

Why healthcare's next entry point must be intelligence-first

Podcast Transcript

When I started working in healthcare, which is not very long back, we spent a lot of time building what we call the digital front door, building apps, portals, called centers. Now, where this whole AI conversations, we see the conversation shifting pretty quickly towards AI. In the context of healthcare, why is this shift happening and why now? Andrea, can you take us through some of the conversations you hear about this with your clients? Yeah, no, I'd be glad to. So, um, it's interesting, right? So when we 1st started some time ago, let's go back and talk about the idea of the centralized context center. And that was done intentionally to try to make sure there was a consistent experience for patients across an entire health system. But that ended up being frustrating because patients would have to just be passed off to another location or practice that might not even be taking new patients, might not accept their insurance. And so to sort of overcome those challenges, we switch to things that like digital front door. But in both cases, we really weren't looking at the right things. So with the context center, it was about the total time that it took for them to take that call. How many calls they took per day or per hour, even in some cases, but not about whether the patient got to the right provider and got care. With digital front door, we had some of the same kinds of challenges in that patients would talk to maybe a

chatbot, but it didn't understand them. And so there you might have reduced the human touch, but you've increased the frustration. So with AI, what we're starting to see is the ability to bring both those things together, and you can keep that context of what the patient needs. Um, and pass them off the right way while also being able to pull data from the back end to see if there's availability at this office is close enough to where that patient is. Do they accept that patient's insurance? And so reducing all of that frustration. While looking then at the data that shows whether the access even happened. Very well, so it's basically what you're saying is making our systems more intelligent so that they can serve our patients. Absolutely. Well said. So, Karthik, next questions for you. We're seeing a growing shift towards platform driven AI enabled ecosystems in healthcare. Where large peers are investing in foundational AI capabilities, partnerships, and interoperable solutions. Do you think the signals are moved towards a new AI front door for healthcare? And what might that future state look like? Fantastic. So we're talking about few things out here, right? One is around the signals, and the blueprint, and how is that blueprint going to be the ones that is going to help? All these payers be ready for the future as well. When uh, and he was talking about how we all begin the journey with a digital front door, and now we're talking about the

AI front door, she kind of alluded to talking about measuring the wrong outcomes, in front of the digital. That's a realization that has happened now. Why? Initially when we are doing all of this, over the last decade, the digital 1st era. We built channels, the platforms you're referencing to. It's all channels to address a need, to address a problem. So they became the entry point to be able to get done with something. The deliverables primarily. Then, we continue to optimize those channels. The platforms we are referencing to, for the paid for the call centers, beat for the HRs, beat for the clinical notes and all of it. All the channels were continued to be optimized. So we build channels, we optimize channels, and now the realization is, the channels are not talking to each other. Hence, there is a need for FHAR. There is CMS trying to do mandates. But still, somebody has to be out of there, to be able to plug in, make all this interoperability work in real time, and not as a batch processing. Only then, you were AI signals. The futuristic blueprint that I'll just pick about in a minute can become a reality for them. So now let's shift to the blueprint aspect of it. When you're talking about what will be this futuristic blueprint to apply, in accordance with the AI frame book you're not talking about. In my view, it needs to be a 3 layered architecture. The foundation layer is a unified data fabric. By meaning, I'm not saying that your data has to be a golden set data. I'm referring to your data, lineage, and the data has to be interoperable and readily available for it to be able to go to the next level, not in the form of back processing, but in real time. Your next layer is your intelligence layer, and the orchestration layer, which are the bunch of AI agents, they are not there to be the entry point. They are there to make decisions. They are based on the signals that it is getting based on the identification of the intent that it can understand. On top of it is the key. Which is your workflow engine, that would eventually help in addressing your care gap. Do the care management better.

Your health worker on the field, supporting old Medicare member, and or the other patients requiring to offer the support. How can the intelligence be given? to such people, at a quick point in time, when all these 3 layers starts to operate coherently, with the underlying unified data fabric, able to pull in the data from these multiple different systems, from claims to clinicals to HR data, via the FAR, FHAR means, and via the interoperable means that same as mandating. That's the blueprint. And that's the AI friend or architecture. sir, that you are talking about, which would make it all a reality. So moving on to our next question, and this could be a question that both of you can address, but I'm going to start with you, Andrea. The vision of an AI powered personal health concert sounds transformative for digitally engaged consumers. But what about patients who aren't digital? The Medicaid population underserved communities, people who still call their doctor's office on the phone. If the front door becomes AI 1st, how do we make sure it doesn't become a door that is close to the people who need healthcare the most? That is an excellent question. Thank you for letting me start off. So, I'll, I'll draw parallels from another industry, which is very much related, and that's the industry of biopharma. And so we looked at something called decentralized clinical trials for clinical research, as we were trying to expand research opportunities to a diverse set of patients. And what we found is, in some cases, having these digital tools that allowed people to participate in studies from their home without having to go to a far away location for a visit. Well, it seemed great in terms of improving access logistically, it created a digital divide. in some cases. And so we don't want to replicate that here. So I think the most important thing I would say is that AI can be an accelerator, AI can help to improve access, retain context, but it doesn't replace humans, and there are... Are always going to be scenarios where you're going to need

that human in the loop and involved in the coordination or access of care. And so for that reason, I think that AI in the future will be really a hybrid model. Um, it's not going to replace humans, um, for a lot of the reasons you mention and also just in general in healthcare, I think it's obvious that we still have to have clinicians involved when we get down to actually providing care. But I think it'll be there to help support, um, where warranted, accelerate, and drive, um, better access overall in tandem with humans. And when you're talking about the AI front door, and the blueprint thing that you spoke about, in the journey of AI front door, if the AI front door, foundations that is being laid, is not being laid as agnostic to channels, it's a lost equity, and it's going to hurt your RY very heavily. What do I mean by that? So, we're talking about, it's a last equity, and it is, has to be channel agnostic. The intelligence that you're talking about in the AI front door needs to be sitting behind every channel that you've invested on that is supporting your business today. The IVR channel. The agent desktop channel. The mobile channel, the web channel, the portals you are referring to, the intelligence has to be sitting there, and really saying it's not going to be the entry point for the users, but they are the orchestration layer. That is the intelligence layer. Which can then be harnessed by the agent addressing a member. The agent addressing a patient. So, we've talked about why the shift is happening. Now let's get to the hot part. Actually delivering AI front door. So, uh, if you're a health system or a payer, And you say, we want to build an air front door. What does that really take? When you sit down and think about everything, the data, the infrastructure, the talent, the investment, and now more and more we talk about change management. What are the building blocks and what and where do most organizations underestimate the effort? Fantastic. Oh, I'm glad that's going to you. Oh, yeah. So let be try to give a hardest answer and

not a salesy answer. The majority of the learnings and what we have witnessed through, uh, the underestimation have happened, mainly I'll talk about in 3 areas. The 1st one being in the data readiness, piece of it, the 2nd aspect is around the change management, the behavioral change management aspect. The 3rd important and interesting aspect is around. The governance operationalization piece. So let's take one by one. With respect to the data readiness, as I was talking about earlier, One will never be ready with the golden source of data. Is your data, the EHR data, most of it, clinical notes like and stuff, unstructured. Your claims data has a huge thing and it has a good level of latency. And then you have your Priyath data, and then you have your, um, the HR provider data, while the CMS exists, AFHAR exists. R, induce your data interoperable in real time. You are still doing a weekly bash. Thank you, badge, to bring things together is the data written as we are talking about. As, as we talk more, I'll talk about what could be a, a better way to address such a data readiness. But that's one part of the underestimation in terms of the readiness. That's why pilots succeed, problems never more. The 2nd aspect is about the behavioral change. That's not an IT project. That's a change management to be driven. How can you make a care provider? With the explainability brought in and built in, in the AI recommendations being provided to them, and training them to be able to accept that, by reading the explainability, is important, and educating them and aligning them and then making the change management on the ground, is the key to success. Rather than giving a checkbox, now, I have given the recommendations from the AI, but the actual user of it, like a CAD provider or a caretaker, doesn't even know why should I use it, because finally, I'm going to be in trouble. The reason I'm not understanding what it is saying, how can I interpret this AI disk store? It isn't scored, and

what's the reason for such a risk score? What all it has taken into consideration, providing it? such an explanation. We'll start building trust for them to start adopting it, rather than just leaving something at them, it will what I recommend. Just go out and do it. That's not going to drive adoption. The 3rd interesting piece is about the governance operationalization piece. Oh, yeah. It is not about, I have all this guard race in place. I have this AI policy. I have my centralized A mechanism through which all the AI LLM calls, EP calls are happening. That's not the data operationalization piece that is happening. That's a hygiene to have, to get started with. But for the adoption to happen, uh, while you're talking about where are the underestimations happening? It's about, do you have the mechanisms and the methods and plays to be able to measure your model drift? Drift in terms of the recommendations. The data lineage, which are all the systems from where things are being taken. Do you have all your data, interoperable, the unified fabric layer you're talking about? Do you have the governance in place to be able to do it in scale? And is it ready for your production ready or is it just pilot ready? Right. Such are the aspects that it needs to be well thought through. And these primarily are the 3 places where I've seen underestimations happening, which actually makes pilots successful. We need to go back to what problems are we solving? Because I think when ChatGPT came out, everybody said, oh, what are we going to do with AI, right? Oh, we're going to do this thing with AI. And I know you, Shivang, you and I have struggled with this too, right? And the question should be, gosh, what problems do we have that we know we can maybe solve differently than we could before? And how does AI help us get there? So that's where I start to see the AI front door construct really bringing us to a place where we're bringing that experience and that intelligence, as Kartik said, all that context being stored and made

available to support the journey, that, to me, is going to be the game changer here. All right, so let's move on to another crucial part of delivering AI front door. So, uh, when you move from a patient portal to an AI front door, you're dealing with PHI flowing through AI models in real time. The security architecture changes completely. At Brillio, we're seeing clients ask very different questions than they did with digital front doors, around auditability, consent management, how you govern what the AI can and can't access. How are IT partners and system integrators evolving their security playbook for AI? And is this becoming a differentiator in who organizations choose to build with? And perhaps Kartik help us. Yeah. Take us through that. Answer is absolutely yes. There is a fundamental shift in terms of how one has to deal, someone has dealt with security. In the world that majority continues to do the business, which is the digital 1st, and as we are entering into the AI 1st, when the organizations are embracing it, and in prices are embracing it, it's about, let's take a few things one by one. Um, Data in transit. Digital first. It was all about, Is it all encrypted? How securely it is encrypted? And is the end to end pipe, encryption is taken care. Are all the boards secured? Great, then that part of the data security is taken care. When you look into AI, the same scenario, questions are very different. Where is this data going to be? Am I going to leave my PHIPAI into a model that is not resident in my enterprise? Our 1st secure your data can go in the pipe, at the end of the day, that brain, that model, which is outside of your enterprise, needs it in an unencrypted, wait. Your problem starts then. So, it's about your PHIPI data. Is it all going and deciding within your enterprise when you're doing your small LLMs or large LLMs that are housed with a new enterprise or good grade? Because it's still within your wall. The moment it is leading to some other model that is deciding outside, that's a whole different things to take. So you cannot even allow them to

go past that. That's the barrier that was needed. The other thing is about role-based access. If securing it beyond my data and transit requirements, I'm also securing it, only the needed required people are able to access it. In the AI world, it's just not that. Because for us, for a care provider, to a prayer art requirements, to a HR requirements, to a main room automation processing, the needs are very different, and hence you need to get the consent from the members and the patients at the parameter level, and at a different kind of files level, to say what are all the consent you are giving me, to allow me to use what all the kind of data that I can use, because those are the different combinations that I'm going to use to be able to offer better care for you because I need to arc a state all of these things together. this intelligence and all that aspects. So that's a different level to be handled. Our back to be replaced with the consenting that is required at a parameterization level and the different attributes level that you need to get to from the patients and the members. The other aspects is about the audit logs and audit rights. Yeah. Digital 1st audit lots, where very different, to know where are your views, where are your access, and everything. But now as you get into AI, it's about model adaptability. Drift detection over there. data lineage. Why a particular decision was recommended by AI because it has taken into consideration these data from these sources could be the same data about me. But where did it pick it from may change the ultimate decision and it is giving to the care coordinator, to the health provider, whatsoever it is. So that early trail and the log and the data lineage is super important to be maintained in the context of AI friend 2 that you're talking about. Awesome. So, Kapik, I'm gonna take a slightly different question, right, from stay from a delivery perspective, but focusing a little bit more on platforms. So, one of the largest pay wider had to consolidate their 12 EHR instances, into 2 before they could even think

about luring AI on top, and we're seeing similar movements across the industry. Is the reality that most organizations text at simply isn't designed for AI? And if so, do you modernize what you have or do you build alongside it? Interesting question. The question is a binary, but somebody makes a binary decision to this question. Are already getting into the trap. Because it is not a binary choice to make. Is that both? Yes, but let's expand it on it, on it a little. The example that you spoke about, which is the 12 to 15 kind of HRs, is an extreme example, may be applicable for few payviders, but in the major enterprise scenarios that are talking, what it's typically about 3 to 4 HRs that needs to come together, point integrations are needed, in the current context and all of that, that needs to be taken care of. Uh, in terms of uh, then what should be the approach? Should I modernize everything before I even start on the journey of doing AI 1st? It a budget wrap that you will get into. Okay, should I start building my intelligence layer in the orchestration layer, ignoring the tech debt that already exists? No, that's not even a right decision to make. And what we mean by, it shouldn't be binary, and if it is not, what others I'm referring to, it should be about picking up the best RYI scenarios and cases, which doesn't need to be built ground sir. That can today bring in the aspect of data lineage and data operability. Pick up an example of, let me address prior auth, which I just spoken about, you have a few minutes back. Thank you for bringing that in. And main room processing. I'm talking of complexities of different level, some very simple to the complex ones, and to the medium ones, like Pyarat, simple on being the mail room processing, and the complex one being the cat addressing the care gap. So for this different kind of examples that you are talking about, Pick up one, let's take, let me address the care cap. I need to bring in these 3 sets of data from this 5 different data sources and let me make the interoperable word. So I

have the data in these things started, and I have the unified data fabric for this particular need that I'm going to add resorted. And now let me go about building the intelligence and the orchestration layer. Let me offer this as a domain capability. Now, you are able to build and get into the AI for indoor for a business need, and solving the underlying problems, and you can see the ROI and use that ROI to find some other complex things. That way, you're not getting to a better trap, and you're not seeing like I'm continuing to spend, but I'm not saying an RY. That is the best way to go about it. Andrea, what are your thoughts about that? I mean, we have a saying, right? Don't let the perfect be the enemy of the good. Um, and I've suffered that myself, right? Admittedly. So I do think that there's something to be said for building and experimenting while trying to then organize and make all of your data available and interoperable. That's the perfect scenario. And it's true, 15 AMR systems, HR systems is an extreme. Although, if you think about a provider example, right? Um, That should be the best, that should be the easiest one because they have the payer side and the provider side. It's a closed network, like, there's, I don't know, names from, but that should be the example where all that data is readily available, and yet it's not. And we see also in healthcare right now, we have a lot of private equity backed healthcare companies in the US. And so what does that mean? It means you have all these acquisitions that sort of come together to become a single healthcare organization. And those scenarios, you are going to have that extreme example. So if you wait until you have everything integrated, uh, you probably won't make any progress, and by that time, gen AI will be onto the next thing. and they'll be left behind. So I do agree that you get into a trap if you think about it as an either or it has to be in parallel, that you're tackling both at the same time, but not losing the opportunity to really make some change in the

interim. All right, so let's move into, I think, a critical section, which is what are the challenges in delivering the AI front door? And I'm going to start strong and that this is something that has been on my mind. Every physician takes a Hippocratic oath. Do not harm. But when AI is sitting at the front door, triaging patients, recommending care paths. AI does not take oath, right? So when something goes wrong, a misroute, a missed red flag, who is responsible? Is, is it the health system that deployed it? The vendor that built it? The cloud provider whose model powers it. And as we scale AI front door across, across healthcare, how do we think about the accountability gap that it creates? And is this the biggest unresolved issue in the industry right now? Andrea, questions for you. Look at me. That's a great question. So, in terms of accountability, yeah, look, ultimately the healthcare organization is accountable for any patients in their care. That's just the bottom line. Now, they may choose if something goes wrong to go after the suppliers or the vendors, as you may say, the models, people who develop the models, that may all be true. I think, though, what's important to keep in mind is what we were talking about today, and Karthik brought it up earlier, is that AI won't action replace humans. It should be there to provide the intelligence, but ultimately, it should still be human beings making decisions about care. And so that's why, you know, we say that it's there to support. It's not there to replace. But I also wanted to talk about something else Karthik brought up earlier, which was this idea of consent and people worrying about, you know, their data going everywhere, which is real. Uh, and again, I'll go back to, you know, March of 2023, ChatGPT became this thing that everybody could touch and feel. And that was forgotten initially. So I remember seeing all these ideas from clients about, oh, we're just going to use AI to diagnose our patients and we had to pull them back. and explain the potential for a hallucination,

right? Um, and B, the possibility that now you're leaking, this is before we even had rag capabilities, right? Now you are intentionally leaking someone's PHI to a third-party model. We don't know how it's controlled. Now we have a bit more. Kartik went through the architecture and the security and all things to consider. And we have that framework now. But we didn't then. And so I would say that as we evolve, we have to keep, remember, more and more challenges will come up, and that's why it's so critical that AI is there as a sort of companion to help support access, to facilitate, but it is not there to own, because it is not ultimately accountable. Totally, totally agree, the accountability, without a traceability, is any possibility. So, it is important, as on all the other aspects we were talking about earlier, the data lineage. from where what data came in towards giving that recommendation and towards giving that intelligence is pretty much needed for the same reasons, along with the explainability, so that the CAD provider, or the person who's taking oath, can make informed decisions, and explained detailing for them to be able to comprehend, and to get rid of other things which might have gone wrong, because like in every year, I think, like they say, it is AI provided decisioning, human, intervention is always recommended. So that piece is absolutely needed. And that is one of the 3 pieces that I spoke about, spoke about where underestimations are happening. When actual production systems needs to be created. Like the AI friend who are driven scenarios. Okay, so this brings us to the last section of our podcast. And we're going to talk about how, because we've spoken about 2026 being the year of transformation, let's talk about how do we actually make that make that scale, right? Make all our make our pilot scale into production and just production scale into successful use cases. So the 1st question, Andrea, for you, is the landscape has, of course, shifted dramatically in the past

few months, right? We're seeing these major platforms launch all of these healthcare specific AI offerings. Microsoft has launched, you know, its capabilities, different other enterprise solutions, like Google Cloud has launched, you know, in partnership with payers that have launched something. So GPT health, yeah. Yeah. So do you genuinely think these enterprise solutions are simplifying the AI front door journey? Or are we creating new paradox of complexity and choice? Wow, yeah, no, that's a great question. So, um, healthcare is seeing this. We seen this show. So, uh, we think back to the Affordable Care Act, and the incentives for all these hospital systems and healthcare organizations that were still using paper charts to move towards electronic health records. And that was seen as the next way to ensure healthcare coordination, right? Interoperability. There was this dream, but there were so many incentives that were offered for health systems to make this shift, but all of a sudden, we had this landscape, a fragmented systems, with no standards. And this is why we ended up having to build fire, you know, fast health and operability resource because the interoperability was an afterthought. So instead of coordination of care, we ended up creating even more fragmentation. And I think you brought it to the point before, you know, garbage and garbage out. If you just put AI on top of fragmented data, you're probably not going to have intelligent. AI either. So you have to kind of address that first. So, I mean, I'll give this question back over to Kartik, but, you know, your right to ask. You know, how do we make sure that as we look at all these different AI solutions that we now don't have different agents who all understand a piece of the puzzle, but still don't have the full picture because if we do that, we're not using it in the right way. I mean, the point of AI front door, and we're hoping that it closes gaps and not creates new gaps, right? So, Kartik, what do you think? Yeah, no. Absolutely agree to that point,

right? In terms of uh, some of these platforms you're talking, both these platforms, the specific ones that you spoke about, are all the good news that, from the channels, we are now, people are thinking about building that vertical intelligence from the horizontal infrastructure, but majority of those platforms still are horizontal infrastructure play. The vertical intelligence that is needed, to be able to bring in a member, our patient specific longitudinal intelligence requires multiple such platforms needing to talk to each other. That's where the role of system integrators like us is super important, and I go back to the same three things I spoke about earlier, that unify data fabric and orchestration. This is not the single vendor play. It's about this orchestrations and the intelligence layer, built on top of all these platforms and the different systems being brought together, they can all interoperate very well, to be able to offer this orchestrations, to offer the vertical longitudinal intelligence. But uh, patient level, at the member level that is needed to provide and to address a care, to take care of pre auth, to take care of a health worker, to be able to address a 70 year old Medicare member. who could be in a deserted area, not having access to it, to be able to do such things. Of course, this integration is still an important piece to bring these things together, and that's why these orchestrations on top of it, the intelligence layer, is the key critical point to move towards the AI front door. Thank you for you know, tying all of that together. Now we're moving to the last question for the day. And Karthik, I'm going to put you on a spot a little bit. So, proceeding with the last question. The role of IT services and consulting partners in healthcare has changed dramatically. Three years ago, a company like Brillio would have been brought in to build like a patient portal, like or provide a portal, right? Now we're being asked to build AI powered care pathways, and you said being accountable for the outcomes. So, with all of these things at hand,

right, PHI, consent management, uh, making sure that, uh, you know, it's actually uh, it's not hallucinating. All of these. How do you see the role of IT partners evolving in this age of AI? Perfect You tied 2 things into it. One from a blue perspective, absolutely, and a market perspective. If I talk about below perspective 3 years back itself, we were doing outcome based engagements when others were still getting into the deliverable based engagements. So let me switch to a market perspective now. Instead of talking about our own models of how we do things, in a more collaborative way. This goes back to few things I'm talking about, a couple of minutes back too. In terms of the evolution has happened from additional 1st to the AI front door based journey of doing things, the picture 1st all used to be, here is my well carved at spec, obviously. obviously, the well card out is only 50, 60% ready. It has to be worked upon. There are multiple dependencies that needs to be taken care, right from the infrastructures, to the requirements, to the data plumbing APIs, all such kind of things to be able to make that deliverable happen. And that required uh, engineering strength, governance capability, ability to navigate the ecosystem to be able to get things done to make the things happen. But now is a scenario where you need a domain strength. When you're talking about AI, it's no more. Business will bring the domain, system integrators can just deliver engineering related capabilities. That's a failure model. Such model is not going to last. Now I can talk about it. That's where we adopted this even 3 years back. Since then, to now, we always have been going with this, which has put that in a comfortable zone to be able to be taking these many, many AI friend door-based deliverables in a successful manner, because our every delivery team composition is combined with domain and tech and the delivery people combining together. I'm not trying to. say the same thing. I'm not trying to brilliant propaganda

here, but I'm trying to address the question about what is the fundamental change that has already happened? In terms of this outcome-based engagements, it is important for one, the team that is delivering to understand what it takes to bring in data from a clinical notes, which is unstructured. What it takes to bring in the data from EHR like Epic Serner. What it takes to bring a data from my claim system, and my legacy old systems that are in their own formats, CMS mandates exist, if HAR exist, many of them exist in the form of batch processing today to take care of the checkmark. But when you have to deal with these outcomes, they all need to come together to interoperate in a real-time needs. That's where you need to know because there are implications of what applies when, and there are regulations that you need to be complying to. It's just not the regulations of the US level. There are states specific regulations you need to comply to for each and everything. The engineering team cannot say I'm waiting for my, this 9 person to come and clarify this. I'm waiting for this business owner to come and tell me this. You need to have an opinion, you need to work, collaborate together with a client, to get to that outcome because you have signed for the outcome. You are not just signed up for an engineering deliverable. So that's the need for the system integrators to be able to be successful in this journey of making AI friend board successful for our clients and eventually make it successful. for many of us. yeah. I was just gonna say, I couldn't agree more. So I really couldn't. I do think that now more than ever, you have to have that sort of subject matter expertise as the translator role, to work alongside the engineering teams, and clients are expecting that now. If you show up and you don't have that embedded in the team, it's very difficult to then communicate with the client, 1st of all, what the technology is and is not, as we've said, the additional steps we need to take to build AI at scale, and then 3rd, how to set the right

measurement framework in place. So working together, engineers, and SMEs, domain experts, I think the industry, when I talk about the consulting industry, IT services, has tried that before. Um, but I see far more effort there now than I did in the past particularly here at Brillio, right? I mean, you see you see that on the couch. So, so thank you for that question and thank you for answering it that way.