

The Evolving Workforce

Report #3: The Business
Perspective and
Research Summary

Part 2: **Productivity**



Introduction

Dell and Intel commissioned TNS to undertake a global project to identify and explore future trends pertaining to the workplace and workforce, and to also understand the role technology is playing in its evolution. The project is called [The Evolving Workforce](#), spanning eleven countries and comprising several stages that, combined, form an iterative journey of learning and discovery.

This final report outlines the views of senior business leaders – CIOs, CTOs and other experts – on the key themes and hypotheses uncovered in the previous stages of the research. Engagement with this audience reveals an array of implications (or the ‘so what’) for IT consumerization as well as the changing workforce and workplace of the future.

The selection of interviewees was designed to cover a mix of organizational role, variety of industries and enterprise size. We spoke with three groups of experts: global futurists; senior Dell and Intel leaders; and senior business leaders from a range of organizations including healthcare, financial services and more.

- **Global futurists:** this final stage saw the reconvening of experts who contributed to the first report of the series, with the objective of ascertaining a futurist perspective on results from the global workforce survey as well as their predictions for the long-term effects of the trends under discussion.
- **Dell and Intel:** the inclusion of Dell and Intel’s own business leaders gives insight into the strategies driving their businesses and how they are poised to help customers face IT challenges and opportunities associated with consumerization.
- **Third-party business leaders:** additional third-party senior business leaders’ viewpoints provide a valuable perspective on how the trends are manifesting themselves within various types of organizations and industry sectors.

This report has been compiled and divided into three parts according to key themes - People, Productivity and Progress. Each theme encapsulates a number of insights ascertained from the previous stages of the project.

- **People:** highlights the segments within the global workforce that are shaping and driving change.
- **Productivity:** explores the role technology can play in helping employers and employees achieve productivity gains.
- **Progress:** outlines the factors that are making progress most apparent in certain geographies and sectors.

Additional information about the project, including ‘Report 1: Expert Insights’ and ‘Report 2: The Workforce Perspective’ can be accessed at the Evolving Workforce website: www.dell.com/evolvingworkforce.

Methodology

This final phase was conducted using the outputs of the previous stages of research packaged into a three part report. Dell and Intel’s own senior leaders were joined by technology leaders from various enterprises across a number of industries as well as experts who provided additional commentary. A mix of 12 face-to-face and telephone interviews were conducted to develop a rich picture of the issues discussed. The list of interviewees and biographies can be found [here](#).

Note that the statistics referenced throughout this report were derived from the second report (The Workforce Perspective) and can be referenced [here](#).



Executive Summary

Senior business leaders not only recognize the consumerization of IT phenomenon, but are actively grappling with the opportunities and challenges it is generating. The perceived speed of change from the last five years, and its impact on workplace evolution, means that many are monitoring the trend closely to determine how best to capitalize on it to nurture productivity, efficiency and workforce morale.

Around the world, the typical work schedule is being eroded by technology and connectivity. Less than two-thirds of global employees feel they 'can get their work done in a traditional 9-5 schedule' (60%). The private sector is more likely than the public sector to offer flexible hours (58% versus 51% globally), while SMBs outpace large enterprises (60% versus 55%).

"The way we work and live around the world is changing rapidly. For most knowledge workers, there is no such thing as 9 to 5 anymore, and time zone differences matter less than ever before. We are living in a time of 24/7 connectivity, where boundaries between work and play are less marked."

Stephen O'Donnell, CEO Chalet Tech Inc.

While some companies, particularly from the technology sector, have been at the forefront of embracing IT consumerization, others have chosen to adopt a more 'wait and see' approach. These tend to be larger and more established entities (in both the public and private sectors) operating in relatively more regulated industries such as financial services.

Recent economic conditions and inherent legacy issues with existing IT infrastructure (brought about by continued reliance on specific devices or a preference for buying in bulk) has impeded the ability for many companies to invest in new technologies. However, there are employers benefitting from their employees' penchant for IT to deploy new technologies that can be easily customized for collaborative and productive use in the workplace as well as for personal use. Nearly half of the workforce around the world expresses a desire to be able to use their computer and other devices for both work and personal use (46%), although this desire is stronger in growth economies such as Mexico (73%), China (67%) and India (64%).

"The line has blurred between an enterprise computer and a consumer electronic device. Value is no longer just in the ROI but is emotional and social. True consumerization is epitomized by the smartphone experience: iPhone and Android users are not thinking of their devices in terms of a computer but as a part of their life like air and water. In reality there's more compute power and capability instantly available to them than NASA used in a decade to put a man on the moon."

Jim Stikeleather, Chief Innovation Officer, Dell

Although, this new era does come with risks; by allowing increased choice and mobility, business leaders are now contending with greater (and more complex) potential for loss and theft of highly sensitive information. It seems that Chief Information and Chief Technology Officers (CIOs and CTOs) are more concerned with the way information is being accessed and shared virtually rather than the specific devices or software being used by their employees.

"If you are a small e-commerce outfit and you lose customer credit card data, then you are putting your business at risk. If you are a large multinational and lose millions of customer records, then you put the economy at risk. Safety of data is paramount as more transactions take place online and the risks are compounded by the tsunami wave of new devices offering connectivity over public networks that are more susceptible to hacking."

Stephen O'Donnell, CEO Chalet Tech Inc.

Less than two-thirds of global employees feel they 'can get their work done in a traditional 9-5 schedule' (60%). The private sector is more likely than the public sector to offer flexible hours (58% versus 51% globally), while SMBs outpace large enterprises (60% versus 55%).



There is a consensus that companies like Dell and Intel need to focus on tailoring end-to-end solutions that mitigate these concerns without detracting from the user experience, which is equally paramount.

"Customers are looking for a complete, integrated, secure, holistic, easily managed, easy to understand and affordable service. I think that's critical, and vendors who deliver these full, integrated services are likely to be very successful."

Stephen O'Donnell, CEO Chalet Tech Inc.

"At Dell, we're engaging with customers to understand what the end user needs are. As a solution provider, we have expanded our vision beyond what device the end user has to having consultative conversations with our customers about how data is being accessed, used and secured to find the right solution to help their employees be more productive and drive results."

Steve Felice, President and Chief Commercial Officer, Dell

"Technology is critical – you're not delivering any value to customers or workers unless you have a great technology platform."

Christian Anschuetz, Chief Information Officer, Underwriters Laboratories

There is also a desire for greater interoperability across generations of devices and systems, so that the more progressive adopters can continue to work with clients and stakeholders using older platforms. In fact, interoperability is becoming the norm. 59% of employees around the world are able to share data between all of their devices, and 74% believe this will be the case in the future.

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Last, but not least, while business leaders are excited about the role IT consumerization can play in achieving growth and empowering the global workforce, they are eager that the fundamentals of sound management practices – environment, culture, trust and motivation – are not forgotten.

"This is not just about replacing the old with a new up to date tool that'll help the 9 to 5 worker get things done quicker and better. It is about building the foundation to help release the innovative juices in workers: Employers have to provide the environment alongside all these great tools."

Adriana Karaboutis, Chief Information Officer, Dell

So, IT consumerization is real: employees and employers are seeing the benefits of technology in enabling more flexible working, finding new ways of doing things and improving productivity. The speed of change accompanying these developments is perceived to be getting faster. But, alongside benefits, threats of IT consumerization are evident. In many cases, these benefits and concerns overlap and differ in equal measure moving across the spectrums of geography, sectors, organizational type and stakeholders. The fast-paced evolution of the IT landscape means that these benefits and concerns will continue to evolve and will require considered compromises in the short to medium term.

The research also suggests that a conscious effort is underway in most companies to identify and pursue an optimum solution for all concerned. Most importantly, the findings reveal the importance of adopting a tailored approach that not only builds consensus and collaborative working between senior business leaders and their employees, but is also specific to the company's circumstances. Technology companies like Dell and Intel have a crucial role to play in not only offering customizability, but also in promoting dialogue between an ever-increasing tech-savvy workforce and outcome driven employers.



Part 2: Productivity

In the backdrop of a prolonged economic downturn, where productivity growth and innovation have become overriding objectives, technological advances present both a means and an end for business leaders. Technology has the potential to drive productivity in two ways: firstly, by empowering employees to perform tasks quicker by nurturing innovation. Secondly, IT can create efficiency gains from the increased automation of workplace processes and practices. However, the growing scope of IT (and its impact on how business leaders oversee productivity within their organizations) poses a number of challenges to the traditional business doctrine of command and control.

This is because, on the one hand, today's workers want greater flexibility and mobility to work effectively. For them, technology presents a key avenue to fulfill their preferred working style. On the other hand, while employers also want an efficient workforce that is highly productive, they have responsibilities to embed practices and guidelines that promote consistency and discipline among their employees, while safeguarding and managing assets.

Is a more flexible and mobile workforce more productive?

Tracking Productivity

Business leaders observe significant changes in their respective workforces' expectations of how they would like to work. Over the last three to five years, a common preference for increased flexibility, choice and mobility in working lifestyles has occurred.

"We're bursting a bubble and it's tremendous. We are helping customers start to see that productivity isn't about let me give you a tool and it'll help the 9 to 5 member of staff get work done. We're providing the tools that un-encumber workers so they can work ubiquitously from anywhere and access all data speedily. Companies are now realizing that's what really drives further productivity and that's what digitally savvy workers thrive on."

Adriana Karaboutis, Chief Information Officer, Dell

Whether these trends have resulted in increased productivity is a common question for business leaders.

"Do flexibility and mobility deliver more productivity? I think there's a double-edged sword here, because sometimes what happens is if one is able to flash off an email, asking a colleague a question, knowing that the colleague's going to be online and answer back very quickly, there's not any need to understand or learn or remember anything. It's a bit like the Wikipedia generation. You don't have to know anything, because if you need to know about it, you can look it up in Wikipedia, and there it is in black and white, and suddenly you're an expert. I wonder if this connectivity, this instantaneous access to experts all over the world actually makes us analyze problems less deeply?"

Stephen O'Donnell, CEO Chalet Tech Inc.

Due to the wider shift to a service-led economic model, the way in which productivity is generated has changed across the globe. Consequently, quantifying and tracking productivity has had to move away from traditional metrics of inputs and outputs. In a more knowledge driven and value-added focused corporate world, employers are still grappling with how best to track the productivity of their workforces.

Three in four employees believe that their productivity is measured by the quality of their output and not the time spent in the office.

As a result, establishing a link between productivity and an increasingly flexible and mobile workforce enabled by technology is very much a 'work in progress.' However, it is apparent that the effects of IT consumerization on modern working practices is creating increased employer demand for new sophisticated systems that can track productivity and link it back to an individual or the team.



"While enterprises are good at looking at the net effect on productivity as a result of providing technology to their overall workforce, they are still working out how to map this back to the technology decisions taken by an individual or team."

Christian Anschuetz, Chief Information Officer, Underwriters Laboratories

The requirement to track productivity in today's world goes beyond systems that simply quantify productivity. Instead, there is demand for software and technologies that can provide business leaders real-time insight into how specific inputs, such as resources, investment, time and so on, combine to create productivity in the first place. The value of this insight can then be used in a number of ways to boost production and efficiency; for example, to train and empower other employees to achieve similar outcomes or undertake more accurate forecasting. However, the availability of such smart data - that can aid strategic and operational decision making - will depend on not only the kinds of technological applications available, but also on the analytical capacity of employers.

"One of the few ways left to compete is through innovation, but innovation can be counterintuitive to the whole concept of doing things productively by challenging whether the right things are being done. The key is going to be finding a process and measure for idea generation that doesn't rely on its success because that is after the fact, generally the result of multiple learning experiences. How do you celebrate failure without celebrating failing?"

Jim Stikeleather, Chief Innovation Officer, Dell

Establishing Parameters

Although, greater choice of technologies and enhanced mobility to employees has resulted in increased morale and an impact on productivity, business leaders and IT departments feel that technology choice needs to be orchestrated within clear parameters that match the overarching strategic context of the employer to achieve growth and efficiencies and protect assets.

"As humans, we love the opportunity to choose. Giving workers the option to select their preferred IT configuration within a set rather than infinite options, is going to optimize their ability to appraise technology not in terms of only how it looks but also whether it makes them more productive."

Christian Anschuetz, Chief Information Officer, Underwriters Laboratories

In order to sustain and safeguard workforce productivity, several employers are frequently reviewing internal practices due to a common concern that their employees might inadvertently circumvent established workplace security protocols by using untested devices or software. 57% of the global workforce has the freedom to download software that they believe will help them do their work.

This behavior is underpinned to a large extent by the increased security risks associated with employees accessing sensitive corporate data, such as confidential internal reports, on personal devices. There is a consensus among those engaged that a 'bring your own device' approach is very susceptible to security hacks and data loss. Senior business leaders, being mindful of the ever increasing sophistication of cyber criminals, are very keen for IT and technology vendors to provide next generation security that enables them to potentially marry the existing security set-up with their employees' devices.

57% of the global workforce has the freedom to download software that they believe will help them do their work.



"There is a data management challenge, where the company has some requirements and needs for protection, back-up and security. We have a lot of client data that can be sensitive in nature, so in allowing the integration of our employees' personal lives with our business, we also have the challenge of knowing which data is where and that it's protected properly."

Jeff Young, Chief Technology Officer, FactSet Research Systems

In order to ensure employees are not alienated or de-motivated by security driven restrictions, employers will need to communicate the specific security concerns posed in an open and transparent manner.

"The issue of transparency is going to be the biggest challenge for management for the next five years. As more companies launch initiatives to enable more employee autonomy with information and tools to increase productivity while safeguarding corporate compliance and security, it will be important to equip workers fully so that they know how the decisions are going to be made, what the evaluation criterion are, and what the rewards are going to be. If any of these are hidden, ideas to boost productivity or maintain security and compliance may deteriorate very rapidly from lack of employee engagement."

Jim Stikeleather, Chief Innovation Officer, Dell

Technology and Its Impact

For many, the consumerization of IT encapsulates the most important development in the relationship between production and technological applications since the industrial revolution. The potential opportunities and challenges for employers, employees and consumers are multiple and often interrelated. For example, getting quicker and more holistic business insight on the back of integrating customer information from social media and mobile networks into traditional customer relationship management practices.

"Only a couple of years back a lot of companies blocked all social media sites. Now you have companies leveraging it for commercial insight. Just look at the number of companies and products being advertised on sites like Facebook."

Ed Goldman, IT Chief Technology Officer, Intel

"If you can figure out how to capture, structure, analyze and integrate relevant information about your target audiences in real time then you can change the current notion of productivity, which is based on the industrial revolution."

Dr. James Canton, Futurist, CEO and Chairman, Institute for Global Futures

The arrival of smartphones (initially with Blackberry) and more recently cloud computing are identified as key technological developments underpinning this change. Many experts believe that cloud computing and the convergence of applications across devices will foster an even more mobile dependent workforce 'that will produce on the go.'

"At Intel, we carried out a self reporting based exercise on the impact of increased connectivity offered by handheld devices and found that our employees had averaged 4,750 minutes of increased productivity every day – an annual productivity gain of 2 million hours across Intel."

Ed Goldman, IT Chief Technology Officer, Intel

Both business leaders and technological experts assert that if companies want to ride this wave and become more productive, then they need to become mobile ready. Along with a different strategic mindset, this obviously requires investment outlay and flexibility. Traditional barriers like inherent legacy issues, lack of investment capital and employee inefficiency need to be addressed, within the right parameters for the organization.

"We need to go way beyond the conversation of what device the end user has. It gets into the whole environment, managing the back office and the front office. So you have to be more of a consultant in figuring this out."

Steve Felice, President and Chief Commercial Officer, Dell



However, this is easier said than done, particularly when a challenging economic climate has impeded corporate capital investment. Indeed, large and small sized corporations are adopting a more reflective approach that sees business leaders thoroughly reviewing and appraising the ability of new IT hardware, solutions and software to deliver greater productivity. Most of this is about being prudent in the current economic climate, but is also due in part to ensuring effective co-operability between existing and new systems. For this remains a key obstacle in justifying investment in new technology for many large organizations.

"A key question concerning productivity is how many devices to provide employees. You can have a smartphone, tablet, PC to name a few. A lot of discussions are now taking place and the preference for some is two...and definitely not more than three devices."

Steve Felice, President and Chief Commercial Officer, Dell

This is not to say that organizations are not being proactive in terms of fully availing potential opportunities to use technology to improve productivity. For example, diagnostics in the health sector, is viewed to exemplify how new technologies are offering an array of applications to increase healthcare practitioners' outreach and improve outcomes for patients. This was perceived to be particularly encouraging by the experts, as the health sector, in general, has tended to lag behind in the adoption of IT processes and systems.

"The benefits of advancements in the health sector can already be seen with vast improvements allowing health teams based in hospitals to diagnose, monitor and treat people in far flung areas."

Steve Felice, President and Chief Commercial Officer, Dell

Most expert commentators believe that employers and manufacturers of IT devices and software will partner with each other on developing bespoke solutions that nurture productivity, innovation and growth. Companies like Dell and Intel are expected to become more solution and consultancy orientated. The role of IT departments, and to some extent Human Resources, is seen to be crucial in facilitating effective collaboration between employers, their employees and IT in deciding on the most suited IT configuration.

"We collaborated with numerous teams including human resources, with input from legal, in order to put the foundations in place to facilitate use of employee-owned devices. The IT team then defined a set of requirements and capabilities that devices had to meet. Over time, expectations have tiered downwards so workers know that if they use a low-end device then they would get low-end service and utility."

Ed Goldman, IT Chief Technology Officer, Intel

Summary

To conclude, business leaders are actively seeking ways to generate and track additional productivity from a more flexible and mobile workforce enabled by technology. However, this requires IT systems to go beyond simply quantifying inputs and outputs in a changing economy.

Instead, a smarter, more mobile and integrated capability is needed to facilitate a strategic and operational based decision making model. Technology can assist in this bid, but requires employers and IT companies to develop tailored solutions collaboratively. Being open and transparent with employees, and involving them in the discourse will go a long way in harnessing the productivity potential being offered by new technologies, devices and systems.



Meet the Experts



Christian Anschuetz, Chief Information Officer, Underwriter Laboratories

Christian is a contemporary, visionary leader leveraging technology to create unified, change-ready businesses. Responsible for UL's enterprise transformation office, Christian leads the programs that will allow UL to deliver best-in-industry customer value and services while creating unprecedented efficiencies.



Dr. James Canton, CEO and Chairman, Institute for Global Futures

Dr. Canton is a renowned global futurist, social scientist, keynote presenter, author and visionary business advisor. He is a leading authority on future trends in innovation and The Economist recognizes him as one of the leading futurists worldwide.



Jeff Cooper, IT Infrastructure Engineering Manager, Abbott Laboratories

Jeff leads Abbott Laboratories Endpoint Standards and Design organization. He is responsible for developing strategies to advance the endpoint from the traditional desktop to the desired future state of devices and technologies.



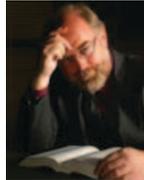
Darren Dworkin, Senior Vice President of Enterprise Information Systems and Chief Information Officer, Cedars-Sinai Health System

With more than 20 years in IT and 12 years in the healthcare sector, Darren leads the implementation of comprehensive electronic medical records to help transform care through the use of advanced technology.



Steve Felice, President and Chief Commercial Officer, Dell

Steve leads the Dell sales and marketing teams that deliver innovative and practical technology solutions to consumers, small and medium businesses, public institutions and large enterprises worldwide.



Thomas Frey, Executive Director, The DaVinci Institute

Author of the 2011 book "Communicating with the Future," Futurist Speaker Thomas Frey is a visionary who specializes in thinking about the future.



Ed Goldman, IT Chief Technology Officer, Intel

Ed is responsible for driving the strategy and architecture for future IT solutions and services at Intel, including consumerization, collaboration and social computing solutions.



Adriana Karaboutis, Chief Information Officer, Dell

Andi is responsible for driving Dell's IT organizational evolution, from managing an efficient and innovative global information infrastructure, to creating innovative breakthroughs that provide technology advances for the company and its customers.



Stephen O'Donnell, CEO Chalet Tech Inc.

Author of the book "What Every CIO Wants," social media addict and investor, Steve follows the interaction between technology advances, developments in human behavior and the challenges this brings to society.



Jim Stikeleather, Chief Innovation Officer, Dell

Jim identifies, defines and solves business problems by leading, designing, developing and implementing technology and process-driven solutions.



Jeff Young, Senior Vice President and Chief Technology Officer, FactSet Research Systems

Jeff is responsible for worldwide Systems Administration, Network Engineering, Security, and Corporate IT.

