



For Cloud Professionals, part of the On Cloud Podcast

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Title: Healthcare joins the cloud-powered digital revolution

Description: Healthcare has often lagged behind the digital revolution. That's changing. Powered by cloud, new technologies have emerged to enable healthcare providers to offer more, and improved, digital experiences to patients. These first steps will pave the path to a future where personalized digital interactions—perhaps augmented by virtual reality technology—become the norm. However, privacy and building patient trust are critical challenges that providers must continually address..

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Operator:

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David Linthicum:

Welcome back to the On Cloud Podcast, your one place how to find out how to make cloud computing work for your enterprise. This is an objective discussion with industry thought leaders who provide their own unique perspective around the pragmatic use of cloud-based technologies. Today on the show we are joined by Tom Swanson and Mike Church. Tom is head of industry strategy and marketing of health and life sciences at Adobe. Mike is a managing director at Deloitte and leader within Deloitte's digital Adobe practice. Tom and Mike, welcome to the show. How are you guys doing?

Tom Swanson:

I'm good, Dave. How are you? Mike, good to connect with you again as well.

Mike Church:

Thanks, Tom, and thanks, David. Excited to join the show.

David Linthicum:

So, one of the things listeners always nudge me about—they always want to find out what's a day in the life of Tom Swanson and Mike Church. So, tell me what you do during the day. What are your day jobs? Tom, you first.

Tom Swanson:

I mean, one of the things that's fun about the job is I get to be the voice and the face of Adobe in the healthcare space. And we still get a lot of that kind of puzzled look, or the questioning around what does Adobe have to do with healthcare. Why Photoshop, or why PDFs or Acrobat. And so, it's a lot of fun to be able to walk into those customers and explain to them how Adobe can actually help them transform their business and change the way that they engage their customers and to be able to personalize that engagement. And the long-term goal of that is to improve engagement, ultimately we'll yield better outcomes. And so, it's not often that somebody who works for essentially a software company can potentially have that kind of impact on the overall healthcare ecosystem.

David Linthicum:

So, Mike, hard act to follow, but what do you do during the day?

Mike Church:

Thanks, David. Definitely Tom is a hard act to follow. I spend pretty much every day thinking about ways we can help clients in different sectors and industries solve a lot of their digital transformation challenges. Recent events have really, really created a massive global game-changing event where every industry or sector is now grappling with digital and how to use that as a main channel to engage with their customers, whether it's B2C or B2B. And that's really stressed their current systems and really gotten them thinking about how they can transform digital operations, digital engagement, and really bring their brands and products into a—I would consider a much more modern digital experience, but one that scales. I think that was the second thing that recent events have really sparked, is really just the need to have systems that can scale and take massive volumes of—whether it's users, traffic, responses, given big global events. So, that's really exciting.

David Linthicum:

So, Tom, you and I are kind of in the same business, kind of focused on research. Tell me about your research.

Tom Swanson:

Well, I mean research is part of the equation, Dave. I mean, first-party research, or doing research with partners like Deloitte, is critical in terms of kind of establishing not only the why, but also kind of the how, of how you address digital transformation in the healthcare space. I mean, one of the things that Mike just touched upon that I think is critical is that the pandemic shined a very bright light on the fact that the healthcare industry was very much behind other industries in terms of digital engagement and utilization of digital channels and the technology that we as consumers have come to not only demand, but kind of just expect as commonplace means of interacting, where you can gain access to information, make informed buying decisions, and kind of execute on self-service things.

It's an expectation that as consumers we have, given our interactions in retail, or personal banking, or travel and hospitality. And the pandemic, like I said, kind of exposed the fact that the healthcare industry did not have the digital channels in place, did not have the technology or the mechanisms in place in order to make that quick pivot to digital-only thinking. And it was very much a cultural issue as well because healthcare companies have done extraordinarily well with the business model they have, which does not put the consumer in the center of the engagement model.

So, all of those things lead to kind of the need for the research that we're discussing around kind of what do the consumers expect. Where are the areas of focus for legacy healthcare companies? Are they concerned about potential disruptors, or high-tech companies, or companies that are not burdened kind of with legacy systems or legacy thinking coming into the marketplace and turning things upside-down.

David Linthicum:

So, Mike, question to you. I mean, what Tom just said is very profound. In other words, healthcare, life sciences, really wasn't focused on the user, on the customer, on the human that was involved in it, the patient. It was kind of focused on the processes behind the scenes to get things diagnosed and get things treated, things like that. And I do see a switch, and certainly the pandemic has driven most of that, but what technologies are being put in place to make the human experience better?

Mike Church:

That is a great question, David, and I think the bigger topic that Tom introduced is a lot of the old channels and experiences that a lot of the life sciences and healthcare organizations relied on were human-driven experiences. You went into a doctor's office. You met people. You talked to doctors and assistants and all sorts of support staff face-to-face, and you developed trust. Same thing with the pharmacist. You walked in, you talked, you had that face-to-face experience, and you developed that human trust.

If you look at the digital channels today, and most in a lot of industries are still lagging, they need to catch up. They need to think of their digital experience as the same human-driven experiences that not only look sharp and are responsive and the uptime is constant and the features and functionality are great, but that ultimately they develop trust. It'd be no different than if you had searched for a new healthcare provider and you showed up in a dark warehouse and you kind of thumbed your way through and were asked to give some of the most personal information than we have, so much deeper than finance, much deeper than retail, like, a lot of information that's really near and dear to our own hearts. You've got to build that trust in order for people to really want to work with your brand, organization, and providers through digital channels.

So, I think what leads into is really looking at platforms like Adobe that have really crushed the B2C space and all of the—whether you're ecommerce or retail or all the other brands that have really created some amazing experiences. The life sciences and healthcare brands can learn from those organizations, learn from those sectors that have made digital-first experiences part of their core business, and really adopt the tools, the methodologies, and just that passion for making digital and digital-first. I can't think of any other industry like banking that—imagine now bank brands that have relationships with new customers that never, ever go to their locations.

So, whether it's a global bank, or an investment bank, or any other banking institution. I think most of us grew up in an area where you went to four brick walls and a roof and opened an account, and started that relationship, and then maybe had some digital touchpoints with an ATM and then an app. Well, there are entire experiences now that are driven by digital and mobile and they'll never visit a branch. So, how can healthcare and pharmaceutical companies start to think about an experience that would develop that much trust that a patient or customer might never have to actually go to the pharmacy, or to a doctor's office to get the care they want?

David Linthicum:

So, Tom, I had a complete shoulder replacement a couple of years ago, and one of the fun things I found as a technologist is how much everything was back in the '90s. I had to carry DVDs around between doctors to carry images, things like that, and it really wasn't automated unto itself. I had to really kind of keep track of everything and make sure everybody was aware of what was going on. There wasn't any kind of backend process to assist me. So, how do we see this shift unfolding in the immediate future? And what kind of enabling technologies do you think are going to emerge to just really kind of make this a better experience?

Tom Swanson:

That's a great context, Dave, because I mean, your role in kind of management of your healthcare situation was one of essentially being like a general contractor where you are tasked with organizing all of the different pieces or the different players in your healthcare ecosystem, and making sure that the data, or the information, from one provider gets to another, and then that information gets from a provider to a payer or anyone else that's playing in your circle of care. That is one of the primary friction points in every healthcare consumer's kind of engagement with their ecosystem, is this notion that there is not the free exchange of data between all of the players, and this notion that you, as the consumer, don't actually own or manage the data. I mean, think about how ridiculous it is that you actually have to make a request of your primary care physician to share records with perhaps a specialist or someone that you're going to. And now those records may be shared via an e-mail, or some kind of encrypted transfer through backend data systems where in your case you were describing needing to take a CD-ROM from one office to another, and that's very much the environment that I worked in, as well.

So, the technology that exists regarding data collection and data transfer, and the ability to be able to do that in a secure and private manner, which all of us not only expect, but it's legally and regulatorily mandated that that data, that personal data, be protected and only used in ways that you give your caregiver or your healthcare ecosystem permission to use it. All of that said, that technology exists, and that is where I think the opportunity for the healthcare industry as a whole to establish that connectivity, or to be able to put ownership of data in the hands of the patient, or the plan member, or the consumer, and enable the sharing of that data seamlessly and effectively amongst all of the participants in your ecosystem is the way you can eliminate that kind of general contractor and very friction-oriented role that most of us play in the proactive management of our own health.

David Linthicum:

Yeah, I like the term friction, because there used to be this concept 20, 30 years ago when we were dealing with B2B integration, of a frictionless economy or a frictionless business, where you're able to do things in a much easier way than we can do today, and it seems like healthcare is kind of primed for that. Mike, you mentioned something earlier that the pandemic really kind of drive a lot of these changes. One of them was accepting the fact that we can do telemedicine now, which is more freely, certainly paid for by the insurance companies, all these things that are kind of coming into play that were evolving back in 2019, but really weren't evolving fast enough. And so, now we're in a process where, really, we see the potential of becoming much better at healthcare by going through some of the challenges of the pandemic, so what do you see as being the biggest changes that'll occur in the next couple of years in terms of our ability to increase and enhance the human experience in dealing with healthcare.

Mike Church:

I think that the—one of the number one issues that healthcare and pharma and life science industries will have to deal with is a big reset in their patient and stakeholder expectations. I think that they have underinvested in a lot of technologies that do bring the human experience to life, both today and tomorrow, so infrastructure, data management, a lot of the things we might consider plumbing, but that really allow you to personalize experiences, retain content and information that makes a better experience. But not just in their sector, but with consumers spending so much more time online, we've started to say the term that you're only as good as your customer's or consumer's last best digital experience.

So, customers, patients, consumers really don't change a mental mode when they go from a Starbucks experience to, "Oh, now I'm going to go do something with my healthcare provider, or my pharmaceutical provider, or my life sciences providers, and I'm going to downplay my expectations and expect a bad one." They're going to take those expectations across the board, and the providers, the healthcare providers, that give great experiences are going to win more patients. I mean, we have the data. We've seen up to a third of patients changing providers due to bad digital experiences, and that's significant. And that could create a tremendous amount of lowered costs with leakage in customer bases, and all sorts of switching costs and everything. So, the companies that pay attention to best-in-class players in every sector are the ones that are going to learn faster, I think model better digital behavior, and really bring to life better experiences. The technology will always outpace our ability to implement it, but it really isn't just the technology. It's a combination of your maturity in governance, your ability to develop digital capabilities, and then leverage and bring life to that technology.

David Linthicum:

Yeah, and one of the benefits—humanitarian benefits—is we become better users of the healthcare system, more involved in the healthcare system, and our health goes up because we're getting evaluated more often. We're getting feedback more often. We're leveraging digital data acquisition devices that we wear on our wrists now to provide information to the doctor that he didn't have before, and also the ability not to have to go into the office every time you want to kind of get a reading on how you're doing. It's something that takes ten minutes on a video call. And so, I think things are moving in the right direction, but let's get back to cloud. This is the On Cloud Podcast, after all. So, there is this thing called a customer data platform, which is cloud-based and—CDP. How do customer data platforms allow us to deliver personalized experiences today? Tom, I'm going to go to you.

Tom Swanson:

That's a great question, Dave. And I think it spins off of the point that I was making moments ago regarding kind of free collection of data and then distribution or sharing of the data. Because personalization of experiences all comes down to better knowing your customer. And how is it that you can know your customer? Well, it's through data, the data that you collect via every digital, or in-person, or physical experience, or engagement that you have with them. Data is collected. Now on the digital side, of course, we all know that everything that we do online leaves a digital footprint where you can collect data points regarding what you're interested in, what you've seen, what you've bypassed, all of those kind of behavioral metrics are going to help you better understand where that specific individual is in their personal journey with you, so that you can then use that data to personalize the experience, make sure that you're delivering the content that they're looking for, via the channel where they want to be, when they want to be engaged. All with those things, it's predicated upon data.

And then the—so the cloud-based CDPs enable you to not only collect data from all of those different online and offline sources of data, but then it enables you to not kind of silo that data. You can mash the data up identify unique markers that point to a specific individual, and then all of those things make the data actionable. So, in my mind the power, Dave, of what the CDP brings to the table is not only the ability to collect, organize, and then parse through the data, but then actually make it actionable so that you can turn that action into truly personalized experiences that are based upon the data that you've been collecting. And then that cycle continues. So, as you personalize the experience and your customer takes more actions or engages in different ways, as you push them down their personal journey, now you're collecting additional data so that you know whether the personalization you're doing is actually working, and that cycle can continue ongoing as you real-time craft the exact journey that your customers are looking for, so that you can engage them how and when and where they choose to be engaged.

David Linthicum:

So, Mike, how are we leveraging this technology in the context of privacy?

Mike Church:

David, that's a really good question. I think I'm going to answer that with building on what Tom just said, as well as get into a really provocative statement. And I think when you look at personalization, and no other category than personalization or even a use case we've all heard of, next best offer—in no other industry can that actually save a life. If you think about—I worked on a client project for a client in the rare-disease space, and some of their diagnoses took an average of seven to eight years. Now if you could use your CDP, obviously with data secure and privacy protected, et cetera, to start to help shrink that diagnosis timeline, you actually have a material impact to a specific population. So, in addition to providing a better digital experience using personalization to remove friction and get more engagement, you could actually look at some of the—whether it's search patterns, or other activities that patient is doing to help them speed them through that diagnosis process, which has a real profound effect. So, I think you take that real, ultimate use case or set of use cases to help with diagnosis, and that's a real gamechanger within the digital space.

But then the flipside, to answer your question, David, with people giving even deeper and deeper information, there will be growing concerns around privacy. And I think the first step is adopting a new approach around transparency and working with patients, patients' groups, and other groups, to determine ways to test and learn in a way we are more transparent, but also coupling that with security, and I think all the standards that other categories—I think crypto and blockchain—have really brought in front of the consumer. And as I said earlier about those expectations and transition, I'm sure customers and consumers are thinking, "Hey, if you could digitize currency and make that pretty safe and stable, you've got to be able to figure out something for my health information." I mean, come on. That's my currency I want to take from provider to provider and has a really profound impact on my life. If that information gets out, there's a lot of fear that that data could have a significant impact on my quality of care, my quality of life. So, again, I think there are technologies and solutions out there that just haven't yet been applied to some of these situations, but customers, patients, stakeholders, they want them.

David Linthicum:

Yeah, and I think digital enablement kind of comes into play as something that's going to be more secure. People don't realize that 10, 20 years ago, our medical records were on a shelf in a doctor's office and were fairly unsecured behind just a typical lock in an office. And now we're able to encrypt these systems and set up very sophisticated security and identity access management and really provide protection I think we didn't have a few years ago. Tom, I think you wanted to say something?

Tom Swanson:

I actually wanted to—your point, Dave, is spot on where digital collection, storage, access to data is far more secure and far more regulatorily compliant than legacy paper-based processes. And I wanted to just kind of touch base on something that Mike said that I think is important, which is trust. Because yes, you have to pay attention to privacy and security for legal reasons. But I think the more important reason is actually trust of your customer, where they are providing you with information that is probably the most sensitive information that they can provide. And there is an expectation that you will do no harm with that information, that you will do your very best to protect it and use it in only appropriate ways. And the technology makes that very easy. So, it's like the expectation is trust is there. The legal mandate of security and privacy is there. It's a matter of the healthcare companies actually executing on that trust and not violating that trust, because once that trust is violated, you will not get it back. So, it's much easier to kind of address privacy and security and your data sets upfront rather than try to react to some kind of breach or some kind of violation of that trust later on.

David Linthicum:

So, Tom, last question and back to you. What about in five to ten years? So, what is the potential that exists for this technology as it exists in the cloud or the technology in general? And what do you think we're going to be talking about in five to ten years?

Tom Swanson:

I think five to ten years from now, we're going to be talking about how relatively simplistic and silly telehealth seems five, ten years from now. I mean, the thing that—I don't think we can under-stress the importance of the holistic shift to telehealth, or video-based, or remote-based care, because I think at a very high level it represents a shift in business model—not only for kind of use for technology for doctor-patient visits, but it's essentially the return of the house call, where the doctor is coming to you in a time and a place that is convenient for you as the patient, as opposed to you needing to go to a place that is convenient at a time that is convenient for the healthcare professional. I mean, I think that is a monumental shift in the healthcare industry as a whole,

and I think what we're going to see is kind of building upon that foundation of putting the patient in the center of the engagement model, making accessibility, and convenience, and price transparency key components of the engagements going forward.

And Mike hit upon something, that the technology is always going to change. And it's our duty as technologists in the healthcare industry to kind of keep pace with the technological developments. So, I mean, I think what we're going to see five to ten years from now, Dave, is expansion of remote care to include—let your imagination run wild. Holograms of the doctors actually visiting your home and sitting with you where you can interact in that human basis, as opposed to looking through a video screen. The idea of being able to use virtual or augmented reality in kind of treatment plans for, let's say, physical therapy, where you don't have to go to a physical therapist's office but you can utilize an Oculus headset in order to do your physical therapy or to actually visit a doctor's office.

And with the kind of ubiquitous nature of wearables, and the fact that these wearable are now capable of doing clinical-grade monitoring, combine that with the other technology that's available and we may very soon find ourselves, like Mike suggested about the banking, where, for routine things that do not actually require perhaps chronic or surgical intervention, that we never actually go to a doctor's office ever again, that all of that engagement is done through a more human, technological means of engagement.

David Linthicum:

I love it. I think we're all going to be healthier and happier for it. And so, this change couldn't come any sooner and I think I'm looking forward to us leveraging technology as a force multiplier to make this happen.

So, if you enjoyed this podcast make sure to like and subscribe on iTunes or wherever you get your podcasts. Also don't forget to rate us. Also check out our past episodes including the On Cloud Podcast hosted by my good friend Mike Kavis and his show Architecting the Cloud. And if you'd like to learn more about Deloitte's cloud capabilities, check DeloitteCloudPodcast.com. And if you'd like to contact me directly you can reach me at DLinthicum@Deloitte.com, L-I-N-T-H-I-C-U-M. So, until next time, best of luck with your cloud projects. We'll talk again real soon and you guys stay real safe.

Operator:

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