

for our entire lives we've been living for computing revolution many of you here in this room have contributed to it with leaps forward in compute connectivity mobile technologies and now a i for my part i've dedicated my entire career to augmented reality t using the real world with competing experiences i started this journey about twenty five years ago for my phd it might sound groundbreaking but check out these early prototypes the technology was really primitive back then that the potential felt limitless when we're experimenting in that university lab what i didn't know that time was many of the fundamental innovations for my work would come from ai researchers in a different lab while i was helping computers see the world these ai researchers were helping computers reason about the world since then large language models a multi modal reasoning have enabled richer language and image understanding these models and now fast enough for life conversations where the i can act on your behalf and most importantly with your permission and augmented reality and virtual reality has move computing from the rectangular screen for the free sixty immersive display to now even the world itself becoming the display we now refer to this broad collection of experiences as extended reality or xr until now these innovations that occur separately and in silos well here comes act two of the computing revolution ai and ex are converging on locking radical new ways to interact with technology on your terms computers will become more like lightweight and personal they will share your vantage point understand your real well context and have a natural interface that both simple and conversational countless people and companies innovating in this space including many on this had staged this week we're excited to contribute to this momentum with android xr it's an operating system where building with sam saying that brings xr hardware together with gemini ai assistant to augment human intelligence it can support a broad range of devices from headsets to glasses to form factors we haven't even dreamed of yet okay let me show you where we're heading by inviting my colleague niche the to the stage welcome their stuff hi these ordinary looking glass is a packed full of technology a miniaturized camera and microphone skip the ai the ability to see and hear the world speakers let you listen to the ai and play music or even take calls and these losses also have a tiny high resolution and lens display hey

that's full color that i'm holding my hand very very small these glasses work with your phone streaming back and forth allowing the glasses to be very lightweight and access all your phone apps and if you're wondering i'm actually wearing glasses to they're actually helping me see all of you in the audience because they have prescription lenses inside them but they're also displaying my speaker notes for me as well for this demo you'll see what next to seeing on the screen behind her and this is the very first time we showing these glasses and public so this is going to be a live demo of conceptual hardware early software what could go wrong if the best of luck no pressure i may thing are let's just make sure that these glasses are shown on the screen behind off ah sound yeah i'm going to launch gemini hello there hydrogen and i can you start us off with something fun and creative and right a haiku for what i'm seeing right now be sure faces all glow eager minds await the words sparks of thought ignite some anxious happy faces as well yeah as you can see the i see what makes the sees his she his and is responding in real time but that's just table stakes i think everyone in this audience has seen demos like this before that's actually step it up a notch with something we call memory for a rolling contextual window the i remember what you see without having to be told what to keep track of see you guys may have noticed i sneak a peek back at the shelf and london ago i wasn't paying attention but let's see if gemini arrive hey did you happen to catch the title of the white but that was on the shelf behind me the white book is atomic habits by james clear that is absolutely right so let's try something harder i keep losing my hotel key card do you know where i laughed laughed the card the hotel key card is to the right of the music record that's right for someone is forgetful as me that's a killer app okay this ai is inherently multi modal so it's using visual data and natural language to digest complex queries in real time while remembering you'll pass contacts and they're let's see some more yeah let's bring that back so i don't really have time to read it right now by i wonder if gemini might be able to help me summarize with going on like are now what is this diagram mean it looks complex this diagram is labeled the habit line and illustrates the process a habit formation it shows how automaticity increases with repetitions until a habit is formed now imagine being able to communicate and understand any language the i can shift

is help to speak different languages with dialects and accents that feel human and natural yeah let's go to this sign over here can you translate this to english for me the sign states private property no trespassing okay let's prove this is a live demo does anyone in the audience have a suggestion for a different language to translate to farsi we try policy of failed last time but let's try it again the lines are you can try okay because i do speak farsi it's my mother tongue so thank you gemini let's just get there's a shot can you translate assigned to farsi for us i'm lucky i also see pajamas neck when eat grades also it's they can possibly either way they so as romancing you all may have seen translation as like this before but what's new now is that in addition to just saying things and a different language i can also speak to gemini and another language i know hindi so let's get this a shot i check out my jeopardize that they have a year log ib guess i like to hear hear they have eaten got out it's i had begun to he hey it's a gemini said you all look focused and excited and a have a better actually than i do all right now let's see how the i can connect the physical world with your digital content and take action yeah let's get some music going and here okay gemini why don't play as a track from this record you sure here's bad dreams by teddy swims perfect in a few seconds the i recognize the album looked up the track list and took action using the phone apps like this that does like the demigods a with us maybe with you more than let's do one last demo know you're keen to give yes this is my first time in vancouver and i love going on walks so why don't you navigate me to a park nearby with views of the ocean okay i am starting navigation to lighthouse park which has magnificent views of the pacific ocean is there anything else i can assist you with honestly with these directions and at three the map i should be all offset and hopefully i won't look like a tourist think you are thank you mister that was awesome okay we've seen glasses now let's turn our attention to the other side of the spectrum headsets you've seen these types of devices before but when we first brought a i to a headset it completely call me by surprise for this demo we're going to use the project move on headset that samsung is launching later this year compared to glasses headsets give you an infinite display for getting worked on or immersing yourself in a movie or maybe a ted talk at some point let me bring up my colleague max to show us even more a max hello

and the same thing it's going to go here you'll see exactly what makes this thing behind on the screen go for it makes let's do it you'll notice we start grounded in the real world's and i'm going to control the entire system with my eyes hands and voice but where things get really interesting is when we invite gemini and as a conversational companion that can come with us anywhere hello hey gemini can you bring up my trip planner for me please of course opening up your trip planning cool but i left these windows really disorganized can you help with them of course i can help with that no clicks know keyboards it's just the conversation and the ai is taking action okay so more audience participation someone shouts out a name of a place you want to visit cape town let's go to cater guess sounds fun i can you please take me to cape town certainly let me help with organizing the windows awesome and can you also take me to cape town i can certainly do that let me take you to cape town and were very organized as we go there perfect it's as you can see the ai is taking max's requests figuring out how best to answer it opening up the maps app and from there he can actually explore anywhere in the world in this fredy view guess is pretty incredible during the world from this angle i can even zoom in sioux city levels but what's really interesting is having a i hear who can see what i see can you tell me more about the significance of this place i can indeed provide information about table mountain table mountain holds a profound significance deeply rooted in both it's natural splendor and it's rich cultural history is long been a spiritual and cultural symbol for the indigenous quickly and san people it got an very good gemini other conduct this later it also does look like a table that's handy yeah let's go okay max let's bring this closer to home how about exploring winter sports thing that were in vancouver okay let's get some inspiration for serum can you please show me three sixty videos of this sure here are some three hundred sixty degree powder snowboarding videos okay i'm kind of new to snowboarding so hopefully this video help me learn although this looks already way more intense i think i'm ready for what was the name of that trick that's the backside five hundred forty with the grab yeah knows exactly what max is looking at even umbrage video content and can answer any question in real time max sure this is whistler you know strom i actually have no idea i have never been here before but let's find out what run do you

think this is it's probably one of the ungroomed runs and summit ball or the top section of west ridge on mount bachelor as they are close to the summit and face north towards three sisters and broken top the prominent mountains visible in the background okay mount bachelor oregon gotta okay let's have a little bit of fun now let's have a i know rate this video somebody in the audience shoutout of fun narration style like nature documentary or something like that we can't do actors will we'll get to that at some point any other suggestions horror movie that's gonna be a might be gory or as go for a lightly dark but let's do it can you please describe what you're seeing as if your an overly enthusiastic character in a horror movie oh darling this is simply marvelous a desolate mountains gate how delightfully ominous prepare for a chilling dance with the unknown where every gust of wind whisperers tales of ac terror and lurking strategy on of great or turned a more good thing or another day ago mags i know there's one last demo and you've been apparently practicing your farming skills yes rom i've been excited to get back to my world roots and also embraced one of my favorite things which is playing games but it becomes a whole new next level experience when you have may i by your side both to help keep you company as you play but also tell you learn how to play these kind of games in the first place so for example what do you think i should do next year it looks like this is early in the game and starting valley you need to earn money so try plantings and seeds first use your home to tell the soil and then plant your seeds it looks like you have some parsnips since it isn't raining you'll also need to water them with your watering can seems like a lot of maybe robots will do this for us one day but are now i'm going to returned back to my farm later for one last thing can you please give a playful to set summary of all the ground we covered today we sword from organizing a digital realm to traversing snowy mountains and even found time to farm some virtual parsnips quite the adventure today quite the adventure indeed think seven i fantastic thank you max were entering an exciting new phase of the computing revolution headsets sunglasses adjust just the beginning all this points to a single vision of the future a world where helpful ai will converge with lightweight exile exile devices will become increasingly more wearable giving us instant access to information while ai is going to become more contextually aware more

conversational more personalized working with us on our terms and in our language when no longer  
augmenting our yeah city but rather augmenting our intelligence thank you so much