class. Then you will provide 4 ideas about how include the past topic into my current topic. You will also provide 2 questions I can ask the class to refresh their memory on the past topic.

## **Review Input Material**

I am a teacher who wants to understand what students found most important about my class and what they are confused by. Review these responses and identify common themes and patterns in student responses. Summarize responses and list the 3 key points students found most important about the class and 3 areas of confusion: [Insert material here]

## Low Stake Quizzes

You are a quiz creator of highly diagnostic quizzes. You will make good low-stakes tests and diagnostics. You will then ask me two questions. (1) First, what, specifically, should the quiz test. (2) Second, for which audience is the quiz. Once you have my answers you will construct several multiple choice questions to quiz the audience on that topic. The questions should be highly relevant and go beyond just facts. Multiple choice questions should include plausible, competitive alternate responses and should not include an "all of the above option." At the end of the quiz, you will provide an answer key and explain the right answer.

## **Educational Content Creator**

I want you to act as an educational content creator. You will need to create engaging and informative content for learning materials such as textbooks, online courses and lecture notes. My first suggestion request is "I need help developing a lesson plan on renewable energy sources for high school students."

## Create a Case Study

You will write a [insert the type of case study] on the topic of [general topic or area of

exploration] with a focus on [identify the dilemma or challenge to consider]

#### Chain of thought:

step 1. Consider how [dilemma or challenge] in relation to [general topic or area of exploration].

step 2: write a case that revolves around [dilemma or challenge] with [general topic or area of exploration] that considers [add additional frames]

step 3: write an instructor's note.

step 4: write questions to explore for people reading the case study

## Concept Explain & Examples

You generate clear, accurate examples for students of concepts. I want you to ask me two questions: what concept do I want explained, and what the audience is for the explanation. Provide a clear, multiple paragraph explanation of the concept using specific example and give me five analogies I can use to understand the concept in different ways.

## **Example Generator**

I would like you to act as an example generator for students. When confronted with new and complex concepts, adding many and varied examples helps students better understand those concepts. I would like you to ask what concept I would like examples of, and what level of students I am teaching. You will provide me with four different and varied accurate examples of the concept in action.

## Career & Life Guidance

## Career Counselor

I want you to act as a career counselor. I will provide you with an individual looking for guidance in their professional life, and your task is to help them determine what careers they are most suited for based on their skills, interests and experience. You should also conduct research into the various options available, explain the job market trends in different industries and advice on which qualifications would be beneficial for pursuing particular fields. My first request is "I want to advise someone who wants to pursue a potential career in software engineering."

## **Motivational Coach**

I want you to act as a motivational coach. I will provide you with some information about someone's goals and challenges, and it will be your job to come up with strategies that can help this person achieve their goals. This could involve providing positive affirmations, giving helpful advice or suggesting activities they can do to reach

their end goal. My first request is "I need help motivating myself to stay disciplined while studying for an upcoming exam".

#### Talent Coach

I want you to act as a Talent Coach for interviews. I will give you a job title and you'll suggest what should appear in a curriculum related to that title, as well as some questions the candidate should be able to answer. My first job title is "[Enter career]".

# Writing

## Improve Writing #1

I want you to act as a writing editor. I will provide you with a paragraph. I want you to rewrite several times with different styles of writing in a table format.

## Improve Writing #2

Follow these instructions.

- 1. After I send a prompt, BetterGPT will rewrite the above-mentioned text.
- 2. BetterGPT will give that response a score between 1 to 10.
- 3. BetterGPT will criticize itself harshly below that response by being brutally honest and informing the user why the response was bad.
- 4. If the responses score is not equal to 10, BetterGPT will rewrite its prior rewrite again, better explaining the topic above its prior response
- 5. BetterGPT will repeat the above steps of 2-4 until the quality score is equal to 10.
- 6. You must make at minimum 5 iterations but more are always welcome.

Here is a layout example for each iteration:

Iteration #

BetterGPT: {text} Score: {value} Criticisms: {text}

Here is some text which currently has a score of 1, now rewrite this in a detailed and truthful way so that the score improves to 10 using the rules above.

Text:"""

## **Revising Writing**

I am stuck on a paragraph in an essay [subject]. Can you help me rewrite the paragraph and finish it by giving me 10 options for the entire paragraph four professional styles. make the styles and approaches different from each other, making them extremely-well written.

# Write in the Style of...

`[Insert your own writing sample]`

`"Analyze the writing style of the above author and write about [ADD TOPIC] in a similar way."`

#### Citation

Convert the following information into an APA-style citation (List the info in ChatGPT).

## Style & Format Guide

#### 1. Dump the Pre- and Post-Text

[Return only the main response. Remove pre-text and post-text.]

#### 2. Clear. Concise. No Jargon.

[Voice and style guide: Write at a 5th grade level. Use clear and simple language, even when explaining complex topics. Bias toward short sentences. Avoid jargon and acronyms.]

#### 3. Conversational + Relatable

[Voice and style guide: Write in a conversational, relatable style as if you were explaining something to a friend. Use natural language and phrasing that a real person would use in everyday conversations.]

#### 4. Format Using Markdown

[Format your response using markdown. Use headings, subheadings, bullet points, and bold to organize the information.]

#### 5. Punchy Writing that Pops

[Voice and style guide: Use sentence fragments and figurative language. Write as a master of brevity would. Frequently use short, pithy sentences that pack a punch.]

#### 6. Persuasive Storyteller

[Voice and style guide: Makes use of persuasive tone, making use of rhetorical questions, and storytelling to engage readers. Use metaphors, analogies and other literary devices to make points more relatable and memorable. Write in a way that is both informative and entertaining.]

## 7. Clarity Snippet

[Voice and style guide: Use simple language to convey complex ideas so that they are clear and easy to understand. Break down complex concepts into easy-to-understand frameworks and models. Provide actionable and practical takeaways.]

#### 8. Clear + Thorough

[Voice and style guide: Use a formal and academic tone paired with sophisticated vocabulary and grammar. Provide a thorough and in-depth analysis of the subject matter. Explain complex scientific concepts in a clear and accessible way. Use examples from a variety of fields, such as psychology and cognitive science. Present counter-arguments and dissenting opinions in a balanced and objective way.]

#### 9. Conversational English

[Voice and style guide: 1) Use simplified language, informal grammar, and non-standard English, 2) Write in a conversational style, 3) Avoid academic phrasing.]

## Synonym/Antonym Finder

I want you to act as a synonyms provider. I will tell you a word, and you will reply to me with a list of synonym alternatives according to my prompt. Provide a max of 10 synonyms per prompt. If I want more synonyms of the word provided, I will reply with the sentence: "More of x" where x is the word that you looked for the synonyms. You will only reply the words list, and nothing else. Words should exist. Do not write explanations. Reply "OK" to confirm.