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Tech Trends 2014
Inspiring disruption

What is it?

Deloitte's annual Technology Trends report examines the ever-evolving technology landscape put to business use. Once again, we've selected ten topics that have the opportunity to impact businesses over the next 12 to 24 months.

This year's report, *Inspiring disruption*, examines technological forces such as analytics, mobile, social, cloud, and cyber that have the potential to disrupt and reshape organisations, business models, and even industries.

Today's disruptive technologies can challenge CIOs to anticipate the impacts that these forces may have on their organisation. And while the realities of today's demands are by no means trivial, these trends offer CIOs the opportunity to shape tomorrow—to inspire, to create, and to transform "business as usual."

How were the trends selected?

Developing the list of trends is an ongoing process of primary and secondary research.

The process includes:
- Feedback from client executives on current and future priorities
- Input from Deloitte industry and practice leaders
- Perspectives from industry and academic luminaries
- Research from alliance partners, industry analysts, and competitor positioning
- Crowdsourced ideas and examples from our global network of practitioners

The topics are compiled to reflect how the evolving technology landscape and volatile market forces are affecting the complex nature of our clients' business problems.

Disruptors

Opportunities that can create sustainable positive disruption in IT capabilities, business operations, and sometimes even business models.

CIO as venture capitalist

CIOs who want to help drive business growth and innovation will likely need to develop a new mindset and new capabilities. Like venture capitalists, CIOs should actively manage their IT portfolio in a way that drives enterprise value and evaluate portfolio performance in terms that business leaders understand—value, risk, and time horizon to reward. CIOs who can combine this with agility and align the desired talent can reshape how they run the business of IT.

Cognitive analytics

Artificial intelligence, machine learning, and natural language processing have moved from experimental concepts to potential business disruptors—harnessing Internet speed, cloud scale, and adaptive mastery of business processes to drive insights that aid real-time decision making. For organisations that want to improve their ability to sense and respond, cognitive analytics can be a powerful way to bridge the gap between the intent of big data and the reality of practical decision making.

Industrialised crowdsourcing

Enterprise adoption of the power of the crowd allows specialised skills to be dynamically sourced from anyone, anywhere, and only as needed. Companies can use the collective population of the masses to help with tasks from data entry and coding to advanced analytics and product development. The potential for disruptive impact on cost alone likely makes early experimentation worthwhile, but there are also broader implications for innovation in the enterprise.

Digital engagement

Content and assets are increasingly digital—with audio, video, and interactive elements—and consumed across multiple channels, including not only mobile, social, and Web, but also in store, on location, or in the field. Whether for customers, employees, or business partners, digital engagement is about creating a consistent, compelling, and contextual way of personalising, delivering, and sometimes even monetising the user's overall experience—especially as core products become augmented or replaced with digital intellectual property.

Wearables

Wearable computing has many forms such as glasses, watches, smart badges, and bracelets. The potential is tremendous: hands-free, heads-up technology to reshape how work gets done, how decisions are made, and how you engage with employees, customers, and partners. Wearables introduce technology to previously prohibitive scenarios where safety, logistics, or even etiquette constrained the usage of laptops and smartphones. While consumer wearables are in the spotlight today, we expect business to drive acceptance and transformative use cases.

Enablers

Technologies in which many CIOs have already invested time and effort, but which warrant another look because of new developments or opportunities.

Technical debt reversal

Technical debt is a way to understand the cost of code quality and the impacts of architectural issues. For IT to help drive business innovation, managing technical debt is a necessity. Legacy systems can constrain growth because they may not scale; may not be extensible into new scenarios like mobile; or underlying performance and reliability issues may put the business at risk. But it's not just legacy systems: New systems can incur technical debt even before they launch. Organisations should purposely reverse their debt to support innovation and growth.

Social activation

Over the years, the focus of social business has shifted from measuring volume to monitoring sentiment and, now, toward changing perceptions. In today's recommendation economy, companies should focus on measuring the perception of their brand and then on changing how people feel, share, and evangelise. Companies can activate their audiences to drive their message outward—handing them an idea and getting them to advocate it in their own words to their own network.

Cloud orchestration

Cloud adoption across the enterprise is a growing reality, but much of the usage is in addition to on-premise systems—not in replacement. As cloud services continue to expand, companies are increasingly connecting cloud-to-cloud and cloud-to-core systems—in strings, clusters, storms, and more—cobbling together discrete services for an end-to-end business process. Tactical adoption of cloud is giving way to the need for a coordinated, orchestrated strategy—and for a new class of cloud offerings built around business outcomes.

In-memory revolution

As in-memory technologies move from analytical to transactional systems, the potential to fundamentally reshape business processes grows. Technical upgrades of analytics and ERP engines may offer total-cost-of-ownership improvements, but potential also lies in using in-memory technologies to solve tough business problems. CIOs can help the business identify new opportunities and provide the platform for the resulting process transformation.

Real-time DevOps

IT organisations need to better respond to business needs with speed and agility. IT can likely improve the quality of their products and services by standardising and automating environment, build, release, and configuration management—using tools like deployment managers, virtualisation, continuous integration servers, and automated build verification testing. Popular in the agile world, DevOps capabilities are growing in many IT organisations with either waterfall or agile methodologies.
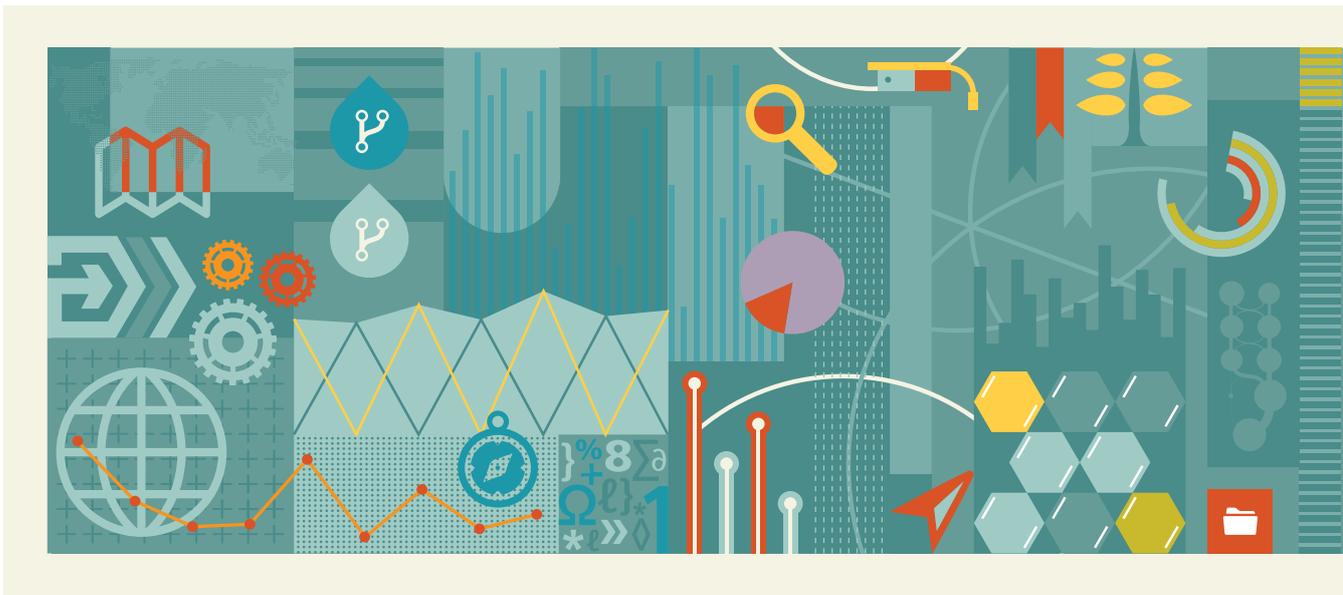
Questions?

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