Hi, I'm Stanley Ahalt, Dean of the School of Data Science and Society and co-chair of the UNC Generative A.I. Committee. Chatbots and other generative A.I. like it have major implications for higher education specific, early and society overall.

Many of you may already be familiar with generative artificial intelligence or use machine learning in your research.

This is an introduction to generative AI for faculty members who may not be as familiar with this emerging technology or are interested in learning more about how they can incorporate generative AI into their teaching. In this video, I will provide an introduction to ChatGPT and the generative AI landscape. Explain what it is, discuss the promise and pitfalls of generative AI, and talk about how we might think about AI in the context of our academic mission.

As faculty, it's our job to help prepare students for their careers and lives post-graduation, where generative AI will be a huge part of the future. We want all students to have data literacy when they graduate and understanding generative AI and how to use it responsibly as part of that.

Generative AI is a form of artificial intelligence that takes input, often in the form of natural human language and generates text, images, sounds, video, music and other types of output.

This area of AI has recently exploded, with new tools being announced every day as firms invest billions of dollars in developing them.

ChatGPT, a product of a silicon Valley company named Openai. AI is a type of generative AI

ChatGPT stands for Generative Pre-Trained Transformer generative because it generates output Pre-Trained because it's trained on a half a trillion words of text and transform it because of the type of AI architecture it uses.

ChatGPT is currently the most popular type of generative AI and set the bar by becoming, at the time, the fastest growing application in history.

ChatGPT garnered 1 million users in five days and 100 million in two months.

There are other popular tools like it, so let's look more into ChatGPT and other generative A.I. tools ChatGPT 3.5 was released in November is free but not connected to the internet and not as good as ChatGPT 4. ChatGPT 4 is an update to the 3.5 version, but it costs $20 per month.

It's not directly connected to the internet but can be via plug ins, The plug ins, link ChatGPT 4 to other applications that allow users to order groceries, read PDFs, summarize videos. Also, an innovative feature is code interpreter and it allows users to perform complex math. It reduces hallucinations. It uploads and downloads information such as files and writes and executes computer programs.

Being AI is connected to the Internet, provides websites from which it draws its response. Has three different modes, is powered by ChatGPT, including ChatGPT and some modes. It can also create images in addition to text. Plus, it's free Bard, a product from Google is an option. However, unlike Bing, it doesn't provide websites from which it's drawing its response.

And frankly, at this time it's not very good.

Anthropic. Claude is another option. Claude is now available in the U.S. and the UK. Anthropic goal with Claude is that it will be much less likely to produce harmful outputs. Easier to converse with and more steerable so you can get your desired output with less effort.

It is getting favorable comparisons to ChatGPT 4 so might be worth trying.

There are of course other tools you can consider, such as character A.I., which has many different personalities that can replicate. These are real people like Elon Musk or specialist, for example, a programmer.

Other popular tools exist as well, such as mid journey for the creation of images. But for our purposes, we'll focus on tools like ChatGPT that are used primarily to generate text.

While generative A.I. can be extremely useful. It does have limitations.

How output is arrived at is not as clear as the internal processes used to produce a particular output within the generative. I cannot be determined. The output is based on existing data, often straight from online sources, and may reflect biases that should be acknowledged. It may also be inaccurate or entirely fabricated, even if it appears reliable or factual. AI evokes a range of intellectual property concerns.

Sourcing and ownership of information is unclear, and the status of my output raises numerous questions. For example, is output equivalent to a published resource? What citation responsibilities are in place for various AI interactions?

Generative A.I. offers great promise. It can significantly increase one's productivity, knowledge and creativity, enabling each of us to generate text, images and video easily and rapidly.

We'll be able to more quickly complete tasks like writing, emails, generating reports, translating and summarizing articles and writing code. We can even use generative A.I. to access information and perform research along with brainstorming and generating new ideas and concepts. We will see generative A.I. not only in standalone products like ChatGPT, It will be infused into many of the applications we use every day.

For example, this short video shows how generative A.I. capabilities are going to be integrated into Microsoft Office.

It provides a glimpse into how our work world will change.

These new capabilities are expected to significantly increase economic growth while offering new jobs and opportunities to individuals. For example, generative A.I. could allow health care providers to deliver better diagnoses and prognosis while increasing the time they may be able to spend with patients. It could also offer medical, legal and other useful advice to those who may not be able to afford access to them.

On the downside could be used by bad actors to generate fake news and create problems for democracies. It may increase inequality between those who have access to it and those who do not. It might lead to some jobs losing meaning or being eliminated completely.

Creating social disruptions and worst case out of control could lead to severe consequences for humanity. These changes will come at an increasing speed and our future environment will be highly dynamic as generative A.I. investments take off. As a university, it's our role to understand these potential changes and how they impact our students or disciplines and society overall. Here are some of the key points to keep in mind as you and your students use generative A.I..

One I should help us think, not think. For us, A.I. should be a partner in accessing information, completing tasks and helping us to be creative. It should not be a substitute. We should engage with A.I. responsibly and ethically, especially when completing academic work. Third, all of us are 100% responsible for what we produce. Therefore, we need to verify that all generative A.I. output is accurate.

Fourth, in our academic work, we must be especially careful to document our use of A.I.. The guidance the UNC Generative AI Committee has released on student use Teaching, use and Research Use each explain how to document work for those different instances. Five. Eventually, organizations will have their own models that are secure. However, we're not there yet. Therefore, if you're using a public model such as ChatGPT, Bing, etc., do not enter personal or UNC sensitive information as it will be captured by the model and potentially released into the public domain.

The following modules will provide you with specific guidance that you can use for integrating ChatGPT and generative AI into your teaching research and personal productivity.

However, they're just the beginning of your A.I. journey. It will be up to you to take the next steps to adapt your courses for generative AI, think about how you could use it to improve your personal productivity and research and understand how generative A.I. may be changing your discipline. Like all major technological changes, generative AI is both exciting but also raises many challenges.

The best way forward is to own the fact that it's here. Learn how to use it. Apply your daily work, and share how you are using it with others As you begin your journey. The next activity will have you explore the tools available in the ecosystem and think about what they offer, their shortcomings and ways you might use them in your own work.