

Digital transformation: top 10 technology trends of 2016



By [Kim Andersen](#)

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Technology has driven a revolution in the way people work, play, interact and even how they think. Evolving technology has opened up new business models, and has driven the emergence of futuristic, connected devices that have the potential to fundamentally alter the market. The driving force behind all of these changes is a move toward digital transformation. In 2016, we can expect to see existing trends become more pervasive, as well as the emergence of new trends made possible by increasing maturity of technologies.



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1. Big data and high-speed analytics take off

We can expect Big Data to gain momentum over the next 12 months, particularly as the ability to conduct high-speed analytics becomes a reality. What we are beginning to see is analytics based on real-time data that enables organisations to see what is happening now. The notion of big data has moved on from the concept of harnessing social media data to the idea of bringing together multiple data sources. This finally brings the concept of true predictive analytics to fruition.

2. More investment into ICT that enables differentiation

Simply 'keeping the lights on' with regard to ICT is no longer enough. CIOs need to actively look at the percentage of their ICT spend used for non-differentiating technology solutions. By conducting a thorough examination of their spend, and finding ways to achieve the same supporting functions in a smarter and more cost-effective manner, they will be able to release funding for systems that enable differentiation.

3. All things virtual

The need for ICT that adds value and enables differentiation underlines the trend of 'anything that can be virtualised will be'. From desktops to networks, infrastructure to services, virtualisation is becoming increasingly pervasive. This is driven on certain elements of cloud computing, which has become an accepted technology that is enabling agile, dynamic and scalable IT services. Ultimately technology decisions are being made based on business outcomes, and should enable innovation.

4. Wearable technology

A new trend has emerged - Wear Your Own Device (WYOD), mobile technology that includes a host of new offerings from smart watches to heart rate and other body sensors. While wearable technology is not applicable to every industry or business, it is an area that is seeing significant investment, and the forward-thinking CIO would be well prepared to examine their business for potential uses.

5. Mobile apps for business processes

A recent uptake of mobile apps is aimed at automating and improving the efficiency of essential business processes, from the supply chain and logistics to maintenance and more. The technology is maturing and the price of smartphones is constantly reduced, with apps becoming increasingly applicable for a broader business spectrum. We can expect this trend to accelerate in 2016, with mobile apps progressively being used to digitally transform business processes.



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6. Security - the perpetual concern

An ever-more connected and globalised world means a rise in connected and globalised threats. In 2016 we can expect to see a continuation of the trend toward ever more sophisticated cyberattacks and threats. In order to ensure effective security, it is essential to build better response and monitoring solutions that operate 24x7x365

7. Collaboration and communication grow

A variety of consumerised communication channels has grown in popularity, from video chat and messaging to social media. Organisations need to understand and support collaboration and communication across different channels and devices both into and within the company. Solutions need to be integrated to allow for the same systems to be used whether a user is communicating on a smartphone from a coffee shop or from their computer in the office.

8. Machine-to-machine (M2M) and the Internet of Things (IoT) evolve

The use of these trends has been limited due to the requirement for GSM-based connectivity, which increases the size of the transmitter required as well as the battery needed to sustain power. With the development and rollout of low range Wide Area Networks (LoRaWAN), which is set to begin in South Africa in 2016, this is changing and opening up applications for the IoT to many more areas.

9. Energy issues will become the CIO's problem

Energy is a crisis in South Africa. It can no longer be left to the facilities manager alone to deal with reducing energy consumption. The emergence of intelligent technologies have the potential to revolutionise facilities management and energy optimisation, and thus the CIO and the IT department need to get involved in solutions around energy issues and management.

10. Smarter call centres emerge

The traditional call centre is seeing a revamp as multiple channels are integrated, including social media. Smart technology is beginning to emerge in this space, with integrated views of the customer across channels, and smarter systems utilising analytics and machine learning to improve customer service.

2016 - The year of digital transformation

Over the past few years, we have seen a move into the era of digital interaction, and this will further be entrenched in both business and consumer spaces. If businesses are to remain relevant in the future, they need to embrace agile, flexible technology solutions that enable them to meet the changing needs of their customers. Beginning the journey toward digital transformation is essential for competitiveness and profitability in the years to come.

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