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Becoming a better business technologist

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There's no silver bullet, but success requires being able to identify technologies, understand their implications, and deploy them in an effective, structured way in your organization.

Successful business technologists need more than pure technical skill: they must know how to solve strategic and operational problems in an integrated way, across multiple technology domains. In this episode of the *McKinsey Podcast*, principal James Kaplan talks with McKinsey's Luke Collins about the skills companies are seeking from business technologists and how to acquire them, expanding on the themes identified in his article "Ten books to make you a better business technologist." An edited transcript of their conversation follows.

Podcast transcript

Luke Collins: Welcome to this episode of the *McKinsey Podcast*. I'm Luke Collins, an editor with McKinsey Publishing. Today I'm speaking with James Kaplan, a partner in the New York office, about business technology and, more specifically, the skills required to be a business technologist. Last year, James was the author of one of our most popular articles of 2015 on McKinsey.com, "Ten books to make you a better business technologist." Good morning, James, welcome to the *McKinsey Podcast*.

James Kaplan: Good morning. Glad to be here.

Luke Collins: Let's talk about not just the article, but what inspired you to write it?

James Kaplan: Last year I wrote a book, *Beyond Cybersecurity: Protecting Your Digital Business*. That was extraordinarily rewarding, but also an exhausting process. I sometimes point out that it consumed my Sunday mornings from 5 AM to 9 AM for about six months.

Given how much I put into it, I really started to think about what I wanted others to get out of it, which in turn caused me to think a little bit about the books I had read over the years, which

impacted how I think about business technology, and which, I like to think, made me a better business technologist.

Luke Collins: That's an interesting term. Tell me exactly how you define a business technologist?

James Kaplan: I try to define it relatively simply, which is, it's an executive or a manager who's responsible for making sure an enterprise gets the most value from its investments in business technology. It includes not only the CIO and all the CIO's reports who may be working on issues of technology strategy, or in technology delivery, but also many people in business units, or business functions, who are charged with thinking about what technology investments will create the most business value.

Luke Collins: It's not a title you're necessarily going to find on someone's business card, "I'm a business technologist." But it's a skill set that infuses a whole bunch of different roles within the organization?

James Kaplan: You find all sorts of things on business cards these days. I won't comment determinatively on whether it shows up in someone's title or not. It very much embraces a range of disciplines. You know, operational disciplines, engineering disciplines, IT architecture disciplines, business-strategy disciplines, management, and talent-development disciplines.

That's one of the interesting ways that the role is evolving in recent years. We've spent a lot of time talking with senior executives, inside and outside of technology functions, about what type of people they need to help their companies get the most from business-technology investments.

The traditional skills of technical and operational sophistication continue to be as important as understanding business strategy, communicating effectively, being able to perform economic analysis, being able to drive innovation are increasingly important as well.

Luke Collins: You talk about that evolution, and I'm guessing that would necessarily mean some skill gaps have emerged, because I'm guessing that initially people might have been very strong technically, but now they're required to have a whole bunch of skills that previously they weren't—which gets to some of the books you recommended in your article.

James Kaplan: We're seeing that skill gap as a pressing problem at many companies. A number of senior executives have told us that they're worried that traditional IT talent-management models make it harder to develop the types of senior business technologist they require.

Many CIOs and CTOs have told us, "We hire storage guys, and then we promote them for being more and more sophisticated storage experts. We hire application developers, and we promote them, according to their technical skill and application development."

That does not facilitate or foster the type of integrative, cross-cutting business-technology problem solving that's required to address the most sophisticated challenges around applying new types of technologies, about addressing new types of business problems, about creating delivery models to creating innovative delivery models to capture opportunities as they arise in the marketplace.

Luke Collins: One of the things that people noted with your article was the fact that you had these ten books about how to become a better business technologist, and yet many of them, at least on the surface, had very little to do with business technology. They were books on war strategy, on the early days of coding. There were a whole bunch of different topics that were covered. What was the common thread between all of them in terms of the ways in which they would deliver some kind of insight to allow people to become better at what they do day to day?

James Kaplan: I would think of them more as supporting a complementary set of ideas rather than following a single thread. For example, more than a few folks have read the article and said, "Hey, James, what does World War II have to do with being a better business technologist?"

One of my very favorite books on the list is *Military Power: Explaining Victory and Defeat in Modern Battle*, which talks about the First World War, Second World War, and the Gulf War. It's a fairly intellectually rigorous analysis of why some armies win battles and others lose, even in circumstances where the winning army may have less in the way of resources. The author, Stephen Biddle, very credibly points out that more sophisticated technology is not necessarily the determinant of success, which is to say that in France, in 1940, the French army's tanks were probably as good as the German tanks, and perhaps even better. Their planes were perhaps roughly comparable.

However, he points out that the Germans adopted something called the modern system, which was an interconnecting set of practices for applying technologies like tanks, radio, and airplanes that made them very successful in that battle in which the Allies and the Americans later adopted and allowed them to be successful in subsequent battles.

There's a very relevant metaphor for how we think about technology strategy. The determinant of success is not the adoption of a single technology. It's about the interconnected use of a set of practices for applying those technologies, and that's very consistent, for example, with some of the research we've done into cloud computing. There's no single technology that separates companies that have made more versus less progress. It's about the companies that can adopt a relevant set of practices.

Luke Collins: It strikes me that you might find this in a lot of organizations—this belief that, at least in technological terms, there's some kind of silver bullet. If we just had the latest and greatest technology, if we invest in product X or service Y, we're going to crack this problem. But it strikes me that it's much more a question of process, as you say, of governance, of actually implementing things correctly, which is what some of these books get to?

James Kaplan: That's exactly correct. There is no single silver bullet. It's about being able to identify technologies, understand their implications, combine them in an effective way, and make intelligent decisions in employing them, creating a set of operational processes and organizational structures to surround them, which is a much harder thing than simply investing in one technology versus another.

Luke Collins: When I look at the list it strikes me, rereading it again, that there a couple of approaches here. One is, I guess we can assume, and correct me if I'm wrong, that business technologists today technically have a good foundation. What is separating the usefulness and the utility of a business technologist in a corporate environment is these additional skills, the ability to think strategically, the ability to differentiate between the right decision and the wrong decision. Which sounds kind of simple, but is in real life somewhat elusive.

James Kaplan: All management is making the distinction between the right decisions and the wrong decisions. At that conceptual level, it is very simple, but in practicality, it's extraordinarily hard, or else you wouldn't need an IT-management team, or any other type of management team, for that matter.

I'd put it in two or three ways. Yes, we need technologists who understand more in the way of the economic analysis and business strategy. I would also suggest we need technologists who are more integrative problem solvers, which is to say we need technologists who can solve problems across multiple technology domains, and across business and technology domains.

The question isn't how to configure a storage environment, but it's how to configure a storage environment, and a network environment, and a server environment, and an application environment in a coherent way in order to support performance at massive scale. Which is a very different thing than being a storage specialist and network specialist, and what have you.

The third thing I would say is companies may need to think a little bit differently about what technical expertise is going forward than they have in the past, which is to say technical expertise has often been thought of around more and more knowledge about a particular technology, whether it's storage, or network, or a particular application domain.

However, there's so much innovation going on right now, whether it's because of social media, mobility, big data, cybersecurity, or what have you. There's no way for any organization to know enough about all the relevant technical domains. Therefore, having people who can do truly first-principles problem solving around technology issues becomes incredibly important.

Luke Collins: I'd like to segue into what you're seeing in real life in terms of what companies are looking for, and is there any sort of skill set that seems to be one that is particularly elusive for companies, and what they're clamoring for?

James Kaplan: Many companies I know of are struggling with many different types of skill sets. I'd say there's a broad-based shortage of the talent required. There aren't enough strategists who can drive the business side of the business-technologist equation. There aren't enough integrative problem solvers who can span the business and technology domains, or span multiple technology domains. There aren't enough sophisticated operators who can figure out how to scale business technology delivery models effectively.

And in certain places—in pockets—there are a number of technical domains where the supply has not caught up to the demand. We tend to know what those are. It's analytics, cybersecurity, DevOps, cloud architecture, and so forth.

Luke Collins: How are companies then seeking to address this?

James Kaplan: They're very much in the early days of doing this. You see a lot of fits and starts. A few things are going on. One of the most interesting is that enterprise-technology organizations, banks, insurance companies, and healthcare companies are starting to recruit from the high-tech industry, which is something you did not see a lot of ten, or even five years ago.

They're finding executives and managers who have a broader set of skills, who have more ability to span business and technology domains, who have been more experienced in first principles, or integrative problem solving than in at least some traditional IT shops.

You also see some degree of creativity in staffing and career development, and more willingness to have managers switch between different parts of an IT organization as they progress. In some cases, you see people recruiting managers from the business into selected roles in technology organizations in order to get some degree fermentation and cross-pollination there.

There hasn't been anywhere near enough innovation in the world of training. For many IT organizations, training focuses too much on technical discipline, the next tier of configuration associated with this type of switch, or router, or so forth, or the next programming language, rather than intentionally fostering first-principles technology problem solving or cross-domain integrative-technology problem solving.

Luke Collins: Great, thank you, James. Before we close, anything else that you think is important for listeners to understand when it comes to this topic?

James Kaplan: The only thing I would add is that I didn't read any of these books with the intention of being a better business technologist. They were driven by curiosity and happenstance—occasionally by recommendations from other people. So the only other thought is about the value of serendipity. As your curiosity leads you to read, investigate, or examine, take a step back and think, "OK, how does this apply to some of the problems I'm thinking through at work?" Even if it's, at first glance, something related to an entirely different area, it can be an extremely valuable and rewarding exercise.

Luke Collins: Absolutely. So for all of you listening, if you want to get a good head start, "Ten books to make you a better business technologist," is available on McKinsey.com, where you can find all of our latest thinking on this and more. Thank you so much for your time, James. We really appreciate it.

James Kaplan: It was my pleasure. □

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