THE
CREATIVE
CIO

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SPECIAL REPORT: THE CIO IN THE FOURTH INDUSTRIAL REVOLUTION, KPMG

We are at the cusp of the Fourth Industrial Revolution; societies have progressed from steam power to the division of labour to the IT and electronic age and most are now firmly in the era of datafication, hyper-connectivity and digital labour. The future offers CIOs the opportunity to be at the forefront of digital change, both driving it and responding to it with new technologies, delivery models and governance approaches.

Now we are seeing the emergence of a new phenomenon - what one might term the 'Creative CIO', who is characterised by being a transformational business leader, technology strategist and business model innovator. The focus has moved beyond 'keeping the lights on' to creating business value; harnessing the social and technical disruption all around, using resources dynamically, implementing innovative IT and business products and creating an environment that can better attract and retain talent.

Key findings from the 2016 CIO Survey

Digital has firmly found a place on the board and C-suite agendas - 35 per cent of respondents have an enterprise-wide digital vision and strategy, and 24 per cent have a defined digital strategy within business units. The board or C-suite executives own 36 per cent of these strategies and increasingly organisations are expecting their CIO to lead the delivery of the digital strategy.

In taking this lead, the Creative CIO often uses their own IT teams and services to act as a test-bed to drive innovation and the execution of the digital strategy into the organisation. For example, deploying digital labour to IT service management processes, or applying cognitive intelligence to service desk agents to provide a better and more consistent level of service and improve the customer experience.

What is the Fourth Industrial Revolution?

"The Fourth Industrial Revolution is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres." – *Klaus Schwab, Founder and Executive Chairman of the World Economic Forum (2016).*

The Creative CIO frees up funding to drive innovation by delivering savings in other areas. For example, simplifying the IT estate, improving operational discipline and exploiting open source, cloud and other technologies. Yet only 31 per cent of respondents have a formal process to allocate resources to drive technology-enabled innovation across IT and the business. By taking charge and driving innovation, the Creative CIO is prepared to try, fail and learn quickly and without repercussion.

Cloud is no longer a choice; IT is not the sole purchaser of cloud solutions and 49 per cent of organisations plan to make a 'significant' investment in Software as a Service in the next one to three years, compared to 31 per cent who were making 'significant' investments in the current year. However, organisations are still struggling to build an overall strategy for migration to the cloud as this involves the broader business strategy along with infrastructure transformation. The Creative CIO is developing a set of cloud scenarios (use cases) which they can take to the operational board / executive management team to bring to life the opportunities and threats.

It is concerning that less than a quarter of IT leaders feel 'Very well positioned' to deal with IT security / cyber attacks. Only 40 per cent of respondents cited 'Insiders' as a significant concern, however an increasingly higher proportions of cyber incidents are originating from within the organisation. Are CIOs overlooking this threat or overestimating the threat of Organised Cyber Criminals?

Technology simplification is critical for successful cloud adoption. Nearly half of respondents quoted integration with existing architecture as one of the biggest challenges to cloud adoption – this must be addressed to prevent significant issues resulting from services around the edge of aging or complex architectures increasing in the near future.

Whilst 69 per cent of IT leaders sit on the operational board / executive management team, they must look to increase the depth of their relationships outside of their traditional 'comfort zones' of Finance and Operations. Only one third reported having 'very strong' relationships with HR, Sales and Marketing. This can lead to a fragmented approach when implementing a digital strategy. With 87 per cent of respondents spending more than 20 per cent of their time with non-IT colleagues to address business issues, the Creative CIO takes steps to build relationships across the business and takes the operational board / executive management team with them through the implementation of the digital strategy.

Big Data continues to be a priority – but there is a clear skills gap with 39 per cent of respondents suffering from a lack of skills in this area. The Creative CIO builds and leads skills development from within their existing teams and talent pools, through the implementation of analytics-based financial and operational disciplines. These disciplines will move their decision making from 'educated guesses' to informed and fact-based planning and allow the freeing up of budget for reinvestment elsewhere.

Business models in all industries are transforming faster than CIOs are evolving their technology delivery capabilities, with many organisations building a separate new capability for digital but failing to address the legacy and skills issues they continue to have. CIOs must evaluate their current IT estate encompassing people, governance and technology, to ensure that they can deliver flexibly and dynamically. With 59 per cent of organisations looking to implement agile methods to develop and deliver IT services, the 'Next-Generation' operating models (which include Agile and DevOps), offer the prospect of a continuous delivery capability. For the Creative CIO, the goal is to simplify organisational structures to successfully deliver both a more agile and innovative business environment and a more engaging customer experience.

Conclusion

The Fourth Industrial Revolution brings with it an unprecedented level of change and disruption that all businesses must navigate. With this comes the need for an evolution in the role of the CIO. Those that are rising to the challenge are leading their organisations through this disruption as both a business and technology strategist. They are not relying on traditional approaches to IT or business change; Creative CIOs address disruption head-on with a clear strategy to suit. They are agile in their own thinking and work to broaden their relationships across the organisation identifying and, where necessary creating new ways to simplify technology and invest in talent and innovation.

How creative are you?

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