Reimagining Enterprise IT for an Uncertain Future

By Jeanne G. Harris, Allan E. Alter, Stéphane J.G. Girod & Iris A. Junglas

The role of the information technology department is under scrutiny in a way that makes its past challenges seem almost quaint by comparison. Cloud computing services provide an alternative source of powerful technology. Employees are getting work done using free Web applications as well as their own laptops and smartphones. Executives can make many of their own technology decisions. Traditional IT function roles are being displaced. No wonder some analysts and executives are asking whether IT departments are necessary anymore.

It may be an exaggeration to say that IT departments should go the way of secretarial pools, but the function is certainly ripe for reinvention. In a new Accenture Institute for High Performance survey, IT was chosen most often, as the function business executives would like to build from scratch. IT executives singled out their own function as a target for reinvention by an even bigger margin. (See Figure 1.) IT, the agent of change, is now the target.

But how should enterprise IT evolve? How will it be sourced five years from now, and what should be its roles, responsibilities and business goals? That is where many executives appear to be stuck. Less than a third say they have a clear vision of how their IT function will look by that time. Barely one in five business executives say they know what the CIO role will consist of in five years. (See Figure 2.)

Prepare for multiple futures

To arrive at a new vision of enterprise IT, senior business executives should center their efforts on creating enterprise IT functions that are “futures ready.” A futures-ready posture recognizes that it is folly to bet on a single outcome. It is much better to recognize the radically different ways in which the business environment could change, imagine how IT might adapt to those changes, and have the judgment, readiness and courage to evolve when the time comes. Enterprise IT doesn’t exist in a vacuum. Our research into the factors influencing business and technology uncovered more than 60 forces that
Enterprise IT doesn’t exist in a vacuum. Our research into the factors influencing business and technology uncovered more than 60 forces that could have an impact on enterprise IT’s agenda and the IT function’s own future.

**Figure 2: Enterprise IT’s uncertain future**

executives are unable to say what enterprise IT and the CIO roles should look like by 2016

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*Source: Accenture Institute for High Performance Future of Enterprise IT survey, August 2011*

could have an impact on enterprise IT’s agenda and the IT function’s own future. Eight large-scale forces in particular will have the greatest impact.

**Force No.1. The cultural impact of consumer IT.** Smart phones, social networks like Facebook and China’s Renren and other consumer technologies have already transformed how people work, play, learn, shop, share, talk and organize.

**Force No.2. Global, Internet-based competition.** Companies with Internet-based models and emerging market multinationals are challenging and sometimes overtaking industry leaders.

**Force No.3. Vulnerable technology and information.** Individuals, companies, governments and even IT security experts remain exposed to threats from cyber criminals and governments.

**Force No.4. Increasing pressure for quality and efficiency.** Companies must improve productivity in the face of global competitors with cost advantages, while still improving product and service quality.

**Force No.5. The rise of data-driven decision making.** Smart companies are applying sophisticated new analytical techniques to acquire valuable insights and are beginning to embed analytics into their processes and planning.

**Force No.6. New approaches to innovation.** Companies are involving customers, suppliers and outsiders, employing talent from developing nations and turning products for emerging economies into new products for mature markets.

**Force No.7. The impact of geopolitics and state regulation.** Geopolitical issues, government policies and regulations will have a big impact on the flow of information—and on talent, trade, technology, capital and ideas.

**Force No.8. The possibility of disruptive disasters.** Natural catastrophes, wars and unrest could disrupt technology use for lengthy stretches. Their impact—including decreased foreign investment, recession and labor flight—could figure into IT deployment decisions.

**A connected world?**

Future IT needs will be determined by the interplay of these forces. Most of these forces are packed with uncertainty. In combination, they could lead to futures that are neither flat nor connected.

Many technologists and opinion-shapers believe they know what’s coming: a flat and increasingly connected world with exponential growth in data and computer intelligence.

This is the world that the IT industry, Silicon Valley and venture capitalists are investing in. We’ve certainly come a long way down that road: 35 percent of the world’s population was online as of 2011; nearly double the percentage of 2006.

But continued growth in connectivity isn’t assured; how flat the world really is remains to be seen. Many things could affect the flow of information online, including Europe’s strict data privacy regulations, America’s hodgepodge of laws (such as the Patriot Act and its industry-specific laws), China’s limits on the Internet and India’s push to monitor online and mobile communications.

Globalization could shift into neutral or reverse if the economic crisis in Europe worsens and the US dips into another recession. Just imagine a world in which the Euro breaks down, high unemployment leads to political instability and protectionist policies, relations between economic powers decline, or high energy prices undo global supply chains.

As International Monetary Fund managing director Christine Lagarde recently warned, without decisive action by the world’s policymakers we could easily slide into a “1930s moment—a moment where trust and cooperation break down and countries turn inward.” Even if our political leaders help us avert the most frightening possible futures, other events could occur that affect how companies use technology.

Resistance to data-gathering on individuals, laws that harshly penalize companies when their customers misuse public networks, or even prolonged sunspot interference with electronic communications could cut consumer use of the Internet and compel companies to operate without it.

Executives may prefer to live in a technology-friendly world with a strong economy, vibrant international trade, and no technology barriers. But the future they want may not be the world they get. (See “Visions of the future.”)
Visions of the Future

**Race to Innovate**

The future state: A peaceful, interconnected world creates conditions for information, trade, labor, ideas and capital to flow freely across borders. This is an ideal environment for innovation and the use of IT, and also for fierce global competition.

Implications: Organizations that fail to stay current will quickly fall behind their competitors. All companies will need a flexible and agile IT infrastructure, incorporating state-of-the-art applications and analytics. Users and customers will demand access to the latest technologies, and expect their IT function to implement new systems in little time—weeks or even days. Executives will invest in IT and innovation when they see an opportunity for market differentiation. When they don’t, they will push their CIOs to cut IT costs. The IT organization will shrink, as others do more of its work.

**Wary Retrenchment**

The future state: Globalization remains strong. But cyber crime and privacy concerns reach such high levels that consumers and companies refuse to share information via social media and greatly scale back other activities on the Internet. Many people refuse to use technology for personal transactions. IT innovation slows down.

Implications for business use of IT: Customers will be reluctant to trust companies with their data, and companies will distrust each other and their employees. Companies will even start seeking alternatives to the Internet. Security worries and reduced access to customer data will limit how companies use IT and information. Doing business will become more complex; projects will slow down, and business costs will rise. Governments will respond by cooperating on setting security standards, and fighting online crime.

Implications for the IT function: Companies will minimize their use of public clouds and rely more on proprietary networks, private clouds, secure data centers and new security technologies and procedures. Executives will connect IT risks to other business risks—legal, brand, and market—and understand what constitutes acceptable risk. Some companies will form global risk councils to oversee major IT and data management decisions.

**Lumpy and Local**

The future state: The global marketplace starts falling apart. Protectionism and suspicion divide trading partners. Trade, labor exchange and currency agreements break down, and countries fail to agree on common data protection laws. High energy prices make global supply chains difficult to maintain. Consumers are still technophiles, but their preferences for local over foreign companies now extend to consumer IT.

Implications for business use of IT: International companies will manage fewer operations on a global basis. They call upon IT to help them reorganize their business operations: build and replicate local processes, use local providers and use in-country data to analyze local markets. IT will also be used to develop and deliver products, services and marketing that cater to local tastes.

Implications for the IT function: IT departments will be organized in a geographically federated model. Global CIOs will negotiate the overall IT strategy, data standards and security policies with local IT leadership teams who have autonomy over other decisions. Country IT units will host data within their own borders, and set up local IT innovation centers. The best local practices will be copied in other countries.

**World Wide Shred**

The future state: State-sponsored cyber attacks and even cyber wars break out. Even technology companies can’t keep up with the attackers’ tricks and arsenals. People avoid the Internet, and extremely trustworthy data becomes scarce and valuable. The global economy is crippled by globalization’s demise.

Implications for business use of IT: A reputation for security will become a competitive differentiator. Companies will retrench from the Internet and Internet-based business models and revert to private networks. Their geographically decentralized IT organizations will focus on keeping business processes operating as efficiently and securely as possible within their regions. Online business will be cut back or abandoned.

Implications for the IT function: Everything the function does will be through the prism of security, risk mitigation and crisis management. Local IT groups will assume more responsibility, and will focus on designing and operating private corporate networks and applications within their country, to replace ones that have been disrupted. Local executives responsible for operations will need to develop alternative ways of getting work done and serving customers. They adjust to making decisions with less information than before.

**Rethinking IT delivery**

IT will almost certainly need to stretch its capabilities to meet tomorrow’s business needs, whatever future arises. Take the “race to innovate” future: IT groups will be under incredible pressure to quickly complete projects. A CEO might ask the CIO to create a new IT-enabled business service in a week, or build a new corporate IT infrastructure in one month. The very idea would have been laughable five years ago. Now, 34 percent of IT executives think companies will probably be able to do that by 2016, and another 30 percent think it’s at least a possibility. (See Figure 3.)

If business executives and employees get tired of waiting for IT to give them what they need, they will take matters into their own hands. Our global study of consumer technology found that 43 percent of employees now say they feel comfortable making technology choices on their own.

Indeed, in the not-too-distant future, it will be even easier for non-IT managers to manage IT. Cloud services combined with data integration and data stream publishing technologies could make it possible for divisions within companies to select technology the way a consumer shops, as opposed to having technology handed down by a centralized IT department.

Simple, standard personal productivity and enterprise applications could be available for download by the equivalent of an Apple AppStore or Google Market. Complex applications and needs could be custom-built by service providers and specialized contractors. Employees could build their own apps by creating mashups out of information streams. This storefront of applications could be managed by a broker who selects the
best services to put in the store’s virtual aisles.

This model won’t work in every situation. Companies cannot rely on cloud services without a reliable security and legal environment. Certainly there are some core applications, which would need to be managed centrally, if only to provide consolidated reporting and information. But if the trends continue, much of the work that IT organizations now do could evaporate in the future.

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**Becoming futures-ready**

What makes an organization futures-ready isn’t a particular IT organizational structure, management model or technical architecture, but a certain focus in how it thinks and plans its enterprise IT future. In particular, the futures-ready IT organization will:

**Be worldly visionaries.** Futures-minded IT leaders think about technology’s future without being technocentric. When they plan enterprise IT’s future, they will weigh social, political, economic and demographic forces and uncertainties that will affect their company’s business, not just the technological ones. When they plan their future IT function, they will plan it with multiple futures in mind.

**Open up the process of creating the new enterprise IT.** The executives who forge the new enterprise IT will make sure the process is inclusive, not insular. It will be engage business line managers and users from many geographic regions and cultural backgrounds alongside IT architects and emerging technology experts. Planners will seek input from employees, customers and other members of their business ecosystem.

**Seize the future that has already arrived.** Not all futures support IT innovation. But whenever possible, a futures-ready IT organization will take advantage of new technologies that create new business possibilities, such as context-based services (cloud services that recognize where you are and what you are doing), social IT (Facebook, LinkedIn and other new communication channels) and platform-as-a-service (cloud services for building or running new cloud services). They will also apply new management and information-gathering tools like crowdsourcing. This new kind of IT organization will be eager to explore new ideas and driven to test them.

**Shatter the boundaries of the possible.** Like athletes breaking world records, IT leaders will accept the challenge of performing at a level once considered out of reach. They will investigate radical ways to reorganize IT to attain radical goals. How would they meet a demand to cut the IT budget by 90 percent? A challenge to create new IT infrastructure in a week? Permission to toss all their legacy systems and rebuild their IT from scratch? These companies will explore how to do the seemingly impossible. And as they do, they will find breakthrough IT practices and invent the IT organization of the future.

**Make IT roles fit business needs, not technologists’ ambitions.** Some companies need strategic, transformational CIOs. But in some futures and with some business strategies, companies may have more modest IT needs and will instead need IT leaders who are more focused on specific goals, such as cost reduction or ensuring security. These companies will be better served by a CIO who is more of a manager than a strategist, and there is nothing wrong with that.

An epoch-making technology transition—the advent of cloud computing and consumer IT, which puts low-cost, powerful and simple-to-use computing into the hands of billions of people around the world—is intersecting with a moment of geopolitical, macroeconomic and legal uncertainty. Throw in the joker in the deck—the potential downsides of our dependence on the Internet—and the uncertainty for enterprise IT grows exponentially.

Becoming futures-ready is a tough task. It will require the imagination to challenge old assumptions and the courage to act upon new insights. But it’s a task that no responsible IT leader can shirk.

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