Savyon Amit (pull quote intro): “For us, we are very focused and deliberate with what we want to achieve through digital health, and we have different objectives for the commercial organizations, different objectives for the R&D organizations, and something that is combined and mutual for both of them.”

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Tom Lehmann: Hello and welcome to Driving Digital in Biopharma. I’m your host Tom Lehmann. In this episode, we continue our podcast series on how digital capabilities and digital leaders are transforming the Biopharma industry. Our guest for today’s episode is Savyon Amit. He’s the global head of digital partnerships at AstraZeneca. And in addition to his digital partnership responsibilities, he also oversees a center of excellence where he focuses on digital health activities across the whole organization. Savyon brings over two decades of unique experience and deep domain expertise in pharmaceuticals, diagnostics, and digital health, it’s a background and much of our conversation together. Welcome Savyon to Driving Digital in Biopharma. It’s great to have you here today.

[01:09]

Savyon Amit: Thank you for having me.

Tom Lehmann: So, you have a varied set of experiences in your career before joining AstraZeneca to focus on digital and digital health. Let’s start our discussion today with a quick walk through of your path to your current role.

[01:24]

Savyon Amit: Absolutely. So, I think I have a pretty unique and not regular career that led me to this point. Born and raised Israel. I served in the military and after completion of my duties, I went into law school and practiced law for about 6 years as a commercial attorney. After that, I went on to pursue my MBA at the University of Chicago and upon graduation, I joined Abbott into their management development program. I stayed in Abbott for a long time between 2006 and 2019 within various roles of business development, insights and analytics, and strategic marketing. And my last role there was the head of insights and analytics for the diagnostics division. In that role, I was part of many strategy development and new product development, which led to my recruitment into the current role with AZ.

Tom Lehmann: Alright and so now, you’re in a leadership role at AstraZeneca in a space that has a potential for significant patient benefit and that being digital health. It maybe, before we
explore that further let’s start with the definition. As I expect that digital health probably means different things to different people. What’s the definition that you think is most appropriate or most useful?

Savyon Amit: Yeah, and we spent a significant amount of time at AstraZeneca working on a definition that everybody within all functions and area of the company would agree to. And as you can imagine that was not very easy. In the end, we choose a definition that is very much aligned to the regulatory requirements of digital health, and I’ll just read it to you. Digital health is the convergence of digital technologies with health to enhance health care delivery, enabling patients, providers, peers, pharma, and the life science industry to improve health and wellness across the care pathway. Beyond that we have 5 different buckets that we defined of digital health and those are mobile health, telehealth, software as a medical device, digital health systems, and health analytics.

Tom Lehmann: Okay, that’s useful and I think what I like about it is the breath of it, right. There’s a lot that can fit within that. I think in the first part of that definition, what's interesting is it does reflect the broader health care ecosystem. If you will around the various different players necessary in healthcare delivery, not just the Biofarm organization that that you come from but also just again the other players that are there, as well as starts to provide some examples of what that actually translates to. So, as you look at that definition and as you're looking at what is happening at AstraZeneca. How has that the focus that you just outlined translated into a specific set of strategic priorities for AstraZeneca?

Savyon Amit: Sure, and I think that what has been holding digital health evolution has been this maybe lack of priorities within the different players. For us, we are very focused and deliberate with what we want to achieve through digital health. And we have different objectives for the commercial organizations, different objectives for the R&D organizations and something that is combined and mutual for both of them. So, for the commercial organization, we’re talking about three key priorities. It is patient identification and activation. Care optimization and treatment and intensification and achieving better outcomes and keeping patients controlled.

For the R&D organization, it is a lot about scaling patient centric trials. It is about digital pathology and diagnostics, digital therapeutics and management platforms. And it is about reimagining health care and new clinical trials. The underlying and combined objective for both of them is to generate real world data and evidence within everything that we do.

Tom Lehmann: So, are you seeing the commercial and R&D organizations coming together to work on this? Because one of the things that we often see in the industry is very different approaches depending on what part of the organization you're looking at, where R&D may be off doing one thing on its own. Commercial going in a different direction. What's your experience been as far as the two very different parts of the organization coming together to collaborate on something like digital health?

Savyon Amit: Well, there are areas where the objectives are mutually exclusive. And I would say mostly within trial design and management. You see less convergence within the commercial objectives. But when it comes to touching the
patients and touching and improving outcome whether it starts in the trial part but then later continues post launch. There is a lot of alignment between the two organizations and a lot of sharing of expertise within the different functions.

**Tom Lehmann:** Are you seeing R&D as essentially a proof of concept, so think of it as more smaller scale insights into what digital health could be that you then look to get to commercial scale as you go from R&D into commercial?

[07:22]

**Savyon Amit:** Not necessarily. A lot of pilots and proofs of concept actually start within the commercial space. It is more about the problem that we are trying to solve rather than whether it comes or the origin of the idea and the program. Again, that being said at scale things will lend themselves to being more aligned to the commercial objectives of the organization.

**Tom Lehmann:** Okay understood. So again, if I'd look at the 6 areas that you outlined. Those needs or those opportunities for R&D maybe unique and specific to R&D and therefore the digital health type solutions will be tailored to that type of environment or that set of needs versus the commercial side. Different set of needs. Different set of objectives or opportunities therefore the solutions would be much more specific to commercial. Is that essentially how you're seeing it play out then?

[08:19]

**Savyon Amit:** Exactly. And again, there could be things that are initially developed or originate within R&D. Let's take for example digital diagnostics that then carry on into the commercial sized. But again, not necessarily it depends on the use case of the technology or the solution. If I go back to your initial question about alignment between commercial and R&D, a big part of it is within language and communication. And the ability of the two organizations to communicate clearly, why we're doing things, what is the value that we're doing things. And to follow similar processes as opportunities goes through the approval gates.

**Tom Lehmann:** So, let's stay on that value point for a moment, because that's something that has come up in probably almost every episode that we've had of this series. And one of the challenges that we have seen across the industry and one of the discussions points we've had is just the ability to articulate the associated value of digital. And as such, often limits the ability to really go from perhaps experiment or proof of concept into something that has much more broad utility within or outside the organization. What have you seen there? What framework have you applied to address that challenge?

[09:53]

**Savyon Amit:** So, we have developed a 6-stage non-linear framework to assess and to articulate all opportunities related to digital health. They're divided into two key topics. One about solution development and the other about the go-to market strategy. And as always it needs to start with the problem statement. What are we trying to solve for? Then do we have the right solution for this opportunity in need? How are we developing the solution? Internally, externally through partnership, what is our route to market, and who's our customer? What is the revenue model, who pays, how, when? And then after launch, how do you manage the lifestyle of this opportunity in a way that is very different than the lifestyle management of the of a drug?

Now, underlying those 6 stages is maybe most important one and that is value. What is the value to the health ecosystem including patients,
providers, payers but not less important to our company itself? Because what you often see as you alluded to is that projects or pilots start and then fizzle away, because the value to the funding party has not been established. And many times, it starts without even having a hypothesis of how it would provide such value. With that happens, projects fail.

Tom Lehmann: And are you seeing individuals or groups or parts of the organization getting better at being able to understand and articulate that value? And as you said, not just to your organization but also broadly out to patients, providers, and payers. Are people getting better in their ability to understand and articulate that?

[12:01]

Savyon Amit: They are definitely getting better at it with the experience, and you need to remember that this whole thing is still pretty nascent within the pharmaceutical industry. So, nobody has a lot of experience with pulling such opportunities from start to finish. I believe that with the framework that we put together and the tools that are part of it, we enable team members and decision makers to articulate the different steps within the framework and the value that it brings. Again, not always easy and in many cases since we don't have the experience, many assumptions will need to be laid out as we develop a package for approval.

But as I continuously say to everybody within the organization if there is no strong hypothesis for value there is no way that it could be proven as people move along with and continue to develop the understanding of what it is that they're building.

Tom Lehmann: That makes sense and certainly to your point if there's, even if you don't have all of the measurements sorted out you need to at least have a strong hypothesis. Otherwise again why invest in it? Why put the energy into it? There's lots of other things that you could prioritize over what you’re talking about gear. So, it certainly surely does make sense, and as you said in your framework but beginning with a problem statement is also critical. If you have that need articulated, well understood, you can derive value in some form from that. But if you don't start with that and you're starting with whatever new snazzy new technology or something else that piques the interest of somebody. You're starting with a solution and trying to find a problem to match it to which I which I imagine you've probably had some experience with as well. But it is important to pull the problem statement up to the front.

[14:01]

Savyon Amit: Absolutely and listen, AstraZeneca is full of very creative, very passionate, entrepreneurial People that really care about what they do and the patients and providers that we serve. And yes, often times it starts with a technology or with a company that comes to them with an idea, and then we're looking for the problem. And part of the discipline that everybody needs to have is first start with a problem. First know what you're solving for and then go find out and figure out how to solve it.

Tom Lehmann: So, let's see if we can get to a specific example here or maybe a couple of examples. Let me know what's what works best for you. So, you laid out several different strategic priorities that AstraZeneca has really articulated, and a framework for thinking about a life cycle here. Can you take me through or an example or a couple of examples of how you've sort of just stepped through from problem statement on your way to that go-to market strategy?

[15:09]
Savyon Amit: I'll do my best all though this framework was launched late summer, so we don't have significant experience with taking opportunities end to end. That being said we have opportunities that went through most of the steps that I articulated, and I hope I could share some examples with you. It started with deep understanding followed by significant research and experienced design related to the issues that chronic patients have in between visits. And in between most of the care to patients is given 95% of it not in front of their providers, but when they're at home or elsewhere.

So, that was the key problem statement of how do you can better manage chronic diseases in this time. We later looked into different solution identification and found that regardless of the different type of products and companies that operate in the space. The biggest problem that or the key thing that we could not find is such a product that is aligned and is connected into the current clinic workflow or the EMR. So, we set on developing the product and we quickly realized not everything we could do, and that we would need partners in the development. Some of which are common knowledge such as our partnerships with Bright Insight is the core data platform on which the solution is built.

I think that now as we continue to evolve the project and we already have patients on the product, the route to market need to be further crystallized including the revenue model. And again, the thinking had different pivots from the original hypothesis about who would pay for it with. Ideas ranging from patients to Providers, to payers, and even to pharma companies. And hopefully, the correct revenue mall will be found and crystallized very soon for this.

Tom Lehmann: So, when you look at that as an example, I think it's actually it's a good one coming back to a couple things that you have mentioned. Starting with the definition for digital health which consider the patients, providers, payers, pharma, the industry more broadly. When you talked a little bit about the value, which again goes to potentially different stakeholders here. What do you see as the role of the Biopharma organization or this part of the industry in digital health and the future of digital health?

[18:29]

Savyon Amit: I think that's the million- or billion-dollar question here. What is the value or what is the role and should there be a role for pharma companies? Now, if you go back to the commercial objectives that I laid out earlier, you would see that in the end as we said there needs to be clear value to the entire ecosystem including to the pharma company and that by itself is limiting. So, it means that very few opportunities would pass all the hurdles and could see a successful and long participation from the pharma companies. In more cases, the direct benefit or value to the pharmaceutical company will just not be there. So, that begs the question of, whose role is it to lead in the development of digital health opportunities. And how should pharma companies beyond this being the new thing of today continue to think about it, and integrate this into their approach to both product development and commercialization.

Tom Lehmann: Well, it certainly raises the question if I go all the way upstream into the R&D space whereas you think about the products that are being developed and potentially the companion digital devices capabilities that comes along with that. How much does a biopharma organization seek to invest in that, right? Part of this would be, okay, if this is helpful for the ultimate clinical outcome you're trying to get to, that it makes a lot of sense. If it is a maybe
tangential benefit but not the direct benefit, then maybe there's less interest. Because ultimately, it doesn't tie to the label, it doesn't tie to the ultimate, what's measured by the payer side. So, I think this question, right, not just the commercial side. I think we're seeing this move all the way up Stream to say at the R&D side. What role do you play and ultimately what's the value to the patient? What's the value to healthcare provision more broadly?

[Savoy Amit]: Yeah, and let me go a level even deeper. Something it's not enough that there is a direct or indirect value that it brings to let's say to us. Things are measured within the at least within the commercial space are measured within the return on investment. And often times, you would find that the investment in this area with all its challenges is just too high to merit the us being a key funder of a project.

[Tom Lehmann]: It makes sense, and I guess as you look, maybe look to the future here and say, what are the impediments that need to be moved in order for this to really become much more of a standard maybe complement to your typical pharmaceutical product.

[Savoy Amit]: I think that once the monetization aspects of digital health will be clear whether it's through reimbursement or willingness to pay from different partners it will make things easier for all parties including us. But unfortunately, it's still not there yet. Yes, there's been a lot of improvement and development and evolution and definitely in the last two years since COVID started. But it is still unclear of who pays and when for digital products. And that is a big impediment to our ability to continue investing in such programs. The other impediment is about data and mostly data sharing, because part of the value that that you could find in digital health is actually within the data per se.

And I think that Accenture talked and wrote about it at length about data is a currency. But if data is not freed to be used as a currency, then it could not bring the value that we are hoping for. I can speak, for pharma companies' data is immensely valuable when it comes to trial design, where it comes to product development, where it comes to understanding the patient experience, when it comes to promotional activities related to our products. So, there is a significant unlocking of value related to data that's needs to be done.

[Tom Lehmann]: In data and as you point as you pointed out the data as the currency across the certainly the R&D life cycle but even well beyond the R&D life cycle into the commercial side is absolutely it's an interesting way to look at it. Are you seeing the right type of progress in that space? Say, okay, there is a movement towards more data sharing. There's actually more of a free flow of data from external sources into usage by Biofarm organizations and then maybe the reverse flow as well saying that Biofarm organizations are beginning to share more out to the industry. Like, what's the state of affairs, if you will?

[Savoy Amit]: Yes, I see development and improvement maybe not at the rate that I would want to see it. I see improvement in several ways. One is the regulatory one that just enables more. The other one is from the providers themselves that were very tight with how they kept data and were unwilling to share it. And I would add to this the whole notion of who owns the data? Is it the
provider? Is it the patient? For which the answers are becoming clearer now or more clear now than they were in the past.

The third aspect is about technology. How do you take the data? How do you aggregate it? How do you normalize it? How do you arrange it in a way going from archaic desperate EMRs even within the same hospital into something that is more streamlined? And technology that also enables the deidentification or synthetization of data that allows for more for freer type of utilization outside of direct care.

**Tom Lehmann:** And do you see in that circumstance where you move to a place where it is again a freer flow of data perhaps more normalized or standardized, so you can actually pull these different data elements together. Do you see that the organization, your organization or maybe broadly the industry moving along the curve this okay now we can actually do something with it? so, you have all of this data. Let’s see if we can get past the data ownership part, we can get pass the standardization normalization and it flows. Do organizations have the capabilities to actually then make meaningful use out of that data?

**Savyon Amit:** Absolutely and you close the loop between the patient and the providers and more broadly into the system through different types of interventions that can happen, along the way or through better dialogue that happens in and when the patient visits their providers.

**Tom Lehmann:** Okay, make sense and that where, and that’s I think we’ve had conversations in other episodes here where you have this, at least on the R&D side, this push to incorporate connected devices into clinical trials and ultimately other ways to source data. At the end of the day, it’s it could be a whole bunch of noise, right. At the end of the day, you’ve introduced all sorts of additional data, but you’re not necessarily getting incremental value unless you’re tying an endpoint specifically to that. I think that again, as you’re just describing, this is where it play out, right. It ultimately, you have this new information, this new source of connection to the patients outside of either scheduled visits in a clinical trial or typical health care provider visits in a more of a market or product setting.

If you can actually create those points of
connection between, that's where if I'm a patient. I'm now seeing the value associated with whatever type of adherence you'd like me to have with a platform like the one that you had mentioned. Outside of that, it just feels like it could just be a lot of additional work for me as a patient with unclear benefit.

Savyon Amit: Yeah, and it is all about closing the loop. There are many different types of products or apps that creates some kind of data or engagement with either patients or their providers but unless our hypothesis is that unless a patient knows that there is somebody on the other hand ready and willing to act on this data and insights. They will not be as like to adopt this in a meaningful and in consistent way.

Tom Lehmann: And how are you seeing that very across the different regions around the globe. I imagine this is not a one size fit all model as you're thinking about digital health types of solutions. You laid out in the definition different elements to consider. How does this vary across the globe?

Savyon Amit: I think that the biggest, there are two key differences around the globe and when I compare the US let's say to Europe. The first one is the willingness to share data which in the US is a lot better. The other one is about willingness to pay. Where actually in Europe you see better structures and framework for payment. Because very often, the payer is also the provider in in countries where you have universal care delivered by the governments or by the countries. So, there is a lot more incentive for them to find efficient way to deliver care.

Tom Lehmann: Alright, thank you for sharing that. Again, that's inconsistent with what we've seen elsewhere again but in this particular space, right. Very dependent upon the healthcare system that exist within that region and people interact with that health care system. And ultimately as we think about long-term adoption of this, it may move at different paces depending on where we are in the world and the health care system that it has to fit within.

Savyon Amit: Yup.

Tom Lehmann: So, as you look to the future, right. You mentioned a number of things upfront around some of the example categories here. Things like mobile health and telehealth and software’s of medical device. What do you see as the bigger things that are going to play out? Give us a couple year time horizon, maybe next 3 to 5 years. What are the big ones that are going to play out do you think?

Savyon Amit: I think that the near term still belongs to the solutions that have an easier type of intervention and measurable impact on the patients. And many of these as we have seen have been in the mental and behavioral health and in things related to wellness. I think that a little bit beyond this we will see the evolution of disease management and different disease platforms that create better connections between patients and their providers. Maybe only in a little bit further type of the horizon will start seeing different type of solutions that could act really as an intervention going beyond those things, and have an impact on the key health problems that we have right now.

Tom Lehmann: Okay that's helpful. You mentioned in your, you said the early thoughts here around one part of your role is around digital health partnerships and the importance of that to
AstraZeneca. Can you just pour that just a little bit more and then maybe connect it back to maybe those time horizons to say what is the role of partnerships and how do you think about partnerships in the broader ecosystem of opportunity?

Savyon Amit: As I mentioned before, AstraZeneca is a very entrepreneur and somewhat decentralized type of organization. And this innovation within digital health and partnership within the ecosystem is something that we see flourish mostly at the local or market level. So, right now within what we call our A catalyst network we have over fifteen such innovation hubs in many countries around the world. In which our local teams and partner with the local ecosystem to find different solutions that are very relevant to their markets. We see a lot of overlap between what those different countries are trying to do and this is where from a global perspective my role is to try to streamline and make things more efficient and not have every market invent wheel in what they do with the ecosystem.

I'm sure that again because there are such big differences between the markets, whether it's about data, whether it's about technology, whether it's about payment models. Nobody knows where the next big thing will come from and the best way for us to be innovative is through such very broad partnering with many different parties.

Tom Lehmann: Okay alright it's helpful and certainly an important theme as you think about the future. There's a role that AstraZeneca or other Biofarm organizations will play and the need to partner with what's out there and to stay current with what is happening outside of your organization is important in a role like yours creates that that catalyst to make that happen. So certainly, see the value and the impact of that.

Savyon Amit: Yeah, and I think that we will see a lot more such collaboration and partnership even among different players within the pharma industry. I think that a good example for that is a recent initiative that we are part of a government sponsored AI laboratory out of Israel. In which different pharma companies including ourselves are collaborating with other players to create precompetitive of solutions that could benefit many different players.

Tom Lehmann: Well, it's a great example, right. We are definitely in an era of collaboration within this industry and I think it is certainly if you will be raising the water level for all. And I think certainly benefiting not only the patients we all serve but also the healthcare system, that the systems that these fits within. So, it's a great example of that and there are a number of those examples right now which is a great time in this industry.

Savyon Amit: Yep, for sure.

Tom Lehmann: So why don't I bring it to a close? This has been helpful. If I think about the path for this discussion, right. Starting with a bit of a definition which I think is important. There's a lot of different ways to interpret or to think about digital health. That translating into a set of priorities that AstraZeneca has and an area of focus. Which gives you I'd say a broad opportunity to make an impact here. The opportunities that exist within your organization to play a role to help try this but also as we talked a lot about just the how this connects into the ecosystem and the role of healthcare providers and payers and ultimately the patients who have to come along for the ride to be active in this.

I think it's been really helpful as well as just not only looking at the progress you've made, but also some of the challenges or the impediments. So,
this has been quite helpful and appreciate you joining and sharing and look forward to the next few years. I think you did a nice job of laying out what the next couple years could look like and where digital health can go. So, thank you again for joining today.

[38:29]

**Savyon Amit:** And thank you very much Tom for inviting to your podcast.

**Tom Lehmann:** A huge thank you to Savyon for joining me today. We started a conversation with the definition of Digital Health. As many of our podcast guests have discussed, the term Digital can mean many different things to different people and organizations. He shared how AstraZeneca has come to an aligned understanding of digital health with both specific and distinct digital health objectives while also being unified and complementary across the R&D and commercial functions. Which is often a challenge bringing both R&D and commercial together with a similar way of looking at things while recognized the differences between R&D and commercial.

We also discuss importance of articulating the value of digital from an organizational standpoint as well as value to the broader healthcare ecosystem including patients, providers, and payers. As that's also a critical consideration in addition to the view of value from a more of an internal perspective.

As we close up this episode, here's a few questions to consider. Are your organizations digital health initiatives aligned across functions and the broader ecosystem? What is the role of digital partnerships within your organization? And what are some of the challenges with your global digital health partnership strategy with different constituents have different needs? I invite you to connect with me on LinkedIn and share your thoughts and takeaways. Remember to like and subscribe to Driving Digital in Bio Pharma on your favorite podcast platforms, so you don't miss an episode. And until next time, this is Tom Lehmann with Driving Digital in Bio Pharma.

[40:03 Final]