Controllership and disruptive technologies
From “debits and credits” to “bits and bytes”
Emerging business trends and forces are driving change within accounting and finance organizations. These changes are also enabling the controllership function to imagine a dramatically different future—a future in which “digital controllership” can harness innovation and technology to fundamentally transform its role, add greater value within the organization, and continue the evolution from the CPA behind the green visor to a financial-minded strategic business advisor.

The future of controllership is now
An organization’s controllership function (namely, functions with oversight from corporate controllers and chief accounting officers) is ultimately responsible for the integrity of the organization’s financial processes, systems, and delivery model. Once consigned to stewardship activities, such as “keeping score” by accounting for and reporting on what happened in the past, controllership is increasingly adopting a forward-looking role.

World-class controllership functions strategically leverage technology to improve the efficiency and effectiveness of operations, manage risk and control costs, and help drive enterprise performance through value-added capabilities. These digital controllership functions recognize that data is currency and that “bits and bytes” are as much a part of the controllership’s DNA as “debits and credits.” New and evolving financial accounting standards, global economic conditions, regulatory requirements, and merger-and-acquisition (M&A) activity are creating a dynamic business climate that challenges controllership to think and act strategically by leveraging information and insights that propel the overall success of the business. This evolution has driven line-of-business leaders to rely on controllership to be a catalyst that delivers efficient and effective processes and data-driven insights, while also being a strategist that identifies opportunities to drive performance.

Controllership functions constantly strive for a better way—and there’s a wave of innovation that’s currently enabling businesses to leverage technology in a manner never before possible. These technologies present inventive ways to address challenges and financial risks. They also enable operational improvements and access to insights that can be used to drive business performance and strategy.

“From the steam-powered past to the data-fueled future, the only limitation to business innovation has been our imagination.”

—Deloitte Tech Trends 2016

Disruptive technology: Transforming the world as we know it
Disruptive technologies are helping controllership functions fill technological white space, while addressing issues and challenges not historically solved (or at least not solved effectively) through automation. Some quickly emerging disruptive technologies being introduced to controllership include:

“[The telephone, a binary, utilitarian tool invented 140 years ago, has helped people connect in ways that were not previously imagined. But the disruptive emergence of the smartphone has made the telephone an integral and essential tool for daily productivity needs. Advances in the controllership technology landscape offer similar promise of productivity enhancement and benefit—and the potential to elevate the value controllership provides to the organization.]”

—Deloitte Tech Trends 2016
In-memory computing ("digital core")

Finance enablement with a digital core is revolutionizing process design and reporting capabilities

The digital core reimagines the linear, finance assembly-line process of moving data through systems in a sequential fashion (i.e., sub-ledgers feeding general ledgers, general ledgers feeding consolidation systems, etc.) by replacing it with a hub-and-spoke model where applications can now work in concert against one data source.

Controllership functions are intimately familiar with the linear processes, such as the period-end close. There are applications for planning, sub-ledger accounting, general ledger, consolidation, and reporting. Each month, a practiced choreography among staff and systems is needed around the clock to pull data from each of these systems and consolidate, reconcile, and produce the financial statements. A modernized finance digital core has the ability to eliminate some close tasks and provide real-time analytics to support business objectives. Leading organizations are leveraging the digital core today to reimagine financial processes, enhance strategic business partnership through real-time analytics, and more rapidly respond to business changes and M&A activities.

Controllership impact – Digital core leverages radical improvements in technology (hardware and processing power) to harness reporting power and increase the speed of an accounting system.

Vision of the future (technology disruptors)

Universal ledger (in-memory computing) – Financial close involves one integrated system, harmonized data structure, and real-time close and reporting capabilities.
Robotic process automation (RPA)
“Taking the ‘robot’ out of the human” through elimination of mundane, repetitive, logic-driven tasks from the human process

Consider how labor-intensive repetitive tasks can be in the accounting department: preparing an invoice, keying in a journal entry, responding to email queries, reporting, initiating a workflow, etc.

Technology has advanced to a place where it’s possible to utilize “robots” to replicate routine, predictable tasks within finance’s applications, based on business logic and rules.

A broad ecosystem of technology vendors has emerged to bring robotics capabilities to controllership. These capabilities are helping controllership achieve process efficiencies, drive leading practices, and support organizational cost reduction. Robotics can also help to sustain lean initiatives, facilitate outsourcing or shared services models within controllership by “working” around the clock, and improve control and consistency across a variety of industries and technology platforms.

Controllership impact – Robotics opens new doors for controllership to insource finance processes; gain greater control over the service delivery model; and divert resources from executing time-consuming, rules-based, and manually intensive processes to value-added activities—all while driving a high degree of consistency, accuracy, auditability, and control.

Cognitive computing
Teaching systems that “think” like humans can add a strategic element to risk-sensing and reporting capabilities

“Cognitive computing” is a term used to describe how organizations apply artificial intelligence technologies and techniques to help humans make smarter business decisions. In some cases, cognitive computing can even make decisions on a human’s behalf. It’s an important concept for the controllership to be aware of, due to its ability to combine financial information (from traditional sources such as ERP) with unstructured datasets (e.g., emails, images, the Internet of Things, and even social media) to derive rich and strategic insights that may be too time-consuming or costly for humans to source the old-fashioned way.

Controllership impact – Cognitive analytics offer the ability to help bridge the gap between mining big data and the reality and importance of practical, real-time decision making, and moving at the speed of business.

Cognitive systems are potential disruptors that can influence organizational strategies as they adapt and learn, becoming smarter over time through their interactions with data and humans. This is made possible by harnessing the exponential growth of data through smarter algorithms and faster processing speed, which can augment and amplify human capabilities to deliver strategic insights to the business.

Visual analytics
Rendering data in a consumable manner to help users discover new insights

Identifying leading indicators within large volumes of data has historically been difficult...
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The prevalence and ubiquity of smartphones, tablets, webcams, social media, and mobile platforms in our personal lives has changed the way we communicate, learn, and interact. It has also increasingly changed how we do business. Consider how the submission of time sheets and expense reports has changed in the last 10 years. A picture of a receipt and a few keystrokes on a smartphone is becoming the “new normal” for completion of this once manual and inefficient task.

Controllership is also impacted as the integration between mobile apps and back-office enterprise systems grows, enabling greater efficiency and speed for time-consuming business practices. Reporting through mobile platforms is also introducing “at the point” analytics capabilities, helping to drive improved, data-driven decision support.

Visual analytics was once reserved for a small number of highly trained specialists. But software advances have opened the door for controllership to leverage visual analytics. Typically, just a short learning curve on using software to combine and then slice and dice data is needed. Practical applications of visual analytics in the controllership realm include cost and profitability management, anti-fraud sensing and monitoring, risk management, strategic sourcing, operational complexity reductions, activity analyses, forecasting, and planning and analysis—to name a few.

Mobile platforms
Enabling a more productive workforce through powerful mobility devices that free the user from the desk

The technology is new and changing rapidly, and we are a few years away from seeing its widespread use. Nonetheless, to avoid disruptive surprises or missed opportunities, accounting technologists and visionaries across industries and organizations should pay attention now and begin to consider how this technology might be used.

From theory to function
Leading controllership functions recognize that being tech-savvy is becoming a core competency and that the effective use of technology is a driver of competitive advantage. That’s why controllership must understand and explore how disruptive technologies can be practically leveraged to help achieve its goals. Here are three takeaways for the digital controllership to consider when driving improvements through technology enablement.

Blockchain
Emerging crypto-technology that underpins products like bitcoin has the potential to fundamentally alter existing finance and accounting processes

Blockchain, or “distributed ledger” technology, allows users to record transactions or any digital interaction among a network of trusted participants in a way that’s secure, transparent, auditable, efficient, and highly resistant to outages. Therefore, it carries the possibility of disrupting business practices, such as front-office payment processing and back-office accounting and auditing, and enabling new business models. Additional practical applications within controllership might include “smart contracts,” automated auditing, and improved cyber security practices.

Controllership impact – Blockchain technology intends to offer verifiable and secure capture of data through a decentralized network and may revolutionize accounting processes, auditing business transactions, and methods to secure information.

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Requirements, risk, and return

Requirements: Design the blueprint and structure a versatile team
Controllership often organically develops and grows capabilities and synergistic skill sets in financial and operational accounting, internal and external reporting, tax, and working capital management—all part of an expanded role beyond its traditional function. Controllership, therefore, is uniquely positioned to serve in a key leadership role. It can inform and influence the finance technology blueprint by envisioning the target state of business processes and by reporting and teaming with other stakeholder groups across the enterprise. All of which can help the organization meet strategic and operational objectives more effectively.

Leading controllership functions go even further by embracing the role of the “accounting technologist” within their groups. The accounting technologist serves as the bridge between IT and accounting departments and seeks to break down barriers posed by each department’s native languages of “bits and bytes” and “debits and credits,” respectively.

A key characteristic of digitally maturing organizations is the tight integration between controllership and IT. These two functions must have alignment in their technology vision and strategy. They must also complement each other in promoting organizational culture that values the intelligent and strategic use of technology to foster agility, continuous process improvement, and informed risk taking to capitalize on existing and emerging capabilities.

Risk
Introducing disruptive technology to controllership inherently presents new risks and rewards. Controllership should view risk as a strategic choice that can create and enhance value while informing strategic decision making and powering performance. Whether that value is realized by providing insights on the effectiveness of a new product or demonstrating control surrounding the implementation of a new finance technology, intelligent risk taking can serve as a leverage point for building an effective controllership—with as much focus on foresights and insights as on past performance or hindsight.

Return (on investment): Enhancing value through technology
Improving the use of available resources should be top of mind for the controllership function, and effective deployment of resources is central to the technology conversation. For controllership, technology is often inseparable from domain focus areas, such as managing cost, improving margins, simplifying processes, reducing cycles, and enhancing control.

Therefore, optimizing these focus areas via the effective use of technology should be viewed through the lens of unlocking value from finance talent—freeing resources from the mundane and refocusing them toward value-oriented activities.

Pressures to drive out finance costs can have a detrimental effect on controllership’s performance, if not properly balanced with the value provided in terms of reporting, information, and stewardship. A myopic lens on lowering process costs to concentrate on core accounting tasks puts controllership at risk of limiting its focus on analytics, insights, and control. But with the right mindset, team, and technologies in place, controllership can take time spent completing basic tasks, such as producing books and records, and reorient it toward high-value activities.

Pardon the disruption: Digital controllership has arrived
Controllership’s role is evolving. Where it was once solely a steward and guardian of the financials and controls, it’s now adding value by providing insights that drive performance and inform strategy. As its role continues to change, controllership is in a unique and influential position to drive how technology and business intersect.

A digital controllership function harnesses technological capabilities in the market. This helps enable controllership to continuously improve its traditional focus on proficient accounting and reporting operations and effective regulatory compliance. It also allows controllership to provide insightful and strategic support from finance to the business.

Are you ready?
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