

TALES OF TRANSFORMATION



Managing the risks and rewards of digital

ToT S4E2 Transcript

00:06 - 00:46 **Heidi:** In our previous episode, we talked about the risks and opportunities associated with the future of health. Today we dive into all things digital: data, algorithms, and cybersecurity. As life sciences and health care companies expand their digital capabilities, what are some of the emerging opportunities? And what are the biggest technology risks they need to be on the lookout for? This is Tales of Transformation. Today I'm joined by John Lu, Amry Junaideen, and Simon Gisby as we continue diving into some of the risks tied to the future of health. Welcome gentlemen.

00:46 **Amry:** Thank you. Great to be here.

00:47 **Simon:** Thank you.

00:50 **John:** Thank you.

00:50 - 01:20 **Heidi:** Okay, so let's jump into this, you know from behavioral data to social determinants of health, unique types of connected data will play a huge role in the future of health, helping organizations drive efficiencies and competitive advantage. Amry, how can companies manage the risks associated with data while still reaping the rewards?

01:10 **Amry:** We've talked about this in previous episode that data is clearly one of the centerpieces of our vision for the future of health. At the same time, considering the sensitivity-associated with the types of data: health, financial, consumption related because we are really talking about social determinants of health in addition to the pure health data, there are sensitivities. So, I would propose that we have a consideration of three big control areas. The first one is to develop and implement a framework and standards to monitor, evaluate, and remediate data governance and protection measures.-The second one is privacy is such a big deal when you talk about this sort of data. So, creating robust privacy policies, data usage controls, and spot data sharing contracts that prevent the inappropriate sale or use of patients' personal and behavioral data to third parties or anybody else for that matter. There are lots of technologies that organizations can invest in so that this component of the control environment is adequately maintained.

02:20 - 03:19 **Simon:** So this idea of data standardization is so critical. I mean who amongst us hasn't been frustrated, at the idea that every time we go to Physician's office, we have to fill out another paper form each with its different boxes, different questions in a highly unsecured environment and handing over personal medical information on a piece of paper to someone behind a desk. If we can standardize that data and make it available across multiple stakeholders, our level of stress of interacting with the Healthcare System is going to go down. Preserving the privacy of that data is critical, because we all recognize that medical information is very different, it's a very different sense of privacy than the other data that's out there. So, couldn't agree with Amry more; we need to have standards, we need to modernize it, we need to develop frameworks, we need to protect it, and all of us would benefit.

03:20 - 03:44 **Heidi:** If we had that experience for the patient, can you imagine the less kvetching about that in the physician's office and more about getting to what ails them and how to help that patient. John, cognitive technologies will also become increasingly prominent in the future health. What can life sciences companies learn from other industries who are more advanced and developing these capabilities?

03:45- 06:00 **John:** Organizations across industries including life sciences and health care are looking at innovative ways of analyzing, utilizing, even commercializing their data using technologies that emulate human intuition or decision-making. The digitalization of that data it's really created a continual loop where the creation of new sources results in tremendous new sets of data, which really then feeds into various analytical ideas and advancements that weren't there before. That then unlocks even more ways of creating data and generating additional and really sometimes unexpected value out of some of the data that is analyzed. And it's not only the data aspect of all that. It's the ecosystem as a whole – from smartphones, from data links, from connected devices, such as some of those medical devices that are in the market today and how interoperable the ecosystem is as a whole to create data that can be then shared, collected, and analyzed. ▶

It's extremely impressive, and all of that's powered by more and more powerful computing power as a whole. And then as those data sets are created, cognitive computing solutions are really leveraging large and also smaller datasets combining those with data from the dark web, natural language processing, machine learning and even other technologies to drive operational efficiencies and really to enhance consumer or end user engagement.

If you look at it within life sciences and health care, artificial intelligence could be leveraged to help transform traditional research methods which traditionally offer pretty low probability of success, but leveraging artificial intelligence, it allows the organization to take a look at very different sets of data, combine that with predictive modeling, cognitive computing, and enables better profiling, identification of disease, the ability to deliver new treatments to patients, those are all things that are enabled by a technology like artificial intelligence. If you look at healthcare, cognitive solutions are really at the center; they enable personalized medicines, treatments, alongside other innovative approaches such as care at home which connects patients, devices, and even applications to provide that customizable platform for digital health.

06:01 - 06:17 **Heidi:** Cyber security is obviously a concern for any organization, building an integrated approach to cybersecurity could be a key source of competitive advantage for life sciences and health care companies. For companies who can successfully accomplish this, what are some of the biggest strategic opportunities associated with cyber?

06:17 - 07:53 **John:** As we've talked about so far, the industry is moving at light speed, data is multiplying exponentially, organizations are struggling to really keep up with that change. And that speed, while it's really fantastic for innovation, it amplifies the cyber security risks such as managing access, protecting some of those crown jewels, all that becomes even more important. As a result, the impact of cyber security risks to brand, financials, operations, compliance to regulatory requirements, that impact of cyber security to all those it's never been higher. The number of life sciences and health care organizations that I work with, cyber, it's one of the top three enterprise risks of each of those organizations, if not even the top risk. I'd say most people would really look at cyber security as potentially a barrier of moving fast or moving quickly. But I'd really say, you know what, that that view should really be cybersecurity is an enabler for the business. If you have an integrated secure ecosystem, that enables the organization to innovate very quickly to develop new life-saving solutions or technologies, but yet still be secure and understanding that investment: time, resources, budget, really understanding that their investment and intellectual property or critical data, it's protected. That also enables that organization to have very high confidence in the ability to share and utilize some of that sensitive data, especially from an interoperability standpoint. So I think as organizations move towards that vision of the future of health, modernizing and really integrating cybersecurity throughout the ecosystem, it's really a fundamental pillar of that success.

07:54 - 08:15 **Amry:** If you go down the path that John was talking about these organizations can ultimately result in higher credibility, being the trusted brand of choice-for their patients, enable faster regulatory approval, and increase cost savings and decrease downtime and ultimately we can all have higher confidence that the storage and the use of data that is sensitive is done in the most appropriate way.

08:15 - 08:27 **Heidi:** Simon, we just talked about some of the challenges associated with data and cyber. How could these digital risks impact different types of organizations across the life sciences-and health care industry?



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08:27 - 10:15 **Simon:** I think they have a number of different risks. John talked about using data to accelerate clinical trials and innovation in the life science industry. The question is you looking at the right data, you drawing the right conclusions from that data. So there's a question there around the raw source of the data. There's great opportunities to standardize clinical outcomes, Amry talked about standardization of data; can we all agree on the four or five best ways to treat a particular condition. But again, the question is where are we getting the data from and measuring the appropriate outcomes, given we all know through genomics that each of us reacts differently to the same drug or the same chemical pathway. So again, there's noise in the data that has to be effectively managed. There's a brand and reputational risk as well, Amry talked about this with cyber. We know that individuals would love to adopt telemedicine remote monitoring, but they're concerned about the privacy of their health data and being shared across different technologies and different products. And John talked about the security of the data becomes very important of how it's used. And then the last thought really is whether we can persuade clinicians to actually change their practice based upon the outcomes of the data and eventually ourselves to use this data effectively to manage our own outcomes. So, you can harness it, change it from being a negative, but think about it in positive ways; the organizations that can do this will truly change healthcare, lead to better outcomes, and be in the forefront in the future.

10:15 - 10:47 **Heidi:** Life sciences and health care industries are evolving to take advantage of the opportunities in the future of health by investing in technology, improving quality, and sharing data in smart ways while protecting against risk. John Lu, Amry Junaideen, and Simon Gisby, thanks so much for joining me today on Tales of Transformation. Stay tuned for our next episode on ecosystem as we continue our series exploring the journey to the future of health.

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