

**Lisa Nichols:** It is my privilege to welcome Jim Swanson, into the show today. Jim serves as a member of the executive leadership team at Bayer as CIO and head of digital transformation for the crop science division. Jim, it is such a pleasure to have you here today. I am so excited, I feel so honored because I know that you are just so crazy, right now between St. Louis and Germany and everything you have going on. So, I just so appreciate you being with us today!

**Nichols:** Good, good. Well, let's jump right in because we have a lot to talk about. Can you describe for us a little bit about what it was like growing up for you?

You had to learn how to program those and we were building databases so we can collect all the data. And I did that for about two years, and the IT group came to me and said to do all this IT work. Why don't you try it for a while? And I kind of laughed, I talked to my boss at the time, and he said, "Why don't you go do this, get it out of your system, you'll come back because you really are a scientist and you'll go and finish your PhD and your career will go off that way. Well, 20 years later or so, what I felt was so neat, about the technology and science mix, is this idea that you can bring innovative science with technology and solve really big problems and I've always loved being in science and IP-based companies, and when I left the labs to go work in IT, I saw more science than when I was in the lab itself, because now you try to automate and create capabilities across a number of different labs, or scientific disciplines. And I was fortunate to be able to work on a couple of big pharma companies.

GSK, Johnson and Johnson, Merck... That really got me to see much more than just the R&D side, of it. Actually worked on the commercial side, I worked in the business side, it always around his mix of science IT and technology and that really shaped me and I actually did go back to school to get a graduate degree and that was a Computer Science and my whole career, even moving to Monsanto and now into Bayer, has always been the Science IP-based companies where you can invent you can transform you could bring technology and data to

deliver new insights. And those are the things that I get in and drive about. I've never had a boring day in my job, in 20 some years and I've been able to progress and the things that I love doing and so for me it's this passion, bringing these things together, for really big outcomes. And it used to be human health, then it was agriculture. So, plant health but also it's good for humans, but now this combination again, with Bayer. Human health, plant health, consumer health. Helping them to digitally transform is a lot of fun.

**Nichols:** That is just so amazing because you probably didn't even think about being the CIO. Did you back when you were a BIT scientist? It wasn't even on your radar.

**Swanson:** No not at all. If you would have asked me five years ago that I'd be living in the Midwest for an agricultural company, I would have bet you a million dollars, and you would have been a million dollars richer. Because I could have never forecasted that but one of the things I learned throughout my career is, keep your options open and look for every opportunity that advances the things you want to do with the things you're passionate about. And I learned from one of my mentors, many years ago, he never looked at a job description he always wrote his job description, then he looked for companies or jobs that would fulfill that, and that was something that was really insightful for me because it allowed me to think more broadly around what is possible. I couldn't have forecasted agriculture, but the neat thing about it was, is a tremendous amount of science. It has a real big need for technology is an industry that's been around for thousands of years, it's going through a huge transformation, and what better place to be in the forefront of an industry that's so critical to human population and to the planet, we think about sustainability and having a significant impact to it. So, for me, it was not moving, but it was about... This is a tremendous opportunity to learn more, to take what I love and do that in another setting. And now with Bayer I get to do it again. Even a broader setting. So, for those reasons, having that kind of mindset has opened me up to more opportunities than I would have ever imagined and that's taking me down past that have been really excited.

**Nichols:** Well, I love what you just said because I think really you saw a bigger purpose too, and what you were doing with Ag. And I've always loved the mission of Monsanto because the mission was to feed the world. And what better mission could there be really? And I know that when you came to Monsanto. Let's talk about that. Well, I want to back up one minute, and just talk a little bit now as a young boy, did you do science experiments and that sort of thing? Was science interesting to you Jim, even as a young boy?

**Swanson:** I had your basic chemistry set. I didn't burn the house down so that was probably a good thing but I wouldn't say I was over the top. I actually started to be an engineer, was where I was going to go when I started college, what I realized was it was a mix of technology and engineering and then I found this passion in science and I started to really enjoy that more, but I wasn't exactly certain what areas of science, I did want to be or how far in advance it and that's why I wanted after I got my undergraduate degree, wanted to work for a couple of years to really see how well I fit. Now, the good thing about the college I went to, they had coop programs, so I got some good experience to those. I gave my first entry point into my first job, and then working in the labs. I really enjoyed it, but I really enjoyed this technology side of it, and I just, I gravitated towards it. This combination. And then back to your point around mission that's also super important to me and want to work for companies that actually have a mission for a greater good, I and to work with really bright people, because I learn that way. I want to work in companies that really pushed the envelope of innovation because that's fun for me. And opportunities that you can transform every company and role I've been in, I've had some aspect of those opportunities, but I've also been able to shape it and develop it.

When I came to Monsanto, they probably had a traditional vision of what the CIO was. I had my own vision, because I wrote the job description of what I think I want and I was fortunate enough to work with a really great number of executive team members, including my boss at the time, the head of strategy and that was also something that was neat. I came into Monsanto as part of the strategy team, thinking about the next 10 or 15 or 20 years of the company, not the next six months.

So, being able to be at the business table to influence the future of the company, having the technology background to drive some dialogues and really learning that business was another level of understanding I didn't have coming in, but again, Aries, I wanted to development, it really worked out really well.

**Nichols:** We you got your arms around it pretty quickly because I know that when you and I first met, you had not been here, that long and I remember you talking to me about taking Monsanto through. I believe there was something like 29 major digital transformations, and I know that you guys had just bought Climate correct? And tell us a little bit about that. What were you buying? I mean, I know what you were buying, but I want our listening audience to understand what you guys were actually buying with climate.

**Swanson:** It's a good comment, and it's funny when I left the farmer world coming to Ag, I couldn't tell a difference between a soybean seed, a carrot seed or a corn seed. So that's how bad it was. So I had to learn a lot around the business and even stepping into a John Deere tractor is an amazing experience because of the technology, it's embedded in one of those combines. When I joined, we had just announced our acquisition of climate and that's a start-up in Silicon Valley, and they were doing hyper-local weather monitoring. And you think about one of the biggest variations in agriculture is actually weather and so the more that you can predict whether the better that you can actually think about your economic practices around it. And they actually had an insurance business as well, and the idea was we can better predict whether we can get better accuracy in insurance, so for farmers and save them money, but I actually have more predictability.

When I joined, we had just announced that acquisition, and I came in to really help draw a digital transformation for Monsanto, as an Ag company. And what was neat bringing the two of us together. The Climate Corporation in me coming into Ag is we didn't have the burden of history. We had the... I don't know so I get to ask the wonderful stupid questions as I call it... And be able to think very differently than how maybe traditional people that grew up in that industry. And I remember, joining our head of HR said we normally don't hire executives into Monsanto. They usually fail, and say... Well, thanks for that vote of confidence. But let's look at this together and see how we can actually do this transformation. And so climate coming in with a lot of more modern agile, DevOps, type of skills. Me, coming in re-imagining what Ag could be and then looking at how IT could be not just an enabler can be a shaper how do we re-shape agriculture, through technology, data, and data science?

I was fortunate we had some pockets of excellence in R&D group, so we started to say, "how do we scale that, how do we take that thinking and on Data Science and Engineering and APIs and apply that into product supply into commercial. How do we couple that with our climate platform, which has started to develop a lot of grower insights? We had our internal engine, we wanted to digitize we had this external engine that was on the farm that had good insights and data and start bringing those together to reshape what we think agricultural could be not just drive operating efficiencies and I think that was an important element. We didn't want to just incrementally improve on the edges, but wanted to transform... And we have the same mission, now we brought Monsanto and Bayer together. How do you transform an industry? And we have three big buckets for that. We have innovation so constant delivering new innovation to the farm, whether that be in seeds or trades or chemistries or biologics we have

sustainability, how do we do this? Not only environmentally sustainable ways but also grow or sustainability to make sure they're profitable, so they can continue to grow the business, but the third element is digital, "How do we apply digital and data to actually help a grower be more effective?"

You combine those three things into something we call tailored solutions that allows us to be hyper-personal with that grower and their particular farm with particular insights that are valuable to them, that will transform agriculture and achieve our goals, and missions for the company in a really a sustainable way. So those are great opportunities where we put it together. We kind of used climate and some of us coming in new, that we transformed IT to be the kernel to help the bigger company transform. And I feel like we're doing it again. Bayer bought us for a big price tag, but how do we now help Bayer transform digitally not just in agriculture, but also in pharma and consumer which are also, big into... And you think about the value of that could be quite powerful.

**Nichols:** Well, that's going to be a big job. It's going to be a big job but you're taking what you have learned for AG right? And you're going to help them with Pharma and with their consumer products and that sort of thing, as well right?

**Swanson:** I feel like I come full circle. I was in pharma, when I was in J&J, we had device of vision consumer division, and I kind of coming full circle back again, which is kind of neat. So I get to leverage a lot of my pharma background, but also my Ag background and when I was at Merck and J&J, we had a consumer business. Seeing those insights now from a different lens is quite powerful. And the support we have from the executive team of the group CEO of Bayer, the divisional CEOs. I sit on the executive team for crop science, and it's a great team, a great people, great leaders, and half of them were legacy Monsanto for them were legacy Bayer, and we get to reshape the largest more supporting industry on the planet. You get that opportunity, once in your life. And so that's why I was super excited to be asked to join the company. But then also, how do we help our other parts pharma consumer also think broadly and there's some really strong leadership there as well, how do we accelerate them through some of the experiences we've had the good learnings the mistakes we might have made, but also the really good things we took advantage of and do that more holistically and so that's the opportunity for us.

**Nichols:** Very good. Well, let's talk a little bit about... We touch on digital transformation. I would love to hear because that's a buzz word out there. Every company knows they need to be digital. Why is that for one thing? Secondly, how do you define Digital Transformation Jim, because everybody seems to have a different definition, but how do you guys define it at Bayer?

**Swanson:** I was just with our CEOs, this morning, we created something called the Digital executive council. So how do we look holistically around digital help the company transform and I start with "This is not about IT transformation to that business transformation". So if we want to transform our business, this is a critical element of that transformation. So really trying to frame in that light. So, it's not just about what tools you deliver, but think about your skill set of your organization holistically. We do anchor at based on outcomes, things our business cares about, so it may be our pipeline. What's the NPV the pipeline, how do we enhance that NPV because that's how the company is actually measured and valued is based on what's coming in that pipeline in IP-based companies.

If it's in supply chain, we look at things like "How do I dramatically improve cost of goods" because that's a right bottom line impact or perfect order. So, if I can improve perfect order, I get higher customer satisfaction, and I actually make a frictionless environment for my customers to work with me on. If I'm thinking about the customer commercial side, it could be things like revenue share of revenue lift or net promoter score. And so how do we work

with our customers if they value that interaction? The net promoter score goes up, so that's their assessment of us as a company and would they promote us to other companies and then we think about transforming agricultural things like digital agriculture so we can provide advisors to farmers in the field and does that allow them to increase their outputs, while reducing the input and lower their costs?

So, you can't do that just with traditional processes, you need the components of digital and digital transformation to enable that. You don't do all those changes just by digital itself, but it's a critical enabler to it. And as we try to frame it, we then say what's the skill set we need to the future what's the re-imagination of the business processes, you can have. So, I define Digital with five components, one its customer interaction or customer value. So, always thinking about how you're interacting with the customers a real-time information real-time feedback can you re-imagine your products and services through data and insights and digital, so whole new service offerings like, digital economic tools or enhancing my product so I have a better value pack for Mission pack with that seed or how that's being grown in the ground et cetera. That's a component of it.

Third is automation. So how do I think about enhancing or accelerating what I do through automation? You could be chat bots it could be RPA you can be automation, or supply chain. IoT. Fourth area is around new business models. Can I re-imagine new business models for new business opportunities, and I'd give you an example of that in Ag. We're working towards outcomes-based pricing. Normally, we'll sell a Jugger chemistry or bag of seed. What if I sold an outcome to you as a farmer? I'm going to share a risk with you. I know as much about your farm, I know the genetics and the seed, I know what the chemistries do I know the weather, I know the topology of your soil. What if I revenue share with you that if I increase your yield, we share that positive. If it decreases, you don't owe me anything. So, you think about transforming and thinking your business model about how you go to market and that changes everything and change your pipeline to change is a supply chain changes your commercial. And the fifth area is people. How do I build the skill set in people that could be digital acumen or digital fluency. We do some course work on that. So, using data and insights to be more predictive in the decisions versus a set of heuristics. Because I've been in the company a long time, I know how things work, how do I go from rear view mirror to fore view. So those are the five elements in the next set of the ring is the enablers so things like data science, automation, technology, what are the tools?

Then in the absolute center I draw a picture of leadership and culture. So, if we haven't transformed the company and the leadership and the culture, none of this works. I see a lot of companies do digital for operational efficiencies. There's nothing wrong with that and a lot of companies do that, they save millions of dollars all really good, but there's another turn of the crank around business transformation that includes operational excellence, but can you reimagine your business and transform it. And not many companies do that and that's where I get super excited, because I think the opportunities are huge if you tie it to the business outcomes, they care about you get them on board, and then you do iterative learning, you build a learning culture to evolve your thinking regularly. You could transform a company. And so we did it in Monsanto. We're doing it again in Bayer and that's a journey that not many are willing to take. It takes courage, there's definitely mistakes on the way, but if you can master it, your company can excel. So that's how I would define it and some of the attributes, I would give to it.

**Nichols:** Very good.

**AD:** Well, we're going to take a quick break and then we'll be back with Jim Swanson.

**Nichols:** Jim, your fifth component of digital transformation was all about people. So, I wanted to spend a little bit of time on that because obviously, organizations are made up of people and people is a very critical component. So, for those companies out there that are wanting to digitally transform what have you done with your people, how can you get them to think more digitally? And you kind of talked about some course work, and things that you take people through, but I'd love for you to expound on that a little bit.

**Swanson:** So, if you put the frame of digital transformation being a business transformation. This clearly means you it's more than just the IT skill set. We did focus on that so we had a look at what are the core IT skills that we need for the future. A software engineer, a data steward, a customer success manager of different skills. Maybe the traditional, the organization would have but I think a really keen critical but that's enough, we had to look holistically around the company, what's the skills we needed to embed into a marketer into a process engineer into an R&D scientists, a procurement or finance person that could take advantage of reimagining those processes through data, through models that might be more predictive through automation to free up time. And so we started with a cohort of what I would call digitally native employees already in Monsanto when we start as people that kind of got it, they were living it every day and so we created a curriculum with them, and we asked them to be sounding boards. So I worked with our head of HR and talent management to pull together content that we thought would be relevant to a broad workforce, and then we used a cohort of about 40 people from different aspects of the company finance, R&D, supply chain, commercial, legal, etcetera. And we said, "You guys are already there but you're a sounding board to refine and refresh. Does this resonate with you? Does this make any sense, how do we clean it up? And we started the course, calling it digital fluency with the idea that more that people feel comfortable living in this world, the more than not the embrace it, but they got actually accelerate it.

So, I went through our first cohort. It was about a five-week program, we took them through day week and different materials, we bought it in external speakers from MIT and from other places and it was neat when we got through that five-week journey said, "How was it?" So we asked a really brutal feedback, and they gave us feedback around some of the content. We need more examples to demonstrate we have to go from buzz words to actual action, but then as a group on their own. They said one big change we want to make, let's not call it digital fluency let's call it digital leadership because we want to lead in this space and we want people to feel that by being part of this capability there, account lead the company, but they're going to lead in their careers.

Which I thought was great. I couldn't come up with my own but the group did and so we continued to take that feedback and then build on it. And with that, we look at some core competencies that we know we needed like data science or data engineers and so we built some curriculum and tools like Coursera and Data Camp, and Software Carpentry, that gave the basic skills, it also gave advanced skills. And what you could actually do is you could actually get almost micro-certifications, and you could build up your skill base over time. And we were also very clear is what does the good data scientists look like from an expert, and how do you start to differentiate?

So, the funny thing was, when we started to talking about data science, all a sudden we happened to have 3000 data scientists in the organization, all thinking they were going to 30% pay rise and they said, No, no, this is the kind of skill sets you need that's really assess against that if you aspire to, "This is what it's really going to take." And so that kind of level the playing field a bit but we used our own people to kind of build out those curriculums. We saw it was valuable, so we did more of other things that weren't as valuable. We do less of it, and we now literally have hundreds of courses that thousands of hours are going and people taking those courses at their own time, because we've been very declarative, of what does a digital company require? We highlight it with executive

support the importance for the company, we realize people are developing their skill sets in a way that they become highly marketable. And that what I've seen in my multiple companies in career is when you feel you're highly marketable you have a set of confidence you feel empowered when you feel your skill sets, are lagging you kind of protect what you do and you feel somewhat victimized.

How do you pivot an organization from being a victim to empower...? How do you get the most potential other people... Because there's constantly learning and shaping thinking and they then get a degree of confidence that no matter what happens with them in their career and their company what have you, they can move forward and it's liberating to the individual. Our challenge then is, are we creating an environment that they want to stay. So it's always my mantra. When I say to my organization, I want to do two things. I want you to be highly marketable such that had hours are calling you, which is weird for CIO to say, but the second part of that is, I want to have an environment where you're not going to learn any faster than you learn here. We're doing leading edge technology-leading that thinking... We're shaping we're doing big bolder moves, but have dramatic impact if you could find a company does it better than we do go to it but we're going to keep an environment where you're going to be leading in thinking. And so that has been a good rally and cry. It also becomes an attractor of talent.

We have a small group of amazing data scientist that came from the load locomotive industry, and they're doing simulations for us that are saving us hundreds of millions of dollars in our supply chain by taking things they learn in a different industry and now applying it to factories, we build, apply to logistics, we're planning, and we couldn't have forecasted that. But by creating this environment, my data scientists engaged with other data scientists, and they got excited with what we're doing... And they came to us in a group that's highly sought-after in St. Louis which is not a big draw. It's not a big city, but the type of work that we were doing became very attractive. So, if we can do that well, we can really stay ahead of our competition, and really do transformational things.

**Nichols:** I love that, I really love that, and that is not what you would hear. Most CIOs say. I want you to be very marketable because they don't want to lose their people, but I'm sure because of what you're doing, those people and empowering them like that, Jim, they want to stay. So, the engagement, the excitement about what they're doing, probably goes way up on...

**Swanson:** Even with our acquisition with Bayer and other opportunities to get to work now. Two cultures in Germany and the US, and there is a tremendous appetite to continue that journey. There is a lot of good town and skill set we operate differently just because of different mindset or processes, but underpinning all this people want to add value, and they want to feel valuable and they want to feel that their skills are really needed in the corporation, and so the more that we declare that the more they can align. This is what I want to do and some going to opt out because it's not for them, but for those that want to align there, they have a real call to action. So that's also been fun part of this journey so far, and kind of shaping a whole new company.

**Nichols:** That's just so exciting to... So, let's talk a little bit about, I just want you to touch on real quickly. Some of those disruptive technologies that everybody in our listening audience needs to pay attention to and figure out how they can possibly use some of those in their businesses.

**Swanson:** I kind of start with my technology. Wedding cake, if you will, and its 4 components to it. There's infrastructure, which is I call my foundation, my digital foundation so your networking infrastructure, cloud compute, your security. The second layer is data, so how do you unlock the value data for the corporation through micro services and APIs and modern data repositories. Third layer is platforms. So how do you move from still pipe

applications to horizontal platforms that go across a company, because decisions are made horizontally, they're not made vertically.

So how do you think about workflows and platforms that go across multiple functional domains? And the fifth area is Data Science, so how do we apply data science that can get embedded into workflows leveraging data that actually is how somebody works every day. So, there's technologies in each one of those stacks that becomes super important obviously, in the foundation space, being able to be in cloud compute, software-defined networks we're moving petabytes of data all over the world having the building to scale, that that compute power as well as networks, is super critical. Otherwise, you end up limiting your opportunities. You think about the data layer Kafka for example, for doing real-time streaming of data we have every data repository you can imagine everything from the traditional relational database is to big data and Hadoop databases to NoSQL to graph databases. We don't try to force fit everything into one place.

Instead, we extract a layer with micro services and APIs that you can call any of those data sets and we do, literally millions of API calls every day and that's how I measured data consumption. So we're training our developers and data scientists call an API, which then allows them to get to the data and then we have real-time stream data through IoT from our sensors, we have trucks loaded with information, we have our shop floors, or have IoT... We had such as on bags. We look at distribution logistics so thinking about data and technologies that allows us to pull that together, but then extract it or abstract it out through micro services and APIs. At the platform layer, we have a mix, we have some standard commercial offerings will be salesforce in our CRM space, whether it be SAP for ERP etcetera, but we also have bespoke things we've developed something called a velocity platform. That's what modern technology that we built for our R&D engine to move products from conception all the way through to the manufacturing process, all the way to the farm gate and even there, we do over a billion simulations of genetics to before, put a single seed in the ground. Every seed is geolocated. So every single research seed we plant, every year, which is over a couple of million has a GPS coordinate we use imaging data that we use a number of other things to be able to collect that. Then on the data science side we have repository, something called domino...

We use both internal develop models plus externally available solutions, like a company called Data Robot which allows you to democratize data science for the masses, without having to be a data scientist, to run it. So, we have a mix there as well, of thinking of technology but we try to look at the outside world regularly, how do we bring those insights inside and then how do we build it on core platforms that allows us to extend and scale? So we're always bringing new ideas in those that work we scale them those that don't good experience, we shut them down but we've learned something we're doing a whole bunch of things with Blockchain right now revenue protection and revenue lift to track and trace of our products around the world, to product stewardship.

We're still learning how to best apply that, but working with third parties working with some of our partners in the industry to build those things out. And as that technology matures, we'll better ahead to be able to have the leverage in where it leverage and so there's not one answer, but there's a whole series of things that we try to apply on the last point of make it Data Science, you and I were talking about it. Data science has been around 50 years. It's not a new concept, but what has changed is the emergence of GPUs. So you can quickly scale. We did, we had one run that had took 40000 GPU course. You're never going to scale up for that.

We needed that compute power to be able to do that. And the second big change is data, there's more data available now it's become the new currency, it's a new, the new fuel for the engine. You've never had the amount of data we had, now. So that combination of compute power plus richness and depth of data with data science supply



to a domain that's a game changer for any company even if you don't have data scientist, you got to figure out how do you leverage data science companies to be able to bring insight into your company, then based in that value, how do you start growing that core internally. So those are all some of the changes that we've looked at something that we've applied but it was all based in this four-layer stack because you had have all four of those without one of those four. You can't... You can't achieve what I've talked about. So, we've been focusing in all four and applying the right technologies to enable it.

**Nichols:** Well, it's exciting for any company out there, the amount of data is more than we've ever seen, but getting the right insights from that data so that you can make better decisions for your organization going forward, it's critical, it's something you have to look at as a company.

**Swanson:** Even how to think about your partnership strategy for data. It's amazing coming back into a multi-divisional company, again, within Bayer crop science, we have riches of data and genetics in what we actually do in our research plans and we see in the field. So we have a bullets of data we can pull from to run our models. If you're in farm, it's a mix, you have a clinical study data plus or something called real world evidence data out in the real world around patients on certain formulations you have to merge that data to get insights and then if you're in a consumer space unless you're a company like Amazon, you've got to figure out how you partner for that data, and then how do you build insights off of that?

Your data strategy is going to vary based on the company and division you're in, and how you want to run it, but you have to have one, and then you've got to have the data science to enable it, and then you got to embed that in somebody's workflow. I can't go to a sales rep and say, "Go run a model that will better predict what customers you should go talk to. We'll never do it, but if I embed the model into their account plan that happens to sit in the sales force.com platform, it's already part of their workflow and so now they're actually leveraging data science right when they go talk to that customer where before it was based on the heuristics about who they want to see win.

**Nichols:** That's exciting, it is exciting isn't it? Because it really truly can transform a business, and how they go forward. So, let's talk real quick because this is called something extra. You are now in a German-based company, Bayer. Talk to us a little bit about what you have seen is the cultural difference and then let's talk about what has been that something extra that you have had to employ both from Monsanto as well as now at Bayer.

**Swanson:** Yeah, this is the first time I've been in a German headquarter, company was multi-national companies and there are some stereotypes. They're more process-driven as a European headquarter company, where as a US company would be more about maybe less process, but just go after it and we'll learn as we go. But along with the stereotypes people are people, they want to feel that there's a good strategy, what they're enabling they want to feel they're part of that strategy and how do you take the best of both worlds? So, we kind of joke when we're bringing the two companies together. My German colleagues would say we're on the Autobahn. And as you know, there's no speed limit on the Autobahn, we will have mapped out every kilometer we'll know exactly where the off ramp is and we know what we're going to get there and when we're going to get off. And so, that's all planned. Whereas legacy Monsanto we're on the Autobahn at 130 miles an hour. I was going to get in the car and go, if I missed it the off ramp, I'll turn around, right? So, there's a lot of value in both the thinking Monsanto could do with a little more process planning, and German company could do little a little more of... We have a direction of you. Let's go after it, without analyzing it to an excruciating degree. So as you bring these cultures together, this openness and this comradery around how do you build the best of both cultures to get the best outcome? And that's part of the fun, I think, as well going through that learning process.

Yeah but the something extra I would say I'm a heavily influenced role when you want to do digital transformation you're never going to own all the resources, you're not going to own the people. I'm not the CEO of any division that has ultimate authority. But you have to be able to influence in a way that they will understand and want to get on board with you. And I kind of joke with my people all the time. If I'm the only one talking about digital transformation, I failed. I have no followership. I haven't been embedded any of that into their thinking. I failed. But if my words are in their mouth, then we've influenced... We've gotten them to a point where, hey, we're on this journey together. And how do we solve these big problems? And so, that influencing skill set. I had to work a lot of years, even now I still have a lot to do it still learning. I was still learning, and I was coming into a German headquarter company, or a magnitude around how do you influence from a very different culture and perspective? But that has been something I've been really focusing in on... Because once you influence, it's amazing to me, once you ignite people's inspiration, what they can do. I was in Brazil recently and we started some of our supply chain strategy, something he called Connect supply chain four or five years ago, and the idea was to connect every part of our supply chain whether it be trucks in the field or equipment and a plant a shipment to a distributor, or what appears in the farm gate.

And we started with a little sensor in the back of a truck and we were able to track it and we were able to reduce loss of seed due to overheating of a truck and we put some simple tools together in an iPad for a plant manager. I went to Brazil probably about six months ago where they've taken it today. I can't even imagine, I couldn't have imagined four or five years ago. How connected they are how many models they've applied for everything to logistics, planning to safety stock allocation to SOP processes. And it wasn't the IT group. We've unlocked the power of the organization to think very differently. And we gave them some examples of how it could work quickly with some credibility it wasn't just PowerPoints and then they just accelerated. So if we can influence that the possibilities are endless. I don't care if you're an IT leader or a financial leader or a CEO that's what leadership means to me. It needs to be able to influence and unlock the power and potential of every employee in the organization and that's a journey that we should all be on.

**Nichols:** And as you said, we need to continually be learning and improving that skill set of being able to influence.

**Swanson:** Yeah, I kind of joke, and I'm going to date myself a little bit. I got my Masters of Computer Science in '1998 now, my daughters would joke at me. They said, did the internet exist, back that I said yes, it exists in 1998, but barely. But you think about the technology today, if you weren't continue learning, you'd be absolutely within the first year. Absolutely, it's changed that rapidly and that's not just for the IT professionals that's every professional. And so, how do you build a continue learning organization where you're never satisfied. And that's one of the learnings also. If you're doing a job that you could do in your sleep, it's time to do something else because you're not learning, you're not growing, you should have a little bit of queasiness when you take on a role, not to the point of nausea. A little uncomfortable feeling that allows you to have learning something different here, an influence something or I can get a different perspective and I think that's how you stay current and relevant.

**Nichols:** That is just perfect advice. So, let's talk a little bit about diversity and inclusion. Jim, you and I have talked about this and we both believe that when you have a diversity of people, you're going to come up with a much better solution. And so, I know that this is something you're very passionate about and you have three daughters yourself. So, as you think about that for the future, what is it that you're hoping for them and where do you think that we need to go with the diversity and inclusion?

**Swanson:** That's a great question, and certainly, I'm super focused about women in women leadership, because I guess you said I have three daughters who are really bright. 2 are going to be engineers one be a lawyer, and I

really super proud of them. But I also think more broadly around diversity inclusion is diversity of thought, diversity of experiences of the city background, etcetera, and I think in my experience over the 20 some odd years have been working in different companies, our best ideas are coming by pulling together very different mindsets with different skill set of capabilities and where my weaknesses are... somebody else can fill that with their strength.

I want to make sure whatever problem you have, you kind of look around the table and ask yourself how diverse is this table around me to inform me of that problem that situation or that opportunity, and if it's not, go out of your way to create some diversity in all aspects because the value there far outweighs the effort it takes to actually make sure you got a diverse mindset, around you, but you are also setting a signal to your company and to your organization, how much importance that is for you and for your company and that value and every leader needs to do that and represent it and I think with that, you'd be amazed with the level of productivity and value that creates.

**Nichols:** Jim, thank you so much, this has just been such a pleasure. I've just enjoyed our time together.

**Swanson:** Thank you, Lisa. It was really great talking to you as always, I love your energy and I love that you do this. This is really great!