

AI in life sciences

Transcript

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JIM CARROLL:

Is AI a transformative opportunity or an existential threat? Look, it's probably both. You know, as a futurist, for over 30 years I've spent a lot of time with a lot of organizations walking them through the big, disruptive transformative trends of our time and the innovation strategies they need to pursue to align to a reality in which the future belongs to those who are fast.

I've seen a lot of transformative shifts. My advice and guidance have cautioned organizations that they need to align themselves to a world in which the future belongs to those who are fast. And now, this new era of artificial intelligence is unlike anything I have witnessed ever before because we are truly living through a transformative period of time that has seen the acceleration of new technologies, new ideas, new concepts, new companies and new disruptors.

It's important to go beyond what is happening with ChatGPT and understand what I call the AI megatrends — the transformative, disruptive concepts which are redefining all kinds of industries and providing both promise and peril going forward.

If we consider the world of healthcare and life sciences together, it is said that spending on AI is going from \$10 billion currently to upwards of some \$87.4 billion to \$177.6 billion by the year 2030. And now in the world of life sciences, the opportunities are vast. I always like to say that we're in a situation in which drugs have yet to be discovered, using science that has yet to be explored, using methodologies not yet in existence.

The world of life sciences is all about knowledge discovery, and what AI is permitting us to do is to accelerate that pure science of knowledge discovery. It's accelerating key trends such as personalized medicine and evolving pharmacogenetics and other key concepts that have been around for years. In essence, it brings speed and acceleration to things we've already been doing because it allows us to sift through vast quantities of information that come from our trials.

It allows us to better manage the clinical process of the trials that we have underway. It allows us to better analyze the data coming from those trials. It allows us to better discover new

materials, new science, new concepts. It all has to do with the science behind life sciences. In essence, AI speeds up every single aspect of science.

And let's not forget the opportunities that come from medical device connectivity. A lot of what we do in the world of life science is bleeding into the technology sector as we bring new medical devices to consumers. And what is happening is every single medical device is becoming hyperconnected, intelligent and aware. And what happens is that a world in which we can suddenly link AI-connected healthcare devices to the pharmaceuticals that we are bringing to market, and all of a sudden, we have a better understanding of how well they are working. There is nothing but upside in the world of life sciences for artificial intelligence.

But what about the downside? Well, there's two big obvious downsides. One has to do with skills and knowledge. Look, in the world of healthcare and life sciences, I always like to say that we are now in a situation in which the volume of medical knowledge, it used to be doubling every eight years. Post-COVID, it's now doubling every 78 days. The typical life science professional cannot keep up to date with the rapid acceleration of every single aspect of what is occurring with life sciences and pharmaceuticals. The challenge with AI is it makes this knowledge challenge even more extreme and challenging because it is leading to an absolutely massive explosion in the volume of medical and life science and pharmaceutical information.

The other downside involves what's happening with the consumer. Look, we already know we are in a world in which healthcare information, misinformation has become an extreme challenge. And the unfortunate downside of AI is it is going to represent a world in which there is generation of misinformation at scale, and the generation of incorrect or false information through advanced AI systems. We are going to be in a situation in which there will be a greater amount of false information throughout the healthcare system impacting everything we are doing in the world of life sciences. And I don't think we really have a good idea of how to manage the complexity which is going to unfold.

So, what do you do with all these fast-moving trends going forward? My advice and guidance have always been simple. You need to think big, start small and scale fast. You need to

think big about the scope of the transformative trends which are unfolding here and the promise and peril, the opportunity, and the challenge that they provide for your organization and for your industry going forward.

You need to start small. You need to start a whole bunch of small-scale projects to work with, to understand and to comprehend the scope of what is unfolding with these A.I

technologies. And you need to be prepared to scale fast, because one of my favorite observations is this — the future belongs to those who are fast.

What is happening with AI today involves what I call the era of acceleration. It is evolving at a blinding speed unlike anything I've ever seen before. And you need to be ready for a new world of disruption and transformation. I'm Futurist Jim Carroll.



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