

Transcript:

Dr. Norman Jacknis: Part of the reason why you need to get started is you are learning how to do this stuff well. So you have to get started. And if you don't get started, you're going to fall behind. Right now, one of the reasons why companies that are using this are ahead of their competitors is they started a mile back. They've made the mistakes. They've figured out what works and what doesn't work. And they're running. And you're in a race. If unfortunately your competitors who are ahead of you keep on running as fast as they are and you can't run faster, you're never going to catch up to them. I think also it's important just for your own jobs because in most companies, it's at least crossed the mind of the CIO to ask the CIO about how to use AI.

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Jason Lopez: Norm Jacknis teaches mid-career technologists how to be CIOs. He's Professor of Practice, Innovation and Entrepreneurship at Northeastern University in Boston, Massachusetts. In his career, he was an executive at Cisco and the CIO of Westchester County in New York. He was also chairman of a chapter of the Society for Information Management, a prominent organization for IT leaders and CIOs. The role of the CIO has changed dramatically. He says, it used to be the CIO just made sure all the technical parts worked. Computers stayed connected. Email wasn't lost. Software was correctly installed. As he refers to it, making the trains run on time. But then came the cloud. Here's an insight he gives his students.

Dr. Norman Jacknis: I said, you need to ask yourself, what am I doing all day? Because the stuff I used to worry about, like the data center, big data center being up all the time, I've outsourced a lot of that stuff to the cloud provider. So they're worrying about it, not me. A lot of software I'm getting is sort of off the shelf and probably most of it is in the cloud as well. And again, somebody else is worrying about it. So what do I do? Sit here all day and twiddle my thumbs? Well, everybody finds ways of filling the day. But I said, why don't you think about what you can really do in your organization? Think strategically. So now your role is not necessarily just to have the trains run on time. You still have to worry about that. But it's more, how can I, as a technology leader, make this stuff strategically useful for my company?

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Jason Lopez: Today, a CIO has to think not just about moving data around, but what that data means. And with the rise of machine learning and AI, it's become critical that CIOs take this on.

Dr. Norman Jacknis: The leader of this really should be the CIO. Unfortunately, in a lot of organizations, that's not the case. Sometimes it's been led by chief marketing officers and in other cases by a chief innovation officer. But when that happens, that's a poor reflection on the CIO. The CIO has not done his or her job properly, if that's the case.

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Jason Lopez: But here's the kicker in what Jackness is saying. A CIO who's the point person in an organization's development of AI isn't just doing a software migration in the background, but is actively part of the business strategy.

Dr. Norman Jacknis: I always used to joke that the IT staff always used to go around telling everybody they had to change, they had to adopt this new system, this new technology. And if

you looked at their own behavior, they were always the last people to adopt change themselves. But yeah, that's part of your job. You are a change agent. You're a change leader. Particularly when you're talking about something like artificial intelligence, which is threatening to some people. Think about it. If you've got some use of artificial intelligence that identifies where there might be some new potential customers, and you also even have a way of phrasing the marketing material that would go out, and you present this to the chief marketing officer, sometimes you're going to get a reaction that's, I've been in marketing for 40 years and you think you know what? And so there's a significant change. This is worse than bringing in, when you brought in, for example, an SAP system, it was aggravating to people because they had to change procedures, but you weren't threatening their professional identity. You can do that with artificial intelligence. Now you have a really strategic technology. You have the opportunity to think about how it can be strategic for your organization. That's going to get you the invitation to sit down with a CEO and other C-suite colleagues. We go through the major algorithms, but the focus is on how you will use it.

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Jason Lopez: Jackness says the course materials reflect the real world. There is work focused on AI, data centers, and cybersecurity, but also that real world component. Again, students are in their mid-careers. So each semester they have to defend their ideas before a panel of industry experts, as if they were going before a capital investment committee or VCs. The goal is to empower them to be able to implement things and put together teams.

Dr. Norman Jacknis: How can I get this off the ground without asking the CEO for \$15 million? And for that matter, we even go over the issues of change management. Okay, so you've done this thing. How do you figure out which groups you start with in your company? How do you get it deployed? So we're really helping them very much to sort of think about this as a leader, in addition to what the technical issues are. The later semester as well, we deal with operational issues. Okay, you've got this great idea of yours and your thesis approved. What are the day-to-day issues that you have to deal with, including, for example, ethical issues, as well as operational issues, dealing with staff, stuff like that. Think about how a CIO spends his or her day. Over the course of a year, we want to make sure we touch on all those various questions that cross that person's mind and bring the best knowledge we have, the most recent research about what works and doesn't work, and we want to bring that to bear and actually have them apply it.

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Jason Lopez: Aside from the basic tech knowledge, which is baked into the curriculum, he brings his experience into play by emphasizing what's beyond the classroom.

Dr. Norman Jacknis: I think they need to keep up with the world, you know, so they should spend at least some of their time just keeping abreast of developments in artificial intelligence, because their colleagues are looking to them as the technology leader, right? You're the CIO. You're supposed to know more about technology, including artificial intelligence, than the rest of us do, right?

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Jason Lopez: And one of the advantages of today's computer science, you don't have to spend a lot of money to get experience, just a laptop and a connection.

Dr. Norman Jacknis: I mean, there's even software now that will provide a lot of the algorithms for free, open source software. There's a lot of open data. The efficiency of the algorithms has really improved. So it's not going to use up as much of the cloud resources as you might have in the past. Some of the stuff you can even start out doing on your own laptop. And then when you go to production, you can move it to the bigger data centers in the cloud. But at least you can get a start. You can be able to show somebody, hey, I can do a good job of identifying what customers might be highly probable of churning. So we can focus in on maybe doing something extra with them.

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Jason Lopez: The program at Northeastern awards a Master's of Science, but Jackness points out it's learning by doing. It emphasizes leadership skills in a technology environment. Perhaps think of it this way. What can you learn to bring to a company to help it succeed?

Dr. Norman Jacknis: Well, I'm not very academic, I suppose. So it's been easy for us because basically what I do is teach some of the theoretical stuff and then also have them apply it to their jobs. I teach a course on artificial intelligence and machine learning for technology leaders. I go through the major algorithms so they understand what they're supposed to do. But their assignments are not to do heavy duty data science work, but instead to figure out, OK, strategically, how is this going to apply to my company? And at the end of the semester, they're actually writing a memo to their CEO on what the AI machine learning initiative ought to be for their company. So it's very much a marriage of these two sides. And actually, it's one of the reasons why I moved to Northeastern, because Northeastern is known for what's called experiential learning, which is basically a philosophy of education that you will learn best when the concepts that you learn are actually applied to your life, to your work.

Jason Lopez: Norm Jacknis is Professor of Practice, Innovation and Entrepreneurship at Northeastern University in Boston, Massachusetts. This is the Tech Barometer Podcast. I'm Jason Lopez. Thank you for listening. We also have another podcast with Professor Jacknis, and that focused on the role of CIOs implementing AI in their organizations. The Tech Barometer Podcast is produced by The Forecast. You can find more stories on technology and people in tech at theforecastbynutanix.com. That's theforecastbynutanix.com.