We're going to have some fun and I only have 20 minutes and just know I usually have about an hour. So let's jump right in. Let's set the tone. Come on.

If we can up the volume. That's one of my mission parameters. I'll drive. Trust me. All right. And let us just jump into the next one. In the Next one, let make sure we get the audio up a little more.

As a patient advocate, I'm excited about the potential of AI in health care. I enjoy seeing following Dr. Castro on LinkedIn. Accurate early disease detection, groundbreaking.

This technology promises a future where care is customized to each individual's unique health profile. Keep up the good work, Dr Castro. Yes, predictive diagnostics within reach.

Thanks to innovation in this field, personalized health is becoming accessible to all. I'm happy to see that Dr. Castro wrote the first book on chat, GBT and healthcare back in 2022. No more injuries undetected.

Hi, as an AI researcher, I collaborate with medical experts like Dr Castro to develop technologies that predict health risks, personalized therapies and support surgical procedures.

Our aim is to leverage AI to not only improve health outcomes, but also to save lives. VideoGen AI medical imaging transformed. The new iPhone 18 will leverage small language models.

I am excited to see what applications Dr. Castro will create. He has several Apple Vision Pro applications out. Yes. Predictive diagnostics within reach guided by Dr Castro's expertise in AI and health care.

Now let's make sure all of us at this conference follow Dr Harvey Castro lead in revolutionizing health I am happy to see Dr. Castro as the speaker today at this conference.

His insights are invaluable. All right, well, we have to start with some fun, right? All Right, so, and this is an AI conference, I can get away with this kind of stuff.

So every slide that you see has used AI. This video that your about to see was just text to video, even down to some of the wording. this image right here just shows you how many startups as of March of this year.

I mean, look at that, that's just ridiculous. And these are all AI startups. and so obviously we're seeing them in every industry. i'm sure if I polled everybody here, were in all the industries and you guys can have heard of some AI in your industry or something coming.

There's that video animation. I literally took this slide and I put it into AI and said, give me a video for this line and that's the image and the video.

As we move forward, what is the current state? As a doctor, I'm really passionate about this because number one, there's not many people that are really pushing it as far as doctors.

So I am taking medicine and AI, and putting it together and saying, no, these are the ways that we can help our patients and let's do that now. And so when I look at how we're able to increase our lifespan, increase out healthcare professionals, there's so many people that are wanting to retire.

Tons of nurses are like Harvey, I'm out, and I've done. And I wanna give you some quick solutions of how can we make sure that our healthcare professional stay here for a longer time.

So this is a story about Alex. Just curious, has anyone heard about this case last year, you guys? Okay, good, not

many, awesome. Basically this poor child, imagine going to the doctor, 17 different doctors, to be exact, and none of the doctors gave you an answer to what was wrong with you.

And imagine you had a little child named Alex, your little kid was like, Mom, I can't play, can go to the playground, my leg hurts, so much pain. I mean, how horrible that would be as a parent.

Then for three years, three year not knowing what's wrong your child, that really devastates me when I think about it. Obviously, I'm about to say, ChatGPT gave her the answer.

She took all the medical data, all of the reports, the history and physical for 17 doctors, uploaded it to Chat GPT. Now, granted, you're not supposed to do that, HIPAA and all that stuff, but play with me for a sec.

But then Chat GPTs said, You know what? This could be tethered cord syndrome. And then she went back to the neurosurgeon and said hey, chat GPTs told me this.

I almost died there by the second. And then the bottom line, ChatGPT told her. And I thought, man, what a story. This is the one slide that I'm like, this is why I do this.

I think it's so amazing, and this why we need to do something. As we move forward, another thing, I wish I had an English accent, like a really cool English.

So I cloned my face, made this video, said, you know what, here's my clone, read my slide. What are the AI components in healthcare? Definition, artificial intelligence, AI, simulation of human intelligence by machines.

Key components, machine learning, ML, algorithms that enable computers to learn from data and make decisions. Natural language processing, NLP, allows machines to understand and respond to human language.

Computer vision, enables machines, to interpret and, make decision based on visual data. Robotics, application of AI to perform tasks that typically require human intervention.

All right, well, I wish I had that guy's accent, but that's for another story. In the interest of time, it's the same slide. I'm just going to flip to the next one.

So everyone, not everyone. Everyone in medicine has heard of Watson AI, and this was supposed to help us in oncology. We're supposed come up with these algorithms.

And if a patient came to me, i was able to look at all of the data that is out there. They would say, hey, doc, here's a treatment plan. Unfortunately, they didn't come to anything.

If they ended up selling, then go any far. But these other two companies, took that concept and I feel like they're doing a better job. And I'm starting to see now signatures of now they are doing those things that Watson was hoping to do.

What's the difference? Our GPUs, our power, I mean there's so many factors now that we can get things done. So I am really excited to stuff like that.

Cleveland Clinic now claims that they can do predictive analytics, and they reduce readmissions by 12 percent. Different hospital systems are doing this, New Yorktron, GatorTron.

What it is, is they just created their own large language model, let's call it ChachiB2 equivalent. They took all the data of all of the patients that come to the hospital, then they said, okay, you know what?

You are exactly like this patient, but if I send you home, there's a 12-percent chance that you're going to come back, so let me keep you another night.

And I thought, man, what a way, because I have 20 years of clinical experience as an ER doctor. But if you add AI, plus my clinical gestalt, and that's my big take is AI plus human is always going to beat the best human or the Best AI.

And so as we move forward, I see all these bots, all this fun stuff. And here's Sarah. I'm going to let her talk for a little bit. Oh, darn it. Maybe it's not in there.

But basically, she's a bot. The World Health Organization has obviously prevented measures, and they want to make sure that you're not smoking, you have better mental health, that your losing weight.

They keep updating it, I want say it in eight languages. And this bot is 24-7 and you can ask these questions and go back and forth. And so if the video had worked, it would just be her talking and explaining.

I thought, man, what a cool way to deliver medicine because now there might be some person that doesn't get that information, but they may feel more comfortable having a conversation.

It's interactive. You can interrupt her and talk and back-and-forth. That's pretty cool. And so Hippocratic AI is another one. I know a lot of nurses were upset.

The news had the nurses out in California complaining about AI and what they did is they have all these different algorithms all the different nurses as you can see nutrition pharma.

And then what they did is just help the doctor take a better intake of the nurse. And so, it literally would call you and then you would have a conversation and go through your meds and it would be able to go back and forth and take that in.

They're charging about $8 an hour and they're saying that this would help decrease our healthcare costs and would it help. So, for better or worse, I think this isn't a bad idea.

I this is good because we need it. The alternative is we're going to have some burnout health care professionals. They may be short with you, they may not give you the time you need.

And so I'd rather have this for now to help us bridge to make sure that you're getting the best care. And so as we start looking forward, I'm really big on communication.

I think this is the easiest low hanging fruit that we can do today. ChatGPT, the ability to communicate is huge. I used to work at an airport and right next to an Airport and every disease in the world, anyone that got sick in on the airplane would literally come to my hospital.

And I would have to take care of them. And sometimes I didn't understand what they said, I don't know their culture, and I know many things. I'd be so nice to have a bot that would help me translate.

Now I'll show you some quick demos of how I could translate with that person. But take it to the next level. What if that I'm in Texas and start talking about football, but what if they're European and say football?

They're like, oh, soccer. No, no, we're talking two different languages. If I can use AI to really help communicate and so for my patients I made this med helper because how many times have you gone to the doctor and you have a horrible experience and then you finish you're like man I should have asked XYZ I said this oh my gosh I forgot so I make this bot.

that basically helps you figure out what questions to ask. So when you're at the doctor's office, you already have a list of questions, and you know what to as, because you don't know, what you do know.

But if you have AI to help you combine what your thinking with your disease process, now when we meet with the Doctor, your going to have better experience.

The average visit is only about 12 minutes with you Doctor unfortunately. And so I thought, man, how do I use AI? How do use it for my pediatric cases?

So here's another clone voice. Correct inhaler technique for children. Managing asthma triggered by sports. Communicating asthma symptoms to adults. And so what I did is I cloned my voice.

I took my discharge instructions for children. And then I was able to break it down and then use the core concepts. Then I pushed it into an AI to make a coloring book.

Now when I discharge a child, I can say here's your coloring and we can go through the principles. So now I know that they're really understanding the disease process.

And so as we look forward, there's all this fun stuff. I do it in a comic strip, I'd do in playbook. GPT podcast is kind of fun, and I literally just clone my voice, with my own voice I can take any blog and have a fake conversation and within five minutes I could push it out with me as if I did a podcast.

And it's me leveraging, then I said, what if did this for my patients? What if just took my discharge instruction and pushed it with out voice? And I'm going to show you an image of that in minute.

And so, this is a quick little plushie. Tell me about this device. And I wanted to check it out. Hey, Grak, how are you? Hello, Dr. Catbro. I'm feeling charged up and ready to explore with you.

Nice to meet you, what all can you do? Nice meet to you too, Doctor CatBro. All right, let's give me a joke real quick. Why did the scarecrow win an award?

Because he was outstanding in his field. All right. So the skinnies, my business partner and I now are creating our own little plushie, and we're going to put it in clinical trials for kids that are having trouble and help them walk them through their issue.

And they can have a conversation with the AI, go back and forth, better understand. That lag time was bad, so we are improving the lagtime. We're also helping with just the whole process where it's more fun voice.

It's a kid's voice, not so robotic. And so as we move forward, this is interesting. Microsoft released this a couple of months ago, and it blew my mind.

All it is is that image of the lady that you see on the bottom left plus an audio. So it's just audio, so imagine if I dictated my discharge instruction and I just took an image and then watch.

Have you ever had, maybe you're in that place right now where you want to turn your life around and you know somewhere deep in your soul. there could be some decisions that you have to make.

Like you know, like it's like things, something was decided for you. And instead of trying to makes some. It's all positive, but can you imagine? That was just with an image and audio.

and it did the facial and the muscles and sounds real. So Microsoft will not release this right now because of the elections. But imagine if you put it in the hands of a doctor that could give you your discharge instructions that way.

Because how many times have you gone to the doctor and they said something and it's like Charlie Brown because after that you're like, oh my God, they set X and I can't deal with it.

And then after you don't hear it, but what if I recorded it and use the eye and now I gave it to you? And so like at two in the morning, be like oh yeah, now like I could go through this.

Now you saw the transcript. That's such a better way to deliver medicine. There's this cool thing called the pendant. It's coming out in the fall, the multiple projects like this.

Just imagine a little tiny pendant that goes on you and then when you see the doctors transcribing. So I won't bore you with my English accent, but that was…

Limitless pendant preserving conversations, lunch meetings, conferences, client calls or doctor visits, personal reflection, verbal processing, thinking out loud, capturing a thought while your hands are busy, organizing the unexpected, So I'm going to keep going in the interest of time.

So obviously, we've got to talk about ethics real quick, and I don't have that much time, but at the end of the day, I am really worried about my patients.

I worry about, especially patients that are outside of United States, that can just go to a pharmacy and say, hey, CHPT told me I have this disease and it told I could take this drug and here I, give me the drug.

And I was like, no, were not doing that. and so I made this algorithm for my patient, so give it to the hospital systems and just make sure that the human is in a loop and its not just any human, its the right human.

In this case, it would be a doctor. As we move forward, I'm really excited about AI's vision and we're going to start looking at things. This is a company I was associated with and I am just going play the video.

There is no audio at all, but what it does is pretty amazing. I have patients that are at risk for falls. If they fall, especially the elderly, if they hit their head, they can break their hip, their mortality goes up and they unfortunately die or something bad.

And I thought if we could put a camera in the patient's room And then you're like, oh my god, camera, big brother. No, it doesn't recognize their face.

It's just like that stick figure. That's what it's seen. And it does recognize that particular person. But then it could send a text to the nurse or the doctor saying, hey, your patient is about to get out of bed.

Now, they haven't gone out a bed, there's still in bed but now it gives time for the AI to call the nerves, call a doctor, and then the I can also talk to a patient and say, Ms.

Smith. What's wrong? Don't get out of bed. And now we can use that. So I just think this is just an amazing way and we're going to start seeing more and more of this technology everywhere.

So I truly think we're going to start seeing robots. And I really believe that the vision of the robot is going hatch out to be five or six. What it will have is it'll analyze my voice.

With my voices, it would say, that person's sugar is this. That exists already. It would hear a conversation between you and I, and the AI would, say he or she is depressed.

I can hear it. She's at risk for Alzheimer. He's a risk of Parkinson's. I hear it in her voice. And I said, you know what? I hurt my back. Can you help me with the patient?

And the robot's helping me lift the patients. That sounds like a scary thought, but that is coming. So I foresee that we'll be here by the end of next year.

And so as we move forward, we start looking at all these different technologies, and I'm really excited about the vision. The meta-ray bands are these glasses.

And basically, I could take a picture of everybody like that. I can hold this longer and take video while I am up here. But what's really cool is I have a conversation.

If you ask me a hard question that I know, it will tell me in my ear and then I respond. The other thing is if in medicine I put some funny rashes or weird things and say, hey, what am I looking at?

And I thought, man, What a cool tool if I start using this in health care. The Rabbit R1 has really bad reviews, but at the end of the day, I see it more as a proof of concept.

You know, this thing is paired to mid-journey. If I need some slides, literally say, hey, need a slide on X, Y, and Z, it'll do it, then I can transfer to these slides.

This is pair to Uber, so if I get a lot of bad looks, say hey get me an Uber and it will find me and get an uber out there, that'll be right there. And so this is pretty cool stuff.

In healthcare, as an ER doctor, take a quick EKG, analyze it and send it to all the people that need to know. I'm wearing the humane AI pin right now.

I won't do the demo, but the skinny is I can hold it and translate, and in real time it would translate. So imagine if I am at a pinch and I don't know XYZ language and can just go back and forth.

These are the things that are here. the small language model, it'll be on your phone. Imagine if you're in the Grand Canyon, someone kills over and you like, oh my God, I don't even know CPR.

But now your iPhone has all that information in, the phone and can look at you and say you are going too fast, you going to slow. And then you point to the satellite and then your able to get a helicopter to save that life.

This will be here. So as we move forward, in residency the last thing was the Apple Vision Pro. When I was in residency, it was see one, do one and teach one.

They would be like, Harvey, intubate. And I'm like oh my god, I just saw my first intibation. Like no, now it's your turn. Oh my gosh, i read about it.

I saw this guy do it, but what if I had an Apple Vision Pro where I could intobate a hundred times before I touch the patient? How much better would I be?

And so these are the kind of fun stuff that's coming that I feel that it's the future. Now, one of my friends sent me this slide. The skinny is this. Make sure you follow people on the right, the left, bottom right.

Because there's only there is no one person that knows it all. So I really encourage you. the more you learn, come to these conferences, The more, you can communicate with each other.

Obviously reach out to me and feel free to hit me up. This is where I can tell me about A. I. and health care. Oh, this is a fascinating area. AI is making waves in health care.

And I won't play it all because I know I got to run. But the skinny is this that I'll give you the link. It's basically it's a podcast. In the next drive you're doing, you can ask the podcast, hey, what's going on?

Say his news. Hey, What's Going On specifically to my industry in this? And it literally will go to Google, extract the question, and it'll go back and forth.

You can interrupt that. So it's pretty cool. I made these quick GPTs. Feel free to hit me up. And on the last slide, I have a QR code, and you can get them for free.

They're just how to use GPT's in health care. Then I cloned myself. All my books, all my interviews, on my TV, everything I've done, made my own digital twin.

That little wand that is at the bottom right, right there, that's my digital twins. So you could literally say, what does Harvey think about AI in healthcare?

What does he think of ethics? What does he think about welding? And it'll say he's never talked about Welding. So

I don't know. Just so you know, try it out.

And then there's my QR code. Feel free to scan it. If you want a copy of these slides, it will take you to a form and you can download it and then this is…

Hasta la vista, baby. I'll be back.