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Transcript

Speaker 1

Welcome, everyone, to session two of the Further Experiments in Artificial Intelligence. We've got a major scenario going today. I've wondered how to make materials available to people. readily. There's so much I I'm having difficulty keeping up. I think yesterday in the New York Times there were 7 or 8 different articles on artificial intelligence. One of the major ones is what's gonna happen with the trillions of dollars of value that is added in the stock market with all of these artificial intelligence expenditures by venture capitalist. But what's going to happen if \$4 trillion, I think, isn't that what Nvidia is worth now is \$4 trillion. What's going to happen to it? But we're not going to deal with that part. We're going to focus mainly on what can be done with Artificial intelligence for ourselves. If you remember the cartoon last week was. The baby breaking out of the cradle that there there's it's it's happening. And we as individuals, the most important thing that we can do as individuals is to learn about the artificial intelligence and be able to notice if anything untoward is happening. But one thing that I would like to show, if I'm able to do it, is you'll-- this is the browser that I happen to be using Chrome right now. And you see the screen. Maureen, please correct me if I'm wrong. One thing that I'd like to bring to your attention is the website that I try to keep up. It's a little problematic. It's it's been, geez, 25 years now since I did it for work. But this is the talks with Crows dot com and I do multiple things on here. Let's see. This is the North Mountain Street. that there I've done. We'll expose ourselves to that. But this is a list of this is the artificial intelligence topic that I have done over time, and the one that I just finished this one here that shows from January the presentation. And we're going to cover a lot of materials in this here. So this is the presentation. And then this is the actual video of the presentation. Information here. This is Google's So that that is underneath the experiments here. And let's go to the full sessions. I believe session one I sent out last. I sent it out. Here's the summary of what we went through. The The availability of artificial intelligence is primarily due to the increasing in capabilities of computer. We will go through a lot of the vocabulary again today. And we went through the theory of mind and then the last session, which Well, I will discuss a little bit. We went through some live presentations of Adobe Firefly, Grok, which is Elon Musk's AI. We went

through Meta AI, which is from Facebook. So this is the information that's available on the website. there. And then let's see if I can figure out how to get it there. Seminar materials. This is the materials that I've sent to you so far. So here's today's seminar materials, the handouts, one of the you can download these. And this is the information that we're going to go through today. Just mildly, I put together a prompt, the collection. As you develop your own material, your own prompt for your specific item, here are two forms that you can use to make sure that you collect your thought. There's one, and then here's the other one. was based upon an article that I read, and I'm not going to be able to pull it up except after the break from a Google that the most important thing to do as you're using this material yourself is to document the prompt that you create for yourself. We're going to do a couple of these items today that we went through last week. We're going to copy the prompts that I made. Notice that these are still down here, down a little bit. These are from our last week's presentation. The materials are still up here. We'll try to get some of those as we go. But this, I wanted to emphasize, is available talkingwithcrows.com. And I now am going to start the presentation. Let's see if-- share. This is-- the painting on the right is AI Created. but I asked it to do the painting in impasto, I-M-P-A-S-T-O, in an impasto form, which is the thick oil dabbing, dobbs, D-U dubbing, dob, D-A-B, dobbs, the likes of which Van Gogh used. But let's get started. The graphic, the cartoon on the right is what I wanted to bring to people's attention, but they may not be aware of what's going on. So you this guy is standing at his mailbox. He's got a letter out and he asks on his phone ChatGPT. Why is my electric bill so high? And this house is right next door to the new data center that has been put together. That was some of the articles in the New York Times were about what's happening around the world. In Louisiana on the left here, Meta or Facebook is putting together a Hyperion data center that is this size as compared to Manhattan. Well, this is the size of the data center. I have to admit, I don't understand what two gigawatts of power actually is. So the amount of electricity that's being used nowadays is immense for data center, you know, the size of Cincinnati or the size of Omaha, Nebraska can be powered by the amount of electricity used in data centers. One of the things that I'd like to focus on a little today, hopefully I'm successful in getting my iPad up. is what is the difference in processing humans? What is the difference in perceiving or producing written versus spoken communication? I am very biased towards print. But the point is, spoken communication is much quicker. I'm going to show you ways, I hope, today that you can enter material very quickly instead of typing it in. The nuance and context of spoken language is much greater. Much more information is carried in audio speaking when you interact with someone. in speech or a group of people, much more information is communicated. Tone of voice, the body language, the facial expressions. At this point, I don't believe AIs can do that, but Written material is much easier to store and retrieve. So people remember information they've read more readily than the information that they

received via speaking. I did receive an article from The Guardian magazine from someone. I'm sorry, I can't remember exactly who. that talked about how using AI in class, in academics, people's minds are much more active as they are typing the information rather than having the AI create it. So there's huge, huge differences in the way that information is produced. in speaking versus reading or producing type, typing text versus speaking it, trying to go through the material, the academics. You all remember prompt inference is what the AI produces. Inference comes from statistics. As you make a, as you run a statistical procedure, you, the AI or the statistical package comes up with an inference. What inference can we make from the result of the statistical procedure? That's all AI is now producing is an inference. large language module, multimedia language model, small language module, natural language processing, artificial general intelligence. Remember that. That is the assumption that AIs are going to know more than all human beings at any given instance. It's not there yet, but AI is more intelligent than most human beings. Rag retrieval, augmented generation that's happening, and we'll see it today. The corpus of information that the AI produced is trained on back propagation. What the gentleman Jeffrey Hinton won the Nobel Prize for is when the AI produces an inference, you as a user can provide information back to the AI. Bias, there's multiple meanings for the bias, but as the current administration is saying AI is woke, Keep in mind that AI is trained on the corpus of, let's say, the Library of Congress. That is biased information. The one I the reason being it the information is written. The bias of intelligent people that had to produce the text. Remember that the entire population of. The United States does not write. There's a very limited set of people that produce text information. I would very much like to go over enthusiastic affirmation. That's the way that the AI responds to you as you interact with it. It is always saying, oh, Jimmy, you're doing the right thing. This all this is so interesting. This is so interesting. Much what you're asking about asking about. I'd like to go over contact. Contact. Remember that we talked about Before I went into the material, we talked about the speech versus typing. That is the context that I'm going to ask your mind to go back to. We talked last week about the Zoomer versus Boomer people. Remember the Boomer? People think that AI is going to save the world. The doomer believes that AI is going to destroy the world. And P. Doom, if you ever hear it, is the probability of a doomed scenario. More information in misinformation versus disinformation. This is what we're getting now. Our current president producing information. He came with AI. What all the demonstrations last week, he produced an AI image about that. This is what we're going to cover this week, which Of these symbols, do you recognize? We're going to go through a bunch of them. This one up in the top left, I'm going to guess this is all from Google. This is Google Chrome, Google Gemini. This is Google's new search phenomenon. This is Google Drive. Google Cloud. Google TV. Maybe many people know this is Google Maps. I'm gonna guess everybody knows this one. We're gonna hopefully see that Gmail. Google Meet.

which is the Google version of Zoom, this is Google Photos. If you have Android phone, this is where it stores the photos that you take. And this is Google Docs, which is competitive with Microsoft Word nowadays. It's widely used. But again, this is what I brought up earlier. We're going-- I'm going to ask you to remember this. This is the context. This is what every AI generally is going to look like. And we're going to look at those. This is, I asked the AI to create this. I forgot which one, and they created this. In the AI, we're going to deal with, oh, this is the capabilities that I'm going to ask you to look for. Automatic text correction. It's on any device. You can copy, paste, and save your information. It can do an iterative step by step creation. This is what each of these editors, I'm going to call it, the AI editors can do. It has a short term memory. It can remember your conversation. It has a long term archive. It has a file cabinet. of all of your past chats, new things. You can drag and drop files. It can read images. It works in multimedia. You can create images within it. You can edit images with it. You can use the AI in other apps. You can set the AI's personality. I believe the default personality on most of the AI's is enthusiastic affirmation. It treats you the way I want to be treated. It treats you the way you want to be treated. Oh, yes, you're this is a great question. Oh, I'm going to go in depth. I'm going to ask it to change once we begin. You can apply an instruction that applies to every component of the chat. You can provide feedback. you can see the sources of where it gets its material that for generation. So I'm going to do that within Google Gemini today. I want to go through all of those different components. Remember that the young people, 20s and 30s, they see this symbol They know what it means. They know exactly what it means. Here's that general image of an AI, the prompt area down here at the bottom. And then this, I believe we get, this is what we're going to see in Gemini. Again, I pay for Gemini now. It costs \$20 a month, 250 bucks a year, \$240 a year. Same price as Netflix. Here's what we're going to look at. This is the items that you need to just see when you look at a page. the the adult, we mature adult tend to read like this left to right. top to bottom. They go down. They process young people see the whole page holistically, so they know to look here. here. here. Notice this is the picture of the AI editor. I've touched this symbol. I call this the hamburger symbol, and it broke out all of my past chats. And I'm going to show this in just a second here. Notice down here, tools. This is a picture of the Gemini screen with two items expanded. Notice, and I apologize if there's anything here that is inappropriate. I don't think there is. And then these are the different tools that you can use. I've just found out that you can't use VEO. I'll try it today. You can create image deep research, which is an in-depth examination. It will take five or 10 minutes to examine, and it will show you its thoughts. Canvas is if it writes something, it will present it on a different screen, so to speak. And guided learning, I haven't used that. But this is just a discussion of the different capabilities. This is the different ones on the iPhone. If you use an iPhone, the same symbols are available, but they are in this different, mildly different location. Okay, we

talked about the different Parts of the web page and we're going to go to that in a second. Okay, I'm going to go back one. And now. I'm going to try. To. Bring up. I'm going to share. But let's share. Oh, come on. share. Let's see what we got there. This is the real website, I believe. I still have some things. I'm gonna go to the web seminar materials. I'm gonna scroll down. and I'm going to try to find the prompts. Let's go here. And if you remember, this is what we had last week. Let's create a press kit. Let's see if I can do this with this big prompt. Come on, and I'm gonna copy. I'm gonna go to Google Gemini. And I'm going to paste it in. And it didn't. And figures for a press release. So here it asks, let me go back to this one and try to get another one. There. Copy. I'm going to go to Google Gemini. I'm going to paste it in and match style. And I'm going to change the product to Learner Mature Learner Seminars. So notice it's thinking, you can see it go through the process of thinking here. And notice that it's added the items in what I, oh, this is actually just a whole plugin from Google docs. This is, you know, a month. Here's a roadmap. If you were gonna go to a bank and make a presentation on a product you wanted to release. Here you go. It's this is a full product roadmap for 3 months. Within. Here's what. We're going to go through this after the break. This is within and then. Within. Google Docs. Which I wanted. I'm going to close this. And. Here it is. I'm going to open it. Let's see if I can copy it. Export to documents or copy. I can copy it. Export to doc. And here it is. I am now within the equivalent of Microsoft Word. And here are the the outputs. I would have to edit this, of course. and read through it. This is all of the information that I may want copied right into a word processor that I can then edit. Let's go back. Let's see if we can get a different prompt. Let's put together a slogan generator. Oh, that sounds real good. Oh, let's see. I have a little trouble with the there. Copy. Let's go back to Google Gemini. close this. And I'm going to click here on the left side. Notice how it lists all of my previous conversation. I'm going to create a new chat. I'm going to watch what happens if I just put paste. Oh, it worked. That was-- OK, let's put in for a new. The product is mature learner. seminars. It's gonna generate, I hope, and catchy phrases, memorable phrases for my own. There we go. 10. So I can go out and sell this. Learn for the best of your life. Oh, my goodness! I should sell that one. Lifelong learning refreshed. Oh, my goodness. I should take these to Ollie. Ignite your mind. No quizzes required. These are pretty good. Where experience meets discovery. I'm going to should I make these this is there we go make it a little bit larger and what I also want to emphasize here is the information that I went through but let's let's go look at these are a black hole this is I hate to admit. This is what I do when I wake up in the middle of the night as I ask about singularities and dark holes. and how singularities the dark hole bends space-time. Here's an oh, this is another, you know, I just. But oh, I I'm in a class right? I can go back. And here's the one that I just did. Here's the publicist information that I just created. So the objective of this is to show you the information. I can close, open this, close this. Let's go down here. Notice that I have a canvas. That's the

that's what Google calls this side piece where you can see the outside. Google calls this canvas. I call it artifact because that's the first time I learned it. A week from now or two weeks from now, we'll see in Claude this same phenomenon of the Canvas. I'm going to close that. Notice there is the various tools. I don't think I can create with video yet. Oh. Oh my goodness, they just gave this to me. Durac. Dirac equation in motion. I don't think it's going to work, but I'm going to try it. Oh, it's going to take a couple of minutes. Any questions so far on this is within a browser here.

Speaker 2

Well, this this looks very similar to the interface for ChatGPT, which I subscribe to now. Same price, \$20 a month. My question is, it would not surprise me if Claude was very similar to this. And, you know, in other words, How is an AI system going to be able to differentiate itself so that it is going to make the trillions of dollars that investors are hoping will be returned? Because right now this is looking like it's on the trajectory to becoming a commodity.

Speaker 1

Yes. although I think it was the notice I received after the morning paper. 1,200 people are being laid off from Meta from Facebook and 6, no, no, and it's in the AI division of Meta. They're letting go 1,200 people. My old time equation is \$100,000 per employee times 1,200 employees, that's a lot of money. So I think the one issue that it's going to do is it's going to reduce the headcount or the number of employees. I, I've asked myself this question, and it took me back the night. 1990, when we were introduced 50 computers into a large office, what was going to happen? How was it going to reduce money, reduce costs? And the issue was the savings came from reducing clerical staff, office support staff, the professional that was producing the materials now made all the corrections themselves. They did not send it to their secretary. So that is part of where the money is going to come from. But here's the video. Yes, it has some sound to it. It's not too good. But what I want, the question, how's it going to make the money? How are they going to differentiate themselves? My first thought was good. They got the idea that I'm trying to present. is all of the AIs have a similar format, and the controls within the editor are locatable now to we mature learners. So that part got across. The question, how are they going to differentiate? I truthfully don't know. I don't know the answer to it. One of the answers is going to be through advertising. That's where Meta and Google make their big money is they starting to integrate this AI into their search functions and to their posting and advertising on Instagram and Facebook. Keep in mind, Instagram and Facebook are the same company. They're placing advertising in front of people using those products. That's the primary goal of it. Amazon Corporation uses Anthropic to put the recommended

products in front of your face, in front of your eyeball. Well, that's gonna be how they're gonna use it. And there's a greater connection between what they put in front of your eyeballs and what you buy. So the click through and success rate of an ad is the success rate being, oh, they clicked on it. And secondarily, they bought the product that will increase. Let's see if I can do this part here. Maureen, I think you see my face. And I want to, this is, let's see if I can, I'm not, oh, is it, is it advanced? Share. It's, oh, That's not what I want. Oh, wow. Oh, that's not. Let's see.

Speaker 3

Is this break time?

Speaker 1

Let's do a break time. Yes, I can make my mistake here in front of people. Let's stop and start again. So let's do a break. I can make my mistakes. I thought I had it set up, but I guess I didn't. Let's try this one here. Let's see. Oh, and do you see this? Yes, there we go. Yeah. Do you see my iPad now? We're on a break. Set a timer for 5 minutes. Just one moment.

Speaker 2

So I asked Google's AI what the total global spending on internet advertising is, and it's a little bit less than 800 billion per year. A lot of that So the question is what, when they introduce, is there essentially, are we getting close to saturation from advertising as a revenue stream for internet companies? Or is there a tremendous amount of growth in new, better, more effective advertising of using AI. You know, this is the big gamble.

Speaker 1

Oh, yes, it's a huge gamble. And the question in the New York Times article was, what's going to happen if the quite, you know, the doubt that I'm hearing in your back, the back of your mind when people realize that the \$100 billion investment in OpenAI is not going to produce the required return on the investment. That's the huge question there. I think we can use the comparison with newspapers, magazines. look at the way that art that the Internet ate the lunch of newspaper. The newspaper advertising function has 50 60% of all advertising revenue now is online. So I think what they're gonna start to do is to eat each other's lunch. So perplexity just released the browser trying to eat Google launch. Somebody else just released a new browser. Who was it? I think ChatGPT just released the browser where they are going to try to supplement, not supplement, but replace Google Chrome as the default browser. and that you don't go to Google.com to do your search for information. You go to Atlas, I think, was the name of the ChatGPT browser. and it's comet

is the name of the perplexity browser. You're asking the exact correct question, where is the money going to come from? And it's Nvidia, which is a \$4 trillion company, is going to sell their chips. They're going to continue to sell. So they'll get there'll be a return on their processors. What was the other one? Apple Corporation is approaching \$4 trillion valuation. They're going to continue to sell their iPhones and iPads and computer. The question is, Is Facebook still going to control the minds of people? Instagram? What was Oracle has just purchased TikTok for 100 billion dollars. Where they assume, Oracle, that they are going to get advertising volume from TikTok. I don't watch TikTok. I don't know anything about what's happening on TikTok, but it's the latest and greatest talk about out there. So let's go here. Let's see if I can get to my touch ID. I have to. There we go. and I go to my browser Als and let's go to Gemini. So the question is, where is the money going to come from? And it once we go back, I'll we can go to Google just to show you what mine looks like. But the point that I want to make here is that on all of their On all of Google's interfaces, there's a commonality between them.

Speaker 3

I want to speak a minute to Carl's question about where is all this, where is the investment money going to come back? And I was listening to two financial guys, I'll have to look up the podcast, and they were saying it's the ancillary companies. It's the companies that are going to get increased productivity and be able to remove employers, employees, speed up their work, and the like coding, a lot of things that are able to be done by AI when it gets as efficient as it can be. And that I thought the article that Jim put out today that was from The Economist, about how the training, putting up these tough puzzles and getting to solve the puzzles. And then they can't reuse the same puzzle because they've already solved it. But that race to find out a difference in how they can solve things will probably be the benchmark that people are using to decide which one gets to the goalpost first. Those are my tips.

Speaker 1

Yes, the coding issue is producing results financially already. Some of the major coding functions, they are not hiring junior coders, people that they have to bring in and in effect train for six months on the coding fingerprints that a company has. You know, all of these companies have their own style of coding and you bring a new employee in from Carnegie Mellon University. It takes that employee six months to a year to be to get up to speed. Those people are not being hired now. But let's I'm going to just quickly go through This is on my tablet. You can see the information that I've looked up on this particular one. Here's the information. This is the emanation of plasma. From dark holes. This is Hawking phenomenon. This is in. That's how black holes collapse. So you can get the idea of what.

So this is. Information and then I could have a new chat. close that down. I like this one. Let's see if I can do it. Say, is everything going okay on your side of the world, Google?

Speaker 4

Oh, you know, just the usual tech stuff. Trying to keep up with all the latest trends. How about you? Anything exciting happening on your end?

Speaker 1

Yeah, I'm doing a presentation now on on Zoom to about 40 people, 40, 50 people, and you are the star of that presentation.

Speaker 4

Wow, that's quite an audience. What aspects of me are you highlighting in your presentation? I'm really curious.

Speaker 1

What do you think we should present?

Speaker 4

Well, we could explore my ability to access and process information from the real world through Google search. Or maybe discuss how I can help with creative tasks like brainstorming new ideas or even drafting different kinds of writing content. What do you think would be most interesting for your audience?

Speaker 1

Well, right now, one of the topics of discussion is the difference between printed text and verbal or audio interaction with AIs. How is that different for the human mind in processing?

Speaker 4

That's a great question. When we read, our brains process information in a linear way, focusing on each word and sentence. But with spoken language, there's more emphasis on rhythm, intonation, and pauses. It's more dynamic, like a conversation. Does that make sense?

Speaker 1

Yes. Now, the final question here in our presentation to people is, are you able to determine the emotional content of my speech as I speak to you, or are you just looking at the text itself?

Speaker 4

Ah, that's a really interesting question. I'm able to analyze both the words you're saying and the way you're saying them, so I can pick up on the emotional tone in your voice, not just the text itself.

Speaker 1

And so an observation on the street, let's say, in public, the Russian government or the Chinese government could be monitoring what people are saying and the way they say it.

Speaker 4

That's a really important point. The ability of AI to analyze both the content and tone of speech raises some serious privacy concerns. It's definitely something we need to be mindful of as this technology develops.

Speaker 1

Thanks, I'm going to go here. So notice in the background there that this is what it spoke. This is the conversation that we just had with the AI. I wonder about its ability to assess the emotional content of speech. Or does it have it has a camera and it can see my face? And it determines from the nuance of my expression. That's a question that I have. The so that let me see if I can just very quickly bring up the phone. What am I? Oh, let's go on the Wi-Fi JM pan. Let's see if I can share now my iPhone. I may not-- oh, let's see here.

Speaker 5

Not seeing your iPhone?

Speaker 1

Just one moment there to James Mack's studio. And now you're seeing it. This is. Oh, you're not seeing it?

Speaker 5

Nope.

Speaker 1

Let me. Oh, let's try once more. My bad. I let's see if it's the same one here. No. That's my, that's the iPad. And this will be the final attempt.

Speaker 5

Nope.

Speaker 1

You're not seeing it now, eh?

Speaker 5

Nope, not seeing it.

Speaker 1

Oh, my bad. Well, just believe it that, I don't know, let's see if I can. Oh, my mouse is closed. Stop sharing. There we go. Oh, sorry. I lost my mouse there for a second. So I will go back to the slide and desktop two. Let's go to slide desktop two. And then I'm going to bring the slides back up. And I'm going to go back to this here. And I'm going to share. And what I wanted to do in the final 30 minutes is just look at the help me write component. I'm going to guess that many of you have seen it. We're going to look at two or three different Google products. Keep in mind, this is the suite of products that Google provides. If that we're going to look at Google Docs here. And again, this is I'm paying now. And this is what Google Docs looks like when you start it up. The important thing being your authentication There is the know your customer element that all of these companies have to know who is using their product. Here's what it looks like. This is what you get when you start a new document nowadays. Notice. the menu structure, the file name. Young people understand this just intuitively. We mature learners have to be exposed to what this actually does. The word processing menu, the document itself. And notice, help me write. And then notice over here. Help me write icon. Okay. Let's create a proposal that responds to a request for consulting. I put this as an example. I put it in. It may change its appearance, especially the first few times you use it. Then it goes through a processing and this is what the document ends up looking like after you're through. Notice in the middle is the document pop up back propagation. Is this good, bad navigation within it? Sharing the document, Google application information on the side here. There's almost too much information on one screen, but we'll look at it. Notice here, this is what was put together. This is, I think I exported it to a PDF. This is all the menu information that's available in Google Docs. Way deep is Gemini. Let's now stop sharing. Let's go to my browser. Let's bring up Now I'm going to share the information again, desktop to share. And I'm going to see if I can go to docs.google.com. This is the information you're seeing this Maureen. Yes, the screen. Here

is all of the information that I've created before. Here are templates that you can use. But I'm going to start a new document. And notice how this shows up right within the document. I'm going to click on Help Me Write. I could go to that information that I had before from the session material, 100 prompts. Let's see if it will. Copy it. Go back to Google Docs. Untitled document, put it in there, paste and match style for a new training training facility at our local University. Let's see what it generates. Notice it's unique. Oh, here's the things. I can refine my prompt. But no, I'm just going to leave it. I'm going to propagate information back. Then I'm going to insert it. There is the information. Remember I said that help me write is still there on the side of the screen. Add an emoji. I guess people like that suggest edit. I'm not sure what I'm going to see in that. Let's see if I can. Oh, this is a unique thing in Google Docs is I can share it with people. I'm I'm gonna skip this particular suggesting. And I can share it with people. I could share it with mostly, I think it's Google people, Maureen. I could share it with Maureen. All of these people, I could share the document. This again is within Google Docs. Remember, Google Docs. This is the article that somebody asked the question, this is a quantum shift, about 30% of people using AIs for conversation. This was the article where I got that information. I sent that out. But let's use this and I'm going to put gmail.com. You'll have to excuse if there's anything here that shouldn't be. I'm going to delete a whole bunch of these. I'm going to delete those. and I'm going to create a new document. and I'm going to expand it. and I'm going to what does it pop up there right in the beginning help me right I'm going to click on it down at the bottom I'm not sure it's showing up on the screen down here right to seminar our participants about our January 20 ninth meeting. So again. create. Oh, make it rate this suggestion. That's not very good. I'm going to recreate That was, let's refine it, elaborate. I could formalize. Imagine the, and I'm going to insert it into the e-mail. Imagine a boss somewhere. doing this to their 15 employees oh generate a message about our meeting tomorrow morning at 9 o'clock everybody has to be bright wide awake so I'm going to stop the share and oh I didn't need to do that I'm going to Share again, e-mail, share the desktop. Here is help me write within Gmail. Again. the compose user authentication. There's Gmail. I'm not even sure what that one is. Again, the Prompt shows up. I made the window much larger by hitting the center here. This one right here would make it. The composed within it, down at the bottom, put in the composed. Here I put something in. Here it generated the message. I can recreate it. I can shorten it, which I did. I can insert it into the message. I can edit information further if I want. Look at all of the information that's on that bottom line. How many of these different symbols do you recognize? This one is the help me write, you should know that from the course. This one is the Google Drive. This is insert a picture. If you were sharing with people, you can lock things. So Bing.

Speaker 3

James, I just.

Speaker 1

Yes.

Speaker 3

I just opened up my Gmail and it doesn't show any of these until I go up and enable the Gemini. And then it has this little sidebar that says, you can start using this and it's kind of an all or nothing. So is it because you're subscribed to this that you're seeing all of these tools inside of Gmail, inside of Google?

Speaker 1

I do believe so, yes.

Speaker 3

Okay, fine. That for me.

Speaker 1

I am, keep in mind, I started and enrolled in a program where I was, they, they, Google, looked at all of the material I was producing and the way I processed the screen so that they could edit their interface, the user experience. They observed what I was doing. I forgot what that was. I had a slide on that, but it's back away. But You are correct. I'm paying 20 bucks. We can go and test something here.

Speaker 3

I just looked it up on my thing, and when I click on it, does take me to a screen. It gives me one month free, and then it's \$19 a month, or you can get the Ultra at \$124 a month for three months, and then it goes to \$249. So that it is, it is now, you now have to pay for it to get it to run in your, in your.

Speaker 1

Browser, e-mail.

Speaker 3

In your Gmail e-mail docs and all that. So just a clarification, which is kind of fine because a lot of people don't want to turn this stuff on yet.

Speaker 1

Oh, that's understood. 20 bucks a month is not chunky.

Speaker 3

This gives you a way to not be pestered by it. And that may be another thing of an answer to Carl's question about how they're going to get their money back. People are going to start paying for the use of the tool.

Speaker 1

Yes, I wanted to discuss the whole panoply, the suite of products that Google has. that a company, if I were to start a consulting business that has 10 employees, and it's going Jimmy consulting. I can make a domain, put my website in Google. I can have that. Oh, somebody's got their information in there. It sounded like it was Turk. But you can have your e-mail branded with that domain. You can have your documents produced and limit access to it by people using only the e-mail addresses within your company, only the people that have the domain, jimmyconsulting.com. So you can create your whole business data system within Google. So yes, you can do that. That's what Google is selling. It is \$12 per user per month. So imagine I started jimmyconsulting.com. I have 10 employees. They're using Google Gmail. They're using Google shared environment where we're writing documents. We're conducting seminars through Google Meet. That 10 employees, \$120 a month. What's that? Come out to \$1,500 a year that Google makes from me. So that is how they're making money. Yes. Let me share once more. Go here and share. And I want to or get in. This is if I got an e-mail. You can summarize the e-mail with AI. There's an example of the summarization. I'll try to get back to that in just a second. Here you can reply to an e-mail within Gmail. OK, let me see if I can get-- Well, I got to stop. That's the drawback that I can't get. I'm going to stop and bring up my browser once more. And then I'm going to share my screen again. Share desktop too. So here's, let's see, here's one that I wrote to myself. There's not much in it. I'll go back to my inbox. Let's choose. Well, it's the North Mountain post. No, I don't want to do that one. That's the oh, look at this. So I'm gonna try. Let's see if I can summarize. Where? Let's see if I can summarize. Let's know. Let's let's go up here. Click this one and summarize this e-mail. Here's the summary that they just put together. I can reply. help me write, read the message and then ask the writer to give me a price quote for 10 users. Let's see. Oh, I didn't write that wasn't in the AI. That's in the actual. So I'm going to cut. And put it in the help me write. Paste. There's pay. Great. So there is the response that I've done. I can, what does, I can, here's the response. I can insert it into my message and then it will go back and send it. So this is what they are calling slop, AI slop. So everything becomes AI generated. It all becomes AI generated, AI examined. Any questions here as we are. I again. Let's see if I can Here are the AI interfaces beyond the prompt itself. What can the editor, one of the items that we

focused on today is the editor and where the buttons are. What else is going on behind just the prompt entry? The AI is remembering chat history. I can go back and pick up a conversation that I've had with an AI a week ago. The context of the memory. the context of what we were discussing. I, if you remember back to the theory of mind discussion, how you can use the expressions of people when you talk with them, you are making judgments upon their facial feature, their hand, their posture, their body and language. If I start talking on a topic with a person and they have a question on their face, they may, I'm going to make a judgment. They don't recall the context of the conversation. So I have to Gen. up a slight topic to bring the context of our conversation to the humans mind. That happens with AI. AIs understand pictures, text, images, audio, and more. It works with existing apps. We just, that was one of the big demonstrations today. It can edit images, it can extract text, and it can output in different formats. The items that are coming that we are going to see within a year or two. I think it's happening in Claude right now. You will be able with Agentic as an agent and proactive capabilities of an AI is you can give AI a complex goal And not just a single prompt. You can ask an AI to go and find you the cheapest ticket. To Warsaw, Poland from. Medford Airport. And it would go and do all the work for you. Just on a verbal prompt. It can analyze and develop a multi-step. task what does it take to go and find the cheapest or the best that those being different uh flosser I just bought a water pick flosser how can I have it go search out on Amazon the best product and what becomes dangerous it could buy the product for me it's going to start predicting what I may want. Deep information that's going to be happening. Ask it to show its work. This is the legal issue that's hitting these. How did it come up with the response? You can control for it being more creative, or stick solely to the fact. You can ask it for its bias and what is influencing its answer. Yes.

Speaker 2

You can also ask for bias. So, for example, you can say, Please adopt the role of of a propagandist in the communications ministry of the Russian Federation. Please give me a press release explaining why Russia is winning the Ukraine war. And it'll do it'll do it'll provide a very good, very biased press press release.

Speaker 1

Yeah. The beginning where the misinformation versus disinformation.

Speaker 2

This is where I can also see a huge revenue stream for AIs by state actors who have as their goal manipulating public opinion. And that's, very much related to advertising, but it is actually more in the political domain than the commercial domain.

Speaker 1

Oh, yes.

Speaker 2

I would think of government. So I mean, it would not surprise me at all if AI was now being very extensively used within our own government.

Speaker 1

You are absolutely.

Speaker 2

Correct. To propagandize, slant, sell to the American people all the great achievements of the of the Trump administration. You know, so.

Speaker 1

This is scary.

Speaker 2

This is we're entering a new era. And, you know, AI can probably do this better than human beings at this point.

Speaker 1

This is the example of that exact point. Back, if you remember in Ashland, they had a bond initiative for a water plant. And I put together my study Part of it was to learn how to do this drop down. But from the chairperson of the Water Bond Initiative, I took, I captured his speech and put it into text. Here's the comments that the gentleman made, John Williams, I think his name is. And then I asked the three AIs, Microsoft, Copilot, Claude AI, and OpenAI, to examine the content, the general sentiment of this speech. Here's-- so this is the three AIs. We talked about it last week, having AI's check AI's work. So I did all three of them. It expresses frustration and criticism. The news today, I think it was today, in the Department of Defense. I full disclosure. I worked for the Department of Defense for 25 years. They now are. They've kicked all of the reporters out of the office. Because they would not sign up to. Submitting their reporting prior to publication. All requests for information to the commands. So the Pacific Command, the European Command, the Southern Command, the Cyber Command now have to go through the communication office under Pete Headstaff. So all of the requests for information go to the central office. What's the first thing they're going to ask it? They're going to put it in AI. What's the tone this reporter is asking? What what are the drawbacks of the providing this information? They

you are exactly correct. That that is what they are doing. They are using it for sentiment analysis.

Speaker 5

You think that is what they're doing?

Speaker 1

I think that is what they're doing. If I was in the communication office, that's what I would be doing. I would be using all of the different AIs to analyze the emails that I'm getting from a parent that is upset about info. You know, I don't know if you've seen it. Department of Defense now has to put these books back in their base and school libraries, the LGBTQ information that they had to take out of the libraries, the ACLU got it, so they have to put it back. So now when I get the e-mail from a parent on this topic, I'm going to be able to analyze it, oh, what it I'll be honest, I don't analyze emotional content well. So this would be a huge benefit for me to try to analyze emotional content. And you know.

Speaker 5

Let's clarify that when you say Department of Defense, you're talking about Department of Defense education activity.

Speaker 1

That's where I work, yes.

Speaker 5

Yeah, so anybody who doesn't know that would be, we're not talking about the straight Department of War.

Speaker 1

No, I refuse to call it the Department of War. I don't want to get into that particular politics. But back to the slide, you can share a document. So I've created, I work, let's imagine a scenario where I work in a large office communications system. And I create a document with AI. I can share it with all of the subordinate offices, you know, the office in Europe, the office in South America, and we can live discuss changes to a document, you can have AI act as a neutral moderator. This is what's coming. This is not where we are. This is what is coming. AI can be the moderator. It can learn my style. I use AI to learn a lot. you could probably see that. I use it to have it generate these quantum mathematical images. You can teach it various things over time, but let's stop the share. Let's say it is 2:30, And we're at where any questions that people might have.

Speaker 6

Yeah, Jim.

Speaker 2

Is there a is there a?

Speaker 6

Function that you showed about writing Gmails, writing Google Docs, and using AI sort of reinforces some of that Guardian article that says over time they felt that we're going to dumb down humans. That is what's happening now. Because one of the remarks in that article was that when her students started using AI, their papers became more detailed. Their conversations had more detail. But yet when you asked them about it, they couldn't answer without having to look at their computer. So really, how deep is it being left in the brain? So we're disrupting our normal learning processes.

Speaker 1

Yes. University professors are at a loss. University professors have not yet figured out how to deal with the generation of term papers via AI. They don't know the answer to that question. ER information. I feel confident in saying most ads that you see in the newspaper or on TV have been run through AI to determine the possible responses from people. So yes, there is a very definitive study, I believe, that talked about the brain function of people taking notes with the computer in let's say a law school or in a graduate seminar where you're sitting in the big auditorium all the people taking their notes with a computer versus people writing with a pen in a notebook the people writing using their hands to generate things remember the seminar better than the people who are taking the notes with the computer. That's the same scenario. And the meme is AI slop, S-L-O-P. All of the information that people are producing, the AI slop of a term paper, It's definitive and well written, but the writer of that paper did not get the benefit of integrating it into their mental structure. That is the problem of generating all of this stuff is it does not become The human themselves does not generate it. The cogitation that the human being has to go through to produce that information doesn't occur. And it doesn't get entered into the cognitive structure of the individual, which is why professors had people write papers, not - the product is not paper. The product is the integration into the human's understanding. That's the conundrum that's occurred. People are assuming that the product is the paper, is the composition, is the thesis. Really, the product that the university is trying to produce is inside the heads of the 50,000 students that are at the university. And that is getting lost with all of this AI. You add, you're absolutely correct.

Speaker 5

Elena has her hand up.

Speaker 1

Yes.

Speaker 5

Elena.

Speaker 3

Yeah, I just wanted to add to what you were talking about, the the the part that's left out of AI is the kinesthetics. So part of what ingrains the thinking in your head is the motor operation of your hand and how it's connected to your reading, your reading, the reading circuit that you develop as a in the critical period of adolescence is when you get fluid with reading and and that that maturation piece of humans learning is being changed by, like you said, the kids see the whole screen, whereas thus, those of us who read to learn to read on paper, but the idea that the computers have not gotten what it needs for the kinesthetic part of us to remember how we learn something. And that's a piece of science that's really being developed pretty heavily in the science of reading realm that's being now reintroduced into the public schools to bring up a lot of these low reading scores because they thought they could replace reading on piece of paper with reading on a screen, but because of the kinesthetics of where your eye is on the page, you remember it from a piece of paper in a way that you do not remember it from reading on a screen.

Speaker 1

Yes, and the reality of our human being is that a lot of communication occurs through in aesthetics. That was from way back is the words that a human being speaks comprise only about 10 or 15%. of the communication that occurs. There's the tone of voice, the facial expression, the kinesthetic of hand movements and body language that occur. Yes, that that is being lost. It is being lost. The gain is the In reading, again, the speech versus reading, reading has a tendency to allow the human to go more in-depth on the subject rather than the volume of communication that occurs. I think I got a little lost there in that conversation. But any other questions? I apologize. Any other questions here? Carl, I see Carl has a hand raised.

Speaker 2

Yeah, just a comment on what you were saying about the purpose of the product of education. That applies not just to students in universities, it applies in the workplace. that

the product, the experience that companies actually compensate employees for after they acquire more and more knowledge and in their position, a lot of that is almost certainly going to get lost as well. The the more dependent they get on AI throughout the workplace. And so AI, I would think would be not so much for the experience, those who've already gotten experience, right? They've got the experience in the job. Their brains are very well wired for their particular area of expertise because they've gotten that experience the hard way. And now they're able to use AI to supplement that. and, and critique that output. But you get a young person who's gone through, you know, and his undergraduate years with AI and is now in the, in a corporate setting, trying to gain, trying to gain the, you know, the experience, because, you know, the neuroscientists say, the brain, the neurons that fire together wire together. Well, AI really attenuates the firing part of that process. So you're not getting wired as well, I don't think, if you're dependent on AI to do most of your thinking for you. And so the workplace is going to deteriorate, I think. The critical thinking in the workplace is going to deteriorate. That's what I assume.

Speaker 3

Can I add on to what you're saying? There's a really sophisticated article by the OECD on the effect of AI in the workplace. And it's commentary, which I thought was kind of enlightening. It says, employers are going to be looking for specialists that already know an area. And they'll use the AI because AI comes out with the common, the most common denominator answer. And they're going to be looking for people who know what the exceptions are. What are the specialties? What are the ways it can be enhanced? So the people who have expertise are going to be in demand, the old gray hairs. because they understand a circumstance and can enhance what the AI gives back to them. And that was the OECD's take on this conundrum that you're presenting, Carl.

Speaker 1

And we're the people that are living the life that is going to solve all these issues. Isn't that unique? What is that? May you be blessed with living in, or may you be cursed with living in interesting times.

Speaker 3

May you live in interesting times.

Speaker 1

Yes, that's all.

Speaker 5

So you're 15 minutes overtime. I just want to let you know.

Speaker 1

Okay. The one of the responses to this dumbing down effect. Is that human beings will then have the. Leisure to deal with higher order. Thinking that the AIs don't. Put together. And, again, back to Alina's statement about. The common denominator. Keep in mind that I brought this up at the very beginning of the this summit, this session. Is that. all of the corpus that the AI have trained on are from talented individuals. You have to write the text that it is using. So the corpus of materials, the average, but that the AI assumes is going to be more educated people. So I hope I got my point across that the AI is going to be more intelligent than the average human being. It is the average of educated people that is going to be the average produced by AI.

Speaker 3

I have another question that's on a different topic. If anybody wants to finish up what they're talking about, I have another question for.

Speaker 1

You. Go for it. We're all we got.

Speaker 3

OK, in your last slide, one of your last slides under #4, advanced, personalized and privacy, you have this on device processing and offline mode for 100% privacy. Now, my little goal, my personal goal is I have maybe 6 terabytes of my personal photographs I've scanned, my mother's diaries, history work, et cetera, et cetera. And I would like to run an AI on my own personal data and not necessarily put it up in the cloud. So I've got a faster computer and blah, blah, blah. And I was all of a sudden thinking, maybe that's my ticket into where I could find the software that would allow me to do an AI analysis on my own data. Is that what that prompt means when you say on-device processing?

Speaker 1

No. What you're looking for is what we'll be covering next week, which is Google Notebook LM. Notebook LM. Just type notebook LM dot Google and it will come up. That's what we're discussing next week.

Speaker 3

It's part of the. Will that do photographs besides just large language?

Speaker 1

Yes. What #4 was the on device processing is the. small language module. They're shrinking the size of the model from 8, 1222 gigabyte down to one or 2, and then the the processing can actually run on your iphone. and it does when you. When I all of these examples that I ran today. it just consolidates it in the AI, and then in the editor, and then it transmits it to Google's warehouse. It processes in Google's warehouse, and it sends the inference or the answer back to the editor, and the editor displays it. So it always goes to the warehouse, to the cloud, What they're talking about is-- and Apple is the one that's leading this process-- is they want to run the AI processing. The speech to text, speech to token translation, the search within the database, within the language module, And then the inference or the answer comes back, and that all occurs on a phone. And the phones now have the processing power to do it. The question is, can they get the module small enough to be responsive?

Speaker 3

And megatized version.

Speaker 1

Yeah, and that it does. What is the issue? when you were saying that, I think to motion pictures, the original Thomas Edison motion pictures, it's 30 frames per second. Worse when you see anything, it's still images flashing. at 30 frames a second and your mind thinks it's motion. Can the AI that resides on your phone be fast enough to produce something that your mind perceives as a human-like response? So that's what, you know, it gets back to that theory of mind issue is can the processing power of a phone produce an inference valuable enough to change a human's perception, make it think that it's a that it's a full-fledged AI doing it. But back to your question, Notebook LM.

Speaker 3

I just looked it up and it doesn't, it takes your data and puts it up on its, it takes it, takes it to the, it takes it to the web. It doesn't let you process it locally. That's what it, that's what the instructions that I'm reading about it say.

Speaker 1

It does, it does not, the claim from Google is that it's not incorporated into their AI's.

Speaker 3

Right, but you're having your data.

Speaker 1

Yes. Right. Keep in mind that the. Compute. The compute to build the database, compute to build the. The language module. The amount of computing necessary to compute. The. Module is less, is significantly less. Then the compute. Necessary to deliver the inference.

Speaker 3

Okay.

Speaker 1

So that is the huge differential between producing, integrating the images, the text, into a language module is huge. The compute needed. Producing the result or an answer from that learning module is much less. The compute or the inference is much less than the compute or the integration into the module.

Speaker 3

So that leads me to the question of, as this thing is retrieving data out of it, and as it's putting data in, is it, so like in Oracle, you know, they have this big relational database. Is there a kind of relational, is there a kind of model database that this stuff is being compiled into so that it can be extracted from. Therefore, you couldn't just put up 45 pictures. It has to take it in, modify those pictures, put them in a retrievable file structure.

Speaker 1

Database. Yes.

Speaker 3

Data structure so that it can get it out easily. Okay, that complicated.

Speaker 1

It is a multi-dimensional array. It is, you know, if you think in programming language, the way that I am understanding that it is stored is that it is a multi-dimensional array. That it's, if you think of arrays, we were dealing with two and three character arrays of information. These people are now thinking in arrays of a thousand elements in the array. That's that's what a my understanding that a tensor is. It's a thousand character array, a thousand variable array that you know the 999 vector of the array can have an infinite number of elements in it. And all 1,000 of the elements in their array can have an infinite number of materials in it. So it's...

Speaker 3

So they call those tensors.

Speaker 1

That is my understanding of what a tensor is, yes. The tensor is the array, the huge vector array. It's it's and then in linear algebra, the the linear algebra has vector mathematics in it. So in the array it is multi-dimensional. So the vectors that the AI can search using the NVIDIA G graphics processing unit is close to infinity, and it can do it instantaneous. So the large language is not going to run on your phone. You're going to have special purpose elements that are going to run on your phone. I'm going to call it.

Speaker 3

Thank you. That's very instructive. Thank you.

Speaker 1

I'm and we're going to we're going to see Notebook LM next week. That's going to be the first part of Notebook LM. I think it's sliced bread. But that thank you very much, folks, for coming. I greatly appreciate you participating in the seminar and we'll see you next Wednesday, 1 o'clock. Char.