



DRIVING DIGITAL IN BIOPHARMA – EPISODE ONE

PODCAST TRANSCRIPT

Tom Lehmann: Hello there and welcome to the Driving Digital in Biopharma podcast series. My name is Tom Lehmann and I am your host for today's discussion and also this series.

Within Accenture's Life Sciences business, I lead our Global Biopharmaceutical R&D Consulting Business. And in that role, I get the opportunity to spend the majority of my time with our clients and our people, not only focusing on developing digital strategies to enable R&D, but also working with clients to implement and scale digital technologies. And it's quite an experience to be able to see a client as they think through ultimately, their strategy, their vision, where they want to go, but also beginning to see them actually take that strategy into execution. And we'll talk a little bit about some of those topics today.

We are happy to kick off a new series of podcasts on this topic of Digitalization in Biopharma R&D. And in that, it'll be a mix of industry research and observations, as well as guest speakers, both from Accenture and the industry, who are in the forefront of driving digital transformations.

Today, we're going to talk about an industry research study that we conducted on the state of digitalization within Biopharma R&D. And it's worth noting that this topic has recently taken on even more relevance to the industry given the global impact and then the corresponding response to the COVID-19 pandemic. So, while we've seen digital and interest in digital, it has been really interesting over the last

couple of months just to see how some of those discussions have changed with COVID-19.

So, back to the study here, we conducted a similar industry study in 2016. And we're particularly interested in gathering a view of the progress the industry has made over the past few years. Because in the intervening time, we're seeing a number of things. First, we're seeing certain segments of the life sciences industry attracts substantial investment from global tech giants like Amazon and Apple and Google and Microsoft, with a real focus on artificial intelligence and using data and analytics, and frankly, other technologies to reshape traditional product development models and the delivery of patient care. We're seeing technologists generally, right, not just within life sciences, but across industries, advancing at such a rapid pace. And its impact in this industry is no exception.

We took a look at another study here by an organization called BenchSci, which is an Artificial Intelligence company that regularly tracks and updates a list of startups that are using AI and machine learning to both research as well as to develop drugs. And their lists started with just 37 companies back in November of 2017. And it's now grown to more than 230 as of April 2020. Again, just one indicator of the volume of activity happening in the industry.

When we initiated this research study, we expected a couple things. One is we expected to hear from industry executives that they generally see the value of digital, but we also anticipated



that the industry adoption will be slow in gaining real momentum. And then we also were expecting that the industry's view of value would be varied, but different companies would have a different perception around what value would come from digital. And we were hoping to get a little more of a clarity around what's standing in the way of progress.

I'm happy to be joined today by Katie Miinch, who is a leader in Accenture's Global Life Sciences R&D practice, and is one of the co-authors of the research study. So, Katie, welcome.

Katie Miinch: Thanks, Tom. Joining you from my home office in Pennsylvania, and really happy to be here.

Tom: Well, thank you for joining. Yes, the concept of home office is a little bit different these days. And certainly, the use of technology has changed over the past couple of months. And I assume you've had that experience as well.

Katie: I certainly have.

Tom: Alright, well, let's jump into it. So, you've been very active in the development of this study. So, why don't we just start with a little bit of the sort of who participated? What was the participation like in this study?

Katie: So, we had 250 executives respond to the survey. They spanned the globe in terms of where they were located, including respondents from North America, Europe and Asia. And the respondents were varying from R&D executives with titles, including Vice President, Senior Vice President and Executive Vice President, and spanned the breadth of our functional groups. So, groups like clinical, regulatory, pharmacovigilance, as well as folks who are in some of the supporting roles such as procurement, finance, etc. So, we really covered a breadth of folks in those respondents that we received.

Tom: That's a great set, right? So, essentially, as we look at the industry, what you just covered is a great cross section, right? You've got a

geographic cross section, and you have a level in the organization, the function that they represent, but also company size. And we'll get into some of those things as we go through the discussion today. So, thanks for sharing that. Let's start at a summary level. So, the time to do this study, it was in some ways a bit of a refresh from what we had done a few years ago. What were the top findings? What did it reveal at a summary level here?

Katie: There were really four things that became evident in the way that the data was able to be rolled up. And the first is we're moving toward a clear destination. Digital is very clearly seen as a driver towards achieving our industry goals. Despite all that, we see the respondents are tapping the brakes. There is a risk-averse culture that's impeding progress. And the respondents felt that they weren't quite there yet in the way that they wanted to be and able to adopt the full digitalization approach that they were looking for.

The third theme or the third area that we were able to pull out is staying in one lane. Digital is occurring in pockets or in silos, so within a function or within even a study for that matter. The fourth being navigating the curves. So, companies are facing both cultural and operational barriers that are impeding them from moving far with the full adoption.

Tom: Let's dig into some of those. So, four major findings, and in some ways, it sounds like a little bit of a confirmation of the hypotheses that we had at the beginning. But let's get into some of the details. So, you started out by talking about the industry moving towards a clear destination. So in tying that to the perceived value of digital, did that change a lot over the last few years?

Katie: It really did it. The response was up to 200% from our original survey in 2016. We found that three-quarters of the respondents or the companies who responded believe that digital will help drive their success. And to be honest, I think this is pretty evident in our day-to-day interactions with clients. We find ourselves often, or I find myself often having conversations about digital, regardless of the function or the role that the person is playing. Whereas back in 2016, I think there was a big focus on maybe



digital clinical or a broader digital agenda, but it's really increased and become a part of our daily conversations.

Tom: So you mentioned clinical, but just maybe more broadly, as you mentioned, with the respondents cut across the functions here, how does that 200% increase tie to what would a head of R&D would be interested in, those top level objectives for R&D?

Katie: So, from our survey, and I think consistent with what we are seeing in the industry is there's three major imperatives that R&D organizations are focused on. So, those include focusing on patient outcomes and driving towards operations, clinical trials, all activities related to R&D with putting the patient at the center of the things that we do.

The second is around improving productivity of R&D activities. So, I think regardless of industry, folks are always looking how to do things faster, cheaper. But in general, we know the pain points from the industry, it takes a long time to get products to market and cost a lot of money. So, definitely view digital as an opportunity to improve productivity.

And the third one is one that has definitely increased in the past couple of years, and one that we see much more often now, and that's around revitalizing the pipeline and enabling breakthrough science. So, thinking of different ways and new ways to bring products to market, but maybe even more specifically, developing products differently. So, using immunotherapy and different types of approaches to developing products that will improve patients' lives.

Tom: It certainly makes sense. And again, I would echo your experiences of just that the conversations that we're having and what we're seeing in the industry is across those themes. So, it's just the connectivity to the patient. And now more than ever, with the pandemic that we're dealing with, certainly is highly relevant, and just different ways to engage and really deliver a different type of patient outcome. Productivity, as you said, is always driving this industry. And we've seen a variety of different ways to use digital to enable that. But

interestingly, that becomes one of the top themes here.

And then your point of pipeline is an interesting one. If you think about the advent of digital companions and just digital therapeutics, and even just the complexity of the science in this, it certainly makes sense and in an interested of the course, how that will evolve over the next few years here. I would imagine that that there's a little bit of a different response depending around what function somebody is representing. So, the response to what's more or less valuable, if I'm sitting on the research side, versus I'm sitting in pharmacovigilance, or a regulatory would be different. What did the data show as far as some of those functional differences?

Katie: You know, it's really interesting when you sit back and you look at how the respondents interpreted and/or responded to these questions. When we talk about the patient outcomes, I think the respondents were generally consistent. Two functions stood out as ranking that as a bit lower, and that was pharmacovigilance, and regulatory. And when I say ranking that lower, I mean, that they didn't feel that digital would be the primary driver in order to achieve that particular imperative. So, that one was maybe not as surprising to me when you think about the role that pharmacovigilance and regulatory play and thinking through things like functions or clinical would have a higher response.

When we talk about productivity, again, generally consistent, although clinical and preclinical had a higher response and had a stronger belief that digital capabilities would help improve productivity. And this one wasn't It's surprising to me knowing the roles that the clinical and preclinical play, as well as the discussions that we're having, we're often talking with our clients about how digital capabilities can remove nonvalue-added activities and/or enable clinical operations or clinical activities, preclinical activities to cut down on time, or enable resources to do more with less.

The last one actually was the one that's most interesting to me. And I think the one that surprised me the most around revitalizing the pipeline with breakthrough science. While most

of the functions were consistent, regulatory was the one that actually rated this the highest amongst the functions, feeling that digital what helped this the most. And when I take a step back and think about where I've spent my time in the past years in the regulatory space and focusing on digitalizing regulatory, it never seemed to be about the pipeline, and always was perhaps about the productivity. But it was really interesting to me that they rated that one so high.

Tom: Indeed. And perhaps they're seeing something the other functions may not be seeing the sense of what's coming through the pipeline that ultimately will have to go through the regulatory process and how the complexity of that is increasing, and the data-oriented requirements are changing. So, it is interesting. I agree. As you look at the functions, it's not necessarily the one that you would have picked if you had to pick from one of them.

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Tom: So, I guess with that in mind, and maybe a little bit broader here, you think about digitalization, and how it can be interpreted, as far as the different types of digital technologies and in the application of those into the R&D process. What were the biggest areas to of companies to say, "Okay, these are the areas that we're going to see value from, we're going to likely put some investment in"? What are the ones that that rose to the top?

Katie: Great question. And I think this is one that resonated really the most with me in terms of the conversations that we've been having. But there were four areas that rose to the top like you said, and those were around using real-world data to enhance decision making. And I think most of our clients have or are working on a real-world data strategy, or figuring out how to combine various sets of data to make decisions.

The second was around leveraging open collaborations with other companies. Definitely a big theme in terms of working with external partners, whether it be to develop a product, to

partner on some sort of technology bill, but we're seeing a lot more precompetitive collaborations and collaborations to digitalize the way that we work.

The third being improving or better managing data across the enterprise. So, to me, this one's really closely tied to the real-world data piece that I talked about first, and the need to just better leverage the wealth of data that's available from an R&D perspective.

And then the fourth, and this one was actually lower and a bit surprising given the imperatives that we're focused on, but using digital capabilities to improve the patient experience. And my perspective is that this particular use case, if you will, seemed to be the use case that clients were most focused on four years ago when we did our initial survey. And while it's still very important, I think they have realized there are other obstacles that can be overcome that will make drugs available more readily quicker, and make the operations more seamless, which in the long term, puts the patient first, and gives them the experience really that they're looking to achieve.

Tom: Okay, helpful. And certainly, again, interesting as we reflect on what has changed over the past few years and where the priorities seem to be going in general, as you described a significant increase in the perceived value, large percentage of people generally seeing the value in this. Maybe it varies a little bit by functional area, maybe perhaps that that the technology choice may be a little bit different or how to employ that would be different.

You mentioned the beginning part here around this, this perception of risk aversion. I think you used the expression tapping the brakes. Help me understand that a little bit more. So, while there's value, there seems to be a little bit of hesitancy to be jumping in?

Katie: So, when I mentioned earlier that three-quarters of the companies believe that digital is the primary driver to achieve our imperatives, that really stood out. But at the same time, two-thirds of the respondents stated that there's an aversion to risk that's really preventing them from



embracing digital capabilities and achieving that full digitalization.

On top of that, while there's the aversion to risk, and obviously the strong belief that digital will be the primary driver, only a third of the companies are actually adopting digital as a key strategy.

Tom: It's a fascinating difference, between the perception of value versus the translation of that into action. Are you seeing a difference between the size of the company and how they're viewing this?

Katie: So, when the company revenue jumps above 10 billion, the number of respondents who felt the aversion to risk also jumped significantly higher. So, three-quarters of our respondents compared to two-thirds that responded in that 10 billion range or above 10 billion range that a risk-averse culture was preventing the adoption of digital capabilities.

Tom: It's interesting and perhaps a little bit more about sort of the company culture and the layers perhaps of decision making and just what it takes to actually move forward with some of this. And again, it's not too surprising, yet it is interesting, right? Because we do see some of the smaller companies are, at times, a little quicker to act on certain things, and maybe out of necessity. Whereas the larger companies, perhaps there's more layers or need to go through a different process. But it is interesting that the data supports that, right? We certainly see that in the industry and play out in various ways.

So, let's keep that moving into, Katie, what's actually happening. So, there is activity happening over the past few years that the number of client conversations we're having, the number of announcements that are out there, as I mentioned, all the startups that are showing up in this space, plus technology investments, clearly, there's activity happening. And you mentioned early on that there's either pockets or silos of activity, but maybe not at scale, right, when it comes down to it. Let's explore that a little bit more. So, is it happening, are we starting to see a translation of more of an enterprise strategy for digital showing across R&D? Is it really featuring more so in certain functions?

What is it actually looking like as far as the areas that it's happening?

Katie: Yeah, this one's really interesting, and honestly quite conflicting a little. When we take a step back and look at the data, the three-quarters of the company's respondents indicated that digital is important. Over 80% indicated that there's really strong alignment on the importance of digital across the enterprise. Yet, over three-quarters, actually over 80% also indicated that digital continues to happen in silos. And the silos part is the part that is not surprising, because it's something that we often have conversations about. We talk with our clients about how do we get out of these digital pockets? Or how do we get out of these proofs of concepts or these, we call it pilot paralysis often?

I remember even talking with a company whom had ended up testing the same digital capability in three different studies and didn't realize across the studies that it was being tested because they weren't able to move beyond an individual study and think about things at scale and/or the benefit that they could achieve. So, it's really interesting to hear about the strong alignment across the enterprise, across R&D and the belief that digital will be the factor that plays a role in achieving success, yet it's still really strongly continues to happen in these pockets or these silos.

Tom: I would say the general observation that we have had, there are some examples of where you're starting to see things scale, but there still seems to be a lot of experimentation. And part of that is probably related to the evolution of the technology. Part of it is related to the culture, as you mentioned before. But I would suspect there's other things? At the end of the day, there are likely some other things within the organization. And you mentioned something around cultural and operational hurdles or impediments. Let's explore that a little bit more. What else is likely holding companies back from going after that value that you mentioned they see?

Katie: So, like you said, we saw in the data that beyond the risk-averse culture and the siloed approach, there was a number of other barriers that companies need to navigate in order to



move to where they want to move and how they want to operate in a digital way. And three barriers really rose to the top. And those are around the ability to measure the value. “So, I’m doing these digital things, but what is it doing for me?”

The second around the ability to invest and not just quite having the budget to do and/or implement the digital capabilities that functions and/or the R&D organization believe will help drive those R&D imperatives.

And the third being access to talent. So, talent to use the digital capabilities, and talent to actually implement those capabilities.

Tom: Alright, so ability to measure the value. Are we going to get a return on the investment in some form? So, therefore, is it worth taking money from somewhere else and putting it into this the ability to find the investment, right, at adequate scale, and not only up front, which I think we see a lot of the experimentation, which is a much smaller level of investment, but be able to sustain that investment? And then this talent one is an interesting, right, as you start to think about what is the future of work? And how might that change as you start to employ and really utilize these digital capabilities?

So, fascinating. If you think about sort of step back from this, what we just talked about, across these four different areas, the value is there, yet we’re a little bit hesitant to start to move forward in this. We’re trying it in places, but not necessarily fully embracing it across of our R&D, and there are definitely some things that are getting in the way.

And it’s interesting because if we think about where we were in 2016, the first time we did this study, and where we are now, four years later, while we’ve moved forward, we haven’t necessarily moved as forward as much as we would have expected, or move forward as certainly as other industries and that same timeframe. And it seems to be pretty clear from both the results of this study, as well as just frankly, the sort of the day-to-day, week-to-week interactions with companies of various sizes, and really across geographies as well.

But we’re still at a similar crossroad, right? We’re at that crossroad. And really, that question continues to be, “As a company, will I stay on that current path of experimentation and beginning to put some pieces in place? Or do I find a path or look for a different option here to accelerate the digitalization at scale, right, to get to this repeatable reusable way of using these technologies?”

So, let’s finish out here talking a little bit about the, what does it take to accelerate to digitalization? So, as you think about what companies need to be looking at to pick up that pace, what are the key things that you would recommend?

Katie: So, there are five things that we suggest that companies do to scale beyond these pilots to move beyond the silos and fully embrace digitalization or fully achieve the value that they’re looking to get out of these capabilities.

First and foremost, is it has to be a strategic priority. And when you look at the data, it’s very clear that it is a strategic priority. I think where companies fall down is it becomes a strategic priority to select individuals or select studies or select functions, as opposed to having a strategy that is tied to an R&D-wide strategy, or even further, an enterprise digital strategy.

So, for example, if there is a particular study that has an approach to digital, that should be tied to the function’s approach to digital, which should be tied to R&D’s approach to digital, which should be tied to the enterprise’s thoughts or approach for digitalization. Which is quite honestly very related to the second area, which is understanding and addressing the full scope of change. You can’t move forward without understanding the appetite for leveraging these capabilities and/or changing the way that you work, or the way that individuals work and the way that the broth of stakeholders, both internal and external. So, not just those folks internal to the R&D operations, but when you think about patients and investigators and the site coordinators, everyone is impacted and in some way, shape, or form by a lot of these changes.



So, once you have your strategy, you have to understand what the impact of that strategy is, and therefore help the organization make a decision on how you're going to drive that strategy based on the impact and the appetite for change, to really make it one that is digestible and actually achievable and actionable.

The third step is making it a team sport and just breaking down those silos. We have to move beyond the pilots and the experimentation. And that's only done by leveraging collaboration and cross functional strategy. So, I think this ties back to having strategies that align to one another. But you can only achieve that if you're doing so by... by considering and working with other functions, or other studies to understand what's happening across the organization. Taking that a step further, and maybe even understanding what's happening with your partners. They may have lessons learned or opportunities that you as an organization can also leverage.

The fourth step is learning how to fail fast. So, it's important to have, tied to your strategy, a set of use cases or a set of capabilities that you want to test, but you want to be able to test them quickly and learn from those so that they can either be scaled or moved on. And I think what's really important here, where I alluded to this earlier is we see companies that are testing a particular application or way of working that's enabled by digital technology, and they don't learn from one another. So, they end up testing that same thing multiple times. So, it's it goes back to tying it all together, breaking down the cross functional silos, but learning if something's going to work or not work through these quick sprints and prototypes that you can then scale.

And the last is being able to prove the value for your investment. So, when you understand the breadth of the capabilities that you're going to adopt and/or implement, pre-defining the value that each of those will deliver to your organization and what success looks like so that when you go and you execute that you can prove the value and it's delivering everything that it intended to that makes digital as a whole sustainable.

One of the barriers, right, was the ability to

invest. And oftentimes, you can't invest if you don't prove the value. So, if you set forth with the mindset that, "We're going to demonstrate that this is achievable, and it will deliver value to our organization," hopefully in the long run, it will help overcome that barrier around getting the money or getting the funds and even access to the right resources to deliver the capabilities that the organizations are looking to do.

Tom: Absolutely makes sense, right? And I think if you put it all together, it is going into this with an intention to scale, the intention to have something that becomes a core part of what an organization does, right? Absent a strategic priority, it probably just stays at experimentation. If you're not thinking about what it takes to sustain that change so it becomes more of a repeatable process, again, you're sort of stuck in first gear, if you will.

I think your silo point is spot on, right? At the end of the day, we continue to see whether it's the exchange of data across silos or the use of technology, or even just how organizations work together makes a lot of sense. But yet on your fourth one, which I found interesting, right, this this concept of failing fast, which is just resident, frankly, within R&D, right? This is the industry we work within. This is all about having a bit of a portfolio mindset. And I certainly can see how it would apply here. But like that, at the end of the day, you're making decisions around when to scale, when to progress. And so, this whole value point certainly does resonate.

So, a nice summary. We're going to bring today's discussion to a close. So, I really appreciate the conversation, the insights that you provided. And thank you for joining today.

Katie: Thanks for having me.

Tom: So, and to you, the listeners, also thank you for tuning in today. As we mentioned at the beginning, this is the start of a new podcast series, and look forward to bringing you additional insights, and really some tangible examples from what's happening in the Biopharmaceutical industry, how it's embracing digital transformation, how it's learning from other industries, and ultimately, how it's really



moving along this, this evolution curve.

The COVID-19 pandemic has certainly created additional pressure to rethink the way we work, where we work, and ultimately, many of the way the aspects of research and development. And the question now, put this in the context of today's world is, will this be the catalyst to accelerate the adoption of digital R&D? Are there other external interventions, or will companies simply just get there on their own?

So, until next time, I'm Tom Lehmann, and this is Driving Digital in Biopharma.

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