



Developing CIO skills

As the role of the CIO evolves in the context of macro trends, what are the changing skills they need to hone or acquire to keep their organisations at the cutting edge of their space? **JASON WALSH** reports

The high point of a career in tech is a position as chief information officer (CIO), but what demands are made of those who have scaled the greasy pole to the rarefied heights of the boardroom? In an era when every company is a technology company, where does that leave the role of CIO, and do technology and soft skills mix or are they like oil and water?

"I think the CIO, or whatever name you want to call them these days, needs to be an influencer, needs to be an advisor," said

Francis O'Haire group technology director at DataSolutions.

This does not mean, he says, forgetting about the core business of technology and, indeed, few businesses elevate employees without technical skills to the role of CIO. Tech skills remain essential, but they alone are not enough — and this can create a tension in the role.

"To really be effective you do need to have a technical background," he said.

"It has to be a case of evolution, of course; you can't be down in the trenches all the time looking



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Francis O'Haire, DataSolutions

at every nut and bolt. But you have to have a love of technology."

O'Haire says that even within the technical field there is already a range of temperaments and interests, and they tend to gravitate toward certain jobs and even industry sectors.

"I have a technical background, but I could never be a developer. I never had that mindset. It depends on the type of organisation you are. If you are a technology business developing technical products the CIO could easily come from a development background. Someone from a bank, though, will be more likely to have moved up and out and developed a broader outlook."

In the end, he says, the key is to maintain a focus on longer term goals, whether for the business or individually in terms of career.

"You can get bogged down very easily," he said.

Business answers

Ger Perdisatt, enterprise director at Microsoft says that CIOs need to be able to come up with answers to business questions.

"How do we differentiate in the market? How can we drive revenue growth? There's a far greater emphasis in terms of the value they that can bring rather than [just] cost-cutting," he said.

Perdisatt points to recent research from Forbes that pointed out the changes in the role of the



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CIO have been rapid and global. According to Forbes, five years ago the average CIO would say tech know-how was the most important skill they could have to discharge their job properly, whereas now they say it is contributing to the business.

"If you look at what CIOs have been asked to build, a lot of it is about understanding the wider business, understanding how business and technology are changing," he said.

This presents difficulties, not least of which is a new language to learn, but also opportunities for career progression.

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"CIOs have a chance of being CEO. When I met with CIOs previously, you met them and their [own] functional heads. Now I might be meeting them with a functional head of sales. The role is being un-levelled within the organisations, out from underneath the COO or CTO," he said.

"One of the big questions I would have now is what exactly does the 'I' in CIO stand for? Now it's far more oriented toward the insights it can bring rather than just the infrastructure. Someone who just keeps the infrastructure running is not someone you'll be looking to for the strategic future of the company."

Up at the board

Mark Egan, chairman and non-executive director, Sureskills, says that those in senior level IT positions have already proved themselves to be flexible.

"You certainly have three generations in most workforces now. If not four. If you've survived that long [then] you've probably had to duck and dive and reinvent yourself several times with the moves from on-premises to cloud over the last number of years," he said.

Nonetheless, there is, he says, a need to consider the true demands being made of CIOs — and they are rarely purely technical.

"It's almost like a conductor who's orchestrating a whole load of things, but also has to train and discipline the players. A CIO needs to be multi-faceted and multi-skilled. It's a really challenging position," he said.

One of the key responsibilities is speaking, and speaking clearly, to others in the boardroom, which is not always as easy as it sounds as they tend to come from different worlds.

"Obviously, if you have got a great relationship with the CEO and board that's great, but it can be difficult. Most CIOs have a primary or master's degree and have taken some IT education, but the challenge is more of a soft skills thing. They need to take time to learn."

Microsoft's Perdisatt urged caution, however. A CIO should not simply ape the behaviours of others on the board. The CIO, he says, has specific skills that need to be represented at board level.

"One example is cybersecurity [which is] a critical component for boards across all sorts of industries. It's not just about the learning the skills that the CEO, CFO or COO may have, but the real sense that there is a unique thing that the CIO can bring to the table," he said.

Skill acquisition

DataSolutions' O'Haire says the route taken will depend very much on the skills the CIO, or would-be CIO, already has. For those who have come up through a technical career one option he recommends is hitting the books but says it is also possible to learn organically by taking on new responsibilities when the opportunity arises.

"Some may have gone off and got skills through accreditation and degrees; others may have done it by getting out of the trenches and becoming more of a manager: building up the knowledge slowly," he said.

"I don't think there's a single recipe there. If you are deeply technical and you want to get into the role you should consider a qualification in business."

For O'Haire, a key thing to keep in mind is that as the CIOs role is not purely technical it is essential to think beyond the confines of IT, even when dealing with the useful resources provided by vendors.

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Eamonn Doyle, ESRI Ireland

and vendors. There are a lot of resources out there that you can use.

"If you just listen to one voice it will point you in one direction. You also need to look beyond the hype, because there's always hype about certain technologies, like AI at the moment, for example," he said.

Some businesses, recognising the importance of technology to the overall business, are well aware of the need for training and re-training.

Mark Egan, of Sureskills says that employees should take account of what opportunity their employer offers internally or those offered by their partners.

"We have a training and a learning services division that links back into skills," he said.

"We also have an IT consultant service that came out of the fact that we used to train people on stuff and they would ask us to come in after training to help."

Barry Lowry, government CIO, who works closely with the Irish Computer Society (ICS) says that greater awareness of learning opportunities, at every level, is essential.

"At the ICS we're trying to make a roadmap. A lot of the development interventions are non-tech related. Your technical competence is part of a basic skillset. The ability, the self-awareness if you like, of the merger of soft skills and business skills with technical skills is what matters," he said.

"It's very much about understanding what the business is about. There's a huge difference in being an expert in technology and being an expert in technology-led business transformation. You need to understand the benefit is."

One option is to undertake higher level education, included specific business qualifications.

"You're immediately applying lots of soft skills and lots of business skills. We would see MBAs as being a very important tool," he said.

MBAs are not necessary, however, and not the only key to opening the boardroom door.

"I don't have to be an MBA, I have a higher degree in social science," he said.

Speaking to the CIO

Looked at it from the opposite direction, what do others want when they work with a CIO? Eamonn Doyle, chief technology officer at ESRI Ireland, a GIS provider to both the private and public sector, says that the word 'information' is key in the role of chief information officer.

"A lot of the customers we supply would be going into CIO type roles. People using our [GIS] systems would be CIOs, where a large amount of the information floating around the organisation has a location component.

"That could be looking at consumer demographics for retail, routing vehicles for delivery, asset management of a utility network, where to put telecoms masts," he said.

In every case, though, the role is centred on information.

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There is some confusion about the difference between the roles of CIO and CTO, he said.

"When I'm talking to senior executives from customers companies, I'm always talking about an information architecture. The CIO is usually, by contrast concerned with what that information can be used for.

"From a CTO point-of-view, I'm often talking about databases and applications and software, but at the end of the day I have to bear in mind that I can only sell that to someone if it provides value to them. What I like to see is people with an open mind; people who value information in and of itself and understand that it has to be of value, and has to be processed the in right way to be made useful people who like evidence-based decisions.

"On the negative side we do see people who

don't collect the same information twice or don't use the same sample size and so on," he said.

Special cases

If the CIO's role is typically a multifaceted one imagine being CIO for diverse range of organisations. Government CIO Lowry is in just this position. And yet, even here the same basic principles hold true.

"The government CIO role magnifies everything. The actual technology is relatively unimportant; it's everything associated with it that matters, and when you're government CIO you're dealing with several different departments, which are separate legal entities but you want to act in a unified manner."

Lowry said that in his position, some of the most important abilities are persuasion skills and understanding of process. This, he says, has always been true for CIOs, but has tended to become obscured in recent years.

"I believe it's always been the case, but I also believe that somewhere along the line we lost sight of what the CIO role was: they became the tin minder.

"For example, I don't buy product. There still is this view the CIO is the man or woman who minds the tin. The industry has done itself no favours," he said.

Egan of Sureskills says it is essential to realise that the CIO is under immense pressure from all sides.

"Frankly, CIO is probably the most challenging

position in a corporation now. Dealing with the challenges business are facing is a really big thing.

"If you're the CIO you're now part finance guy, as you're trying to balance the budget balance the contractors versus the staff guys; you're part digital officer as you're marshalling digital transformation. You're also probably the guy dealing with innovation, with people coming to you saying 'our competitor has this app or this ability'. Then you have the chief legal officer coming to you about GDPR, asking if we have people's PPS numbers sitting somewhere, plus the data protection officer knocking on your door.

"Almost all roads are leading to the CIO, whereas in past times they lead to the CEO," he said. ■