

Oral History of Walter Sullivan

Interviewed by **Mario Juarez** for the Microsoft Alumni Network

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Preface

The following oral history is the result of a recorded interview with Walter Sullivan as conducted by Mario Juarez on August 1, 2024, at Microsoft Studios in Redmond, Washington. This interview is part of the Microsoft Alumni Network's Microsoft Alumni Voices initiative. The goal of this project is to record the institutional history of Microsoft through the recollections of its former employees, so that the information may inform and inspire future generations. Readers are asked to bear in mind that they are reading a transcript of the spoken word captured through video rather than written prose. The content reflects the recollections of the interviewee. The following transcript was edited by the Microsoft Alumni Network, which holds the copyright to this work.

Interview

Mario Juarez: So, let us begin. Just talk to me as though we had never met, introduce yourself, explain when you were at Microsoft and what you did.

Walter Sullivan: Hello, I'm Walter Sullivan. I started at Microsoft in 1990. I was at Microsoft until late 2014 and had a variety of roles within Microsoft. I started in Product Support for our systems, languages, products, which was an Assembler and a C Compiler at the time. We didn't have a C++ Compiler. I spent about three years there and moved on to program management roles in the developer division, tangentially into Windows and then into the Windows Embedded Team. And I was in the Windows Embedded Team in our automotive division until 2014 when I left to go pursue a startup.

Walter Sullivan: Exactly, but it was a fantastic experience. I mean, we were talking a little bit earlier. I started when I was 23 straight out of university. And the first several years at Microsoft, it felt like you were still at university. We were all young, we were all having fun. We were doing stuff that we loved. We worked all the time, but you didn't really feel like you were working, and we just had a great time. So it was such a fantastic experience.

Mario Juarez: Awesome. I love that as the top line, and let's dive into that. I completely agree. Just such an amazing, cool experience. And I think every single person we've had in here would say, "what an unlikely experience, I had no idea." Everyone begins from a point of origin. Tell us about you. Where were you born?

Walter Sullivan: Yeah. I was born in Seattle, Virginia Mason Hospital. So I'm a native, born, bred, raised, educated Seattleite.

Mario Juarez: You're the one.

Walter Sullivan: I'm the one, exactly. So in the city, Queen Anne, and then out in Ballard. And I went to Seattle Pacific University, which is right at the foot of Queen Anne. And Microsoft came up, because I had a good friend in university that did an internship at Microsoft and he's like, hey they're hiring a lot of people out there, maybe you should look at it. And sounded like an interesting thing to pursue. So submitted my resume and yeah, things worked out fantastic. The rest is history as they say. But yeah, so I native Seattle.

Mario Juarez: So, Queen Anne, nice childhood. Sounds like a really great childhood.

Walter Sullivan: Yeah, exactly. My father was an engineer. He was an electrical engineer. And we had, I would say a pretty pleasant kind of middle class childhood. I have a one younger brother and we had a great time. Friends playing in the streets until after dark. Kind of the whole, at the time, Seattle was a place you didn't worry about your

kids wandering around. We wandered all over the city, so it was a lot of fun.

Mario Juarez: And I'm betting that you were what kind of student? I'm betting you were a good student.

Walter Sullivan: You would lose. I was not a terribly good student, I'll say, until my very end of high school when my dad said, you have to get into college. And I realized my junior year of high school that I better start getting some decent grades. Until then, I was way more interested in socializing and hanging out with my friends. I played basketball, I played soccer, I played golf, I lettered in golf in high school actually. And I was interested in everything else but studying. But then my dad was for sure right, and I knew that. And so I got good enough grades to get into college. I did study reasonably hard in college and I got great grades in college. So as far as Microsoft is concerned, they don't pull your high school transcript. I was a fantastic student. But prior to university, not as much.

Mario Juarez: Did you inherit the engineer genes?

Walter Sullivan: I think so.

Mario Juarez: Tell me about how did you become acquainted with whatever it was that made you attracted to Microsoft?

Walter Sullivan: Yeah, yeah. I'm the older of the siblings and so when my father was very much kind of a tinkering kind of engineer, so he was always tearing something apart to fix it and understand how it worked. And I was the one that he would show how stuff worked. My brother was a bit younger and so didn't really wasn't as interested in that. And so I spent a lot of time with my father kind of learning about these things and understanding. And then my dad got a computer in, this was probably '80, maybe '81. An Apple 2, actually. And I started getting a little bit interested in computers and my father was obviously encouraging that. Him being an engineer, they

were starting to use computers for work that they were doing for their mathematics, that they were, in the end, he was doing sonars and radars. There was a lot of mathematics involved in kind of waveform, understanding waveform and that sort of thing. And they were starting to use computers to really understand how that worked. And so he knew, I mean, he could see that computers were something that was going to change the world in the early '80s.

Mario Juarez: Did you become a programmer?

Walter Sullivan: I did code some on that computer. I would say not a ton. Not like some people coming to Microsoft that had been coding since they were eight. And it was a total passion because in the end, my passions were around playing basketball and soccer, going to movies with my friends. I mean, that's what I would choose to spend my time doing. Tinkering on the computer was out of interest, but not a terrible, not a big passion of mine, I would say until later. I mean, once I got into university, then I really started doing a lot of coding. I started, I actually was employed in university writing database spreadsheets like Lotus 1, 2, 3 spreadsheets with really complex scripts in them for a couple of different businesses in the Seattle area to help kind of forecast and analyze their business. So I started getting really into it in the college.

Mario Juarez: Did you find a point where you said, "This is for me?"

Walter Sullivan: I don't know if there was a single moment? Well, there was a sort of moment in university. So I started out studying electrical engineering was what I started my major as. And I got into some physics that was a little bit hard for me to get my brain around. And I was doing okay at it, but I wasn't enjoying it and I was thinking, and so I really started making me question whether that was the direction that I personally wanted to go. And as I started looking at the classes, which I was doing really well in, and which I was having fun in, and I would spend extra time in at that time, the electrical engineering degree, you had to do computer science, you had to

do Fortran, you had to do C programming languages, you had to do system architecture, software system architecture. And those were the things that I was really enjoying in college. And so I sort of realized that actually I needed to change my direction. So there was a bit of an epiphany in college, but it wasn't necessarily a single event. It was just a realization as I was realizing I wasn't enjoying my other classes.

Mario Juarez: So you're a kid that grows up in the '70s?

Walter Sullivan: Yes.

Mario Juarez: In Seattle.

Walter Sullivan: Yes. JP patches.

Mario Juarez: JP Patches and all the old Seattle touchstones. You're in a Boeing town. A Paccar, Weyerhaeuser town, maybe.

Walter Sullivan: Mostly Boeing town. Yeah, I would say Paccar was not so top of mind for most people. Boeing was really, I would say dominant and maybe particularly where the part of the city that I spent my later childhood and which was out in Ballard. Which was a more working class, I'll say, part of the city. And we essentially had two classes or categories of people. There were people that worked at Boeing in some capacity, and there were Scandinavian immigrants that were fishing for a living. And that was what Ballard was in the late '70s, early '80s.

Mario Juarez: Well, it hasn't changed at all.

Walter Sullivan: Yeah, it hasn't changed a lot. Weyerhaeuser was also big. I mean, logging at that time in Washington was still a major industry. And so Weyerhaeuser was a pretty big corporation. Of course Paccar was around, but they're also a bit in the south of the city, and so I think it just wasn't as well known.

Mario Juarez: Early memory, the sign going out town — “last person out of town, turn off the lights”— Boeing recession and all that. Tell me from the perspective of a Seattle kid about how, when, and in what way, you ever became acquainted with this thing called Microsoft?

Walter Sullivan: Yeah, it's hard to know exactly the first time because it was a small company, and particularly it was on the Eastside and we're in Seattle. And at that time there really was no reason you ever crossed the bridge. I mean, it was a toll bridge, which of course at the time, I mean it is again now.

Mario Juarez: But there was a toll booth.

Walter Sullivan: Yeah, there was an actual toll booth. We called it the Evergreen Point Bridge, not the 520. And there was a toll booth on the east. I mean you could see the toll plaza for years now it's pretty much indistinguishable, but on the east end of the bridge. And we just never came over here. So from just knowing the company, passing by, whatever, that was never something that I really am conscious of. But my dad in his early computer days knew about Microsoft and he would tell me a little bit about it, or he would get programs that were branded Microsoft. I don't know, early programs on his computers. And he was in local, I forgot what they call them, but local computer clubs effectively. And so there was talk about Microsoft and this company that was growing up in Seattle that was going to change the PC industry, but it was a small company. Even when I joined relatively, it was a big company. When I joined, there was 3,000-ish people. I don't know the exact number, but when I left there was 130,000 people. And compared from then, we were less than \$1 billion. I remember when we crossed \$1 billion of annual revenue at Microsoft.

Mario Juarez: So, let's come into the story of how did you get this job?

Walter Sullivan: Yeah, I alluded to a little bit. I had a friend in university in my computer. It was a computer engineering program who interned at

Microsoft one summer, probably the summer between our junior and senior year, but I can't remember for sure. Yeah, I'm pretty sure it was actually. And he came back that summer. We were talking about what we did over the summer, and he was saying, "Hey, I interned at this company. They're hiring a ton of people over there. You should think about applying." Which then I did. And it was, so I went through interview process, which actually to be honest, I really enjoyed it was a couple of the interviews were kind of tag team at that time. So I had two people interviewing me at the same time, and they're asking coding questions. I mean, I started in product support, but for our C Compiler, so I had to know how to read C code, write C code, debug, diagnose problems, coding problems. And so there was a lot of questions about the language and the syntax and algorithms, but not quite what engineers go through today for interviews in the most efficient way to write algorithms of certain kinds. We didn't really go through that so much, but that all went really well, apparently.

And they made an offer, which I accepted, and I had to finish school. So that was in maybe roughly, maybe March-ish or something like that. And school finished in end of May. And so I had to finish university, and then I was supposed to start, but then my family was doing a fishing vacation up in British Columbia. So I reached out to the HR person. I said, hey I'd really like to go on this fishing vacation to Canada, can I start a couple weeks later? And she's like, oh yeah, let me get back to you. And of course that was all okay. And so I ended up starting a couple weeks after that vacation, and I guess I was prioritizing work life balance before that was a thing. I don't know.

Of course we didn't at the time, there was no way of knowing the growth, what would happen to Microsoft. I mean, that was literally the lottery. I mean, it was amazing. And I'm so grateful. I mean, one of the things, I love Microsoft as a company. I loved working at

Microsoft, of course. It was really my first professional experience in any case. It was such a fantastic place to work.

Mario Juarez:

So let's talk about that stuff. So you start at Lincoln Square, answering phones, C Compiling. Tell me about your early impressions. If you can go back as well as you can, any crystalline moments or defining experiences or just a description of what did you encounter, what did it feel like?

Walter Sullivan:

A lot of things come to mind, but one of the things that I remember coming into the office is it was dark. These guys were developers. The lights were off, always. Blinds were shut. Nobody wanted any natural light, which was kind of funny. And it was a group, that team at the time was probably 12 people or in that order, and five of us, or six of us probably started in the same month. And so we were there a lot. We had, Microsoft had just released an updated version of Compiler, which let's say the quality was not top notch. And so we were pretty busy with a lot of customer calls, and we went through a pretty quick iteration of patches to try and resolve that. But it was a bunch of young men, and unfortunately it was men.

That was sort of the situation at the time who we were just continuing university. We would work, we would sleep, we would eat, we played Frisbee at lunchtime, we would leave the building and go play Frisbee Golf, and then we would come back and continue working. Late at night and you would be scrounging through your colleagues' cubicles to find whatever they had to eat. Some people had cereal, some people had whatever. You were hungry, but you didn't either have the motivation or the time you felt like to go out and find something to eat. And so you always knew which cubicles had a couch in it because you would quite often sleep there. I mean, I spent a lot of nights in the office, but we didn't feel like we were working. We were having fun and we were doing a lot of goofing off or writing programs on the side that we thought were interesting or different things that was entertaining to

us in addition to the work that we were doing. But yeah, the closest thing that I can associate it with is it just felt like you were continuing from university.

Mario Juarez: Would you call it a formative experience, or would you call it a transactional experience?

Walter Sullivan: For me, it was really formative in a number of ways actually. There were a couple, two, three, I'll say more senior people in the group. And by senior means they were maybe two years older than us or something all relative I guess. But I would say people that really at that time, they were really interested and motivated in helping people solve problems, not only our customers, but also us new people that were joining and were helping answer customer questions or resolve customer issues. There's one guy I remember in particular, and he would never answer your question directly if you went to him with this customer problem and you'd be like, I can't figure out what's going on here. And you kind of would explain it. He would never tell you what the answer was. He probably knew, maybe he didn't always know, but what he would do is he said, why don't you go look at this?

And he would just kind of help point you, give you the next step, and then let you sort of ruminate and iterate on it and kind of pull the thread and see what you could figure out. And to me, that was such a valuable experience because it made me in particular, and I think everybody had a similar experience, really self-sufficient at problem solving and thinking through alternate solutions and getting to what is the next step that I can make progress towards a solution. Even if you didn't know what the solution was, you're like, okay well, I can answer this question, I can answer this question, I can answer this question. And really help you discover and then triangulate back on a solution. And to me, that was extremely formative at that time, but is a skill that I used even today. I mean, that's a skill that I didn't learn necessarily in University. And yeah,

I'm really thankful for that guy. His name's Bryan Tuttle. He was really, super helpful actually. And it's one of the interactions of that group at that time that sticks in my mind.

Mario Juarez:

Yeah and listening to you, one of the things that resonates for me so much is that if you make it through the first three or four years of Microsoft, you're actually required to adopt a mindset, a way of thinking, and a way of operating and approaching problems. Can you talk a little bit about those broad lessons that you learned initially at Microsoft about how to think about how to operate professionally that have carried you through your career to this day?

Walter Sullivan:

The professionally part throws me only because I would say that in those early days, we were probably not the most professional organization. And I don't mean that in a negative sense. We weren't unprofessional, but we were very, what's the right way to characterize it? I mean, it was not a problem to confront somebody, like we didn't necessarily have to be courteous to each other, and we would argue. Arguing was actually normal for a long time. That was part of the culture at Microsoft. I would say through, I don't know, through certainly into the mid-'90s, maybe even towards the late '90s, showing your frustration and argument and challenging people. Part of it was challenging people. We all had the objective of trying to find the best answer, the best solution. Many people thought they had it and many other people thought they had it.

And you argued it out essentially until, I don't know, until somebody saw the other point of view, or you just got tired of arguing, or what have you. So there was a period of time, and I'm not saying it was violent, violence is not really a factor. That was sort of the culture of how you resolved problems and how you exchanged ideas and how you challenged each other to figure out what was the best path or the best solution forward, actually. And so that was really, that is a skill which doesn't come natural to me.

I'm a much more, maybe submissive or calm person, actually. So that's not a natural place for me to be. And it's a skill that I would say did not serve somebody well. Long-term sort of after that culture became un-normal, so to speak, that is that changed over time? I don't think that's how Microsoft is today. That's certainly not how any other company is that I have worked at or currently worked at.

Mario Juarez: Well, here are two aspects to what you're saying. And one of them is form or delivery, which has certainly changed. But the other is really a fundamental mindset about how you individually and as a team arrive at a better place.

Walter Sullivan: And the thing that you always had to keep in mind is it was never personal. People were arguing ideas and all in the effort to find the best solution. We were all super passionate about that. I mean, we were changing the world. We did feel like we were changing the world in so many teams at Microsoft. We were building the development tools that the world was building their products on. There's a story about that we can get to a bit, but we felt like we were changing the world. The people in office, I'm sure felt like they were changing the world. The people in Windows or OS/2 when we still had that, they felt like they were changing the world. And in a lot of ways we were, because it was this emerging PC era where people had personal computers that generations before us could never even imagine what was possible. And we had to give people the tools and the programs and the capability to take advantage of what this computing represented for them. So, there was a lot of passion. And I think that was really, I would say the motivation or the instigation. I think behind that sort of combative nature.

And I would say even for people like me, but I think for a lot of people that method of discussion, and debate, and solution building, I mean, I said it wasn't a comfortable space for me to be in. And I think it's not a comfortable space for a lot of people to be

in. And so I think in the end, did we arrive at the best solutions? I don't know. What I think I can say is you didn't always get everybody's contribution because there were people that simply didn't feel capable or maybe welcome to contribute their ideas. And that's where I think Microsoft today, at least when I left, and I think it's even only improved, has become a better place because I think a much broader set of people feel like that they can contribute and bring their ideas to the table, which wasn't always the case.

Mario Juarez: Undoubtedly. Undoubtedly. It's a great point. Wow. Also good. Well, let's dive into the developer tool stuff. But a question for you again, and I don't want to maybe just more put a bug in your ear, but you did something that very few people that I know at Microsoft did was you began your career talking to customers who are struggling with the products. How, has that informed the way that you then went through the rest of your career?

Walter Sullivan: Yeah.

Mario Juarez: What did it mean dealing with customers?

Walter Sullivan: I would say that was again, towards the kind of formative side of my career. Having that as the beginning, having having that interaction with customer and the need and the requirement to empathize with your customer and to understand the problems that they were dealing with. And help them solve, in many cases, problems that were with our products, but we were trying to help them get through that so that they could complete their jobs. Through my entire career at Microsoft, that was something that I was always passionate about. I always spent time with customers. I was on the Engineering Team. So pretty much my whole career, once I left product support was in program management at different capacities. But within program management, in pretty much every team that I was in, I was always in front of customers. I was always talking to customers. I was always with our Marketing Teams, demonstrating our products to customers. Because one, I loved the

interaction. I loved to hear how customers were using our products, and it was also important to understand what our customer's needs were. So I always had a role in every team that I was in of, and that includes, and that's actually how I got into the product group, is I always had a role of understanding and being able to articulate customer needs back to our Engineering Team so that we could evolve our products that hopefully made them more successful in the market. But I mean, that was certainly what my objective was.

Mario Juarez: Do you think that distinguished you as a PM?

Walter Sullivan: Oh, it absolutely did. I mean, not that I was the only one doing that. That for sure is not true. There were many others, but especially I would say in the early to mid-90s, a lot of PMs were maybe frustrated developers or they were far more interested in the technology and the technical solution and the implementation, which was also interesting to me. I mean, I got very involved in that. And they were much less attentive, many of them in any case, much less attentive into how it was delivered to a customer and how they would actually use it and the problems that they needed to solve with it. And that definitely distinguished me and part of the reason why that was a role for me, my basically entire career, Microsoft, and even after, I mean the subsequent companies that I've worked at, I've pretty much always had some kind of customer facing role.

From the engineering perspective. I feel like, two things about it, I think that what I observed in Microsoft is engineers love, maybe not all engineers, but most engineers love to hear how their work is getting used by their customers. They're not always comfortable talking to customers or maybe having that interaction, but they appreciate knowing how their work is getting utilized and what's working and what's not working. And so I always was able to build a good relationship with the engineers that I worked with because I could be a conduit for them with a lot of that information, and data, and anecdotal discussions, and coalesce, prioritize feedback for

them. And I wish that engineers got more directly involved in customer discussions because there is a reward to it that I could see in their faces all the time when I would tell them about customers engagements that I had had.

Mario Juarez: Well, you were of that generation that by my observation, and tell me if you agree with this, was really almost invented or defined this role of a Program Manager. Talk about Microsoft's unique evolution and definition and function of the Program Manager.

Walter Sullivan: The Program Manager was a hack almost, actually. I mean, it existed because the formalized roles that we had among Product Managers and Development Managers and Lead Engineers was not working. They were working very siloed. They were not really building the products that we needed to build. And the program manager really is the one who came in to try and I'll say, conduct the orchestra and bring everybody into kind of synchronicity so that Marketing and Engineering and Test and User Education and could all work together and cohesively deliver a product. And that was the instigation of Program Management at Microsoft. It was kind of a hack because the organization as it was stopped working. It worked at one point, I think, but I think as the company grew and the teams got larger, and I don't know if it had to do with individual personalities or what have you, but the structure stopped working and program management sort was a hack to try and bring that sort of cross discipline structure to our engineering teams basically.

Mario Juarez: It's an interesting observation. The PMs were basically created out of the necessity of the, I wouldn't say dysfunction, but the emerging complexity of functionality.

Walter Sullivan: And I would almost say dysfunction. I mean, I say Program Management's a hack, but that's how somebody else described it to me. And I don't remember who said that, but somebody at Microsoft early my career. So that for sure, I mean there were plenty of Program Managers by the time I became a Program Manager.

But I mean that was definitely the impetus behind it. And now we may be getting, engineering organizations have changed. The way that they do their work has changed to the point where I think the role of a Program Manager is, it's changed quite a lot. And I think to a certain extent, I mean the company that I work at now, we don't have Program Managers, and it's just a different way of doing business today, I would say.

Mario Juarez: Well, at Microsoft, I think it's now a much more codified, the role of it is much clear. There are career paths on it, but I think it still manifests differently across organizations.

Walter Sullivan: It could be very different roles in different teams.

Mario Juarez: I mean, at some level there are strategists at other levels. They're just developers who are able to get a date. Right, and exactly. Had some communication skills.

Walter Sullivan: Exactly. Yeah.

Mario Juarez: So give us a quick tour of your developer tools, development, that part of your career. Understanding that this is a family show, so most people aren't going to understand any of the technical things.

Walter Sullivan: The details.

Mario Juarez: Try to give us explanations that your average non-geek couldn't wrap their heads around.

Walter Sullivan: So I came into the developer division. We were shipping the second version of our C++, well actually, it's the third version, but it was called Visual C++ 2.0. And this was a time in which Microsoft was very much trailing in the industry in the developer tool industry. We had a competitor down south in California called Borland. They were really, I'll say dominant. I don't remember exactly sort of what the market share split was, but they were really the leading tool in the C and C++ industry, and C & C++ for people don't know what

that means. This is sort the programming language that pretty much all commercial software was written with at that time. Visual Basic existed, there were other tools. Visual Basic was used most commonly sort of in line-of-business apps in corporations.

There was Fortran that was sort of a legacy language at that point. COBAL, which was very much a legacy language and largely isolated in financial industry. And so C++ is the, I have a story about that help me remember, is the language that pretty much all professional software was written and Microsoft's included. So one of our primary customers was the Windows team and the Office team and the other teams within Microsoft, because everything in Microsoft was built with our product. And outside of Microsoft, most professional software was built with Borland's product. And that was really where we were. We were the underdog and we were building a better product. It was evolving. There was, I'm sure probably likely some missteps from Borland that we were able to capitalize on, and we sort of slowly started clawing market share away. We started getting better at marketing.

Our product started improving and getting more usable and more capable. And there were some important standards for the language at the time that we started becoming a better implementation of than Borland's compiler. And so it just, the product kept improving, the market share kept improving until eventually the market flipped and we became the dominant professional development tool across really the entire industry. I spent time with developers at JPL, Jet Propulsion Lab, nuclear facilities, as well as companies like Oracle. We worked with all of Microsoft's competitors. Eventually were using our development tool. And this comes to kind of a funny story, but at the time, this was now probably 94, 95, we were really trying to figure out how can we raise the profile of this development tool set that we had created from a pure market share perspective. We were starting to cross the line of taking a majority of the market, but the market

perception was not this way still, we were still trailing from a market perception standpoint.

And we had a really creative Marketing team at the time, which was really fun. And one of the marketing campaigns that they came up with, they called it the Outing Campaign, and this was when you still did print ads and Dr. Dobbs Journal and this kind of stuff. And they would buy these print ads and they would basically say whatever Oracle database built with Microsoft Visual C++, and they would just start naming all of these competitors of Microsoft that basically used our tools to build their products as a method of trying to raise our perception and our profile. So that was really fun, and eventually Borland, they sort of started shutting down that specific development tool. They had other development tools that were still doing well, and some of their key staff started coming over to Microsoft, which it's one of those things where you start seeing your competitors, people come into your organization and you're kind of like, what's going on here?

Mario Juarez: I think it's called winning.

Walter Sullivan: Yeah, it's called winning. But you feel like if you're winning, why are the losers coming? I mean, not that they were losers, they were all really good people, but it's that kind of thing, right? You're like, we just beat you. Why are we hiring you kind of thing.

But I got to know many of them. They're fantastic people and I really enjoyed working with them. But it's kind of the perception at the time when you've been kind of competing with each other like this.

Mario Juarez: So, what were you doing in all this? What was your role?

Walter Sullivan: So I was Program Manager. I was for most of that, I was the Program Manager leading all of our, what's called our C++ class libraries. So these are reusable components that companies use to

build their programs from so that they don't have to write as much code because we can give them pieces that are reusable. So we would do things like implement controls that look like the office toolbar control so that other companies could incorporate that into their apps and it could look like Microsoft's Office apps and have the same look and feel and it would be familiar to their customers, or we would have different kinds of algorithms and different things that would be reusable. So my team that I was working with from program management perspective was producing those libraries for most of that period.

Mario Juarez: That's a big deal. It was really important.

Walter Sullivan: It was very important. It was highly reused also inside of Microsoft, so we delivered a lot of that to other product teams within Microsoft. This was from say '93, '94 to about 2000. And so through that period, I had different pieces of the product that I owned through that whole period. I was always in charge of the program manager for that class library piece, but then I had other components of the tool set as well.

Mario Juarez: Yeah. So you rode the waves of several evolutions of the state of the art development tools?

Walter Sullivan: Yeah, I mean we started out, yeah, you're right. We've started out with really individual product in the developer division. We had individual products, Visual C++, Visual Basic, and we had an assembler. We had different really isolated standalone products. And then in, I don't remember the exact timeframe, but say '94-ish, '95, we started to try and integrate those into a single product line that we called Visual Studio, a single development environment. And you could kind of choose the language and choose the tool set that you wanted to use. There were a lot of common pieces at that time, and that grew. Then Java came around and we started a Java product. And then C Sharp, which is another programming language that Microsoft, basically after we got sued by Sun, we

came up with not a similar language, but conceptually targeting a similar audience that was C Sharp. And that became a very popular programming language, but integrated into this suite of development tools that was Visual Studio. And then that grew into a bunch of other things and think now it's called Azure DevOps or something.

Mario Juarez: Visual Studio was really a marker in time.

Walter Sullivan: It was.

Speaker 2: Is it safe to say it was a massive hit, or would you describe it as something else?

Walter Sullivan: No, it was a massive hit, a big product. That product pushed the developer division. I think over, I don't remember in the end what our revenue was, but I would say having that product is what pushed the developer division over a billion dollar kind of business. I'm pretty sure prior to that, it wasn't in aggregate. We weren't a billion dollar business,

Mario Juarez: But developer division wasn't just about dollars.

Walter Sullivan: No, it was never only about dollars because we were also building the tools that Microsoft used to build their products. But I was in a meeting relatively early on, this is back in '90, probably '92. Mike Maples was here. I was in product support, but I was in this role in product support where I was this liaison between the Engineering team and the Customer Support team. And so I was quite often with the Engineering team, and I was in a meeting where we were actually talking about the business viability of our C and C++ product because it wasn't a profitable business at that time. And the theory was that we were a critical business to Microsoft because we were building the tools that every other business at Microsoft was using to build their software. And while that was true, and somebody said that to Mike in this meeting, and Mike said, but if

you want to remain a separate business, you better figure out how to make some money.

And that's what he said to the leadership of the Product team at that time. And I would say that was almost a watershed moment that really, I think changed the way we were thinking about the business. We realized at that point, and I think we had just launched the first version of visual C++, but that was at that point the realization that we had to turn it into an actual business and not just an internal team that we happened to sell service operations. Exactly. Yeah, exactly. So that was Mike's contribution. And I remembered very much to this day that meeting actually

Mario Juarez: Very much a Mike Maples kind of thing to say, and true to the larger currents that were happening at the time of consolidating, integrating, making the trade-offs. When you look at the evolution of those different phases from the beloved service team inside the company that's building beloved tools, but no one else in the industry is using them to a billion dollar business that really is a standard setter and a benchmark in the industry. Talk to me about the lessons or the principles that apply that made that possible that you almost from a business school perspective as a lecturer would say, this is how that happened. How did that happen?

Walter Sullivan: Yeah, of course there was a lot of luck being in the right place at the right. I mean, I think any successful business has an amount of luck that you have to be able to capitalize on. And specifically in our team, that was really, we were absolutely building a better product in every release that got better in a variety of ways, but we also had a competitor that was not executing as good as we were, and so we were just able to catch up and start to pass them, and then they started to falter. And I think integrating into a single development environment, what that really allowed was multiple things. But what that really allowed was I think more people were able to kind of standardize on Microsoft's development environment. Instead of

picking and choosing products from multiple companies, they might pick our C++ compiler, but they pick some other companies basic tool set or a development tool set from another company.

But when you made a single purchase and you got everything as a single suite of tools, there was much less motivation to kind of go out and find those alternate solutions. And so it was that bundling aspect that I think, and we saw that in office, we saw that in other products. The DOJ even got quite interested at one point in some of that bundling. But I think that was really, for me personally, that was really a lesson in lowering the barrier to your customers to just stick within your ecosystem, just make it easy, give them more than they even want, but they might need and they will just choose your stuff and continue using it. And that was, I wasn't necessarily defining that business strategy, but whomever was pretty interesting. We did develop some interesting, I should say, or should add within the C++ team.

We had some really, of course we had some really bright guys, but we had some people that were really looking at organizational efficiency and development. And there's a guy who was our Group Program Manager and Product Manager. He had different roles. So there's another one of these guys that was really, I think, inspirational to me. And he wrote a book, it's called The Dynamics of Software Development. And it was all of these lessons and anecdotes about how Software Development teams should operate or can operate to be more efficient. And it was lessons, one of the lessons is don't flip the bozo bit. And the idea really is that everybody has an idea to contribute and you shouldn't discount the thing that he would, common phrase that he would say in our team meetings. He's like, I want everybody's brain at the table. And this has started to this actually, as I know as I sort of think about it retrospectively, this could start to reflect that shift in the combative nature of this discussions to a more collaborative sort of working model.

Because he really encouraged everybody to really contribute ideas and to brainstorm and to think. And he really emphasized that we should value ideas actually. And he had a number of lessons and of kind of observations or anecdotes like that that were really interesting, but it came out of that sort of formative experience of the C++ team trying to figure out how to become an actual business and how can we operationally become more efficient and more effective and build a better product. And resulted in this book that he sold a lot of copies of and did consulting around after he had left Microsoft.

Mario Juarez: Okay. The really important question is how did you end up in the Micro News?

Walter Sullivan: It was around some visual C++ release. I can't remember exactly. I just remember I have the copy of the Micro News at home that I'm in, and I don't remember what the story was to be quite honest.

Mario Juarez: I remember one year we did the Micro News and did a piece on Invisible Basic.

Walter Sullivan: That wasn't mine, but yeah.

Mario Juarez: That wasn't you.

Walter Sullivan: No, no, no. That wasn't me. But yeah, that would be funny. That would be funny. The Micro News was always a highlight of the year.

Mario Juarez: It was fantastic. And then you got into cars.

Walter Sullivan: Yeah.

Mario Juarez: Then you got into cars. Are you a car guy?

Walter Sullivan: I am a car guy. So I mean from childhood, my mom loves to, whenever I were to bring a girlfriend home or whatever, or now wife-

Mario Juarez: See, program manager.

Walter Sullivan: Yeah, exactly. I would take toy cars to bed with. I didn't take stuffed animals or whatever. I would take toy cars to bed with me from being a little guy, actually. So my whole life I've been interested in passionate about cars. I don't know why, because my dad is not that way. My mom is very much not that way. My brother is not that way. I don't know how I got that gene, but I got into cars. This was about 2000 Microsoft, I mean, about 2000, 2001, somewhere in there. I actually was thinking about leaving Microsoft, and I had some job opportunities outside of the company, and I had reached out to a former boss of manager of mine from the Visual Studio days, but he had left. He was at Microsoft but had left and that team. And I was just seeking advice. I just wanted to reach out and just talk to him a bit about what I was thinking and what opportunities I was looking at. And he was in this team, and we were in research at the time in Craig Mundie's research organization, or the Automotive Team was, and they were taking Windows CE and building an automotive platform. And this guy that I reached out to was on that team.

Mario Juarez: Who was it?

Walter Sullivan: A guy called Mark Damon. He goes, "You love cars. Why don't you come take a look at what we're doing?" And it wasn't even on my mind. That team was not even on my mind. I knew it existed. I had maintained contact with this guy, but I wasn't thinking about it at all. And it looked interesting. And so I talked to the other people on the team. It seemed like an interesting switch for me, combining a passion of cars and technology and turned out to be a really funny experience.

Mario Juarez: Yeah. So what was it that you did when you first got there? What was the mission? Describe this thing that most of our viewers will be like-

Walter Sullivan: My mission is relatively geeky. When I got there, my mission was to build the SDK that all of these systems were going to be built with. And we started, we actually made quite a lot of progress down that path in the end that SDK didn't really exist as I had defined it at that time, but that was really what they were doing. They had built two devices that had gone into market but were not terribly successful. It was called the Auto PC was sort of the aftermarket commercial device. And then there was Citroen, which is a French car maker, had built a version of that device into one of their cars back in 1990, I think '89 or '90, sorry, 1999 or 2000.

But those were really, I would say commercially mediocre, just from success. The product was interesting, but just commercially, it wasn't terribly successful. And so it was another situation where the team was needing to figure out how they could turn it into a viable business, I guess. So maybe a little bit of a rinse and repeat of, although we never reached a billion dollars, so it wasn't an entire repeat, but a little bit of, we had to try and make a real business out of this thing. And I was kind of, that isn't why they hired me. They hired me to build this SDK and development toolkit. But I was there when we had to make this shift and try and make this a real viable business. And we did some super interesting stuff. I'll give you a couple of interesting examples. Today, I bet the car you have has a USB port in it, which you plug your iPhone or Android or whatever, and you get your Apple CarPlay or Android Auto.

But in 2003, it was 2004, sorry. Microsoft was the first company to engineer a USB port into a car. So we were working with Fiat Auto, Italian car company. We built a product with them, which they called Blue and me and went into production in 2004, as I said. And it was the first, they were the first OEM, imagine an Italian. I think none of us really think about Fiat as an innovative car maker necessarily, but they were the first car maker to put a USB port in their car that you could plug. At that time, the iPhone didn't exist.

iPhone was 2006, I think. And this was 2004 at the time, the use case was a USB stick with media on it or something like that. And that was what we, that's what we enabled the USB for, was to bring in music into the car essentially. That's one of Microsoft's contribution. I mean, there are many, but if you think about we were the first to do it, which is kind of an interesting legacy to have.

Mario Juarez: So, what do you take away from that car experience?

Walter Sullivan: The auto industry is hard. It's an interesting industry. I may take a lot of things away from it. One of the challenges that Microsoft had, which is the industry requires maintenance and support for, in Microsoft terms a very long period of time. So the Federal Department of Transportation for every vehicle sold in the US requires that A OEM be able to service and maintain that vehicle for 15 years after the last model of that vehicle is produced. So a car may be in production for five or six years, so the first vehicle is 20 years old before you can stop supporting it. And at that time, we're talking 2000, 2001, 2002, Microsoft did nothing for 15 years, meaning we supported nothing that long. That was a time horizon we couldn't even think about in that period. But we had to be able to guarantee that we could reproduce software, that we could patch software, that we could issue updates to Fiat and then Ford and then Kia and then BMW and others for this federally mandated period in which they were obligated to commit to actually.

So that's an example of some of the interesting disconnect between the way Microsoft at the time did business and the industries that we were trying to get into and the expectations of those industries. But there's so many interesting things about autospace just from the complexity of the supply chain. I mean, there's 200 companies or so that maybe that contribute pieces of a car to the production line where makers are essentially just, they just assemble pieces that are sent to them by this 200 other companies. They screw them together and ship them off to dealers, but it's just an incredibly

complex kind of ecosystem and supply chain, which was interesting to be in.

Mario Juarez: Was that the last gig that you had at Microsoft? Was working on the cars?

Walter Sullivan: That I had?

Mario Juarez: Yeah.

Walter Sullivan: Yeah. So I was at Microsoft, and we then in 2012-ish, we started ramping down that team. So I was there from 2001 to 2012. And so I was there to help ramp it down, which is depressing. Actually, there's an interesting lesson about that. But I remained in the Windows embedded organization for another, I don't know, 18 months or so, and I started a Customer Engineering team that was building specialized devices for customers. And so from there I moved on and I led a team that was building a new set of handheld devices that Federal Express used for tracking packages. One of them had this fingertip scanner, and it was all about scanning the barcodes wherever the package was, in whatever mechanism. So we built everything from the handheld advice that you sign when the package is delivered to you, to all of the devices through the distribution chain that were used to scan the barcode and track where the package was. So not automotive, but still an extremely interesting-

Mario Juarez: What a range of a career. I'm thinking of a kid that walks in the door at Lincoln Square to someone that's doing that. Somebody that's not esoteric, what's the through line? Tell me about the through lines through your career.

Walter Sullivan: There really, I would say are two halves of my career. There is one through line, which I'll get to, but there's really two halves of my career. The first half, which is really all around developer tools and working with Software Developers and ISVs and companies, groups

within Microsoft, but companies outside that were also similar to Microsoft because they were building packaged software products just like we were building. And that was really sort of the first, I'll say half of my time at Microsoft. And from there I made a pretty hard shift into embedded systems, which is really a very different technology, a very different mindset, a different industry than what I was doing because in the first half was working, I worked with everybody from, I've mentioned JPL, Oracle, Morgan Stanley. I helped with Unix migration project at Morgan Stanley, which was really fun. And so enterprise applications, package software, really the stuff that also Microsoft excels at.

And then this embedded industry, which Microsoft at the time was not huge in. They do have a pretty significant presence, but it was just a different mindset and you're very close to the hardware you're writing. The software has to be, there's a lot of performance requirements on the software that are measured in milliseconds and single digit milliseconds, even sometimes, and it's just a second half of the career. But the common thread is I was always engaged with customers back to sort of the root in product support. So I mean, some of my favorite projects, I mentioned the Morgan project with Morgan Stanley, but in the Automotive Team, I was the one leading our Engineering team, but also the interface to Fiat in the case of that project. And Ford, Kia, I mean, I have connections at car makers basically around the globe from that period because I worked with all kinds of different car makers and suppliers, helping them use our platform to build the products which they needed to build. So customer engagement was definitely a consistent theme throughout. And then there was those, I would say two distinct halves from a technology standpoint.

Mario Juarez: Beautiful. That's great. Let's talk about Microsoft. Even beyond technology, you've talked a lot about that whole phenomenon that we all experienced. Boy, this is much, this is a lot bigger than I thought it was going to be. Yes. And that's just from a change the

world and then technology perspective. How else? When you look at the company and you think of your own experiences, did Microsoft change the world post beyond tech?

Walter Sullivan: Yeah. Yeah. There's a number of things actually. I would say one of the things which early in my career and as I had friends working at other companies in other industries, one of the things which I would say was unique at Microsoft, which also made it such a fantastic place to work, is there was a true belief that the employees are what made the company. And there was, I mean, there's all this sort of platitudes about employees are your best asset and kind of that sort of thing. But I feel like we were treated so well actually as employees. We worked hard. I mean, we worked really hard, we worked long hours, but at the time, now you go to, I don't know, Google or Meta or whatever, everybody has really nice cafeterias and kitchens with soda and whatever. But that wasn't in the early nineties.

That wasn't true. And Microsoft had all of that stuff and we were really treating people quite well from that perspective. And I feel like that that is really, that's something that, I don't know if it exclusively sort of grew up at Microsoft, but we were certainly early in that sort of attitude towards treating employees well. And I think that spread through the industry pretty broadly actually. And as employees here left to other companies, I think they kind of brought that expectation, I'll say with them. And if it wasn't true, they would probably express some frustration and maybe try and change it. I don't know. I mean, I hope that other organizations benefited from that experience. The other thing that of course has always been a significant part of Microsoft is giving back. So the Giving Campaign was always an interesting time. And I have a couple of interesting stories about the Giving Campaign that was always an interesting time at Microsoft.

And my family was also always into giving back, volunteering or helping out needy. So of course I always participated in the Giving Campaign from donating part of my salary. But we had also some other really fun stuff. As an example, when we were in the Automotive Team, there was a group of us led by one of our program managers. We organized a car show every year in our building. And we would have, I don't know, upwards of a hundred classic and modern and classic cars that people would pay to show their car at \$50, \$75, whatever it was, which of course we would give to the Giving Campaign. And then people would buy a ticket to go to the show, which would go to the Giving Campaign. And so we were doing things like that to raise money for the Giving Campaign. And then a really good friend of mine, and this is in the early nineties, he started organizing a motorcycle ride that was a charitable ride, basically, that we would not directly associated with the Giving Campaign, but I would say inspired by the attitude of Microsoft because this guy was also a Microsoft employee.

In fact, we started in the same group together.

The attitude of giving back is what people as fortunate as we were and are, I mean, everybody working at Microsoft is a very fortunate person. Giving back is almost a requirement for us actually. And so this motorcycle ride, which is called the Tulip Ride, and continued from maybe about 94, 95 until just during Covid, it was a little bit of a different event just because of the realities of Covid. But every year we would, this guy, this guy, it was his idea and organization. And some of us would help contribute different pieces one year to the next. And some years we couldn't help. And other years we could help more, but we would have two, 300 motorcycles riding. We called it the Tulip Ride because it was always in the kind of April-ish timeframe when the tulips were blooming up in Skagit Valley. So we would ride motorcycles up to Skagit Valley, and we would usually have some catered like barbecue or something, some catered lunch up there for the people that were riding up. And we

would get two or 300 motorcycles and we would have some special auctions. And it got to the point where we were pretty consistently raising \$50,000 or \$60,000 a year on this ride, and we donated it all to the Seattle Humane Society. That was sort of his passion was animal welfare.

So imagine for 10 plus years, we were donating 50 60 grand a year, which is, it's a hell of a legacy, which is pretty, yeah, it's pretty impressive actually. But my point only is that I think Microsoft's focus on giving back has a much bigger impact than that single Giving Campaign event because people like this guy, Jeff Henshaw, is a good friend of mine. People like him continue that in other ways that are not measured in the Giving Campaign, but are I think truly inspired by this reality that if you're that fortunate, you should be giving back.

Mario Juarez: How distinctive do you think Microsoft's really, from the very beginning, holding a value around giving, folding, giving into the rhythm of life at Microsoft? How distinctive does that make Microsoft against the landscape of other businesses, especially technology companies?

Walter Sullivan: It's hard for me to say, what I can say is this. I've never worked at another company that does it. I've never worked at Google or Facebook or Amazon or a lot of the other tech companies, which a lot of Microsoft people cycle in and out of. I mean, there's a pretty, I would say, consistent sort of cycle of staff across these companies. And to be honest, I don't know in what form the Giving Campaign takes today, either. My context ended in 2014 effectively.

I think the legacy of it, and assuming that it still continues, but even from that point in time, I mean, we raised a lot of money every year for United Way and other charitable causes. Obviously that was a passion of Bill and his mother, and that was the kernel of what started that within Microsoft. It was important to him. But I think the real legacy of it is I think there's a multiplier effect of people

that are no longer at Microsoft, but are still doing those charitable things or those philanthropic things that are giving back. I mean, I think that legacy probably can't be measured, and I suspect it's a legacy that isn't replicated at any other company. But I can't say that for sure because I don't know.

Mario Juarez: Sure, sure. Yeah. Awesome. Okay, we have a few more time for a few more questions and let's continue on with Legacy. When do you think, I mean, you have this unique perspective. You were there really at the dawn of the phenomenal revolution. Now it feels like the company is on the cusp of another similar.

Walter Sullivan: An AI revolution.

Mario Juarez: Yeah. What do you view as Microsoft's ongoing legacy?

Walter Sullivan: That's a really interesting question. I think maybe there's a lot of nuances to that actually. But the thing that I think Microsoft has always stayed true to, which I think is important and I think is still true, is Microsoft as a company, we were always focused on providing access to technology to a very broad population of people. I mean, the early mission of Microsoft was a computer on every desk and then a computer on every desk and in every home. And it kind of evolved to the kernel. The kernel of that was technology should be democratized across a broad population because there are beneficial things that a broad population can do with that technology. I hope that's the idea around Microsoft's mission around AI. I think that's for sure true around Azure and Cloud computing is around making really rich resources and high capacity of compute broadly available.

Even though you or I aren't using cloud computing personally, but our phones are, everything on our phone is connected to a cloud for some level of functionality. And so that democratization of technology I think was really important because okay, plenty of unbeneficial things can be done with technology, but that wasn't

really, that's not the vision that Microsoft had. That isn't what I think, I mean, I'm sure that isn't what they're trying to accomplish today. They're really trying to make sure that that democratization of technology can be broadly accessible and used to solve problems that are broadly beneficial, whether that's some, I don't know, healthcare issue in Africa or some business problem in Taiwan or Europe or whatever. But I mean, there's so many things that can be done with technology if it's available and accessible and usable. And I think that is from the very early days, I think that was Microsoft's mission. And I think that is to a certain extent still, I haven't talked to Satya about it, so I don't know. So I don't know. But I mean, I think that is kind of what we should be remembered for what people should see as the legacy of the company.

Mario Juarez: And how about you? When you look back at your experience at the company, what do you like to think of legacy? What do you feel like or hope that you left a mark?

Walter Sullivan: I hope, maybe even a harder question. I hope that I made a lot of good friends at Microsoft, many of whom I'm friends with today. The person that I was talking about from the Tulip ride last week, I was spending a few days with him at his cabin up on Lopez Island. There are deep connections that you make at a company, and I hope that the people that made those connections with me feel like I was a good friend to them. But in a professional sense, I hope that they think that I helped them do their best work because that was for sure what I tried to do. I always wanted to help people do their best work. I always wanted to bring, I think, to the customer focus side, I always wanted to kind of bring the context of how our products were being used to enable our engineering teams to do their best work and build their best product. Because a little bit back to that sort of democratization of technology that if we can make those products as best as we can to enable our customers to do their best work, then I think that if I helped in that in some way, I would be happy.

Mario Juarez: Awesome. Anything that we didn't talk about can give me your best holy shit story.

Walter Sullivan: I have some funny stories. I have a funny story I'll tell you. I'll tell the Bill Gates story first. So Bill is somebody that I've met a number of times through for product reviews. And there was a period of time where I had to deliver product reviews to him. Maybe I did two or three and I would run into him in different company meetings or whatever. But one time after a Sonics game, I went to Dick's Burger. Dick's Burger at Seattle Center, and I get in line and in front of me is Bill. And I was with, I don't know who I was with, that doesn't really matter who I was with, but in any case. And I said, oh hey Bill. And he turns around and I'm like, Hey, I'm Walter. I go, I work for you. And he goes, I know. It was this really incredulous like, oh, I know who you are. So that was a little bit uncomfortable, actually. I forgot who I was with, but it was a little bit kind of embarrassing to be next to the person between him and his burger. Exactly. I was between, well, to be fair, there was still somebody in line, but yeah, exactly. He probably didn't want to be, he was concentrating on what he was going to order.

He didn't want to be bothered by a random and probably everybody in that line was also a Microsoft employee.

Mario Juarez: But in any case, talk about the car stuff.

Walter Sullivan: There were a number, a little bit about innovation. I had mentioned the USB like dress off being the first to put USB in the car, which of course is now standard. I mean, you cannot buy a car today that doesn't have a USB port in it. Similarly, you cannot buy a car today that doesn't have some level of voice recognition in it. But that's actually something that Microsoft was really early in pioneering. The very first voice recognition we put in the car was in 98, 99 in that Citroen that I had mentioned earlier. And from that point, every single system that we built, a primary interface to that system was voice recognition.

We believed at the time, and we used to say, you can keep your eyes on the road, your hands on the wheel because you didn't have to take your hands off to do something when you were interacting with the car via voice recognition. And so Microsoft was really early in that, and we were among the first to put in a natural language understanding voice recognition engine into the car. And that was in a system that Kia shipped in 2006, I think it was in what they called the Kia UVO shipped first in the Kia Sportage, SUV. And it was innovative at the time because the challenge up until that point with voice recognition systems is you had to be very precise in the commands that you use the voice commands because it only understood a very limited set of commands, beneficial still. But when you're driving, thinking of the command to say is not really your primary responsibility.

You're operating this 4,000 pound missile effectively that you have to make sure that you're operating safely. And so being able to have flexibility in how you speak to the voice recognition system was really instrumental in helping even more broad adoption of voice recognition in car. So Microsoft was really one of the first to, I would say, successfully implement that in automotive environments. And yeah.

Mario Juarez: It was a neat little feather in the cap.

Walter Sullivan: Yeah, it's really interesting. That's pretty cool. The other thing that we did that today we think of as normal is in 2000, and I think it was about May or June of 2005 is when this Fiat Blue&Me went to production. That's when the first USB system, USB port in a car from an OEM was introduced in that same device. We had an application programming model, so with an SDK, so Fiat, their objective was to enable third party companies to write applications for this system. And we had an over-the-air update mechanism that we Microsoft could push updates to, but Fiat could also install applications to this device over a cellular connection to the device.

To this day, I mean, not every car you can purchase brand new today has the ability to get updates over the air, but many do. I would even say most probably do. But in 2005, no car had that. So that was something that we were really early in pioneering. Fiat didn't take full advantage of that because the economics were not really well understood the cost of running the update server, who is going to pay for the data connectivity. There were a lot of things in the business model that Fiat had intended to work out that I think never really came to fruition. But the capability was there in 2005. So there was some really creative that team at Microsoft, but there was also a joint team at Fiat in Turin, Torino, Italy. There was a really creative team that did, I mean, Fiat was not in a good financial shape at that time, nor was our Automotive Team at Microsoft.

And so out of necessity, there was real creativity that happened that resulted in a product that was groundbreaking in a lot of ways. So much so that later that year we had an EBC with a well-known German car maker, and they had one objective in that EBC, which was, they came wanting to know how we delivered that to Fiat and how Fiat could charge so little for it. They were selling this for 400, 395 euro I think it was. And for BMW, their hands free kit, which was not as functional at that time, they were selling for like 1400 euro or 1500 euro. And so they couldn't understand how we delivered a more capable system at a third or a fifth, the price that they were delivering for in their vehicles. And they almost demanded an EBC with then Steve Ballmer so that we would answer that question for them.

So that was an interesting.

Mario Juarez: Did you answer it?

Walter Sullivan: Yeah. I mean we talked about, because Microsoft's objective, that was a system we built for Fiat, but it wasn't exclusive for Fiat actually. So we replicated almost the same platform, a little bit different hardware platform, but almost the same capability in Ford,

which became Ford Sync, the first generation of Ford Sync. That same platform is what was Kia UVO but we had enhanced it with the natural language understanding voice recognition engine, and that platform went into other cars as well. So I mean, we were building that platform to sell to other people. So we were happy to tell this German car maker here everything that we had done and what we had built and all of that, because we wanted them to use it as well. They never did in the end.

Mario Juarez: It's interesting, just these frontiers of creativity that represented Dick Brass was say what you will about the man. He had some interesting visions. So give me your Dick Brass story.

Walter Sullivan: Dick was funny. I have two, I have a couple of really funny Dick Brass stories.

Walter Sullivan: Okay. I had a blast working for Dick Brass, actually. He was a fun guy. One of them was, you remember everybody remembers the bird flu back in 2000, I don't know, three or four maybe, something like that. It was kind of a big thing. And I had a business trip to Korea. We were starting to talk to Hyundai Kia about that Kia UVO project that shipped in 2006 and before the business trip, Dick came to my office with a manila envelope that was full of face masks. And he did this out of genuine concern. I mean, he's such an empathetic, nice guy. And he did this truly out of genuine concern, but he brought me a stack of face masks and made me promise to him that I would wear these face masks every minute that I was in Asia, which I made the promise.

I don't remember if I brought the face masks or not. I was not concerned about their bird flu. So I'm pretty sure I didn't wear them while I was over there. But I mean, that's the kind of guy Dick was. I mean, he generally cared about the people that worked for him. The other really funny story about Dick is he in Germany one time on a business trip with this Automotive Team in the spring in Germany, they have this white asparagus that comes into season

and every restaurant in Germany serves it for the month of June or something. And it's called spargel. And Dick was very much a food loving person and he was over there and he discovered the spargel and enjoyed it. He has property up in the sand once he came back and his mission after he came back was to plant and grow this asparagus in his property in the San Juans. Whether he ever did or not, I don't know, but that was his, he loved it so much. That was his mission. So that's Dick Brass.

Mario Juarez: Awesome. Thank you so much.

Walter Sullivan: Mario, Thank you so much. It was a pleasure.