How to Better Engage Your Physician Customers Through a Unique Learning Platform: Interview with Dr. Doug Seifert

In this interview with Doug Seifert, we learn how the Syandus platform can help to change physician behavior through experiential promotional learning. Here are some of the points we are going to cover:

- The challenges and problems Doug experienced that led to the creation of the Syandus platform.
- What does it take for physicians to change or re-evaluate their treatment approach?
- How do experiential simulations work and why are they so much better?
- How does the Syandus platform add value to physician interactions?
- Why is Syandus extending its platform to patients and how did this actually come about?

Scott Nelson: Hello. Hello, everyone. Welcome to another edition of Medsider. This is your host, Scott Nelson. For those of you who are listening to the show for the first or the second time, the goal is simple. I bring on dynamic and interesting medtech and medical device stakeholders with the simple goal of learning as much as possible, to glean insights, to glean experiences, learn from successes and failures so we can take that knowledge and apply it to our own careers, our own little ecosystem, so that we can become better and become the linchpin with whatever aspect we're in, in terms of our job. So, today's guest is Doug Seifert. He is the President and CEO of Syandus. So welcome to the show, Doug. Appreciate your coming on.

Doug Seifert: Oh, thank you very much, Scott.

Scott Nelson: Okay. So, let's first start with Syandus, and then we'll learn a little bit about your background, and then we'll dig into the rest of the content of the interview.

Doug Seifert: Sure. Over the last 10 years at Syandus, I've been immersed in how to use and advanced digital technology and engineering design to really support healthcare professionals and patients for improved outcomes. I believe that my academic training as a Ph.D. in Biochemical Engineering, BS in Biology really has given me a different perspective and approach to the problem.

Before Syandus I was at Merck Research Labs for 12 years, ran their various departments in the bioprocessing/engineering area, and also launched several vaccines and championed the design of their biologics pilot plant there. It was there where I really realized the challenges of communicating complexity in life science and how some of the entertainment technologies available then could be really leveraged to enhance that and address that problem. So, I decided to climb my scales in a completely different way and started Syandus, and that's how Syandus began.

Scott Nelson: Okay. So Syandus 10 years ago, that's like 100 years in terms of the technology world. So, that's quite a while ago, a lot of change, and I have to think going back to 10 years,

what were some of the main challenges and problems that you saw in educating and teaching healthcare professionals back when you were working at Merck?

Doug Seifert: Yeah. I think we saw first the complexity of just life science and medicine in general, and I think the example would be that we often apply linear solutions to highly nonlinear problems. It sounds like something an engineer would say, right? So, for example, a physician can go through one case study, a second case study, a third case study, and when that patient comes in their office it's not going to look like any of those case studies, so that knowledge really isn't translated into practice. So, then if you look at, how can you apply some modern game technologies which just have advanced even further over the past decade.

If you combine this game engine technology with systems engineering, it could allow us to approach a problem in a completely new way. For example, in that case, instead of having these separate case studies, now imagine that we immerse the doctor in an environment, or a system if you will, where they can create what-if scenarios and create different types of patients and see how those different patient types create different types of patterns and they can see the system as a whole rather than from a linear case study.

Scott Nelson: Okay. I like the description, linear versus nonlinear. When you first said that I thought, "Oh no, you're going to have to do a little explaining. That whizzed by my head." But the example that you used of case study after case study after case study and then in comes a real patient and a lot of times that learning is hard to apply to the real patient when just looking at text and pictures and images from various case studies. Can you go into that in a little bit more detail? Why do you think that's so hard to translate, and why did you choose the gaming environment in building out the platform at Syandus?

Doug Seifert: Yeah. So, our ultimate goal is really to be able to support the healthcare professionals in their practice, and now patients, and we'll talk about that hopefully a little further down the line. What we had is this very powerful technology. It's real-time interaction that it actually is responding in intelligence ways, and even as an entertainment, as a game, it's responding in a million intelligent ways to underlying algorithms. So, what we're doing is we're changing those algorithms from being a game and what we've developed is nothing like a game, but we're applying that same technology. The underlying algorithms now are about the systems and the medical science and so it allows us to create these virtual experiences that they can learn virtually.

Because if you think back to even thousands of years ago, how do humans learn? Well, the apprenticeship model, where you're actually learning a craft alongside an expert. So, what we do is we capture that knowledge of that expert in software, and then allow others to then virtually manipulate that world to see different outcomes. For example, a differential diagnosis. You can build hundreds of different patients that they are a certain diagnosis versus something else, and so you can actually help them understand the patterns that would create that sort of diagnosis versus it being something else. So, that's really the power of the technology and allowing them to create a virtual experience that really wasn't available really before game technology and it's just been further advanced.

Scott Nelson: Okay. So, a virtual apprenticeship, is that maybe like a two-word description maybe of the goal that you're trying to accomplish with Syandus?

Doug Seifert: Exactly. Exactly. We're using what we consider an intelligent simulation platform to really create that. A virtual apprenticeship is a very good way of describing it. It's very similar to a virtual preceptorship, which is done in healthcare and so I think that's a fair description.

Scott Nelson: Okay. So, when you started building out this virtual apprenticeship, this technology, the Syandus platform, that was nearly 10 years ago. I'm sure it has evolved quite a bit. I don't necessarily want to get into systems engineering and whatnot but in healthcare, I've heard the quote being used that people in healthcare are allergic to technology, and I've certainly seen that firsthand. I'm sure you have. Did you experience that early on when you were building out this platform, and maybe even still experience it today when the traditional approach to educating physicians, whether it's med school or residency or fellowship, has been a certain way and then trying to apply virtual gaming methodology to that? Did you see that? Do you still see that today?

Doug Seifert: Sure. Yeah. I think very much so. I think at the beginning we were very far ahead of the curve and we really didn't appreciate how far ahead we were at the beginning. I think, fortunately, now that the industry is catching up very quickly, and I think it's catching up, there are a couple of different pieces to it. When we first started out, one of the biggest barriers was technology. If you were to think back 10 years ago what type of software, what type of hardware would you need to run a typical game, it was more of high-end software or high-end hardware. Now, virtually most computers have no problem, none of them really have any problem playing games. In fact, they're now being translated onto tablets and even mobile devices. So, that's all progressing, and the technology piece is not a barrier at all.

So, the second piece to that is then this whole concept of a different approach to learning and structure with a challenging upfront and there are two ways that we address that. First was we've received an initial grant from the National Science Foundation, an SBIR grant, and then we've received several awards since then. Typically, these awards are very hard to obtain, less than 3% of the companies that go through the two-phase process for an SBIR award, and we've gone through that process three times.

So, that's allowed us to build a very robust platform, and with that, we found some early adapters within the pharmaceutical industry that were themselves ahead of the curve and we've collaborated on building these early intelligence simulations and building up a platform. That's really how we got started.

Scott Nelson: Okay. Excuse me for the pauses, I'm just jotting down notes as you speak here. So, the grant from the National Science Foundation, collaborating with pharmaceutical companies, and your customers now, are they primarily pharmaceutical companies that are leveraging your platform?

Doug Seifert: It's growing more diverse. I mean, we started out with pharmaceutical companies being the typical sponsor, but we have other sponsors now, medical society sponsors, and we're also speaking with managed care from more the patient education side as well.

Scott Nelson: Okay. You mentioned that you were able to collaborate with some pharmaceutical companies that were ahead of the curve themselves, and so obviously the interest, the passions were aligned. Can you pinpoint a few things that speed up to five years down the road, and maybe even over the past five years when you've been able to bring on more healthcare clients. Are there a few things that come to mind in terms of other companies catching up to this new wave of education, physician education?

Doug Seifert: Yeah. Yeah, I think that where we see some of the changes, it's really catching up to digital.

Scott Nelson: Okay.

Doug Seifert: That's really where we have the digital solution. One of the challenges was, okay, we've built one of our intelligence simulations, great. How do we get it to the doctors? How do we get it out there? How do we use it? So, what we ended up doing was building a delivery platform and then the back end. So, there are two things they want. One, how do we get it to doctors? We built that delivery platform that allowed it to be distributed very easily electronically and integrated into all their marketing digital channels as well as non-digital channels.

We have a technology called a Web Code, which is a very simple four-digit code that you can attach to any non-digital. It could go to a sales rep. It could be incorporated into any written material, and they can go to alivemed.com and they can enter the code and they would be able to quickly download the resource. So, we have provided that sort of delivery mechanism. Then the second thing is the analytics, the back end analytics to measure results. So, we now have the capability of measuring all the results of what's happening and the educational experience so that it can be optimized over time.

Scott Nelson: Okay, so that pharmaceutical company that may be said, you know, Doug, I don't know if we're necessarily ready for that. Well, fast forward five years, they see that you've made the content, in essence, or the platform available through a number of different ways and accessible from pretty much anywhere. And then the second part would be that they can see the ROI, maybe that's not the best description but for lack of a better description I should say they can see the ROI in partnering with the Syandus platform. Is that right?

Doug Seifert: Yes.

Scott Nelson: Okay. Very good. Okay, let's jump into that example, ABC Pharmaceutical Company or ABC Healthcare Company, whoever wants to leverage your platform. What's in it for them? Their goal is to of course educate physicians about a certain therapy for a patient or a certain disease state and they, of course, have products that probably meet that in the form of therapy.

So, they want more or less increased sales, increased market share, etc. So, what's in it for that pharmaceutical company?

Doug Seifert: Yeah, I think where we come in is when there's complexity out there, and when they look at their brand and they look at, what are the barriers, the clinical barriers, to them adopting our therapy or adopting our device or adopting our test? When you identify those clinical barriers, complex barriers, that really becomes the foundation of what we can help them provide, is to be able to provide an intelligent simulation that would help the physician through pattern recognition recognize how to overcome that barrier, whether that barrier's a differential diagnosis, how to incorporate a particular device into their treatment protocol, when to employ a certain diagnostic test.

We can provide that experience to help the physician learn virtually how to actually do that and to understand maybe the disease state, some of the new aspects of the disease state, which then allow them where this new device or the new therapy now integrate very well, and they just don't understand those advances. So, we can provide that level of making that complexity very simple to understand and communicate in a simple and exciting way. I think what that is it provides valuable content, and it allows the physician when they see it, they tend to lean forward because they see after they interacting with it that there is something underneath.

It's responding in ways that do feel intelligent, that is providing additional information and layers of information. That's really what intrigues physicians and gets them excited about it, and that's really what drives a sustained interaction. The fact is running on a game engine I think helps with upfront engagement, but a sustained engagement really comes from adding the underlying algorithms that create the intelligence where they can interact and learn.

Scott Nelson: Okay. For those of you who are kind of catching this mid-interview, I'm with Doug Seifert. He's the President and CEO of Syandus. In looking at your website, you've got a couple of different quotes from customers, one of them in particular. There are a couple that stands out but one of them I just got here on my notes, "These tools are helping us have longer, deeper conversations with our docs." I'm sure that's from one of your customers that you captured that quote from but that's interesting because that's a challenge, whether it's in terms of sales and marketing, whether you're a pharmaceutical company, a medtech company, whether you're health, IT, medical device, etc., You're trying to capture the attention of your physician customers and be able to engage in a conversation versus a pitch, a sales or marketing pitch. So, do you have a couple of examples of how your platform actually enables healthcare companies to have that sort of engagement with their physicians then?

Doug Seifert: Yeah, we have probably several.

Scott Nelson: Right. Maybe one, I don't want to make it too complicated, but maybe just one example that really rings true for those in the audience that are kind of wondering how can I leverage a platform like Syandus to experience that same sort of thing, the engaged physician that I'm looking for.

Doug Seifert: Yeah, I think one of the things that it is that when you look at a lot of what is out there it's created on some of the same platforms that are out there and available to everyone, so everything looks the same and kind of behaves the same way. What we're providing is very unique and different and I think it provides that deeper learning experience because the underlying technology is much deeper than, let's say, comparing it to something that you have on a webpage or flash or something like that. It's much deeper than that. To give you an example, some examples, we can even go back to something pharma has been battling with in the past has been how to get physicians to dinner meetings. Now it's very difficult to get physicians to dinner meetings.

Scott Nelson: Yeah.

Doug Seifert: But back then it was, how do you get physicians to dinner meetings? I mean, we're just doing PowerPoint slides.

Scott Nelson: Yeah.

Doug Seifert: So, they were starting to use our simulations in these meetings, and it was just ramping up the audience attendance, and also the audience responses from the events were great. We were talking to one speaker and he said, "I definitely had the audience, and they were all really in tune with what I was presenting," and then I looked along the back and the whole wait staff of the restaurant where he was presenting was also in the room looking. They were looking at the breathing log and what's going on. They'd never seen anything like this before.

Scott Nelson: Yeah.

Doug Seifert: And so, I think it does attract that attention, and that really led us to when we saw that the dinner meetings were dying down, and then you're saying, well, now what are we doing? Well, we're putting these PowerPoint slide presentations on the web. Now, how are they going to be any better there?

Scott Nelson: Yeah.

Doug Seifert: So, what we did was we've created what we call simulation events, so you can actually go into a simulation and physicians, a speaker, can join a session, and physicians from all over the country, let's say 10, could get together, join a session and be led through the session with the speaker. It's all using multiplayer game technology so it's all being synchronized. Now that you can actually experience going through with a speaker, at any point, the speaker can then say, "Okay, now let's release control. I'm going to release control to you, let you go ahead and you look at the next patient or put the disease in this new state," Let them now work on their own, ask questions and so now they really become like the apprenticeship model where they can ask questions, and then at any point, they can take control back and continue on. So, it can become a very intimate type of interaction between peers and it's online, and so it creates a new way of interacting in the digital study.

Scott Nelson: I love that example. I mean, it's that one extra piece that would allow for a lot of fodder, a lot of discussions, a lot of interest at that example dinner meeting that you just provided. I don't want to overdo the quotes here, but it brings me to the other one that I saw on your website as well, and it's, "I wish we had this in med school." I'm sure you probably get that reaction a lot, but in terms of the experience level of physicians, do you find that younger physicians, just out of residency, for example, would get more value out of the Syandus platform, or is it all over the map? I mean, you've got both young and veteran docs that can appreciate and learn a thing or two that they may not have otherwise known.

Doug Seifert: Yeah, I think that it's true that a younger audience would get technology faster, but I think like the average gamer today is 35 so that puts us in the middle. I mean, I think you cover a pretty wide range, and I would also say that we did a lot of work with speaker training and I think the demographic there was more experienced leaders, and I think it adapted very well for that audience. So, I think it does go across all the different demographics as well.

Scott Nelson: Okay. Is this platform being used at conferences, at some major medical conferences? I mean, there aren't so many anymore but is it actually being used for podium talks?

Doug Seifert: It's been used for podium talks. It's also been used on the event floor just showing on the big screen, and then they can be giving out what I mentioned for the web code cards to say, now you can have your own copy. So, it can be used that way, so it's been used in both venues.

Scott Nelson: Okay. Very cool. So, before we transition to kind of the side topic, which is taking the Syandus platform and applying it to patients is there anything else that we haven't covered that you want to mention in regards to using the Syandus platform to help engage physicians at a whole new level if you're a healthcare company?

Doug Seifert: You know, I think it really comes down to, what we're about is really using the technology and the platform to really create pattern recognition so that we can help physicians and patients to be able to recognize new things and integrate new things into their thinking through virtually interacting and that's why we've gone from the physician side and looking now on the patient side as well, because the attributes of the platform, I think work very well with patients, particularly in the patients with chronic diseases.

Scott Nelson: Sure. That provides a good segue, and that's actually how we first came into contact. I think I read a piece about applying your platform to the patient community for further education. Can you explain like maybe how that came to be and then what you expect to achieve from it?

Doug Seifert: Yeah, I think it started with a lot of physicians communicating that they were using our simulations for patient education, even ones that weren't designed that way because they were saying that they were showing them the visuals, here's what's going on and here's what I'm going to do and this is how I think I can help you. It was providing that visual. Instead of using words, it was providing a visual to help communicate what's happening to the patient.

So, that started down that thinking path and then we started to look at chronic diseases, and of course, where healthcare costs are going up, and a lot of it rests with chronic disease and rests with the patient. The healthcare providers are very busy and overwhelmed, and so to be able to move some of the knowledge and the communication, over into a software platform then helped to bridge that gap of when a physician needs to intervene and provide them with something more personalized than what they have now. Today, a typical patient would go to the websites and they're inundated with tons of information.

Scott Nelson: Oh yeah. Yeah.

Doug Seifert: It's hard for them to know, Is this for me? Is this applicable to me? Should I focus here? Should I focus over there? It's very difficult, and so what we do is we can provide a more personalized experience through a simulation platform, and that's really where we're thinking.

Scott Nelson: Yeah, I wholeheartedly agree because I think for most people the first thing they do is type in, "My physician says I have this, insert chronic disease," and I type that into Google, and then taking the time to filter through the massive amount of information. Most of it's going to be not applicable at all. But trying to filter through that and determine whether or not it applies or it doesn't apply, what's good information, what's bad information, and then again most of the time it's just text and studies and whatnot. So, it's not animations, it's not simulations, etc.

Doug Seifert: Yeah.

Scott Nelson: So, I wholeheartedly agree. So, you're partnering with managed care companies then to distribute this sort of educational content then?

Doug Seifert: Yes, that's our focus.

Scott Nelson: Okay, and so the managed care company would benefit how?

Doug Seifert: Well, they're the ones that are really incurring the cost. So, you look at any chronic disease and there is a huge expenditure for that managed care company to support the healthcare cost for those individuals. So, anything we can do from the educational side to help that patient to be able to self-manage and understand how they can improve their health the better the outcomes, and of course that directly benefits the managed care companies.

Scott Nelson: Yeah, it makes a ton of sense. I type in Syandus or some URL or some domain name and I can see a wide variety of chronic diseases and for each chronic disease, there's a Syandus simulation or animation that I can look through. Do you ever see something like that then or the managed care company is going to private label these simulations themselves? How is that going to work?

Doug Seifert: I think we're working through that now.

Scott Nelson: Yeah.

Doug Seifert: How best to distribute it. I think each managed care company has its how best to reach their members and we'll work with them to do that.

Scott Nelson: Cool. Cool. Very good. So, Doug, you've certainly been on a very interesting run over the past two years, or past 10 years I should say, with Syandus. Any advice that you would have for other ambitious healthcare folks that are listening to this interview, maybe one or two big things that stand out in terms of advice that you'd like to give the audience?

Doug Seifert: That's a challenging question. Now, I think the thing that we've learned over the years is whether you're speaking to your healthcare professionals or patients. It's focusing on what's valuable to them, solving the problems that they face, and by solving the problems that they face I think it allows whatever you're trying to reach them to help them understand. Whether it's a pharmaceutical drug or it's a diagnostic test or device. Just by providing that valuable education and then aligning that with your technology or your product, I think it really provides a real benefit to the healthcare community and I think it does in the end increase sales and make a difference.

Scott Nelson: Yeah. Yeah. No doubt. I think you mentioned earlier the idea of getting physicians to lean forward instead of back, and I think anyone, whether it's pharma, medtech, med device, etc., can really appreciate that, and the goal would be to get your physician to lean forward as you mentioned. One of the few ways that we have left to do that is through really good valuable education where we can actually engage that physician in a clinical conversation, and granted I'm no expert when it comes to Syandus, but being able to use your unique platform to accomplish that would be invaluable. So, cool stuff, Doug. I really appreciate you coming on. For those listening that want to learn more about Syandus, where would you have them go?

Doug Seifert: They can go to www.syandus.com and check us out. We are going to be updating our website because a lot's been going on. So, we're going to be updating it shortly, but that's a good starting point.

Scott Nelson: Alright. Very good. www.syandus.com. That's S-Y-A-N-D-U-S dot com. Very good. As I mentioned before, Doug, really appreciate you coming on and teaching us a little bit more about how to best educate our physician customers through your unique platform. So, really appreciate it.

Doug Seifert: Well, thank you very much.

Scott Nelson: Alright, I'll have you hold on the line there, Doug, but for those listening, thanks again for joining us. Again, a good way to consume these Medsider interviews is through iTunes. Just do an iTunes search for Medsider. The podcast will pop up. You can subscribe for free, no charge at all, and that way all the new interviews will automatically download to your iTunes account for free. Whether you use an iPhone, an iPad, iPod, etc., whatever device you use, those interviews will automatically sync and download for free. So, it's a good way to consume the content if you're driving, if you're working out, if you're taking a jog, etc. So, go do an iTunes search and subscribe to the podcast for free.

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