Google Event for Pixel 8 and Pixel Watch 2

Company Participants

- Claude Zellweger, Director of Design
- James Park, Chief Executive Officer and Co-Founder, Fitbit
- Monika Gupta, Vice President, Product Management
- Rick Osterloh, Senior Vice President, Devices & Services
- Shenaz Zack, Director, Product Management
- Sissie Hsiao, Vice President/General Manager, Google Assistant and Bard
- Unidentified Speaker

Presentation

Unidentified Speaker

Please welcome Rick Osterloh.

Rick Osterloh {BIO 15100996 <GO>}

Hello. Thanks for joining us, whether you're streaming the show from around the world or live with us here in Pier 57 in New York City. Extra special welcome to our friends in Japan and across Asia who are staying up late with us today.

2023 is a big year for Google. If you've been following the company, you know we celebrated our 25th birthday last month. And it's a year of massive innovation. We're sharing AI breakthroughs and new research on a weekly basis. Now, I've worked in the tech industry for a long time, and I've never seen anything like the speed of innovation at Google right now. In the five months since Google I/O, we've rolled out new capabilities across so many Google products, including Search, Workspace, Android, and Bard. As always, our focus is on making AI more helpful for everyone, in a way that's both bold and responsible.

Now, today we're going to talk about what that means for Pixel, the only phone engineered by Google. We have so much to share with you. Now, looking around the room here, I see a few people who were here at our first Pixel launch seven years ago. And if you can remember, we shared our vision for mobile computing, that the world was evolving from mobile-first to AI first. And we explained that Pixel is designed to bring hardware and software together with AI at the center to deliver simple, fast, and smart experiences.

Now, since then, Pixel's had so many breakthrough features and technological firsts. What I'm most proud of is how consistently we've tracked to that early vision of Pixel as the AI-centric mobile computer. We're still at it, and people are taking notice. Pixel

is the fastest-growing smartphone brand in our top markets and the only one that grew in units sold year-over-year. Across Google's entire line of Pixel phones, we're taking the approach that advanced hardware needs amazing software and state-of-the-art AI to reach its full potential.

Now at the same time, cutting-edge software and AI models only come to life with the help of advanced hardware. It all has to work closely together, and you can see that approach across Google. We have custom-designed data centers with Google's own Tensor processing units so they can run the latest AI models from Google DeepMind. And it's true of Pixel phones, which pair custom Google Silicon with advanced software and personal AI for a completely unique smartphone experience.

Now, it's even true of Pixel Camera, which uses Google AI models to go way beyond taking a good photo. Pixel Camera makes it easy to get beautiful shots in nearly impossible lighting conditions, track moving subjects, and get colors and skin tones just right. The computational photography in Pixel Camera is one of the biggest mobile computing breakthroughs of the last decade, and it's moved the entire industry forward. The idea of AI-centric mobile computing was a radical concept when Pixel first launched. But Pixel's demonstrated again and again that it's the clearest path to helpful, simple, personal smartphone experiences.

Over the past few years, we've applied our experience with AI in phones to a growing Pixel portfolio of devices, like watches, tablets, foldables, and buds. And as Google AI gets better, those devices keep getting better, too. For instance, this week, we're rolling out our biggest update ever to Pixel Buds Pro, with a number of AI-enabled features and improvements. We're improving our Clear Calling technology, which automatically reduces background noise and enhances the voices on any phone call you receive. It doesn't matter if the person is calling you from a busy sidewalk or in a noisy restaurant, you'll hear them even more clearly. And it works on every call. No need to press a button and turn it on each time.

Pixel Buds Pro are also among the first earbuds to use Bluetooth super-wideband speech. It doubles the bandwidth to make voices sound more natural. And when it's combined with Clear Calling, your phone calls sound so much better. Just listen to the before and after.

(Video Presentation)

You can really hear the difference.

Now, AI can make Pixel Buds Pro more convenient to use as well. When you're listening to music and need to have a quick chat with a coworker or tell the barista your coffee order, you can just start talking. Pixel Buds Pro will automatically pause your audio and turn on transparency mode. No more scrambling to pull the phone out of your pocket or take out an earbud. Now we're also reducing latency by up to 50%, which is great news for the gamers out there. And there are a few more updates today that you can read about over on the Google Store.

Pixel Buds Pro aren't the only devices getting a boost today. With our new feature drop rolling out today, we're bringing dual-screen interpreter mode to Pixel Fold. You and whoever you're talking to can now have your own personal translator across more than 45 languages. And along with device updates, we're also tapping Google's AI research to create richer user experiences in our apps and services. For instance, we see so many opportunities to bring AI into Google Home to make your smart home more intuitive and helpful. It can be hard to keep track of what's going on at home. If you're on vacation or just having a busy week, catching up can involve a lot of scrolling. But generative AI can help with that by synthesizing all that info into a more simple view. In the Google Home app, you'll soon get a streamlined view of what happened recently with a quick and easy summary.

If you're wondering about your packages, you'll be able to ask about your home in natural language and quickly find the clip you're looking for from your Nest Doorbell video history. And it'll be easy to take action on those insights, too. Just type a follow-up query, and the Home app will be able to generate a suggested automation for your devices. And we'll be rolling out these experimental features to subscribers next year, and we've got a whole lot more of where that came from.

Today, we're going to show you the next evolution of Pixel wearables and phones that pull together premium hardware, the most helpful software and services from Google, and the very latest state-of-the-art AI research. It's an action-packed show, so let's get into it.

Here's James to show you the next generation of Pixel wearables.

James Park {BIO 16240902 <GO>}

Hey, everyone. Last year's Pixel Watch was the first device to combine the best of Google's helpfulness with the health and fitness expertise of Fitbit. And that was only the beginning. I'd like to introduce you to Google Pixel Watch 2. It's completely upgraded inside and out, including major performance improvements. And you're getting Google and Fitbit experiences you won't find on any other smartwatch, with the best of Fitbit health and fitness tracking. We've upgraded the design and materials as well. People love the sleek water droplet look of the first Pixel Watch. We're upgrading our low-profile design for Pixel Watch 2 with more durable cover glass and 100% recycled aluminum housing that's lighter and more comfortable to wear when you're at play and at rest.

And we took the same care with our new bands and watch faces. Elegant metals are designed to impress. Our new sport design is more breathable. And Pixel Watch 2 uses the same simple band mechanism, so last year's Pixel Watch bands still work great. And you'll see big upgrades across the entire Pixel Watch 2 experience. The new quad-core CPU gives you smooth, snappy performance. And battery life has improved as well. Even with the display in always-on mode, you'll get 24 hours of use on a single charge. And it charges faster, too, with a 12-hour charge in just 30 minutes.

You're also getting the full Wear OS 4 experience with new apps like Gmail and Calendar, improvements to YouTube Music, Maps, and Google Assistant, and more of the third-party apps you know and love. With helpful apps and an all-day battery, Pixel Watch 2 is a great companion on any adventure. And if you get into a bind, you now have Pixel's safety features like medical information and emergency sharing right on your watch.

We're also bringing Safety Check over from our Pixel phones to make sure you don't feel alone on the trail or on your walk home. Just set a timer for when you expect to arrive back home. If you can't check in after it expires, Safety Check will share your location with your emergency contacts. And by the way, with Fitbit Premium, you can use safety features like Safety Check and emergency location sharing even if you haven't connected your LT-enabled Pixel Watch 2 to a network.

Now, I started Fitbit 16 years ago on the idea that a new generation of wearable sensors could help people live healthier lives. And it's a mission we're still on as a combined Fitbit and Google team. With Pixel Watch 2, we're bringing together new AI algorithms, upgraded software, and three new sensors to give you the most complete picture of your everyday health. Pixel Watch's heart rate sensor has been upgraded from a single-path sensor to a brand-new, fully-redesigned, multi-path sensor. We've 10x-ed the number of optical channels that can measure heart rate compared to the first-gen Pixel Watch. So now your heart rate can be measured in multiple locations on your wrist for a more accurate reading. And combined with an improved ML algorithm, Pixel Watch 2 produces up to 40% more accurate heart rate tracking during vigorous activities like HIIT, spinning, and rowing.

And to further enhance your workout, new coaching features keep you on pace and in your target heart rate zone, while the more glanceable UI helps you nail your intervals. The new skin temperature sensor delivers better insights into your sleep and overall wellness. And the new continuous electrodermal activity sensor, or cEDA sensor, powers Fitbit's body response. It detects moments when you're physically showing signs of stress, offers interventions to de-stress, and then afterwards prompts reflection over your day and week to help you better manage your stress in the future.

Let's get a closer look at how the best of Fitbit and the best of Google come together in Pixel Watch 2.

(Video Presentation)

Amazing. It's always inspiring to hear a story like Shauna's. Now, most of us aren't Olympic climber parents, but all of us could benefit from a more complete picture of our health and wellness. And that's reflected in the newly redesigned Fitbit app, which launched last month. The new app gives you a holistic view of your health and wellness with a focus on the metrics that matter most to you. You'll see a new structure with three tabs in the streamlined UI. The Today tab keeps you on track with your stats and goals. The Coach tab offers an easy way to browse and filter workouts

and mindfulness sessions. The You tab helps you manage your personal details, goals, achievements, and connections with friends and family.

And looking ahead, we see so many possibilities to use AI to bring you personalized coaching, dynamic workout recommendations, and even more context and insight. For example, the Fitbit app can use generative AI to surface connections and correlations in your Fitbit data. There's times when I think, hey, today's run felt harder than usual. How does it compare with my previous runs? Is there something in my overall data that could explain it? Fitbit answers my question by analyzing the most relevant data. In this case, my latest run was a 5K. So Fitbit surfaces and compares it to all my recent runs with similar distance. Fitbit confirms my pace was a bit slower and offers up insights into why today's run felt harder than usual. And it turns out the route I took was a bit hillier than normal. It also points out a recent downward trend in my sleep scores and how combined with hills, that might have had an impact on my perceived exertion. Then, on the spot, Fitbit generates a chart specifically for my question with my latest pace compared with similar runs, providing a dynamic view of my fitness data that previously wasn't available.

With generative AI on your side, you'll have so many creative ways to dig into your health and fitness data. And you'll get some validation on days when those hill runs just feel harder than usual. We'll be rolling out this capability early next year to trusted testers in the Fitbit app as part of the new Fitbit Labs program with priority access for Pixel phone owners. And keep an eye out for more AI-powered Fitbit Labs experiences to follow.

With new sensors, longer battery life, new features like body response, updated watch faces and bands, and the updated Fitbit app, Pixel Watch 2 delivers a completely upgraded smartwatch experience. And we can't wait for you to try it on.

Pixel Watch 2 comes in a Wi-Fi and an LTE version. You can pre-order starting today, and they'll ship next week. Every Pixel Watch 2 also comes with six months of Fitbit Premium, which unlocks a whole new level of insights and content to help inform your wellness journey. And for the fitness tracker fans out there, check out the just-released Fitbit Charge 6. It delivers the most accurate heart rate we've ever released on a tracker. And it's the first tracker to include Google Essentials like Maps, Wallet, and YouTube Music Controls.

Next up, here's Rick again to introduce the next evolution of Pixel smartphones.

Rick Osterloh {BIO 15100996 <GO>}

Pixel has been the first phone to deliver so many innovations, thanks to the tight integration with Google's AI research. The first phone to truly see in the dark. The first phone to answer the phone for you. The first phone to unblur your photos. The first phone with car crash detection. The first phone to protect your browsing with a built-in VPN at no extra cost. And we have a whole new set of firsts to show you today.

I'm excited to introduce you to the next evolution of AI in your hand, Google Pixel 8 Pro and Google Pixel 8. Our latest phones bring together so many technologies from across Google. They're the first phones to use our latest Google Tensor chip. They include the very best Android experience, first-of-their-kind camera experiences, and the latest AI advancements from Google. From the inside out, Pixel 8 and Pixel 8 Pro are built to deliver the help you need in a way that only Google can. And as you can see, they're absolutely stunning.

Here's Claude to take you through all the gorgeous design details.

Claude Zellweger

Pixel 8 and Pixel 8 Pro are the most beautiful phones we've ever made. They're the centerpiece of Google's growing Pixel portfolio. And you can see how well they're complemented by the rest of the family. Every Pixel device, from the phone in your hands, to the watch on your wrist, to the buds in your ear, and to the tablet in your home, is designed to fit into your life seamlessly to provide a helpful, fluid experience and to reflect the human, optimistic, and daring design that Pixel is known for.

Instead of angular corners and edges, Pixel devices replicates that calming feeling of picking up a smooth piece of sea glass. Pixel 8 is an evolution of the iconic Pixel design with more fluid contours and a smaller size that feels so natural to hold. Pixel 8 Pro introduces new, considered design elements into the portfolio. We're using a soft, silky, matte glass finish to contrast with the high-polished camera bar and highlight our powerful new camera system. We bring that same thoughtfulness to Pixel's color palette, which continues to evolve with natural and inviting views. Our porcelain shade on Pixel 8 Pro is accented by a soft gold trim for a luxurious ceramic look. And our new bay blue color is both energetic and hopeful. We're even updating Pixel Buds Pro today with new colors to go with our new phones, including bay blue and porcelain.

As a company, we know that device manufacturing carries a heavy responsibility, and we take that responsibility seriously. We continue to design all of our products with sustainability in mind from the very beginning. We're working towards Google's commitment of net zero emissions by 2030 by reimagining the materials that go into our products, how we manufacture them, and how we distribute them. And that's why we're now on our fourth generation of Pixel phones that use recycled aluminum. In fact, every device you see today uses repurposed materials, from the 100% recycled aluminum enclosures on Pixel phones to our fabric watch bands. And Pixel 8 packaging is completely free of plastic.

Another aspect of sustainability is longevity. Accidents happen, and we're working to make Pixel phones easier to repair. We've partnered with iFixit to offer parts, tools, and repair guides directly to DIYers so that it's easier than ever to repair your own display, your battery, or your camera.

Now, one of the most important design elements on Pixel 8's design is the surface that you look at the most, the display. Your phone should show you the world in the way that it actually appears in real life. So we've been working on a new display offering, which we're calling the Actua display. You'll see it for the first time on Pixel 8. The 6.2-inch Actua display on Pixel 8 is 42% brighter than on Pixel 7 and gives you ultra real-world clarity for your videos, for your games, your photos, and everything else that you do on your phone. And Pixel 8 Pro takes our real-world display technology to the next level with our new Super Actua display. The 6.7-inch display is even more immersive, and it's our brightest display yet with a stunning peak brightness of 2400 nits and a variable refresh rate that intelligently adjusts from 1 to 120 hertz. Even in direct sunlight, you'll love how true-to-life your ultra-HDR images look.

On the back of Pixel 8 Pro, you can see that we've added a new temperature sensor. It's a convenient and a quick way to check the temp on a pan or to make sure that the milk in your baby's bottle is just the right temperature. We've submitted an application to the FDA so that you can also use our thermometer app to take your own temperature, which can be saved to the Fitbit app in the future.

Along with beautiful updates to the body, the display, the finishes, materials, and colors, Pixel 8 and Pixel 8 Pro are getting some big upgrades on the inside. Here's Monika to tell us about the next generation of Google Tensor.

Monika Gupta {BIO 7403382 <GO>}

Pixel 8's helpful AI experiences start right in the silicon. Let me introduce you to the new Google Tensor G3. It's our latest mobile SoC designed specifically to bring Google's AI breakthroughs directly to Pixel users and show the world what's possible. In our new Tensor G3 chip, every major subsystem has been upgraded. It includes the latest generation of ARM CPUs, an upgraded GPU, new ISP and imaging DSP, and of course, the TPU, our on-device AI engine that we've custom-designed to run Google's AI models efficiently.

I want to show you what those models look like at an on-device level and how Tensor continues to push the boundaries when it comes to AI innovation in mobile computing. Let's start with the growth of machine learning models in Pixel. Compared to the first generation of Tensor on Pixel 6, the new Pixel 8 runs more than twice as many machine learning models on device. That's a massive jump in a short time. And it means Pixel's machine learning isn't just for speech and photos anymore. ML models now enhance just about every aspect of Pixel's user experience. And the models themselves are getting more sophisticated too. The heaviest model in Pixel 8 is 10 times more complex compared to Pixel 6. Tensor G3 is so efficient, not only does it run more ML models, more complex models, but in many cases, it runs them concurrently which is why Pixel can deliver so many unbelievably helpful experiences that no other phone can like amazing new Pixel Camera capabilities, which you'll see in just a bit.

But first, let's talk about Pixel 8's new speech enhancements. Pixel speech and natural language understanding continue to lead the industry with on-device accuracy that rivals the machine learning in our data centers. You can already use Pixel to type, edit, and send messages with your voice. Now Pixel 8 even knows what language you're speaking and can switch back and forth with you as you talk in multiple languages. No other phone lets you do that. Pixel 8 is also our first phone to use the same text-to-speech model that Google uses in our data centers. So I can just long press on the power button and Pixel 8 will read web pages out loud for me. This is super useful when I want to listen to articles while walking my dog, Berkeley. [ph] Let's take a listen.

(Video Presentation)

The voice sounds more natural and I can fast forward or modify the speed. I can even ask my Pixel to read the pages in a different language. And Google's speech models are also behind Pixel Call Assist, a suite of features that just make your phone calls and life easier like helping you navigate a phone tree and automatically removing background noise from your calls with clear calling and saving you from calls you don't want with call screen. Now with improved AI, the next generation of call screen is helping Pixel users receive 50% fewer spam calls on average. It silently answers calls from unknown numbers with a new, more natural speaking voice. And it's smart enough to separate the calls you really want from the calls you really don't. Here's what's happening behind the screens.

(Video Presentation)

You can see why Pixel users love this feature. But some calls about travel are actually important.

(Video Presentation)

And then there are calls that require just a moment of your attention. Call screen will soon offer contextual replies so you can respond in a tap without even taking the call. No more playing phone tag with your doctor's office just to confirm an appointment. This next generation of auto-call screen will even work on Pixel Watch when connected to a Tensor-enabled Pixel phone. It'll come to Pixel Watch and Pixel Watch 2 in a feature drop later this year.

Those are just a few improvements coming to Pixel 8 with Tensor G3. And with each new generation of Tensor, we're pushing the boundaries of on-device AI and redefining state-of-the-art for mobile computing. You'll see big jumps across practically every major user experience on Pixel 8, including the camera.

And here's Shenaz to take us through all the firsts coming to the fully upgraded Pixel 8 Camera.

Shenaz Zack

We have so much exciting new camera magic to share with you today, upgraded hardware, breakthrough features, new ways to work with motion and sound, and completely new image capabilities. The incredible Pixel 8 Camera combines powerful AI and Tensor G3 with the fully upgraded ultrawide and a new wide camera that's capable of producing 2X optical quality images, with even better low-light performance. And the biggest leap forward in Pixel Camera this year is video. The video capabilities in Pixel 8 represent years of R&D across Tensor, AI, and software. Combine that work with the upgraded main sensor and you'll see vast improvements in low-light video performance, dynamic range, and shadow noise. And we're continuing to expand our image equity efforts with Real Tone, so your videos and photos accurately portray the wide range of human skin tones. Along with Pixel's best-ever skin tone accuracy in your videos, you'll see improved mixed lighting performance and much faster autofocus in low-light. So no matter what you're creating with Pixel Camera, everyone will look more like their beautiful selves.

Now, as every creator knows, visuals are only half of the equation when it comes to great video clips. So we are pioneering new computational audio capabilities with the first-of-its-kind feature called Audio Magic Eraser. It lets you reduce distracting sounds in your videos using Tensor G3 and advanced machine learning models, and it's easy enough that anybody can do it. Audio Magic Eraser identifies different sounds in your video and sorts them into distinct layers that you can control.

So now, with a few taps, your baby's video sounds just the way you want. Alongside breakthrough video capabilities, Pixel 8 introduces a whole set of new features that make it easier than ever to get great photos, even in the trickiest conditions. Like when you're trying to take the group photo over and over and over again, only to find somebody is always blinking or rolling their eyes. Group photos are tough, but Pixel gives you the option to make them easier with the new Best Take feature in Google Photos. Best Take uses a series of photos taken closer together to help you create the shot you want. So you can choose what you think is the best expression for everyone in the photo.

Let's take a look.

(Video Presentation)

Best Take lets you use the photos you did take to get the photo you thought you took. Of course, sometimes you might want to use your imagination to create something new. As we announced at I/O, Magic Editor in Google Photos lets you use generative AI to reimagine your photos. Just tap or circle the object you want to edit, drag to reposition your subject, pinch to resize them, or use one-tap presets to make the background pop. It's an intuitive new way to edit so you are in control of your images, whether you want to better capture the moment or add your own creative touch.

Pixel Camera continues to get more accessible too, to help people with vision impairment get the perfect photo. Guided frame now works both on the front and

the rear camera, and it recognizes more than just faces, like your dog or your dinner and even documents. Pixel 8 re-imagines what you can do with a smartphone camera. With Best Take, Generative AI in Magic Editor, best-in-class video and Audio Magic Eraser. That's a whole lot of firsts and new ways to get creative with your videos and images. Take a look.

(Video Presentation)

Pixel 8's camera is truly magical. But you know, some people won't be satisfied with anything but our absolute best camera in a smartphone. And you'll get it with Pixel 8 Pro, which has everything you just saw in Pixel 8 and much more for people who want the most powerful camera system. Every camera in Pixel 8 Pro is upgraded. The triple rear pro camera system gets a new main sensor with better low-light performance, a bigger ultra-wide lens with even better macro focus, an upgraded telephoto that can capture 56% more light and take photos with 10x optical quality, and we've added autofocus on the front-facing camera so you can take the best pixel selfies ever.

Now, when you combine the upgraded hardware and advanced Google AI, it makes it easy for everyone to get a picture-perfect Pixel photo in any lighting condition. We're also introducing new pro controls on Pixel 8 Pro for photographers who want total creative control over the camera. You can adjust settings like ISO sensitivity, shutter speed, lens selection, and focus. You can also get high-resolution 50-megapixel images from across the zoom range in both JPEG and RAW. And when you open those RAW images in Adobe Lightroom, you'll see they retain our signature HDR+ adjustments. We gave our Pixel Creator Lab photographers early access to pro controls, and you can see the range of possibilities, like gorgeous studio photography, dreamy landscapes, and full control over long exposures. If you know your way around a camera or want to experiment and learn, pro control unlocks a truly pro-level camera experience.

Pixel 8 Pro's combination of upgraded cameras, Tensor G3, and computational audio means your videos will be sharper, more vibrant, and sound better than ever. Video from Pixel 8 Pro is gorgeous. It's the best video quality ever on a Pixel, but we are going even further to show what's possible with computational audio, introducing a new form of video processing called Video Boost. It totally changes the game. Look at how it compares to a different phone we picked up recently. You can see the skin tone is lifelike and properly balanced, while the mountains and skies have full dynamic range. The video has vivid color and detail that pixel photos are known for. And that's because every frame of this 4K video has gone through our HDR+ image pipeline. For a one-minute video at 30 frames per second, that's the same as processing 1,800 photos. Video Boost makes it possible by pairing the incredible camera hardware and the Tensor in your Pixel with our powerful data centers. Sounds difficult, but it couldn't be simpler for you. Record a Pixel 8 Pro video with Video Boost enabled and you'll have a high-quality version of it right away.

Meanwhile, your video uploads to the cloud where Google's computational photography models like HDR+ are applied to your entire video, every single frame.

And when it's ready, the boosted video automatically appears in your Google Photos library. And when you use Video Boost in low light, it automatically enables Night Sight video for the first time on Pixel. Check out what one of our favorite photographers was able to do with Night Sight video.

(Video Presentation)

Looks stunning, right? By subtly enhancing the light in the scene, you're getting truer colors, more details in the buildings, clearer dynamic range in the colorful lights that make up the cityscape. Even the fine details in those small alleyways, it looks like a city at night. With Video Boost on Pixel 8 Pro, you're getting the best low-light video of any smartphone. Video Boost is coming to Pixel 8 Pro in a feature drop in December, and you're going to love it. It perfectly demonstrates what sets Pixel really apart as a smartphone. You have powerful on-device processing with Tensor G3 coming together with Google's state-of-the-art research in machine learning and AI. And then the processing in your video is augmented by one of the world's most powerful cloud computers. It's a unique combined approach, but the data center acts as a virtual component of your Pixel. And it makes seemingly impossible tasks possible in a way that only Google can.

And Video Boost isn't the only feature that draws on Google's cutting-edge data center models. We've got some big changes coming to Google Assistant, thanks to our advances in generative AI. And here's Sissie to give you a first look.

Sissie Hsiao {BIO 23340509 <GO>}

Seven years ago, we introduced Google Assistant on the first Pixel phone. And since then we have helped hundreds of millions of users across all different devices get things done at home and on the go. Today, I want to show you how Google is changing how we deliver helpful experiences to people all over the world. And the key here is our generative AI research. Bringing the latest models to this mobile device that's always with you opens up so many new possibilities.

Just a few months ago, we launched Bard as an early experiment. It's a conversational AI tool that lets you collaborate directly with our most capable models. Bard can help you brainstorm ideas for a game night with friends, get some creative inspiration for a new project at work, pick up a few tips for home repairs, or learn a new skill. Since Bard's launch, we've been learning and iterating super fast to make sure Bard is helpful and accessible to people everywhere. In fact, people are using it in over 40 languages across over 220 countries and territories.

We just recently launched new extensions that make it possible for Bard to collaborate with apps like YouTube and Maps and even your own content from Docs and Gmail. You can find, summarize, and answer questions across your personal content all in one place. Bard's language understanding, complex reasoning, and generative capabilities have fueled our excitement in realizing our vision for Google Assistant. While Assistant is great at handling quick tasks like setting timers, giving weather updates, and making quick calls, there is so much more that we've always

envisioned a deeply capable personal assistant should be able to do. But the technology to deliver it didn't exist until now.

Today, I'm excited to share an early peek at something we've been working on. We call it Assistant with Bard, and it brings the best of both experiences right to your phone. It's a step towards our vision to deliver the world's most helpful personal assistant. Assistant with Bard combines personalized help with reasoning and generative capabilities, so it can hear, it can speak, it can see, and it can even take actions that help you out right on the device you always have with you. This is an experiment we're super excited about.

Let me show you some examples of what it'll be able to do. A great assistant should help you make sense of your day and stay on top of what's important. Open Assistant with Bard and say, catch me up on any important emails I missed this week, and you'll get a rundown of what's in your inbox. Three important emails, including a party invite. Assistant with Bard can dig into the details for you. Where is Grayson's party? It can spot that the party is across the river in Brooklyn. How long will it take to get there? And just like that, you have quick directions from Google Maps. And of course, you can still use the classic Assistant features. Text Jenny, do you want to ride with me to Grayson's party? You can see how Assistant with Bard pulls together the information you need from different apps and services so you can get stuff done so much faster.

So, say, you're renting a house in Los Angeles with some friends for the weekend. Check out how specific you can be. Make me a grocery list for the weekend for 10 people. Go heavy on the snacks, and we'll probably want a smoothie, so recommend and include ingredients for that. Now just imagine how much time it would take to make this on your own. And with a quick tap, you can move it into a dock and share with your friends so you can coordinate. It took less than a minute to create. From here, you can ask for recommendations on things to see, build a weekend itinerary, discover the best spots to soak in the views, and anything else you need to make planning and prep a breeze.

Now say you all decide to go on a hike with your dog, but you reach a fork in the trail. Flip a coin? Nope. Simply snap a photo of the trail marker and ask what path do you recommend for a group and my small dog? And just like that, you know that the North Trail is the best one for your dog's little legs. But first, you should snap a photo of Baxter. The perfect photo needs the perfect caption. An assistant with BARD can be your creative partner here. So check this out. You can pop it over your photo and use it as the visual cue. So Assistant with Bard can see what's on your screen, understand the context, and help you with what you need. Create a cute social caption for Baxter. Quick and easy and you're back to enjoying your hike.

This conversational overlay is a completely new way to interact with your phone and lets Assistant with BARD meet you wherever you are. We're so excited about what's possible when we bring our most helpful generative AI capabilities to one of the most assistive experiences in the world. Assistant with Bard is the coordinator who can help you take something off your plate, the planner with useful travel tips, the

creative partner you turn to for inspiration, and so much more. We hope it changes how you get things done and bring your ideas to life like a true assistant. We're rolling out Assistant with Bard to select testers shortly and we'll be expanding availability as an opt-in experience in the next few months. So for Pixel 8 users keep an eye out for how to try it for yourself.

And now back to Rick for a few final Pixel highlights.

Rick Osterloh {BIO 15100996 <GO>}

You've heard about a lot of incredible experiences and transformational new technologies we're bringing to Pixel, thanks to Google's deep investments in AI. And this is just the beginning. Google's AI research teams are changing everything in this space with generative AI foundation models. It's a paradigm shift for computing and it leads to more contextual, more personalized, and more powerful help. For instance, Proofread and Gboard now takes advantage of generative large language models in the cloud so it can go way beyond fixing typos. It offers help with your spelling, grammar, and punctuation errors in a single tap.

As another example, Pixel's getting better at understanding the language and content like web pages. Here's a long article about things to do around Pier 57. Just tap Summarize and your pixel will generate a quick overview for you. Google's generative AI models can help you do more even on your busiest days. Now, imagine a future where generative AI runs right on the phones we have with us throughout the day. Pixel could be even more personalized, responsive, and always ready to help.

So here's the news. We engineered Pixel 8 Pro to be the first phone to run Google's foundation models directly on the device. We've worked closely with our research teams across Google to take advantage of their most advanced foundation models and distill them into a version efficient enough to run on our flagship pixel. And even those distilled on-device generative AI models are really complex. Pixel 8 Pro can run generative AI with up to 150 times more computations than the largest ML model on Pixel 7. And this leads directly to improved experiences on Pixel 8 Pro, like a better Magic Eraser which is super useful for removing distractions from your images.

With on-device generative AI, you can now remove larger objects and people without smudging your photo. Instead of blending the surrounding pixels, the improved Magic Eraser generates completely new pixels to fill in the spaces left behind by cars, people, or anything else you don't want in your shot. So you get a higher-quality image that looks just the way you want it to.

Now you'll get the upgraded Magic Eraser right away on Pixel 8 Pro and we're working hard on lots more generative AI features that are coming to Pixel over the next few months. For instance, recorders getting even more helpful with on-device summarizations. Recorder is already an incredible way to capture and make sense of audio with accurate live transcriptions and powerful search running right on the phone.

With on-device generative AI and Pixel 8 Pro, you'll be able to get concise summaries of your recordings that quickly recap the highlights from a recorded meeting or presentation. In the coming months, Pixel 8 Pro's on-device LLM will also power smart replies in Gboard. You'll see better conversational awareness so it can generate higher quality reply suggestions. And along with speech and language, Pixel has always pushed the boundaries of what's possible with imaging.

In a major breakthrough for mobile computing, Pixel 8 Pro will be the first smartphone to have a custom generative AI image model on-device. Our newest feature building on this will be Zoom Enhance. When you pinch in, Zoom Enhance can intelligently sharpen and enhance the details of your images so you can get closer than ever, even when you forget to zoom. It's an incredible application of generative AI, opening up a range of possibilities for framing and editing your images. So the kind of zoom enhancement you used to see in science fiction, it's right in the phone in your hand.

So these are just a few of the early applications of on-device foundation models we can run on Tensor G3. And they aren't often some far distant future. Pixel 8 Pro ships with the updated Magic Eraser and the others will be available in our upcoming feature drops starting in December. And for years to come, your Pixel 8 Pro will bring you the latest on-device generative AI innovation from Google as we roll out new features. We're so excited about the future of the Pixel portfolio.

Thanks for letting us share our vision with you today. You'll find all these new products available for pre-order right now in the Google Store. Pixel 8 comes with an unbelievable camera for both photos and videos, a brilliant Actua display, the powerful new Tensor G3 chip for helpful features like Best Take and the new call screen. And Pixel 8 is available for pre-order today with some great offers. It comes in three colors and it's on shelves next week.

Pixel 8 Pro is a true flagship phone with never-before-seen features and design elements. You're getting Super Actua, the best Pixel display ever, upgraded performance, enhanced connectivity, faster charging speeds. It's the first Pixel with a temperature sensor. You get a massive upgrade in camera sensors and lenses, pro controls for experienced photographers, industry-leading video, thanks to Video Boost. And it's the first phone engineered and built for the generative AI era with new breakthrough AI features coming later this year and so many more in the future. Pixel 8 Pro is available for pre-order now in a fresh range of colors and it'll be on shelves with Pixel 8 next week.

Pixel 8 and 8 Pro are also the first phones to ship with Android 14, bringing exciting new capabilities like generative AI wallpapers, more customizable lock screens, monochrome theming, ultra HDR, and more. It's such an exciting time for the Pixel family. Our vision of AI-centric mobile computing has guided us for the past seven years. And as I say every year, it feels like we're just getting started. We're hoping your Pixel 8 is just getting started too and that it'll be with you through years of AI advances and breakthroughs. And that's why for the first time, Google is expanding Pixel support to seven years. Seven years of OS upgrades, security updates, feature

drops, and AI innovations. That means your Pixel 8 and Pixel 8 Pro will be supported all the way to 2030. No major smartphone brand offers this committed level of support and longevity.

Well, that's our show for today. There's a lot more to these new products and services. You can get all the details right now on the Google Store and we'd also love to see you in our Google Store locations here in New York and at our newest store at our headquarters in Mountain View which opens next week. Thanks so much for joining us. We'll see you all again very soon. Bye.