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CIO Insights

IT Leadership Priorities for 2020 and Beyond

The roles of the CIO is continuously evolving due to digital business and technology advances. CIOs are no longer confined to maintaining only IT infrastructure and applications. Instead, they are expected to work on the strategies helping their organization or enterprise move in the right direction while remaining competitive. For 2020 and beyond, the CIO role continues to gain decision-making importance in the C-suite as their choices directly impact the state of their enterprise. They are being challenged to maximize their resource utilization while striving for business market share and profitability – without respect to the complexity involved. Looking forward some of the key CIO challenges we see are as follows.

Strategic Planning to Combat Disruption

Disruption is a common scenario in today's world and will continue into the future because of rapid developments in technology. The good news is many of these disruptions are seen as they approach.

In 2020 and beyond, CIOs and CTOs will often be required to forecast disruptive developments that might affect their businesses negatively. In addition, they will continue to be required to mitigate these potential disruptions either by defending against them or by using them to their advantage.

This new demand for thinking (and acting) out-of-the-box is causing a shift from traditional A-to-B-to-C process flow thinking to a business-first mindset. The successful CIO needs:

CIOs will continue to calculate the technology risks and time needed to mitigate those risks, but, future CIOs will also be tasked with similar thinking related to business risks. More emphasis will be required on current and future economic impacts to the enterprise, and in how to transition the entire enterprise workforce to the digital economy. As the popular saying goes, every company is now a software company.

Embracing and Adopting New Technologies

Innovation is a key priority for companies who thrive and excel in their field. They continuously deploy new technologies to business and marketplace challenges. Delays in deploying new technology solutions often provide the chance for more focused or more nimble competitors to jump ahead. However, thoughtful consideration is required while deploying new technologies in today's globally competitive environment.

CIOs and all executive leaders are being challenged to provide business and marketplace direction for the application of new technology. Beyond 2020, CIOs are expected to provide guidance around Artificial Intelligence (AI), Machine Learning

(ML), and other emerging technologies within the enterprise.

Prioritizing business value over the latest buzzwords, or "hype cycle," is the key to long term success. For example, there has been growing interest in the industrial sector around the use of artificial intelligence (AI) and machine learning (ML). Moving past the hype requires applying these technologies carefully where they quickly add value. In some cases AI might be best aligned to automating and enhancing customer experience through chatbots while in other cases it might be best to automate workflow. In areas like ML and AI early investment on a limited scale is needed to gain familiarity and build the critical skills base. However, in the areas of ML and AI, they both take long-term vision to become a differentiating reality for anything beyond the most basic tasks. In other areas, such as the Internet of Things (IoT), there may be near term use cases where investment makes sense because of the revenue potential. With some of the "hype" technologies, like blockchain, being a "fast follower" of new applications is probably sufficient for most industries.

New technologies, especially in the areas of automation, Machine Learning, Internet of Things, Data Science, and Artificial Intelligence create significant changes impacting the entire enterprise. Every CIO in the organization is not only being stretched to learn about and apply business and marketplace principles, but also to become enterprise change agents. Tomorrow's IT organization requires a key supporting skill set, either in the CIO or in key IT leadership roles. This skill is often found in some Enterprise Architects -- cross-functional enterprise leadership. This type of cross-functional leadership is expected beyond the technology domain and into the various areas of the business. In 2020 and beyond, IT silos that lack business integration are no longer an option.

Acquiring and Retaining High Performing Employees

Finding the right people for any position has never been an easy task. As time goes on and technology continues to accelerate the pace of change, that effort becomes even more challenging. We are beginning to see this play out now in the increasing demand for HR Management systems in the United States. With the low unemployment rate and the competition for talent, what was once considered a luxury system in the IT space is starting to become a critical business imperative.

Finding those with digital skills, and business skills (at the intersection of IT and business) has always been an area of high demand. However, the need is growing while the pool of capable and available talent is shrinking. Many organizations are starting to re-tool existing employees interested in technology with training, support, mentorship, and career planning.

Today's talent marketplace is extremely competitive. After you find the right employee, or invest in existing employees, you still must figure out how to retain them. As mentioned previously, career planning, active mentoring, and investing in training all help with retention. Without clear retention plans you may find your best talent poached by others seeking similar skills or capabilities.

Collaboration and the Cloud

Today's CIO role is challenging because it requires development of customer and employee satisfaction. New collaboration tools, techniques, and knowledge management capabilities are required across the enterprise. This collaboration extends from the front line customer workers such as sales, marketing, and customer-service to the supply chain and logistics operations.

Simpler, more intuitive, and well-integrated "sharing" platforms are required for the future. In many cases, these new tools are enabled by the agility provided through cloud hosting arrangements. As digital transformers the CIO is tasked with determining the right cloud "as a service" strategy for each platform --, is it Infrastructure, Platform, or Software as a Service? The CIO of the future is being required to build the entire [ERP III collaboration infrastructure across every enterprise stakeholder from customers and vendors to employees](). As this new ERP III infrastructure is developed it accelerates the process of innovation, facilitates talent management, simplifies business models, reduces costs, and shortens time-to-market while enhancing customer experience.

The Cybersecurity Threat

Security is a critical issue for every IT or technology professional. Data breaches are increasing every year and are gaining more and more media attention. This has created the demand for high security systems to protect sensitive data. CIOs must now comply with the regulations laid down by the California Consumer Privacy Act (CCPA) and the European General Data Protection Regulation (GDPR). As part of that compliance, today's CIO must stay up to date on legal issues and regulations across the estate of applications containing or processing this data. Failing to do so may cause public backlash, investor dis-satisfaction (and lower stock prices), or even legal problems.

The CIO focus on data security will be around for quite some time. However, ways to deal with data security have changed considerably – now, layered security and multiple security providers are becoming the norm. CIOs today, and in the future, are looking for robust security solutions that are also cost-effective during deployment, upgrading, and maintenance. Security applications for today and into the future are

expected to be user friendly, accessible for those with the right access, and easy to maintain. Gone are the command line tools from the past.

Data Continues to be a High Priority

Improvement in computational power has led to new data acquisition and data processing techniques. In the past decade Data Science has emerged as a new technology discipline. However, not all data processing or analysis techniques produce reliable information.

Over the last two to three decades most enterprises of any size have amassed huge amounts of structured and unstructured data. Many enterprises have Terabytes of data on order history, customer buying habits, geographic locations down to a postal code, supply chain performance, vendor quality, process metrics, and other business data points. There are new data tools available to combine that structured data with unstructured "sentiment" or social media type data including product or service reviews, social media comments, media publications, and numerous other sources. With the vast amounts of data CIOs have started to employ Data Scientists and various other types of data analysts to try to evaluate previously unknown trends and insights. Early efforts in this area have found some limited success but the CIO of the future is being tasked with capitalizing on this asset.

Together with the vast amounts of data for business direction and insight there CIOs must also manage data retention, privacy, data disposal, and access policies. The security around these areas is also a critical focus now and in the future. Finding the right talent to support data insights, data security, and data policies remains an ongoing CIO priority.

In Summary

In the coming years, the CIO role continues to transform from infrastructure and technology to business transformation. More than ever the CIO role requires digital skills but, more importantly, people integration skills across the entire value chain (employees, customers, and other business partners).

The CIO role is requiring participation with disrupting conventional thinking, looking into the future, and driving the enterprise to success with the focus on business value. They will continue to mitigate technology risks while being tasked with greater board level responsibilities of taking calculated business risks focusing on higher profit margin and greater market penetration. In preparation for the future, the CIO role is requiring deeper capabilities as an executive change agent for new digital business transformation. The expectation is to move beyond traditional ways of doing business while facilitating an enterprise culture for withstanding marketplace and business disruption. Together with these emerging priorities and tasks a CIOs primary task is not likely to change – maintaining a robust technology infrastructure with strong security across the enterprise. With marketplace employment adjustments, and global demographic changes, the coming years are pointing to CIOs investing in new technologies for enterprise human resources and talent development. Except for the technology infrastructure, the CIO role is gaining greater intersection with the CEOs role for enterprise growth and mitigating disruptive risks. Over time this is a natural evolution because an enterprise CIO is responsible for the integration of technology across each area, domain, and process of the enterprise.

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Schedule a short discussion today on how we can help you align for the future!

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