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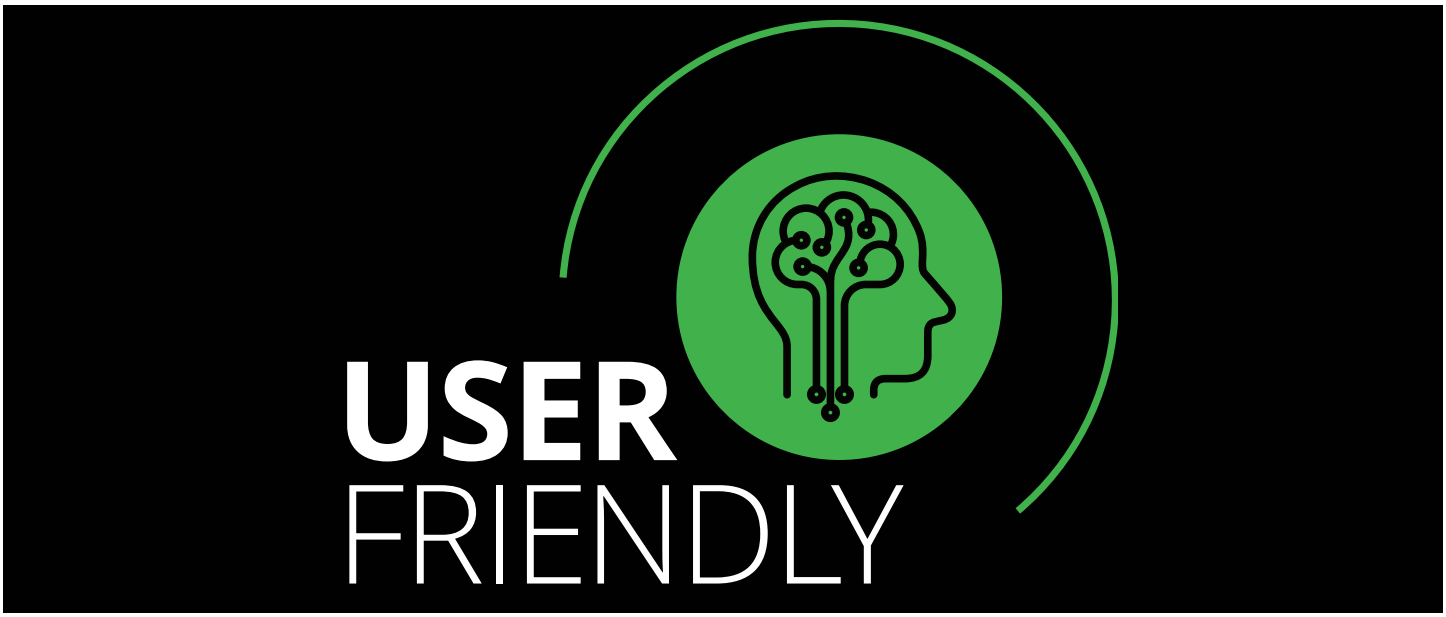

User Friendly podcast at CES: Cognitive technologies

Mic Locker—managing director, cognitive advantage lead for Deloitte Consulting
Jeff Loucks—executive director of Deloitte's Center for Technology, Media & Telecommunications
Chad Steelberg—chairman and CEO at Veritone
Hanish Patel—business transformation leader, Deloitte Consulting

HR: Hi, this is Heidi Rataj, your host for User Friendly. Today is the last day of our three-episode special from CES. Guest host, Hanish Patel, will be discussing the state of cognitive technology, one of the hottest trends at CES 2018. Enjoy the interview and stay tuned in at the end of the episode to hear more about User Friendly Season 2 coming this February.

HP: Hi, I am Hanish Patel and welcome to User Friendly. Recording from CES 2018. It's day 3 of the show and I'm back at the Deloitte lounge space with some new guests. Today, we have Mic Locker and Jeff Loucks from Deloitte and Chad Steelberg, founder and CEO of Veritone. Mick, Jeff, and Chad, welcome to the show.

ML: Great to be here.

JL Thank you.

HP: Today, I want to talk to the three of you about another hot topic at CES 2018—cognitive technology and artificial intelligence—but not just the basic discussion about tech. We're going to specifically discuss how cog tech is infiltrating the enterprise.

ML: So Hanish, we're seeing companies use these technologies in a few different ways. First, we're seeing companies use cognitive automation technologies to change how they complete processes to transform work, so to augment human labor. Second, we're seeing companies use cognitive technologies to change how they make decisions, getting better insights by being able to use bigger data sets, different algorithms. And third, we're seeing companies use what we call cognitive engagement technologies to change how they interact with customers or even interact with their own employees using intelligent avatars, so think about something like in an HR shared services or in

HR help desk or for customer applications in a contact center using those intelligent agents to do that communication. Those are all internal applications, and I think it is important to also recognize that a lot of these companies are looking to use cognitive technologies in their products, too. And walking around the show floor here at CES, you can see tons of examples.

HP: Jeff, I know we've recently released Deloitte's Cognitive Technology Survey. What did the respondents come back with?

JL: When we take a look at the data from our survey, which was really a dispatch from the Edge, it was 250 companies that are already really using cognitive technologies and learning how they work and getting better at them. So, what we were able to find is that again, overall, there is a lot of bullishness because there has been a lot of early success. Overall, 30% of our respondents said that they were getting substantial benefits, and within technology, media, and telecommunications companies who are really at the forefront of a lot of this, 40% are getting substantial economic benefit. So often with a new technology, you will see some frustration at the beginning, but here you're seeing a lot of success and it is built upon a couple of pillars. First, they're really getting involved in it, they're getting their hands dirty, launching pilots and launching full-scale implementations. And as they do that, they are understanding how they need to do that translation exercise between what the business needs are and what the data science can provide. That is a really critical point.

CS: And Jeff, maybe just to stand on your shoulders there, the actual implementation as a business purveyor and provider of cognitive services, 75% of the companies that actually deploy a PoC with Veritone invariably find a positive ROI out of that experience and move to full contract. The most successful companies we are finding typically move from a PoC to a regional-based deployment to then national and group-wide distribution of that cognitive services within 12 months.

HP: So, let's actually go there. Let's talk about the economics and the lexicon of AI and cog tech. If you put AI before anything, it just sounds magic. Tell me a little bit more, but what does it really mean in terms of reality and the implementation of something like that across an organization?

CS: Absolutely. So unfortunately, I've been around long enough to remember the dot-com days in my first business. And in the late nineties, I think you had something similar to what you're seeing today where you stuck a ".com" at the back of every company and you watch this multiple improve. You see all these dot-com companies now -- dot-AI companies emerging -- but the true AI companies that exist are just a handful that are in the market today. The solution set that most companies are bringing, the titans, are really about data science. That' focusing on how to enable the bleeding-edge companies that are employing data scientists to be able to engage and take their internal data resources to then build cognitive models that then can enhance their products and services. Would you agree?

ML: Agree.

JL: Yes, and that's why I think we're finding early successes among those companies that are trying to hire some data scientists, get their business people trained up, and really kind of get into the nitty-gritty of it, but that may not be how this reaches mass adoption.

CS: Correct, and that's what we see in the marketplace. We chose a different path. Companies like Salesforce are able to have a very low barrier to entry for any size company. You can sign up for a single-user license and start receiving unbelievable benefits from Salesforce. Today, our primary mission is lowering that barrier of entry without reducing the power that's delivered through cognitive services. So, with Veritone, we're actually in the marketplace today turning on customers in a number of minutes and starting to receive not the 10x benefit that you can really get of cognitive services, but really that 10% to 20% benefit that then allows organizations to grow and scale, but also measuring that ROI in a very methodical, programmatic way.

ML: I think that's really important because a lot of companies can go into these projects with very unrealistic expectations, but if you go in with the 'start small, get some return, and then, grow big' approach, you can really achieve a great deal of success, but you have to have realistic expectations.

CS: I completely agree, and unfortunately, I think there's a lot of cases that we've seen where companies have spent tens of millions of dollars trying to hit that 10x ball with consultants and hiring data scientists and it failed because either their expectations were mismatched or they didn't have the muscle memory of how to leverage cognitive services in those training algorithms to actually achieve that goal. It may be like,

you and I going into the professional major league baseball and swinging for the fence, I would be bunting.

JL: And then, the organization is both demoralized and behind because they've got other savvy organizations who are hitting singles, getting on base because they're using cognitive to automate business processes. They are focusing on processes that are better for a computer to do than a human being or are bringing to bear human judgment with better sources of data to make better decisions. And they're interacting with their customers in better and different ways. These are all very tangible business benefits that don't require $10 million implementations, necessarily. And the other thing that I think companies are doing well, the ones that they're getting returns, is that they're focusing much more on innovation even with these lower skill projects rather than simply cost-cutting. So, they're using it to enhance their products and services, they're looking for cognitive to help them create smarter new services, but they are not neglecting all the process change that you need in order to do those first two things.

HP: So, let's actually go there. You mentioned about expectations, you mentioned about maybe going for a single versus the home run and about really looking at, internal processes, as Jeff mentioned. When we think about cognitive, when we think about AI, how important is it right now and will be when companies are forming their business strategy going forward?

ML: I think that's absolutely critical. Your competition is thinking about it. So, if you're not, you're just going to get pushed out of the market by your competition. Companies are looking at using these technologies to improve their operations and get to market more quickly than you. Companies are looking to use these technologies to improve their products and differentiate them in the markets. In walking around the show floor, some of this stuff may not come to full fruition but you can see intelligence being incorporated into bathroom fixtures, who thought that you would come to CES and see something like a mattress section; there really is a mattress section of the show floor and a bathroom fixture section.

CS: Well, I think another example of the consumer electronics aspects of starting small and growing big is a company that started building intelligence into their doorbells and cameras, and it started off with the basics. It wasn't trying to identify my face and alert the police with an automated 911 call, it was basically telling me if there was motion or a loud noise. Now pretty quickly, we all turned off the alert because I didn't want to see my cat, my dog, and my wife walk by anymore, but they still sell tens of millions of those cameras and the next evolution is actually trainable cameras. They learn, with an anomaly engine, whether these are the people that you see frequently in my house... That is moving on a continuum of cognition where historically cognition was something that was only relegated to the human mind. It moved to the cloud where you had the processing power to move to the edge and now you are seeing it getting embedded directly into the IoT devices themselves. That cognitive continuum is going to continue to evolve as end-consumer products get embedded but the real hard intelligence is still going to sit in the cloud.

HP: Everything that we are seeing in CES, what you mentioned, Mic, about the mattresses and about what we saw in the devices in the cloud, is that where the big investments are going to come for the enterprise? Is it going to be in the cloud or they are going to be initially from the devices because the devices are a lot more tangible for you and I, right? We understand, we believe we can see, we can touch and feel the devices. So where is the big investment going to be?

CS: I am pursuing enterprise customers, so obviously we are not in the consumer electronics space. However, what's interesting is that all of our customers initially started with cloud-only implementations. Within two years of bringing services to hundreds of accounts, we started reaching to certain organizations, which wanted to keep their information private. The challenge is to train a model, to use a model against your existing data. You have got to bring the model and the data together. So historically, the process has been for us to move all your information to the cloud. Instead what we have done is actually build a hybrid system. What we are able to do now is route the engines behind the firewall programmatically so the data and the content never leaves. What's happening is companies are starting to benefit because

cognition is happening across a heterogeneous environment, at the IoT level, in the cloud, and behind their firewall, but in a unified way. So, it's no longer silos of intelligence but really thinking about a mesh network of intelligence.

HP: What you have mentioned there Chad, would I be correct in assuming that companies are going to more and more work together to come to a common platform or they still going to have proprietary?

CS: It depends on who you are talking to. If you are talking about the end customer, I think the end customer's objective is always to win but in terms of the technology ecosystem, I am seeing the same amount of comradery that I saw in the early, early dot-com days, or back in 1993 and 1994, with even the smaller, tiny companies. We are tracking over 7000 cognitive services companies around the world, from Russia and Kiev to literally the Middle East. We are now onboarding all of those cognitive engines to provide a service. It's now about an ecosystem of intelligence that is benefiting our end customers, and it's a partnership.

ML: It is much more powerful than what one company can do on their own.

JL: Correct, and no one is going to own that whole ecosystem, it is just not going to happen. If we are going to end up having the interoperability that is required, let's say to use facial recognition for a payment system, that is a matter not just of training data, it's a matter of getting people to use n devices and then to use it as a form of biometric identification that unlocks various different types of accounts. That is an AI-based ecosystem in payments. That will only happen when you have got certain numbers of players playing together. The same thing is going to be happening with artificial intelligence at the edge of networks and so forth. There has to be some interoperability.

ML: Think of how complex it gets when you think of something like smart cities. No one company can own all the technology to operate a smart city, you have to have lots of different technologies working together.

HP: With that in mind, I would say all of the players contributing to this cognitive and AI world, and what have you seen at CES, that is really going to move it forward for cog tech and AI in 2018.

ML: Let me think about that for a second. One of the biggest surprises for me, I am surprised at the number of humanoid robots on the show floor. I don't know if anyone else noticed that but there are dozens, and a couple of years ago, there maybe would have been two or three. I think the variety of applications is interesting. There is the humanoid robot that is sort of an in-home companion or kind of in-home concierge but then there is also the retail store applications, like putting a humanoid robot in a retail store to interact with customers and help them figure out a great buying experience. I don't know if any of you have stayed at one of the hotels that has delivery of, if you need extra towels, they will bring you your towel; a robot bringing you towels. I thought that was interesting and I haven't had a chance to spend too much time in the smart cities area, I want to do that later today. There is just so much stuff to look at, it is hard to get everything in. I actually think the smart cities is going to be one of the most interesting areas. Think of the changes to law enforcement to how we get around cities, it could be pretty amazing.

HP: I attended a number of panels yesterday on cog tech and AI and I kept of hearing the word transformation. Transformation. It's going to transform the way we work, it is going to transform businesses, it is even going to transform industries. Mic, you mentioned the hotel industry and how that is changing. If we think about AI and cog tech in 2018, what industries are going to be impacted the most in terms of benefits and which ones are going to have the biggest challenges?

JL: In our study, we realized that one in four TMT companies said that cognitive is transforming their industry right now versus 12% for other industries. That is not really surprising given the fact that there are a lot of companies producing AI, as well as using it internally. Because TMT companies are also much more innovation focused and they are really using it for products, as well as internal process changes, they see that it is very important for their innovation. So, they believe that if they were to invest more in cognitive, they would be able to innovate faster.

CS: I look at it more from a constraint function. To actually apply cognitive services in an organization, you really have to have two things. One is access to the information and the data to be able to feed into those cognitive services, first and foremost. Other industries actually have challenges around regulatory hurdles, whether that's in the federal government, local law enforcement, HIPAA compliance, and medical, etc. What we are seeing is we are pushing into the market exactly the same information. We are in the legal industry, we are in the government space, both at the federal and the local level and in media and tech. We are finding in the media and tech sector, literally every company we are talking to is engaging with us and starting to move into PoCs. For others, the regulatory hurdles are so high that, going through those

barriers, is almost too difficult for us to tackle. However, from an international perspective, those barriers don't exist. I will be traveling to the UAE next month, literally the KSA, the Philippines. All around the world, we have customers and prospects that are starting to engage at the government level in the medical fields because those barriers don't exist. What I am really concerned about is how the United States can we compete if we put these regulatory hurdles at such a steep level. We're able to export our technology, generate revenue, and create value for those companies, which in the end, are competing with our domestic corporations.

HP: Let's talk about those companies for a second. If we think about AI, and think about cognitive, the biggest fear is where is my job going to go? We have already heard about delivery to the hotel room. Probably next year, you're going to be talking to a robot and not me! So, I probably fear it. If I think about the Deloitte survey, we hear that 69% said there is minimal job loss. In fact, there's probably going to be job gain. So, thinking about those aspects, how does that transform the organization, how they think about their work, how they think about their workforce as well?

ML: I think we're at the stage now where we are early, and so companies haven't seen that much change. I think there will be some job loss or pretty significant shifts in the jobs that need to be done. And I think we were talking about this yesterday where you guys haven't seen your clients lose a lot of jobs; the exact opposite.

CS: We're actually seeing the companies that are deploying the cognitive services are hiring more because they are essentially having better positive ROIs versus the competition. You are seeing job loss happening by the companies that aren't adopting the technology.

ML: So, they are hiring maybe for different jobs though, but I think it will be interesting to see how things look in 20 to 25 years. I think we are okay in the next 5 to 10 years. 20 to 25 years, I think things could look significantly different. Maybe that's a conversation for the bar later on!

HP: Let's have a quick one before the bar. Let's put it out here. You mentioned 20 years, what is the trajectory of these technologies, even in the next three to five years, to bring it a bit more medium term? How would they be different from what's available today?

JL: I think this is the part that is kind of unknowable, and when we took a look at our survey data, when our survey respondents said what's happening now and what's happening in the next three years, many of them didn't think there would be a lot of job loss, precisely because there are new capabilities coming online. The companies that do this well are going to grow, and there is a lot of scope for using artificial intelligence to augment human capabilities. Now, what happens 5, 10, or 15 years down the road depends on the development of those technologies and also the success that we have retraining workers, training new students to be able to take this and do more and better within our organization. We don't know how that is going to play out. There are certainly some reasons for hope there, but for the big industries where there is a lot of automation of rote tasks, certainly you are going to see some job losses, and I don't think we can hide from that, but what exactly that looks like, I don't think I am prepared to say.

CS: Maybe I have a different perspective on that, which is that I have been in this space as an entrepreneur, pursuing it for over a half a decade, and I have been working with customers, building technology, working with that ecosystem of developers, and building those cognitive engines. Let's just talk about the fact pattern that has happened in the last five years and let's assume that same rate of change, let's not get hyperbolic about the terminator moment, but literally, what happened in the last five should probably can be consistent in terms of growth pattern for the next five. Beyond that, I think it gets fuzzy. So, here is what we saw. In 2014, we had one cognitive engine on our platform. It costs $3.24 to run an engine for one hour, it was 63% accurate in its function, and it took three times the length of actually the cognitive processing to actually generate an hour, which means we could process this conversation, go away, have lunch, and it would give us back some answers, it was 63% accurate. That is valuable to no one. Fast forward five years later. There are 150-plus engines on the platform, growing by two engines per week now across that ecosystem, accuracy in that same category is tipping at north of 80%, and mostly importantly, we have seen a 100-fold decrease in cost. That beats Moore's law by three times. So, I believe that same degree is going to push forward. We will have tens of thousands of engines available to the marketplace, cost space is going to be literally a single basis point above raw compute, and the integration of those services is going to actually allow us to solve harder problems versus point solution. Do you agree with that?

ML: I agree with that.

JL: I do. Every one of us is a highly intelligent computer, among other things, the living being…

CS: I don't think of myself as a highly intelligent… (laughs)

JL: We think about our cognitive capabilities as human beings, we have a lot of it. There is a lot of scope to believe that there can be augmentation rather than replacement of a lot of what we do as these things get better.

CS: I am going to harken back to Steve Jobs. Steve Jobs was asked to define what he thinks a computer is, and he said "It is a tool for the mind." Let's think about that statement for a minute, "A tool for the mind." Humans are tool builders, correct? We've built lots of tools, weapons, knives, etc. Name one tool that a human has built that has not surpassed that of creation. We looked up and we watched animals flying. We said, we would like to fly, and today, we have machines that can beat every creature that flies. We set down and we said we wanted to build something that actually could do mathematics better than every human being on earth? Absolutely. So, why in this one case do we believe that the tool that we built for our mind would at some point in time not actually be better than its biological counterpart? Is this the one point, the only tool man will ever build that actually doesn't beat the biological counterpart? I think the answer is it won't.

JL: I think this is where the fear comes in though, because many of those other tools that are better than their natural counterpart can be used for good and for ill, and I think that's where a lot of the nervousness comes in.

CS: I recently gave a talk on this, which is the rate of human innovation, and we can talk about that going back to the first man. Essentially, in my opinion, the rate of change, of innovation is directly correlated to the total cerebral capacity of all human beings on earth at that point in time x, multiplied by the total innovations that you're now standing on top of and building from. What is interesting about artificial intelligence, it is for the first time going to change the innovation curve. So, no longer is it just another tool where the human mind is simply still staying on that consistent trajectory, it is going to shift it forward. I think the benefits from that greatly outweigh the potential risks. Specifically, cancer, we have been trying to attack that problem for a long time. Most scientists when you talk to them believe that this cure to cancer lies within the data that we have today. It is just impossible for human minds to sift through it all in an intelligent way.

HP: I want to go on data because if I think of day one, I heard about data when we talked about our podcast. Day 2 yesterday, I heard about data, and today, I am hearing about data. There is clearly a common thread whichever way we look at this, which is the importance of data. I will now ask the question, who is going to own that data?

JL: It is very interesting. We are taking a look at some survey data that just came out for a study that will be launched in March. Consumers are starting to want to own more of their own data because they see a lot of the risks accruing to them, a lot of the benefits accruing to others, and I think that there is now a lot more desire on the part of the individuals and the part of governments for there to be more equitable exchange about what's shared, what isn't, and in what circumstances. I think that individual consumers or patients, or what have you, are willing to share if there is a benefit, but when it comes to this data and how it is extrapolated and the benefits that are accrued from it, we could end up having a very unequal distribution of wealth and so forth out of it, or if we have a more holistic view of who that data belongs to, it could be very different.

CS: We see this all the time. When we first entered this market, we watched some of the larger ecosystem players starting to try to hoard their data and they were starting to actually buy data sets in the public market. They were extremely valuable in hoarding those and locking them away, but before they were publicly available for the rest of the community to start to build cognitive services on top of. You have seen companies like ours that really lean into that as something which we believe is a detriment to not only society, but cognition in general. So, our personal policy is that we encourage all of our partners that sign with the platform to allow us, working with them, to drive cognitive training data sets that we freely provide to all partners. So, our objective is to allow the three kids in Kiev that are brilliant, working on the next-generation algorithm, to equip them with that information and data as freely as possible. Then they can actually develop that innovation and, more importantly, allow them an ecosystem to publish it back and to start to monetize it and then add value to the enterprise. But if the objective is you believe we are going to hoard it all, lock it into a vault, hire your own data scientists and spit out end products, I believe at the end that's a short-term win, the long-term is collaboration and open data.

ML: Yeah, I think collaboration and open data at that aggregate level or at that global level, but then when you get to personal data, I really do care what's happening with my data. I don't want my information to be available everywhere and I think you are right, I think people are getting more and more cognizant of that.

HP: Thinking about data and something you mentioned earlier Chad about the potential for cost cutting and how you can use cost cutting and, of course, as we talked about earlier cog tech, AI, and the fear of jobs going away. I understand from your survey that there is so much more around the benefits of the products, the services, the performance that comes into play. Is that what you are also seeing at CES, other things coming more around performance, product services, or is it more about things that are going to be cost cutting for the enterprise or the consumer?

ML: I think here at CES, it's much more around embedding AI into products and making what you offer to your customers better because it's smarter or more interesting or different from what the competition is doing. What I have seen here is far more on the product side.

JL: There is a tremendous opportunity to reimagine the value that you can deliver to a customer. What kind of experience can your consumer electronics give, what can it know about the customer that will then maybe pick the right song or set the right mood or do the right thing given what it already knows about the individual?

ML: A lot of what we see here is sort of what makes things different in the home, but what I like to do is walk around the floor because, like you Chad, I am much more focused on the enterprise. How can you take what I am seeing here in this home robot or whatever and think about how that could make a company different? How could an enterprise use that technology to change what they do every day because the expectation of employees are going to be very different? All of us are of a certain age; we didn't grow up having an expectation of technology embedded into everything we do. But people do now, people expect things to happen in a different way. People expect to be able to talk to a device and that something will happen. Those things happen at home, we want them to happen at work now, and people want them to happen at work.

HP: To that point, is it really consumer products that are driving the progress of AI and cog tech or is it what's happening in the enterprise that's really driving it? I know it's more front end and you can see it, touch it, feel it from a consumer side, but is it really, the enterprise or the consumer side that's driving the advancements in cog tech and AI?

ML: I think it's mixed. If you go to AI world, there you see a lot more of the development of cognitive technologies to the internal enterprise. The focus is on how an enterprise can use data to make better decisions or automate processes in a different way, or use data to get processes done better, and more accurately. I don't think we are seeing it here though, but I do think there is a lot of consumer that drives it as well, so I think it's mixed.

CS: So, I would probably answer a little bit differently, I think it originates kind of at the enterprise because that's where it's easier to innovate. You have the horsepower, you have the computing. You don't have to miniaturize the chips and try to figure out how you are going to squeeze a cognitive engine into a watch; the innovation is still happening from true cognitive science at the cloud level at the enterprise, and I think what's happening is those engines start percolating there. You are watching very nimble companies and sometimes even companies that sit on both sides, that have both consumer products and enterprise products; they can start to mesh those two different objectives together.

ML: Yeah, I think that's a good point. The innovation of the technologies themselves I think does happen at the enterprise and here at CES, we see lots of examples of companies wondering, "Oh, how can I use that in my products?"

CS: Correct. Facial recognition or running an anomaly engine. When I walk around CES, just briefly, I am most excited about personal healthcare; the devices. We came from a generation where if you wanted to find your blood pressure or whatever it might be, you are going to the doctor, let alone even blood analysis. There are devices now that are actually looking through your skin, that are noninvasive, and can actually identify, using artificial intelligence, up to a dozen different ailments that you could be suffering from, say blood-borne pathogens. Bringing that tool into the home cost effectively is going to change medicine.

JL: I think it ends up changing opinions about what it can do and getting excitement around what it can do at the individual or consumer level that ends up giving a whole new push to what happens in the enterprise. If you are using a home assistant to play music and shop and to have instant search and interactions; that build a level of expectation to how you are going to interact with the enterprise. If you are able to use home healthcare that's instantly connected, your immediate next step is to think why can't I connect with all companies that way, why can't I connect with government agencies that way. There ends up being a real push to accelerate it from the customer's point of view that has ramifications at the enterprise.

HP: We talked a little bit here about AI, cog tech in terms of what it could really be like for the enterprise driving consumer products, consumer products also forwarding back into enterprise, it would be remiss of me if I didn't use the term AI and talk about the future. So just fast forward me three years, what is my world going to look like? What are we all going to be experiencing in the workplace and in the home through cog tech and AI?

ML: Well I think in three years, I think we will see greater use and acceptance of cognitive engagement, like the avatars or the humanoid robots for example. I think that we will see better application of the data that can be collected from all the things that we are wearing on our wrists. I think at work; the automation of processes will really take hold. I think we really will see a lot less rote tasks and a lot more thinking. So, if you are a customer service agent, you will focus on solving complex problems rather than telling someone that the balance of their bill is $42.90.

CS: From my perspective, I think it's going to be about augmented intelligence across the board. Whether you are an employee at a corporation or you are a person at home, I think your environment is going to have augmented intelligence embedded into almost every device, both in terms of the interface, how you engage with it in natural language, to actually when it's surfacing up information. I think a lot of people focus on the mundane tasks that are going to be eliminated. That's one aspect. What's odd about our company is that almost none of our customers today are using our cognitive services to remove the mundaneness of their jobs. Instead, they are actually using it to solve problems that they are incapable of solving because of the breadth of the information they have to process. That's what I am excited about: the superhuman capabilities that AI is going to enable everyone to have.

JL: From my perspective, in the enterprise I think you are going to move from a bespoke model, where everything has to be fairly tailored. Right now, you have to end up collecting your datasets and training your datasets, and it takes a lot of experience. Your organization still has to be involved with the vendors and so forth, but it's going to be easier to do, more plug and play, and that's going to lead to a greater value. I think from the consumer side, you are going to see more home assistance; you are going to see more people getting comfortable asking a device for advice, asking a device to help, to organize things. So that's going to come I think in both areas. Therefore, it's just going to be more of a seamless part of life.

HP: That's great. So that's it for day 3 of our final series of the podcast at CES. So with that Mic, Jeff, Chad, thank you so much for joining.

ML: Thank you.

JL: Thank you.

CS: I appreciate it.

HR: That's it for User Friendly's 3 episode special from CES. We are so excited to be bringing you insights directly from the show. You want more from User Friendly, we will back with our usual programming in mid-February. Season 2 will cover everything from the future of home entertainment to flexible consumption strategies to the latest trends in mobile. We will have some exciting new guests and new episode segments to keep your business ahead of the latest trends in tech, media, and telecom. See you in February.