Generation Tech

In the not too distant future, the CEO ranks will swell with tech-savvy CEOs who grew up with technology. These CEOs will not only understand the value of technology and how it can deliver competitive advantage, they will be its champion

Sue Bushell 30 June, 2008 14:11:07

Remember when the services and practices the CIO presided over seemed so arcane that those CIOs might as well have been high priests, officiating over some mystifying ritual intended to raise the dead?

When CIOs were happier wearing a white coat and hanging with their IT buddies in the basement empire-building than mixing with the VIPs on the 18th floor?

And when they could get away with acting like blowhard IT savants who were the fount of all wisdom and whose proclamations couldn't be challenged?

Reader ROI

- How the influx of tech-savvy CEOs will impact the CIO role
- Why C-level relationships will be less adversarial
- Why the path to COO or CEO will be easier for CIOs

> Expect tech-savvy CEOs to demand that the IT infrastructure simply work, just like it has from their home for most of their lives

When said CIOs could snow the boss, safe in the knowledge they could get away with any old nonsense because the boss was secretly terrified of exposing his absolute ignorance of all matters IT?

Not that any of that kind of caper has worked for a goodly while, but could you imagine trying to get away with it when the Baby Boomer CEOs retire - who could after all be excused for struggling with matters technological - and the tech-savvy mob currently filling middle management roles move up to take their place?

No one can ever completely predict the future, but speculation can be highly worthwhile, so we invited a few people to do just that. And this is a future CIOs should probably spend some time imagining, because for some, the implications on their role will be profound. Our pundits warn us to expect tech-savvy CEOs to demand that the IT

infrastructure simply work, just like it has from their home for most of their lives. Woe to the CIO who has a multiple day e-mail server outage under a CEO who has never seen a failure with Gmail, which is built on servers costing half the amount of those in the company's data centre.

But expect CEOs who know their technology also to be more willing to make more and better high-yield investments in IT. That is likely to relieve CIOs of some of the need to educate, and let them shift more effort into research, strategy and solution delivery. Expect also the business to be much clearer and more realistic about what outcomes to expect from such investment, thereby increasing the chances of these expectations being met.

As CEOs march inexorably towards greater IT literacy, the impossibility of blinding them with science will force CIOs to be more accountable for results and less for technology.

Even so, that doesn't mean new-generation CEOs will automatically be IT literate, any more than people who live in houses automatically understand the oversight of a property portfolio; or all people who read a credit card statement

can read between the lines of a firm's balance sheet, notes Glen Turner, a network engineer at AARNet.

Instead, the tech-savvy CEO will have to learn about IT, just as they need to learn about property and finance. And the lesson they will learn, Turner says, is the one any self-respecting CIO would long to teach them: that IT isn't about technology so much as it is about project management, about risk control, about service provision.

Recent Butler Group research has indicated that around a third of CIOs currently sit on the executive board of their organizations, with all but a handful of the remainder reporting to a board level director: in most cases the CFO. Historically, says Butler Group research account manager Nick Toft, the relationship between these two roles has been at best wary, and in the worst cases, positively adversarial.

But as the disciplines of IT management and governance improve, Toft believes both the CFO and CIO can benefit from establishing a closer partnership within the organization. Although it may be difficult for some to envisage, forward-thinking organizations are (literally) profiting from their CFO and CIO becoming new best friends, he says.

High Expectations

While a working understanding of technology will become commonplace among this new generation of CEOs, don't imagine this will force a "return to technology" for CIOs of the future, says Patrick Gray, president of US-based Prevoyance Group.

Technology is becoming a core function of every business. When accounting was the de facto "language of business" it wasn't the CFO with "technical" accounting knowledge that was in demand, but the one who could make sense of the increasingly complex aspects of accounting, and determine how to generate competitive advantage therein.

"You don't hire the guy who knows the most about debits and credit; you hire the one that tells you how to make money via the technical side of accounting," Gray says. "Similarly, the CIO of the future will worry less and less about the nuts and bolts of technology and more about how a given technology can elevate a business above its competitors, or put the company at risk of losing market share. The CIO role will become even more strategic as IT permeates companies and becomes just as much of a core function as accounting and finance."

Many future CIOs can expect to work with boards and CEOs who understand precisely what IT can and should contribute to the company, and who set their expectations accordingly, says Martin Christopher, director of information technology at US-based TomoTherapy. And those expectations will include that their CIO be prepared to immediately contribute to the strategic plan with enabling technologies, and to quickly provide system solutions to business challenges.

"CEOs will know better than to accept excuses about data islands, disparate applications, vendor failures, or internal politics as justification for receiving limited value from IT. They will expect their CIOs to lead the company through those challenges to the successful realization of the corporate vision," Christopher says. "CIOs who aren't prepared to drive their organizations to provide innovative and effective technology solutions will find themselves moved aside and/or relegated to the role of operational managers under the CXO who can meet those new, higher expectations."

The role of the CIO is becoming increasingly ambiguous, notes Adam Bateson, director, business development NetReturn Consulting. A CEO that has some understanding of technology might have high expectations and could represent greater risk than someone that has limited knowledge. This will present a particular challenge for CIOs looking to help their organizations prepare for the IT shops of the future.

"A successful organization will be providing a clear career path from CIO to COO or CEO - such as Ann Myers's recent

CIOs need more than a better understanding of technology, Bateson points out. That means CIOs moving away from fire-fighting and maintenance by gaining support from the business (demonstrating people skills and emotional maturity) to introduce effective security and utility to automate standard IT functions, so they can focus on proactive measures based upon creating revenue, business retention and/or cost avoidance/reduction.

Current technology allows organizations to start to adopt systems that work the way the user works, rather than forcing the user to learn the technology, Bateson says. Organizations with a CIO that can harness this type of technology effectively (by acknowledging the motivation of the user as the priority), will find themselves at a major competitive advantage.

Profound Impact

Saying the CIO's focus will revert back to technology when CEOs are more IT-literate is like saying the CFO role will revert back to accounting when the CEO and the board become finance literate, says Lars e Hjaltman, group CIO at UK-based vacation real estate agency group RCI. The reality is that the role of CEO and board is changing, Hjaltman says. In every Western market the board is taking a greater interest in and control of operation, strategy and change and the CEO role is transforming considerably because of it.

With best practice and regulatory hurdles minimizing the role the CEO can play on the board, and with CEOs increasingly less likely to become chairman, the trajectory for CEOs across both Western and Eastern economies is to increasingly become more of a knowledge base and "elder" of the "tribe", a leader that is respected by its "tribe" and followed.

Young aspiring CIOs meanwhile, having grown up as technology was transforming the world, are much more likely to be comfortable in driving and living with change than the current crop, but will struggle with leadership. Indeed Hjaltman believes what the "new breed of CIOs" have gained in understanding in technology they are losing in leadership and the ability to influence human beings. Since such critical social behaviours are not something they grow up with, he expects the CIO role to become ever more senior as the emphasis grows on skills that foster innovation, drive value and have serious business impact. Expect the next generation of potential CIOs to linger longer in lower technical roles.

"Leadership is crucial as large organizations need to go through more change iterations more often; the only road to success lies in constant driving success. That isn't done by IT knowledge and understanding, it is done through studying behavioural psychology and human behaviour - a skill set today's Internet and new generation of CIOs are almost void of."

"The resolution to this is going to have to be that today's leaders - not only CIOs - need to dig deep and take on the challenge of coaching, mentoring and helping the next generation of potential CIOs up the curve, setting up the next generation in ways we were never helped. That is the trait of a good leader," Hjaltman says.

"My thoughts are: Change is the only constant; anyone, and the CIO in particular to survive, need to live, breath and exude change. Through leadership you shall be able to surf the change wave and be the master of the wave."

The new crop of CIOs may be more technically adept than their predecessors, agrees Tom Voccola, CEO at Los Angeles-based CEO2, but both they and younger CEOs also seem less adept at the psychology of technology as well. Current business best practices continue to focus on the elimination of human interaction through deployment of

technology. "In my view, we may have already reached the point of diminishing return," Voccola says. "Technology can only go as far as people - that is, employees and customers - are willing to engage with it.

"At least one international bank I know of recognizes that the next big breakthrough in productivity and corporate performance rests with the very people involved on the CIO's teams and their customers. Innovation can only come from people, not technology.

"In my view, there is both a desire and an opportunity to move from a heavy dependence on one-way 'enterprise visibility' systems based on fear and serving the 'risk management' side of the business, towards more balanced 'enterprise transparency' systems that encourage greater employee understanding and engagement in organizational strategy. In other words, in a full duplex system, more people at more levels within the company would be tied in to what's really going on and be able to respond to rather than simply react to market dynamics," Voccola says.

Of course the CEO being IT-literate is no different from the CEO being finance-literate. Finance has been a critical part of any business forever, but we still see many examples of CEOs who are not up to par in finance, Eric Trevore says.

In the same respect, Trevore, who is the IS manager with Los Angeles-based Circa Information Technologies, expects the CIO to live on and become more valuable to some organizations and less valuable to others, depending on the vision and strategy. Organizations who believe that IT is a mission-critical function will demand top-notch CIOs who make mission-critical decisions daily. Those organizations that do not will simple outsource the maintenance functions of IT and not worry about how IT can add value.

"This is going on today," Trevore says. "The only thing that an IT-literate CEO will bring is a much better understanding of how IT adds that mission-critical value to their organization. The IT-literate CEO may not know how to merge complex systems after an M&A or get a company technically ready for an IPO, but they will absolutely know that they must hire a CIO who can do these things."

Opportunity Rather Than Threat

Rather than as a threat to the CIO or IT organization, having a tech savvy CEO should be seen as the opportunity to have an advocate in the boardroom, says Joseph Rourke, director of development InfoEd International. "Any CIO who is threatened by the pushback that may come from an IT-literate CEO should be questioning the initiatives they are bringing to their CEO," he says.

And Michael Ackerman, president and CEO of Commsworld, agrees this is one change most CIOs should welcome.

After Gartner some time ago began chiding CIOs for spending insufficient time educating their peers in the C-suite, many CIOs were forced to go back to reporting to CFOs instead of CEOs, resulting in a diminution of the power and influence of the IT community within organizations. That's a trend Ackerman expects to reverse as a new generation of IT-literate and savvy CEOs emerge eager to be part of the decision-making process and have direct input into how their IT dollars are spent. Since most companies now play in the global marketplace and IT capabilities are becoming critical to organizations' business strategy, this will enhance an existing trend.

"As a result IT organizations need to become more then pure play technologist," Ackerman says. "Gone are the days when a CIO can say: This is the best technology solution for the organization.

"The IT organization of the future at the management tier is going to need to explain their justification in terms of IT direction and impact on business capabilities. So the CIO might say something like this instead: This is the best solution as it meets the business capabilities required and of the available options is the cleanest/easiest/insert adjective here technological solution available."

This in some ways ties into the Gartner concept of IT becoming business technology (BT) and the CIO becoming an IT generalist, Ackerman says. IT will evolve over the coming years as the C-suite is filled with those that not only understand IT but could not survive in their day-to-day lives without it, and as a result demand more from the IT organization within their own companies.

"Organizations that are looking to get ahead of the curve need to assess the individuals in the C-suite and determine what their level of IT savvy is," Ackerman says. "If it is found that their executives are in fact savvy IT users, then it would be in their best interest to start working with them and explaining things in a manner that is relevant to their audience instead of trying to wow them with techno-speak. Moreover, CIOs will need to actively listen to what their peers are telling them instead of dismissing the CFO's comments as nothing more than those of a bean counter trying to save a penny. After all, you never know when you will find out that the CFO is a closet geek with a sophisticated network in her home who never mentions it in the office for fear it will diminish them in the eyes of their peers."

Knowledge Aggregator

"I have always believed that the role of the CIO was to affectively aggregate tacit knowledge to solve explicit knowledge requirements and strategic objectives of an organization," says Christopher Goh, a peer review manager from South Brisbane. "Being more technology savvy helps you have a better idea of a solution or enterprise architecture to enable that vision, but doesn't necessarily give you the governance and process modelling required to leverage the information into the real value proposition of ICT, which is knowledge."

The CIO role has been interpreted by different organizations and their accompanying executive to having different purposes, Goh says. While many CIO roles particularly in smaller enterprises have a heavy IT focus, others are more focused on governance, alignment and enablement.

"I think the most significant difference IT literate CEOs will bring to the table, particularly in service-oriented businesses, is that information aggregation presented in applied knowledge will finally be considered as core business," Goh says.

The role of the CIO has evolved from being the manager of the IT function to a business-focused IT knowledge resource to the business, agrees Marc Lachance, president of business operations consultancy M E Lachance and Associates. With outsourcing of IT, the CIO has only one focus: Help the business grow by educating the business about what IT can do for them, and helping them to deliver those results effectively.

"If IT is not outsourced, the CIO has a challenge: They can't focus on the technology; they must focus on the business. In most organizations, even though the title is CIO, there is still too much focus on technology and day-to-day operations," Lachance says.

"Whether or not, the CEO understands technology is not the issue. The CEO understands the business and what the business needs to grow. Managing technology does not need technical skills. It needs management skills, process skills. The CIO needs to focus on the business results that IT can achieve."

Know Your Domain

The CIO will not only require an advanced understanding of business and IT domains, but great skill in defining how domains relate and what interfaces, organizational structures, processes and documents are needed at different levels of detail, says Tim Williams, security architect lead at UK company Trusted Borders.

"Over the last two to three decades there have been numerous attempts to implement unified governance processes

and documentation, such as SSADM, CMMI, ITIL, COBIT, RUP, SOA and BPEL, that span business and technology domains," Williams points out. "The impact of constantly changing methods has been mostly disruptive.

"Most organizations do not have effective review controls over the selection and implementation of methods. Most organizations do not explicitly define and control the agreed scope of methods or provide effective guidance about which methods should be used under which circumstances. Unlike many other corporate control mechanisms, such as finance, security and personnel, methods are not reviewed annually, tested for effectiveness and governed effectively," Williams says.

"In many organizations, things are allowed to drift with competition and ambiguity between the methods, processes and documents of various factions and interest groups. There may be a general hope that what will emerge will from the melange of different processes will be best practice but rarely is this the reality.

"In part CIOs of the future will achieve alignment by securing explicit support for appropriate separation of concerns, ensuring that disruptive 'burst through' between IT and business domains does not occur outside control. For example, in a well-directed, well-managed information ecosystem, why should a technical change occurring in the hardware infrastructure ever be allowed to impact the business outside agreed constraints?"

Williams believes agreements between the parent organization and the IT function will in future deal explicitly with different levels of decision making (for example, strategic, tactical and operational); different decision-making time horizons and different levels of quality/sustainability.

Sustainable alignment will also be achieved by explicitly developing, strengthening and supporting appropriate governance interfaces between business and technology domains. "For instance, control of the creation of new logical data items or the permanent deletion of expired data will not in future be left to a committee of one in IT," Williams says. "There will be a broad understanding shared between IT and the business domains of what matters.

"Currently in most organizations junior developers are given free rein to define new XML tags as they see fit. At an enterprise level, the costs of the information 'Tower of Babel' created when each individual invents his own language are enormous and potentially threaten the profitability and sustainability of the parent organization.

"Many organizations allow individuals to make their own decisions about what business data is retained and what deleted. Most organizations allow their business managers to select new IT applications without adequately assessing the full lifecycle costs of integration, support and decommissioning.

"When junior business managers are able to cause the purchase of COTS applications with tens or hundreds of thousands of data items without any effective analysis of the enterprise impacts, the CIO role isn't working," he says

The CIO of the future must implement mechanisms to ensure that gross misalignment does not occur between the business side, demand-driven decision-making process and the IT side supply-driven decision-making processes."

In short, CIOs must start controlling the scope, lifecycle and ownership of methods, Williams says.

More about Leader Computers, System Solutions, VIA, Boss, ING, AARNet, Evolve, Leader, ProVision, Logical, BT, Butler Group, Tribe, Gartner, Provision