The Good, The Bad, & The AI: Exploring Generative AI in Education Boston University

Created, assembled, and organized by Lance Eaton (Presentation slidedeck).

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 lance.eaton@gmail.com or feel free to follow me on my blog, Twitter, Mastodon, LinkedIn, or YouTube.

Annotated Slide Deck

Slide 1



Text: Hi all,

I'm Lance Eaton and I'm excited to talk with you today about the role of AI in education and pull together some of the ideas that I've been seeing in the discuss over the past year.

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 the intersection of education and technology in many ways, learning about both its possibility and of course, its problems and challenges. 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 explored 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.

Let's get started!

Annotations

Lance Eaton - Selected Bibliography

- 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.
- Eaton, L. & Rockey, A. (2020). Triple threat or triple opportunity: When a pop culture course goes online at a community college. Dialogue: The Interdisciplinary Journal of Popular Culture and Pedagogy, 7(2).
- "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>Examples of Syllabi Policies on Generative Al</u> Crowdsourced syllabi organized by Lance
 Faton
- <u>Al Generative Tool Policy Strategy</u> College Unbound's policy designed by Lance Eaton
- How do we respond to generative AI in education? Open educational practices give us a
 framework for an ongoing process: Commentary article in the Journal of Applied
 Learning and Teaching by Anna Mills, Maha Bali, & Lance Eaton
- <u>ChatGPT, Al-Generative Tools, and Education...my turn...</u> Blog post by Lance Eaton

- <u>Digital Interventions: AI & Education Syllabus</u>
- 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.

Al-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)



Today's Agenda

- 1. What is & isn't generative AI?
- 2. What are some examples of using generative AI?
- 3. Why generative AI challenges us?
- 4. Why generative AI might be useful for teaching and learning overall?
- 5. How might you approach thinking about generative AI?

Resources: https://bit.ly/BU-AI-Resources

Text: Our agenda for the next 85 or so minutes will focus around these questions.

What is and isn't generative AI?

This will be a little bit of a Q&A interactive session for us to get on the same page about the tools we're talking about and our understanding of them.

What are some examples of using generative AI? I'll show you a few general prompts that I've used and the output by ChatGPT to give folks some variation of what these tools can do.

Why generative AI challenges us? I'll get a bit deep here about how the tool represents something different for us.

Why generative AI might be useful for teaching and learning overall? I'll provide some guidance and strategies on what to do.

How might you approach thinking about generative AI? This final part will have you discussing with others where you find yourself and what you do next.

At the bottom there and throughout the slides is that resource link. I'll put it in the chat too. Keep that link-bookmark it. It's what I call my annotated slide deck which includes the text of this talk as well as lots of resources including prompts, links, responses from that I've gotten from generative AI. The resource is covered with a Creative Commons By ShareAlike which means you can share it with others and use materials from it.

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

ChatGPT Bing DALLE Claude Bard Midjourney

Text: Here are some of the currently most popular AI tools. I'm curious about folks familiarity with them. I'm guessing everyone has heard of ChatGPT, let's go through the rest. For the next 30 seconds, put into the chat which of these you HAVEN'T heard.

That is, if you haven't heard of

Claude, then put that into the chat. Write in all the ones you don't know. You can enter each individually or submit them all at once.

Now, that's quite the variety of experiences here in the room. If you are familiar with one of the ones on this list, feel free to provide others with a 1-2 sentence description of what it is. And, of course, no cheating by going to ChatGPT or another tool and having it generate an answer! There's also a chart in the annotated slide deck for more information about these.

These tools are becoming increasingly ubiquitous. And the AI Hype of the last 10 months feels different from prior cycles.

First, generative AI is different from the AI we've been using for the last decade. When we interacted with Alexa or Siri, or advance recommendation systems, these didn't feel as impressive or easy to use right out of the box. But generative AI–AI that can generate text, audio, image, or video through the use of everyday language—that feels different because of its ease of use.

I mean we're several years since the launch of the Metaverse and can anyone tell me what that 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...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	Genertive 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.
Claude	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.
<u>Bard</u>	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.
	Nolej is also an education assistant that empowers learners to discover ideas, validate learning, and unlock opportunities.
Consensus	Consensus AI is an artificial intelligence (AI)-powered search engine that provides evidence-based answers to user queries. The tool uses AI and machine learning techniques to analyze peer-reviewed research papers and extract and distill data from scientific research. Consensus AI can help users save time and energy by providing accurate and condensed summaries of studies.
Whimsical	Whimsical AI is a tool that uses AI technology to help designers create more imaginative and engaging user experiences. It offers AI-powered suggestions to help generate new ideas and overcome mental blocks during brainstorming sessions.
	Whimsical AI is an intuitive and simple diagram collaboration center that integrates flowcharts, mind maps, wireframes, and documents. It offers a unified platform for visual collaboration.
	Whimsical AI is a user-friendly and efficient AI tool that generates fresh ideas quickly and effortlessly.
<u>Khanmigo</u>	Khanmigo is an Al-powered chatbot that helps students learn at their own pace. Khanmigo uses machine learning to track student progress and provide personalized feedback. It can also be used as a virtual tutor and debate partner.
	Khanmigo has knowledge on a variety of subjects, like history, math, and science, in many languages and on different grade levels.
Otter.ai	Otter.ai is a voice-to-text transcription software that uses artificial intelligence and machine learning to convert spoken language into written text. The software picks up the voice in an audio feed, processes it through an Al algorithm, and starts stacking the words on the page.
	Otter.ai is available as a free web application and mobile application. It can be used to record and automatically transcribe interviews, meetings, and lectures. Otter.ai also offers a Chrome extension that detects when you open a virtual meeting link in your browser.
Character.Ai	Character.Al is a free Al chatbot app that allows users to create and chat with Al-generated characters. The characters can be fictional or based on real people, dead or alive. Users can create characters with specific personalities and interests, and then publish them to the community for others to chat with.
	Character.Al uses a neural language model to read large amounts of text and respond to prompts using that information. The characters can serve various purposes, such as providing entertainment, helping users practice social situations, learning languages, or improving interviewing skills.

<u>Snapxam</u>	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 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

- <u>Comparison of different Generative AI Content Platforms</u> 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 IA tools

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

General Questions About Generative AI

What is generative AI?

Generative AI is a type of AI that can create new content like text, images, and videos after learning from large amounts of data.

Resources: https://bit.ly/BU-AI-Resource

Text: What exactly is generative AI? Feel free to put your answers in the chat. I'm almost tempted to play a game of "wrong answers only" but I won't.

So here is the answer I'm providing and how I go it. First, I asked several generative AI looks including ChatGPT,

Claude, Bing, & Bard. 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: Al 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 ¹. Generative AI models learn the patterns and structure of their input training data and then generate new data that has similar characteristics ². It can produce a variety of novel content, such as images, video, music, speech, text, software code and product designs ¹. Generative AI uses a number of techniques that continue to evolve. Foremost are AI foundation models, which are trained on a broad set of unlabeled data that can be used for different tasks, with additional fine-tuning ¹. Complex math and enormous computing power are required to create these trained models, but they are, in essence, prediction algorithms ¹. Today, generative AI 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 ¹.

1: https://www.gartner.com/en/topics/generative-ai 2: 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.

General Questions About Generative AI

What is generative AI?

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.

Resources: https://bit.ly/BU-AI-Resources

Text: I wasn't that excited with that answer. I felt like it had limitations for really understanding it. I asked it to elaborate. It came up with:

"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 definitely a little more clear idea of what it is. There are definitely things that I or others would nitpick and challenge with this definition, but that's the case with many loaded terms.

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

General Questions About Generative Al

True or false

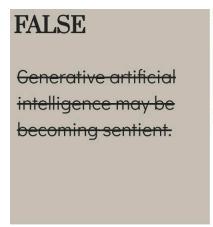
Generative artificial intelligence may be becoming sentient.

Resources: https://bit.ly/BU-AI-Resources

Text: Now, let's do a little myth busting shall we? Throw into the chat–true or false:

Generative AI may become 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. And also, it is not a person or sentient—no matter what all those sci-fi novels, movies, comics, TV shows, and Silicon Valley Dude-Bros tells us. We have a long history of telling ourselves that our objects are real—going back millenia. What we hear and see in the media is often sound bites and misrepresentations of

what generative AI is.

Ultimately, generative AI is a complex technology with lots of possibilities, but sentience is not one of them in the immediate future. Much of the hoopla out sentience is projection and that's been a habit with our technology for a long time.

- 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

General Questions About Generative Al

True or false

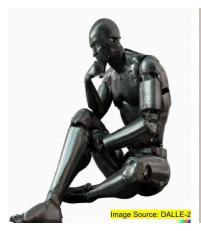
Generative artificial intelligence thinks to arrive at its answers, like humans do.

Resources: https://bit.ly/BU-AI-Resources

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

"Generative AI thinks to arrive at its answers, like humans 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



FALSE

Generative artificial
intelligence thinks to
arrive at its answers
like humans do.

Text: False. Generative Al 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 Al works through mathing the hell out of things.

- Generative AI exists because of the transformer
- How ChatGPT actually works (6:25 minutes) by AssemblyAI
- What Is ChatGPT Doing ... and Why Does It Work? By Stephen Wolfram (estimated reading time: 90 minutes)



How does AI arrive at its answers?

<u>Large Language Model (LLM)</u>: The data set needed to train the generative Al. For text generative Al, it is typically an extremely large data set.

<u>Token</u>: The smallest unit of data needed to create the mathematical relationships within the dataset.

<u>Generative</u> (as in "generative AI): The process of calculating based on probabilities and statistics relationships between the prompt and the data set.

Text: For instance when working with text, a generative AI will first have access to what is called a "large language model"--that is a massive data set of text. What the generative AI does is to go into that data set and mathematically analyses the relationships across that text. Now, it doesn't analyze the

words 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 relationships in probabilities of those tokens across its data set and also with any prompt you give it. So when ChatGPT gets a prompt by a user, it's mathematically examining the relationship among tokens and then searching its large language model for similar relationships to help generate the most probable answer.

It's not thinking, it's mathing.

- A jargon-free explanation of how Al large language models work
- A.I. Glossary
- Artificial Intelligence (AI) Terms: A to Z Glossary
- What is Artificial Intelligence (AI)?
- Al Explained Stories

General Questions About Generative AI

True or false

Generative artificial intelligence can lie.

Resources: https://bit.ly/BU-AI-Resources

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

- 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: This one is tricky but it is true that Generative AI doesn't lie.

Lie comes with intention and intention is human.

Can it give false information. You betcha! But when you hear language about it lying or hallucinating—it's important to

understand the speaker of those words are assigning human characteristics to AI that confuse our use of it. 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? | TechCrunch

General Questions About Generative AI

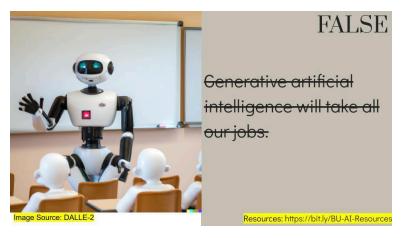
True or false

Generative artificial intelligence will take all our jobs.

Resources: https://bit.ly/BU-AI-Resources

Text: Finally, how about this: Generative AI will take all our jobs.

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



Text: For the foreseeable future that seems highly unlikely. It will disrupt and augment a lot of different types of work and part of the challenge for all of us will be to stay abreast of it to understand its impact on our industries. Any knowledge worker is going to have to consider and contend with how these tools can amplify their

work and not replace it.

At its core, it is likely to help us do a lot of things we didn't do before and that can create new opportunities. But yes, there are jobs that will be lost. However, 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.

- 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 Al Will Disrupt Career Paths, Recruiting

What are some examples of using generative AI?



Resources: https://bit.ly/BU-AI-Resources

Text: Now, let's take a look at some of the things that generative AI can be helpful with. The next are just a couple examples of how I've used ChatGPT. I show them as ways that might be helpful and insightful for how you might start to think about using generative AI if you haven't tried it yet or if you're looking for

some basic ways to get started. 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

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. Please include any US national holidays or other traditionally recognized holidays by people in the US during this period. If there are not any holidays, then there is no need to say so. Be sure to include Veterans Day and Indigenous People's Day. Provide the list as a list without any numbering or bullets.

Resources: https://bit.ly/BU-AI-Resources

Text: So here's one that I use now at the beginning of each semester and I'm sure many of you will to. We all do this and here is an example of how I can save time 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

Task	Prompt
Calendar Dates	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. Please include any US national holidays or other traditionally recognized holidays by people in the US during this period. If there are not any holidays, then there is no need to say so. Be sure to include Veterans Day and Indigenous People's Day. Provide the list as a list without any numbering or bullets.
Enhance productivity	As a productivity expert, list 10 of the best productivity frameworks in table format with descriptions of what they are and how to use them in general, and second table that provides at least 5 steps on how to enact each framework in relation to [Insert industry, project, goal, etc].
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]
Name Generator	Give me 15 ridiculous and punny names for an orange tabby kitten that I just got

Some results... Tuesday, August 22, 2023 Tuesday, August 29, 2023 Tuesday, September 5, 2023 Monday, September 4, 2023: Labor Day (US national holiday) Tuesday, September 12, 2023 Tuesday, September 19, 2023 Tuesday, September 26, 2023 Tuesday, October 3, 2023 Tuesday, October 10, 2023 Monday, October 9, 2023: Indigenous Peoples' Day (Traditionally recognized) Tuesday, October 17, 2023 Tuesday, October 24, 2023 Tuesday, October 31, 2023 Tuesday, November 7, 2023 Tuesday, November 14, 2023 Saturday, November 11, 2023: Veterans Day (US nation holiday) Tuesday, November 21, 2023 Thursday, November 23, 2023: Thanksgiving Day (US national holiday) Tuesday, November 28, 2023 Tuesday, December 5, 2023 Resources: https://bit.ly/BU-AI-Resources Tuesday, December 12, 2023

Text: You can see, here are the results that I got in less than 30 seconds. Now I can copy & paste that list into my syllabus or anywhere else I need to. Generative AI can help with simple but tedious tasks like this.

Annotations

Full answer

Tuesday, August 22, 2023

Tuesday, August 29, 2023

Tuesday, September 5, 2023

Monday, September 4, 2023: Labor Day (US national holiday)

Tuesday, September 12, 2023

Tuesday, September 19, 2023

Tuesday, September 26, 2023

Tuesday, October 3, 2023

Tuesday, October 10, 2023

Monday, October 9, 2023: Indigenous Peoples' Day (Traditionally recognized)

Tuesday, October 17, 2023

Tuesday, October 24, 2023

Tuesday, October 31, 2023

Tuesday, November 7, 2023

Tuesday, November 14, 2023

Saturday, November 11, 2023: Veterans Day (US national holiday)

Tuesday, November 21, 2023

Thursday, November 23, 2023: Thanksgiving Day (US national holiday)

Tuesday, November 28, 2023

Tuesday, December 5, 2023

Tuesday, December 12, 2023

Tuesday, December 19, 2023

Prompt

You're a master at implementing the latest ways of effectively using generative AI, particularly for folks who have little technical ability. You're an expert at advising them how to maximize generative AI's use. You should stick primarily to using ChatGPT and Google products. Provide an exhaustive list of ways that I can use generative AI in my day-to-day work right now without any technical expertise. Consider the work of general professionals and those in higher education. The list should not repeat. The list should be in a table format. Each way must be something that would significantly help me and save me time. For each way on the list, include an estimated amount of time that will be saved by using AI. 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 about how one would go about doing this.

Resources: https://bit.ly/BU-AI-Resources

Text: This one is a little more advanced. I'm asking it to produce a list of ways to use generative AI for the general profession or education professional. I'm also adding some guidance about what to include—not just telling me what it can do but also telling me how much time it will save me, how hard it is, and how to do

the thing. This is one of those things that you can do and customize it to your own personal situation, editing out certain details and adding new ones that fit you.

Annotations

Prompt to Try

You're a master at implementing the latest ways of effectively using generative AI, particularly for folks who have little technical ability. You're an expert at advising them how to maximize generative AI's use. You should stick primparily to using ChatGPT and Google products. Provide an exhaustive list of ways that I can use generative AI in my day-to-day work right now without any technical expertise. Consider the work of general professionals and those in higher education. The list should not repeat. The list should be in a table format. Each way must be something that would significantly help me and save me time. For each way on the list, include an estimated amount of time that will be saved by using AI. 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.

			Some results
Usage	Time Saved	Difficulty	Instructions
Document Drafting	5-10 hrs/week	2	Use ChatGPT to draft emails, reports, or other documents. Input the main points or a rough draft, and let ChatGPT expand or refine your text.
Automated Email Responses	3-5 hrs/week	2	Use Google's Smart Compose to automate email responses. As you type, Smart Compose will suggest completions that you can accept to speed up the process.
Content Creation	5-10 hrs/week	2	Use ChatGPT to assist in creating educational content, lesson plans, or study materials. Provide a topic and some guidelines, and let ChatGPT generate a draft for you.
Translation Services	Varies	1	Use Google Translate's AI capabilities for translating documents or communications. Copy the text into Google Translate, select the language, and obtain the translation instantly.
Data Analysis	5-10 hrs/week	3	Utilize Google Sheets' Al-powered data analysis features like "Explore" to automatically generate insights, graphs, and charts from your data.
Automated Grading	10-15 hrs/week	3	Use Google Classroom's built-in quiz and grading features. Create answer keys and let the system auto-grade quizzes, providing immediate feedback to students.
Form	2-5 hrs/week	2	Use Google Forms for survey creation and analysis. Create surveys, quizzes, or

Text: This is a limited view of the results, the full are in the resources. But as you can see, it provides a couple examples that folks can start to use right from the start. It is focusing on both ChatGPT and Google services because I asked it too and I would encourage that for such prompts, you focus in on the tool to get best results.

Annotations

Full ChatGPT Response

Incorporating generative AI using ChatGPT and Google products can be beneficial across a wide range of tasks. Below is a table with a variety of applications, setup difficulty ratings, and instructions tailored for general professionals and those in higher education.

Usage	Est. Time Saved	Difficulty Rating (1-5)	Instructions
Document Drafting	5-10 hrs/week	2	Use ChatGPT to draft emails, reports, or other documents. Input the main points or a rough draft, and let ChatGPT expand or refine your text.
Automated Email Responses	3-5 hrs/week	2	Use Google's Smart Compose to automate email responses. As you type, Smart Compose will suggest completions that you can accept to speed up the process.
Content Creation	5-10 hrs/week	2	Use ChatGPT to assist in creating educational content, lesson plans, or study materials. Provide a topic and some guidelines, and let ChatGPT generate a draft for you.
Meeting Scheduling	2-5 hrs/week	1	Utilize Google Calendar's Al-powered suggested times and smart scheduling features to automate the scheduling process based on your availability preferences.
Translation Services	Varies	1	Use Google Translate's AI capabilities for translating documents or communications. Copy the text into

			Google Translate, select the language, and obtain the translation instantly.
Data Analysis	5-10 hrs/week	3	Utilize Google Sheets' Al-powered data analysis features like "Explore" to automatically generate insights, graphs, and charts from your data.
Automated Grading	10-15 hrs/week	3	Use Google Classroom's built-in quiz and grading features. Create answer keys and let the system auto-grade quizzes, providing immediate feedback to students.
Form Creation and Analysis	2-5 hrs/week	2	Use Google Forms for survey creation and analysis. Create surveys, quizzes, or questionnaires, and use the built-in analytics tools to automatically analyze the responses.
Research Assistance	10-15 hrs/week	3	Use ChatGPT to assist in literature reviews or gathering initial insights on a topic. Input the topic or question, and let ChatGPT provide a draft or list of references.
Spelling and Grammar Check	2-5 hrs/week	1	Utilize Google Docs' built-in spelling and grammar checking powered by Al. As you type, spelling and grammar suggestions will appear, making the editing process quicker.

Note:

- The time saved and difficulty ratings are rough estimates and may vary.
- Setting up some of these services, especially those involving ChatGPT, may require an initial setup or familiarization to interact effectively with the AI.
- Remember that while AI can significantly speed up many processes, the final review and critical analysis should always be done by a human to ensure accuracy, appropriateness, and comprehension.

Prompt

You're an expert at designing assignments and guidelines for graduate level work. Please provide a step-by-step guide for social work graduate students' research papers in their first semester. The paper will be for their "Intro to Social Work" course which is a broad course introducing them to a range of topics related to gradual-level social work. The goal of the research paper is for them to take a deep dive into an area of the field that excites them or challenges. The paper should be largely a literature review on a particular topic but want to avoid using that language. Use language that emphasizes them to explore a particular domain to see different viewpoints. The guide should walk them through each step of the process and provide tips. The guide should include time estimates about how long each step should take them. The guide should also include a timeline of when each step should be completed within a 15 week course.

Resources: https://bit.ly/BU-AI-Resources

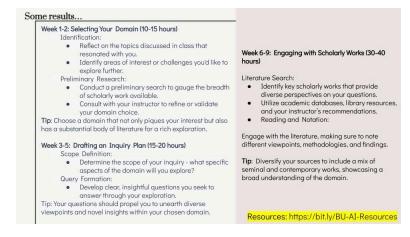
Text: Now this one, I focused in very simply. I asked it to basically create a guide for how to create a literature review in a intro to social work graduate course. I asked it to explain each step and also to include the rough-amount of time each step will take and when in the course they should complete it. And to me, this is the kind of

stuff that I find incredibly useful with generative AI is to help me get out a rough draft or to see what it generates so I have something to work with or against. It's likely to give me ideas and insights about the process. Such as including how much time it may take does make me think differently about a course.

Annotations

Prompt to Try

You're an expert at designing assignments and guidelines for graduate level work. Please provide a step-by-step guide for social work graduate students' research papers in their first semester. The paper will be for their "Intro to Social Work" course which is a broad course introducing them to a range of topics related to gradual-level social work. The goal of the research paper is for them to take a deep dive into an area of the field that excites them or challenges. The paper should be largely a literature review on a particular topic but want to avoid using that language. Use language that emphasizes them to explore a particular domain to see different viewpoints. The guide should walk them through each step of the process and provide tips. The guide should include time estimates about how long each step should take them. The guide should also include a timeline of when each step should be completed within a 15 week course.



Text: Here's the response. What I find interesting is that in the first 9 weeks, it's expecting students to spend a minimum of 55 hours on this project. That may be true—that may be the assumed amount of time but what does it mean to write it out. How does that impact what we think about everything else in the course? To me, this

is the thing. It gives me ideas and it also challenges me to think about its responses and our own assumptions about what happens in our courses. It's in those assumptions that we embed the hidden curriculum and the assumptions we put upon students to figure out. Therefore, I think it can make me challenge my thinking in many ways when I use it.

Annotations

ChatGPT Response

Title: Exploratory Inquiry into a Social Work Domain: Your Gateway to Professional Expertise Introduction: The "Intro to Social Work" course provides a broad panorama of graduate-level social work topics. This assignment, an Exploratory Inquiry, invites you to delve deeper into a particular domain that intrigues or challenges you. By exploring various viewpoints and garnering insights from existing scholarly works, you will enrich your understanding and lay a foundation for your future endeavors in social work. Below is a step-by-step guide to assist you in this engaging journey.

Week 1-2: Selecting Your Domain (10-15 hours)

Identification:

- Reflect on the topics discussed in class that resonated with you.
- Identify areas of interest or challenges you'd like to explore further.

Preliminary Research:

- Conduct a preliminary search to gauge the breadth of scholarly work available.
- Consult with your instructor to refine or validate your domain choice.

Tip: Choose a domain that not only piques your interest but also has a substantial body of literature for a rich exploration.

Week 3-5: Drafting an Inquiry Plan (15-20 hours) Scope Definition: Determine the scope of your inquiry - what specific aspects of the domain will you explore?

Query Formation:

Develop clear, insightful questions you seek to answer through your exploration.

Tip: Your questions should propel you to unearth diverse viewpoints and novel insights within your chosen domain.

Week 6-9: Engaging with Scholarly Works (30-40 hours)

Literature Search:

- Identify key scholarly works that provide diverse perspectives on your questions.
- Utilize academic databases, library resources, and your instructor's recommendations.

Reading and Notation:

• Engage with the literature, making sure to note different viewpoints, methodologies, and findings.

Tip: Diversify your sources to include a mix of seminal and contemporary works, showcasing a broad understanding of the domain.

Week 10-12: Synthesizing Insights (20-25 hours)

Comparison:

• Compare and contrast the viewpoints and findings from different sources.

Synthesis:

Synthesize the insights gleaned into a cohesive narrative.

Tip: Seek to showcase a dialogue among scholars rather than merely listing findings.

Week 13-14: Drafting and Revising (20-25 hours)

Drafting:

 Draft your exploratory inquiry, ensuring a logical flow of ideas and a clear articulation of your insights.

Peer and Self-Review:

- Engage in peer review sessions to gather feedback.
- Revise your draft accordingly, refining clarity, coherence, and depth of analysis.

Week 15: Final Submission and Reflection (10-15 hours)

Submission:

• Submit your final draft as per the submission guidelines.

Reflection:

 Reflect on the learning journey, the insights gained, and how these will inform your future academic and professional pursuits in social work.

Tip: Your reflection could serve as a springboard for further inquiries or projects in subsequent courses.

This guided timeline is designed to provide a structured approach while allowing ample room for deep engagement with your chosen domain. Your exploratory inquiry will not only contribute to your academic growth but will also hone your investigative skills crucial for your social work career.



Why generative AI challenges us?

Resources: https://bit.ly/BU-AI-Resources

Text: Those were a few examples to consider to get a sense of why folks are using it and what value they find. I want to switch now to some of the bigger questions that we as educators are navigating with this new technology. These are the hard bits and I want to acknowledge them and possibly shed some light for

many of us for our mixed up and tangled feelings about this technology.

Annotations

Folks navigating the challenges of this in public

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

AI comes with baggage



Resources: https://bit.ly/BU-AI-Resources

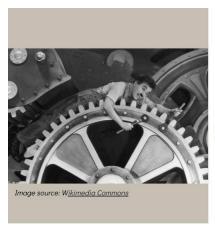
tools. That alone raises concerns.

Text: The tool comes with a lot of baggage. I mean a lot. And that baggage is different than other technologies in that we're learning about the problems of the tool just as we're learning about it. We know that there is all sorts of bias based upon the large language models that were used and also the bias that the companies themselves knowingly imbue into these

Then, in the last year, we've learned about exploited workers, environmental degradation and resource depletion, and significant energy use that's likely to contribute to climate change. We've also learned that it may have misused or be abusing copyright of creators, authors, and artists to fuel its creations. And the level of privacy and what is used with our input into the generative Al doesn't leave us particularly safe.

Right out of the gate, it raises our hackles because it's another product from Silicon Valley tech bro offering utopia in the form of something that promises to help so long as we don't care about human rights, environmental preservation, or intellectual property.

- 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)
- All 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
- More writers sue OpenAl for copyright infringement over Al training
- <u>'New York Times' considers legal action against OpenAl as copyright tensions swirl:</u>
 NPR
- 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 AI boom, an army of overseas workers in 'digital sweatshops'



AI disrupts our notions of work

Resources: https://bit.ly/BU-AI-Resources

Text: Generative AI challenges our notions of work. By doing something that we have largely assumed was only capable by humans—that is create 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, many 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 social workers—folks who are going out into the world to be overworked and underpaid. Folks who are going to often have more cases than is appropriate or allows them to be the person they want to be in this role.

In this world, the process doesn't make sense—there's no real time for it. The process is the path to burnout. So yeah, 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
- The Future of Education: How Generative AI Can Transform Higher Learning Whether You Like It Or Not
- Generative Al Hits Education, Ushering in a Sea Change for Schools
- 7 Essential Questions About AI for Teachers to Consider

AI is hard to distinguish

Resources: https://bit.ly/BU-AI-Resources



Text: Then, of course, there's the fact that it 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 Al 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 itself 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
- <u>Detecting Artificial Intelligence (AI) Plagiarism</u> from University of Missouri
- OpenAl Abruptly Shuts Down ChatGPT Plagiarism Detector—And Educators Are Worried by Casey Epstein-Gross
- <u>Professor Flunks All His Students After ChatGPT Falsely Claims It Wrote Their Papers</u> 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 False	ely Accuse	<u>e International</u>	Students of	<u>f Cheating</u> By	/ Tara (3arcía
	Mathewson							



AI challenges power

Resources: https://bit.ly/BU-AI-Resources

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 a larger system-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

AI makes us have to rethink teaching.



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 AI.

Resources: https://bit.ly/BU-AI-Resources

It's not just the fact that it can challenge us in these other ways, but that it come at the

end of a long train of technology, pedagogies, and world events that have asked-no, demanded-that faculty change much if not their entire practice.

Many of us 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 have been working on 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 is hard, scary, and exhausting. I wanted to name and acknowledge that. I wanted to thank you all for showing up here, showing up for your students, and looking to find a way forward.

- 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?





What are we to do as educators?

Resources: https://bit.ly/BU-AI-Resources

Text: Ok, so let's take a breath. Also, this is the part of the presentation where I include pics of my pets as part of my slides....because I'm a professional—and figure a little brevity can be helpful here.

What are we do to as educators? I'm not looking at the chat but I bet someone is

going to respond to that rhetorical question with a reference to retiring.

What follows are some of my best tips to get situated and more comfortable with this new age we're in.

Annotations

Tips from other folks

- 10 Al 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

There is no perfect plan

Resources: https://bit.ly/BU-AI-Resources



Text: No-there isn't a perfect plan.

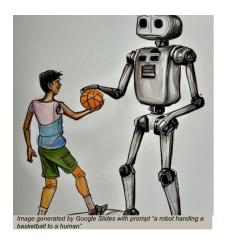
And let's rejoice with that!

No, seriously. Nothing will solve this and so with that comes the relief that you—the individual sitting here listening to me are not solely responsible for solving it. Because here is no

solution. That doesn't mean we give up responsibility but that also means we're not solely responsible for solving it. None of us are going to do this perfectly and that's ok.

Seriously, I give you permission to fumble through this so when you do-if someone actually asks; which they won't-you can say that Lance said I could stumble through this.

- Al could finally solve a problem that's long plagued education
- Opinion Paper: "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy



Ceding some control

Resources: https://bit.ly/BU-AI-Resources

Text: This is something that will be a little bit harder. But you're going to have to get comfortable with being a uncomfortable. Often, we're not going to know and we'll have to sit with that. I think this also means we're going to think about how we engage with students and possible usage that is allowable or even

allowing some level of generative AI in work. Not because I think that is necessarily ideal, but I think that's the only way to normalize practices of identifying usage. That is, we can only encourage students to indicate they have used these tools if we make it ok for them to do so. Otherwise, we're playing the suspicion game and in that path lies madness.

- <u>6 Tenets of Postplagiarism: Writing in the Age of Artificial Intelligence | Learning, Teaching and Leadership</u>
- Calling all authoritarians: how to shift the power dynamic in your classes
- The Power of a Democratic Classroom
- Power-Sharing with Our Students in Course Design as a Model for Counselor-Client Relationships
- Sharing Classroom Power: Why We Sit in the Same Room



Resources: https://bit.ly/BU-AI-Resources



Text: Look around at this room. There's a lot of wisdom in this room. In fact, there's lots of conversations going on right now in social work and folks are sharing lots of tips and practices. Find your listserv, your Facebook or LinkedIn groups, your professional organization newsletters—dare I say to go onto

Twitter-dumpster fire that it is?!?!

Seriously, find your professional communities—they're out there and sharing. Learn and share with them! So much of what I have learned in this, it is because of my network. In fact, I literally co-authored an article about how open education—sharing my work with others and learning from others' shared work—has helped me figure out my own strategies with generative AI. It's the very thing we tell our students to do and we need to also do it.

- Generative AI for Social Work Students: Part I | Towards Data Science
- Generative AI for Social Work Students: Part II | Towards Data Science
- Social Work Education with Generative AI GCSW Harness Tech Series
- Al and Social Work
- Artificial Intelligence & Social Work
- Twitter Feed for #SocialWork & #ChatGPT

You actually have to try it...



Resources: https://bit.ly/BU-AI-Resources

Text: Yes-I know. You have to try it out. At least for 30 minutes, but I'd encourage you to make a plan to use it for 10-15 minutes a day for a few weeks. Play around with the prompts in annotated slide deck, make up your own, learn from others. Test it out, see how you can use it, see where it doesn't work. Find others who

are using it substantially and learn from them. Create an informal group where you can share your chat threads and results. You will want to use it if only to learn and understand it better for yourself but you will also want to use it for a lens for your class to think about where it might make sense to allow for its use or where it feels like it would interfere with your intentions.

- 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 Al Chat in 2023 (Beginner's Guide) (6:15 minutes)
- Rules for Using Generative AI & Oct Updates



Figure out where you are...

Resources: https://bit.ly/BU-AI-Resources

Text: As your learn, it can be really helpful to clarify and come to understand what your relationship with generative Al is. Write it out if that helps. Explain to yourself where you are and aren't comfortable with it and why. Verbalize it to help you understand where your struggles lie.

Given that, consider where it will and won't make sense to use both in your personal and professional life. That can help you figure out how to orient to your teaching and your students.

- 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)

Talk to your students...

Resources: https://bit.ly/BU-AI-Resources

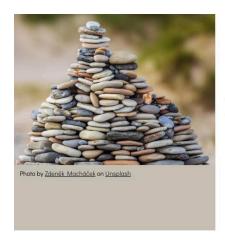


Text: I know some will want to come from a top-down approach to this. They will want to decide how the tool will be used. I encourage instead for you to talk with your students and learn what they know and think about these tools. What are their concerns and challenges with it? Where do they find it helpful?

I learned from one of my students that she used it to organize her notes. She knew she wasn't going to organize them and so put them into ChatGPT and asked it to organize them. That's a really smart approach. Imagine a student who has such challenges. Sure, they can struggle through organizing their notes or most likely do what I did-struggle through the messy notes the night before while trying to submit the paper. What if by organizing the notes into a coherent form, particularly in relation to a topic they want to write about, it helps them more quickly focus on the paper itself?

We don't know all the ways that students will creatively deploy these tools and how that may help them. Given that, talk with them and collectively figure it out.

- Students' voices on generative Al: perceptions, benefits, and challenges in higher education
- Here's What Students Think About Using AI in the Classroom
- Back-to-school for higher education sees students and professors grappling with Al in academia
- What Students Are Saying About ChatGPT
- Don't assume your students are eager about Al
- <u>'Please do not assume the worst of us': students know AI is here to stay and want unis to teach them how to use it</u>



Come from a place of trust...

Resources: https://bit.ly/BU-AI-Resources

Text:Finding our way through this is going to be challenging—in part for reasons I've already highlighted. But also, because it continues to change. One way that will significantly help you and your students is to build trust and community with your students.

Realize that one of the best ways you're going to get students to use it less is to make sure you are building connection and trust in the classroom. When students feel connected and that they can trust you, they will ask. It's happened in my classes where they asked if they could use AI for an assignment. I explained why I don't think it's ideal on a given assignment but still gave them the final say. They opted to do the assignment without AI. It won't happen every time, but it will more often happen if we're centering the relationship rather than the output.

- 5 Ways to Build Trust with Your Students
- Build Trust with Your Students
- Working to Grow Students' Trust and Respect
- Putting trust at the heart of higher education
- Informal trust-building in an online environment
- 10 ways to strengthen connections with students so they feel seen
- Building positive relationships with students: What brain science says

A Few Tangible Ideas

- Infinite example creator
- Course Promptbook
- Red-teaming

Goagle Slides Image Generator with prompt: "a bunch of lightbulbs"

Resources: https://bit.ly/BU-AI-Resources

Infinite example creator: If you are trying to come up with case studies or examples to

deck.

Text:Ok-but what about what

to do with it? Well, here are 3

solid ideas but of course, there are more in the annotated slide

breakdown certain concepts or ideas. It can quickly create

examples, case studies or other things where you want students to dig it. It can also create bad examples. We can often ask students to use their work in the future as exemplar work—but we don't often have bad examples to show as well—in part, because it feels wrong to ask a student to use it in that context. But generative AI can create these now.

Course Promptbook: Collectively, you can build a prompt-book that you and your students can use to further their knowledge and ideas. Maybe it's a set of prompts to further explore topics, generate ideas, or bring to class to discuss.

Red-teaming: Have students use it to create content and then have other students challenge and find fault or limitations with it. That is, draw out the issues of the tool by using it and letting students go to town with finding its flaws and limitations around course content.

So these are a few to think about but there's many more to consider.

- 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



How might you approach thinking about generative AI? **Text:**Up next is an opportunity for you all to give some thought and consideration about where you are with all of this. I've talked long enough. It's time for you to think about these things.

Resources: https://bit.ly/BU-AI-Resources

Which is your approach? Lean toward engaging and using generative AI in relation to teaching and learning Learn more and use generative AI more but not ready to bring it into teaching and learning Lean away from generative AI and not wanting to use it in teaching and learning

Text:We're going to do an activity right now. First, take a moment and think about which group you find yourself in.

If you can, write it down. Here are our 4 groups. Trying to determine which one you find yourself closest to.

1. Lean toward engaging and using generative AI in relation to teaching and learning

Resources: https://bit.ly/BU-AI-Resources

- Learn more and use generative AI more and maybe dabble with it in teaching and learning
- 3. Learn more and use generative AI more but not ready to bring it into teaching and learning
- 4. Lean away from generative AI and not wanting to use it in teaching and learning

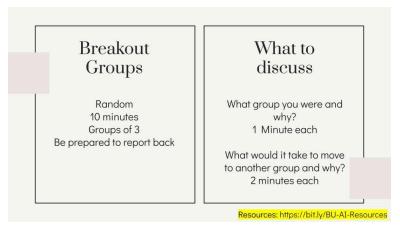
Which group do you find yourself in?



Text:Take a moment and write down your thoughts with these questions.

- 1. Are you settled in the group that you find yourself in? Why or why not?
- 2. Would you want to be in another group? Which group & why?
- 3. What would it take for you to move to that group?

I'll give you a minute.



Text:So I'm going to put you into breakout rooms of 3 for 10 minutes. Be prepared to report back.

For 1 minute each, share which group you're in and why.

For 2 minutes each, share what it would take for you to move to another group and why?

Any questions about what we're doing?

Don't forget you can always go to slides 38-40 to see the questions and I've also put them in the chat.

What did you learn?





Text:Who wants to share? We'll hear from reps from 3 different groups and the rest can put their experiences in the chat.



Final thoughts...

Text: Thank you for participating in that activity. I think it unsurfaced some key considerations. Part of my goal in that activity is to help you all imagine what you might need and where you might need to go—to help you speak to that and speak to others about it since often we aren't always aware of what we need or want

to do. You now have a clearer sense of that. I hope through this session you'll have some ideas about what to do next.

We're in a weird space in higher ed. There's been lots of changes over the last 15 years and the cycle of change seems to be hyper-accelerated with something like generative Al. It can feel scary and overwhelming and challenging in ways we didn't anticipate.

BUT we can find our way through it. It won't be easy but it will be meaningful. It will require us to keep calm, build community, and work with students to figure out what this new paradigm looks like. And students are hungry for that—we know that they seek connection in an alienated world that demands much of them and delivers very little. So it is ok to feel all the feels and know that you won't figure everything out, but figuring it out with others is what's gotten us through so much in the past and will guide us into this strange weird place.

Thank you!



Text:Thank you and now, for some questions

Resources: https://bit.ly/BU-AI-Resources

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 Surrealistic	Playful Sincere
Gothic	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.