

Talks at GS
Will Ahmed, Founder and CEO of WHOOP
Kim Posnett, Moderator
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Will Ahmed: The power to Whoop in continuous health monitoring is you can predict things before they happen.

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Kim Posnett: Hi everyone. Welcome to Talks at GS. I'm Kim Posnett. I run Investment Banking services at Goldman and I'm the co-head of One Goldman Sachs. I'm delighted to have Will Ahmed here with me today on stage.

Will, as you all know, is the founder and CEO of Whoop, a wearable technology that's designed to optimize health and performance. He went from building this device as a student at Harvard's Innovation Labs. And then he started partnering with major sports organizations and then watching world renowned athletes wearing Whoop during major sporting events.

And so, today we're going to talk about his journey scaling Whoop services. We're going to talk about what's next for

the technology. And really the role it can play in transforming health.

And so, welcome Will.

Will Ahmed: Thank you for having me.

Kim Posnett: Of course. So, let's go to the beginning of the story and where Whoop was born. So, you were the captain of the squash team at Harvard. You found yourself over training, pushing yourself beyond your physical limits. You then started to research how to prevent physical burnout. So, how much did that personal experience guide you through those early stages of founding the company?

Will Ahmed: I was playing squash. I was someone who used to over train. And I didn't really know why. And so, you know, you're in this school which is higher education and yet the act of being a college athlete seemed somewhat medieval and not particularly deeply scientific. And so, that just led me to simple questions like how can you measure the human body, what does it mean to train optimally, what does it mean to recover?

And it didn't even really occur to me at that age that I could become a better athlete by resting more. Or a better human by resting more. I just sort of thought it was more is more.

And so, that led me down this rabbit hole of physiology research. And I started taking classes where I could essentially research things about the human body. I read hundreds of medical papers over the course of my time at Harvard. And I ultimately wrote a paper on how to continuously measure the human body. And that really became the business plan for Whoop.

I certainly didn't think I was starting a company as an undergraduate. I really just found myself getting pulled into this idea. And I think the things that you think about in the shower or before you go to bed or the things that sort of nag at you, those are signals in your life. And for me, it was really all I was thinking about in my free time.

And as a consequence, you know, it wasn't like I had a choice to start a company. It was just the inevitable.

Kim Posnett: I'm a long time Whoop user. But I don't want to assume that everyone in the audience is. Can you

tell the audience what Whoop does? Let's start there and we'll get into more detail.

Will Ahmed: Yeah. So, the company Whoop is on a mission to unlock human performance. We build wearable technology that's really designed to continuously measure the human body. I would say the primary use cases are around improving health, improving performance, changing behavior. And over the course of the company's history we've gone from working with the world's best athletes to now sort of everyday general consumers.

Kim Posnett: Talk about how you're able to measure these indicators of health before you even feel them, so things like strain and recovery.

Will Ahmed: The technology itself is hardware that you wear on your body 24/7. It's a pretty small sensor. I've got one here on my wrist. And that technology is capturing data, about six or seven different data points on the human body, about 100 times a second.

So, we collect an enormous amount of health data. In a given day, about 100 to 1,000 times as much data as other

products in the market. And that super granular level of data allows the product to be the most accurate wearable technology on the market.

So, measuring things like heart rate, heart rate variability, skin connectivity, pulse oximetry, movement, everything about your sleep, different stages of sleep. And then using all of that information to try to help guide someone, hopefully some of you in this audience, but help guide you to understand what you should do to be healthier or to perform at a higher level.

I think probably the single most innovative thing that we released or introduced to the market was this notion of recovery. So, folks on Whoop will get a recovery score every morning from 0 to 100 percent, red/yellow/green. That's essentially signaling how ready your body is to perform.

Now, part of what's fascinating about being able to measure these data points on your body is that you can't often feel them. And I think that's where wearable technology has such a bright future. Is when you can measure things about the human body that you, the individual, cannot feel, you're all of the sudden painting a

lens into predicting health outcomes.

Kim Posnett: Can you talk a little bit about heart rate variability? That's a unique metric. Normally you need to get like an electrocardiogram to measure that. Why is it important? Why do you measure it? Why is it unique to you?

Will Ahmed: So, heart rate variability is probably the main thing that pulled me into starting Whoop. I was reading about it in college. And it dates back to the '80s where Olympians were using heart rate variability to predict how much they should work out in the morning. You had power lifters using it to determine how much weight they should lift on a given day or whether they should completely rest. You had doctors using heart rate variability to determine if someone was going to have a heart attack. You had even the CIA using heart rate variability for lie detection tests.

And I was thinking about it. So, this is a pretty fascinating statistic, I wonder why I haven't heard of it before and why we don't measure it. And it turned out that you really needed an electrocardiogram to measure it. So, this very expensive, \$20,000 piece of technology that you find in a

doctor's office.

So, one of the main questions became, can you measure the statistic heart rate variability continuously or in a much simpler form factor? And so, one of the main innovations to Whoop is not just that we measure heart rate variability continuously, it's that we also measure it during sleep. And we measure it during a specific period of sleep such that it allows us to baseline you night over night and then understand, okay, is this person more or less recovered? Is their body more or less in balance? And so, that's what contributes to things like a recovery score.

Kim Posnett: Creating positive, meaningful, behavioral change is the hardest thing to do in the health space, certainly. What are you seeing? What is the data telling you in terms of your impact on users, in terms of improving their health?

Will Ahmed: It's a great question. And I would say it's our core value proposition. Our core value proposition, the way we think about success is are we changing someone's behavior positively? And are they improving their health?

So, what we look at is over periods of 30 days, three months, six months, 12 months, how are people evolving on Whoop? And you know, I'm proud to say that we do see pretty meaningful shifts for individuals on Whoop.

So, on average, we see people's resting heart rates declining. We see their heart rate variabilities increasing. On average, folks are getting about 45 minutes more sleep a night after they've been on Whoop for six months. So, you know, some meaningful behavior change.

Kim Posnett: There are other really cool things that you guys are doing that I think's probably not broadly known. So, you're constantly innovating on metrics, on personalization. But one huge discovery you made relates to pregnancy. What are the implications? And what will you do, if anything, to sort of build product features around that?

Will Ahmed: Over the course of the last few years, we've had different studies pop up that point to, hey, could there be a sign here? Could there be a sign there? And then we like to dive in and do the research ourselves.

So, in the case of pregnancy, as you mentioned, there was a doctor who recruited 18 women over three years to observe how their bodies changed over the course of a pregnancy. And he happened to use Whoop for this. And so, obviously, the data was apples to apples.

And he observed that at the 33rd week of a pregnant woman's term, process, there was a profound inflection in the woman's heart rate variability. So, what do I mean by that? So, over the course of the pregnancy, the woman's heart rate variability declined, declined, declined, declined. And then all of the sudden, seven weeks before she was going to give birth, there was this sharp inflection. And it happened at the 33rd week for all 18 women.

So, we said, okay, that's pretty interesting. And so, we put this out to Whoop members. And we said, "We want to do a study on pregnancy." And we were able to recruit 1,200 women in a week who had given birth while on Whoop. And so, that's a pretty large data set in a pretty short period of time. And we were able to observe the same phenomenon, but now with a much larger data set.

And within that data set, we also found that 10 percent of

the women gave birth prematurely. And so, the question then became, does this inflection just happen at the 33rd week? Or does it actually happen seven weeks prior to giving birth? And what we observed is that it's seven weeks prior to giving birth. Which means that it could potentially be predictive of when a woman's going to give birth. Right? So, you know, it's quite powerful.

And so, we published this research. It's now in peer review. We worked with a number of the top researchers around pregnancy. We've since partnered to do follow up studies on this. What's amazing is that whole process that I just described was about four months.

Kim Posnett: Wow. A trend that I spend a lot of time thinking about as a tech banker is vertical technology. We've talked about that. That's really the application of technology into all aspects of our lives, all industries, not just the technology industry, and all parts of our economy.

And COVID obviously played a big role here and drove entirely new behaviors around digital adoption. And so, you guys were at the center of that in many respects because Whoop could detect COVID in patients early on before

home testing was widely available.

And there's this story of Nick Watney who's a pro golfer and he credited Whoop with detecting that he had COVID on the PGA tour because he woke up with a 1 percent recovery rate. And he had no other symptoms. Right? So, perfect example of the use of technology.

How do you move from using the technology to focus on performance to focusing on broader health monitoring?

Will Ahmed: It's a great question. I mean, I think it's worth noting that we don't necessarily differentiate between performance and health monitoring. It's a phenomenon where, essentially, we look at what are all the different things that we can make someone a better human being or a higher performing individual? I think longer term, wearable technology has the potential to really push a lot of curative costs to being preventive costs in the healthcare space. You know, if you can identify something before it happens, obviously that's a lot more efficient than well after the fact.

And one of the reasons the healthcare system is screwed

up is because so much is curative costs. Something bad's happened, now we have to fix it. And the power to Whoop and continuous health monitoring is you can predict things before they happen.

I still think the craziest day of the year is when you go see your doctor on some random Tuesday and all of the sudden you get hooked up to this different equipment. And there's really no context for those readings that take they. How'd you sleep last night? Are you stressed this morning? Did you drink a cup of coffee? All these things can dramatically change your body. It would be like rating a movie based on one frame of the movie. Like, you just have no context.

And so, I think over time, you know, it won't be that you just go to see your doctor on some random day of the year. You'll go see a doctor, like, 30 minutes before something's about to happen. And that just seems like where the future should be for healthcare.

Kim Posnett: Amazing. I want to shift to gaining an edge with professional athletes and how you partnered with them and worked for them in many respects. And you know, you can't really talk about Whoop without talking

about these amazing world class athletes who wear it.

You're on the wrists of the best of the best across all sports. LeBron James and Michael Phelps were among the first 100 users. There are several high profile athletes who are investors in Whoop. You've since partnered with the PGA Tour. You've partnered with the NFL Players Association, USC, I think Penn State, many more.

How did you as a young guy win over these world class athletes and these world class organizations? Like what was that process?

Will Ahmed: You know, it was some combination of focus and stubbornness. I think early on it was clear to me that professional athletes would be a good market for this type of technology because certainly a professional athlete who's making millions of dollars a year based on their performance should understand how they sleep and recover. And yet, none of them were doing that. So, that to me seemed sort of inevitable and obvious.

We've really focused though on making the technology super accurate. And that, in turn, gave us, I think, a shot

on goal with these athletes. It gave us a chance to be adopted by them because we were going to replace technology that they were somewhat familiar with. A chest strap, for example. Or catapult monitor. Some of these other things that existed, we would be able to replace in a simpler form factor.

And so, we were able to get to, you know, the trainers of some of these high performing athletes. Michael Phelps or LeBron James or so forth. And then at some point the technology has to live up to the hype. And fortunately, they liked the product and they continued to wear it.

I said very early on though that we weren't going to pay athletes to wear Whoop. This was a controversial point of view in 2014 or '15 when really no one had heard of Whoop. And we had investors saying, "Oh, you should just go give LeBron or fill-in-the-blank athlete 10 percent of the company and they'll be huge investors." And I said, "You really don't understand. There's no amount of money or equity that we can give these individuals to wear something 24/7 if it doesn't give them value." Like, how many things do you wear 24/7?

And so, on the flip side though, if the product really delivered the value that we thought it could, athletes should be willing to pay for it.

And this also tied back to a brand strategy which is that I felt wearable technology, and especially health monitoring historically, was like definitively not cool. You know? If you were wearing a health monitor, it was almost like something was wrong with you, right? There was this stigma associated with it.

And I grew up as someone who was inspired by brands like Nike where just wearing a swoosh on your shirt all of the sudden made you feel differently. And so, I asked myself, how can we make wearing this technology aspirational and say something positive about you, not something negative about you? And working with athletes and getting them to authentically wear the product was core to that strategy.

Kim Posnett: Let's talk about where you're headed next in the world of professional sports. You've done a lot of really interesting things to expand and scale. An example is, you know, now there's a Whoop Live component that's integrated into pro golf broadcasts where you can see the

golfer's heart rate throughout the games. What are some other areas of innovation for you?

Will Ahmed: Whoop Live, it was this idea that if you can show in real time what a professional athlete is feeling, it could make the broadcast experience a lot more compelling. It was a challenging thing to bring to the market. But we've since done Whoop Live in golf, so with the PGA Tour. We've done it in cross fit. We've done it in NASCAR. We've done it women's tennis. And we're coming out with more versions of it.

But essentially, it will allow you in any given moment to see an athlete's live heart rate as they're about to hit a shot or, you know, at that sort of end of the game moment. And, you know, I go back to being a kid and watching my favorite athletes like Michael Jordan or Tiger Woods or whatever, and I think it would be so cool if I had this lens into what they were feeling in the moment when they did the thing that everyone remembers. Like that shot. So, it's an area that I think innovation is needed.

And from a Whoop perspective, it helps, again, double down on that notion of being aspirational and being

performance.

Kim Posnett: You, I think, may be the first wearable technology company to launch a subscription. So, you're built on a subscription?

Will Ahmed: That's right.

Kim Posnett: Talk about the advantages and disadvantages of being a subscription-based business. And how it drives greater customer loyalty.

Will Ahmed: Yeah, it's certainly a hard path. And just to go back in time for a second. We had all these partnerships in sports and athletes and leagues. And then we moved to the consumer market in 2017 and we were selling Whoop essentially as this high-end, single hardware purchase. So, you'd pay 500 bucks and get the hardware and everything included.

And what we saw is that the people who bought Whoop at that time were wearing it for a very long time and using it every day. A big challenge in the wearables space has been people taking it off. And we didn't have that problem. Now,

we had a different problem in that not a lot of people were buying the thing. Right? So, we had a business problem.

And so, this got us asking ourselves, hey, is there a different business model here where there's a much lower entry point, but if someone falls in love with the technology, there's potentially a longer term value as well? And so, that's where this idea of Whoop as a membership was essentially invented.

And we rolled that out in mid 2018. And it just created this enormous growth for the company. And by the way, it was a bit of a bet the business moment because if that didn't work, I think we were all going home. And so, it was a big decision.

And one of the things that really came from it as well was how it changed us internally. Because we were no longer thinking in a hardware cycle of, we've got to sell something new every year, every two years, you become so focused on how are you delivering value today. Right? Because you're fighting for that dollar now every day, every week, every month, every year.

And so, for Whoop, it's made us, I think, much more customer-centric as a company. And it's also made us think about how we can get features out to our customers as soon as possible. The curse of being just a standalone hardware business, which I would not define Whoop as, but the curse of being that is that you're thinking, okay, what can we hold back to sell at the later hardware release.

Whereas we're actually thinking the opposite way. Okay, we've just come up with some new algorithms, can we release it to the existing hardware that everyone's already wearing because we want to get you the value as fast as possible.

So, I think in a lot of ways it makes you a much more customer-centric business. And you know, the consequence for us as well is it's been able to build a recurring revenue stream.

Kim Posnett: Launching a startup's very difficult. Understatement. And there are incredible highs and lows and pivots that you have to take. What was the most challenging moment for you on this journey so far?

Will Ahmed: You know, I think the first thing that I needed to overcome was figuring out how I disassociated my own identity from that of the company's. I think maybe in part because I started Whoop when I was very young, or because I just was so obsessed with this idea, that my identity and Whoop's identity kind of became one and the same in that if Whoop had a good day, I felt like I had a good day. If Whoop had a bad day, I felt like I had a bad day. If Whoop was failing, I was failing.

And that's a really unproductive attitude. It's not particularly healthy. But it's also inaccurate. Right? Like, you can bring your best self to work and still a bunch of things can go wrong. Right?

And so, as an entrepreneur, as a manager, I had to figure out how I was going to try to get a little bit better every single day independent from what was going on in the business. And you know, that's a yoyo, right, especially for a startup. So, creating that right mental framework was a big deal.

And one thing I would say to encourage anyone in this room who's even thinking entrepreneurially or thinking

about that as a step in your future, is don't underestimate how starting your own thing actually gives you all these skills and all these new learnings independent from the success of the thing itself.

Kim Posnett: You've said that the best reward for you in building this business is not the financial success of the business but all the stories you hear from members. What's a story you want to leave us with?

Will Ahmed: That's a great question. You know, just two weeks ago I got a message on LinkedIn from someone, and the subject was You Saved My Life. And you know, it was this incredibly powerful story about an individual who was run down and getting all these red recoveries and didn't know why and their resting heart rate was totally out of whack. And it wasn't like they were on some binge run. It's just like their body was really run down and they didn't know why. And they went to go see a doctor. And it turned out they were about to have a heart attack.

And you know, over the last ten years I've gotten a lot of stories like that. And you know, they still give me goosebumps because it's an amazing feeling to put

something out there that people get value out of or that could even potentially, you know, save someone's life.

And so, I think in a lot of ways that's what inspires you to work late and work hard and keep driving on technology that, you know, often has a lot of bumps in the road. And it's hard. And you know, even working in tech has its challenges.

So, what helps pull you through those moments of difficulty is often what you hear from customers and members. So, again, very grateful to everyone in this room who wears Whoop. Thank you. And hopefully we continue to innovate for you.

Kim Posnett: Will, thank you so much for taking the time. And congratulations on unbelievable success. So, thank you.

Will Ahmed: Thank you.

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