

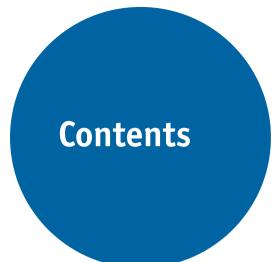
A report from the Economist Intelligence Unit

Changing roles: How technology is transforming business functions

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The Intelligence Economist Unit



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Preface

Changing roles: How technology is transforming business functions is an Economist Intelligence Unit report, sponsored by Microsoft. It explores how the workplace is evolving and the effect technology will have on how people collaborate, form global teams and make decisions across various business functions.

The Economist Intelligence Unit bears sole responsibility for the content of this report. The findings do not necessarily reflect the views of the sponsor.

The report draws on two main sources for its research and findings:

- A survey that included responses from 608 business executives globally. Half of respondents are from companies with US\$500m or less in annual revenue, 15% with revenue of US\$500m-1bn, 16% with US\$1-5bn, 8% with US\$5-10bn and 10% with more than US\$10bn. Respondents are distributed evenly among five functional "buckets": Finance, IT, HR, Marketing and Sales, and Other.
- A series of in-depth interviews with members of our advisory board who were selected for their expertise in this area. We also conducted interviews with other senior executives and industry experts.

Advisory board interviewees

- Deanie Elsner, former chief marketing officer, Kraft Foods
- Mani Gopalakrishnan, senior leader for digital learning and technology, GE
- Dennis Hewitt, treasurer, Omnicom Group Bank, and CEO, Omnicom Capital
- Abhi Ingle, senior vice-president big data and advanced solutions, AT&T
- Dana Landis, vice-president, talent research and analytics, Korn Ferry Institute

Briefing paper interviewees

- Dr Carl Benedikt Frey, co-director, Oxford Martin Programme on Technology and Employment at Oxford University
- Gordon Graylish, vice-president general manager enterprise solutions, Intel
- Mayur Gupta, global head, marketing technology and innovation, Kimberly-Clark
- Vinod Kumar, managing director and CEO, Tata Communications (India)
- Mark Nasr, managing director, corporate strategy, United Airlines
- Helen Souness, managing director, Australia & Asia, Etsy

We would like to thank all interviewees and survey respondents for their time and insights. The report was written by Jane Bird and edited by Gilda Stahl. The Intelligence

Executive summary

Technology has had a profound impact on the workplace for several decades. But the pace of change has quickened and is beginning to have a hugely disruptive effect on business. And the upheaval is only expected to intensify over the next few years.

Changing roles: How technology is transforming business functions, a report written by The Economist Intelligence Unit (EIU) and sponsored by Microsoft, probes workplace transformation in the midst of change. The report is based on a global survey, advisory board findings and in-depth interviews with industry experts.

Organisations are using technology to create new business models, move closer to customers, and improve productivity and innovation. But at the same time, they are suffering from more complexity, difficulty keeping skills up to date and increased interdependence. These challenges are exacerbated by rapid change in customer expectations and work culture.

While executives see technology as a way to achieve more at work and enhance job satisfaction, these benefits are often undermined by increased time and competitive pressure as organisations seek to do more with less.

Automation will undoubtedly cause many jobs to disappear. But new roles will be created and not all

functions will be similarly affected. Our research looks in detail at the impact of technology on finance, human resources (HR), marketing and information technology (IT).

Overall, technology can be a huge source of strength and competitive advantage in the workplace. But it may also increase pressure on people and reduce their professional satisfaction, harming staff well-being and business performance. Organisations need to understand both challenges and opportunities if employees are to realise their aspirations.

Key findings

• Work will become more complex. Individual workloads will increase, driven partly by the need to respond to rapidly swelling quantities of real-time data from automation of all kinds and from greater demands for collaboration. Thirty-six percent of survey respondents expect work to become more complex and 26% of respondents, across all functions, believe it will involve much greater amounts of data. Globalisation and the growing interconnectedness of companies and sectors will also multiply the number of variables companies must take into account.

• Lack of time is the biggest challenge. The ability of technology to help people do more with less does not always help executives save time. Some 45% of survey respondents cite time constraints as their prime problem, with people who feel they are successful in their current role most affected—46% compared with 39% of those who believe they are not successful.

• **Collaboration is crucial**. Team-working is the new normal both locally and globally. Thirty-five percent of survey respondents believe work will require co-ordination between more people across multiple functions. Collaboration is the best way to make the most of individual expertise, respond swiftly to business problems and boost competitiveness. HR must optimise use of specialists and freelancers, and employees across functions must work with these temporary colleagues.

Nearly a quarter of respondents include mastering new technology in their top-three ways to achieve career aspirations.

● Gaining new technology skills is the best way to advance professional goals. In the face of increased automation and technological advances, all organisational functions recognise the need to keep learning. Nearly a quarter (23%) of respondents include mastering new technology in their top-three ways to achieve career aspirations. Thirty-two percent cite acquiring new skills through education and training as the opportunity most likely to help them achieve their professional goals. This is becoming more important with the rise of millennials who are much more knowledgeable about technology than most of their seniors. ■ The Intelligence

Introduction

According to "The Terminator" view of technology, machines are taking over and ultimately all our jobs will disappear. This vision has captured the imagination of science fiction movie audiences since the early 1980s, but in the foreseeable future it looks unlikely.

In reality, technologists are focused on a model more like "Iron Man", that is, the augmented human aided by technology that can improve productivity, profitability, customer service and innovation.

Technology tools can make it easier to respond to changing market requirements, take advantage of big data insights and collaborate.

They also have the potential to help executives achieve their goals of building new products and businesses, managing larger teams, gaining promotion, leading business units and improving pay and performance. Harnessed effectively, they can enable huge market disruptions.

The survey suggests that this is already happening. Respondents who describe themselves as "successful" are much more likely to use new technology tools in their work, to anticipate their continued adoption and utilisation, and to perceive them as having a positive effect on their career. They have higher expectations to leverage new technologies to get more work done in the same time, and to free up more time for strategic and creative work. But deploying technology effectively is growing harder. With increased globalisation, competition and technical innovation, executives believe jobs will become even more demanding and complicated, involving a larger number of constituents and still higher customer expectations.

Nearly half of survey respondents say they can do more in less time thanks to technology, and a similar proportion say it lets them work more flexibly. Four in ten say technology frees up time for strategic and creative work, and 38% say it helps collaborate with remote geographies. But nearly half of survey respondents say time constraints are a significant problem, suggesting that some organisations are simply using technology to add to people's workloads.

Maximising the potential of technology will require constant reskilling for staff at every level. HR professionals will need to have a better understanding of individuals' expertise. Talent will become a commodity brought in when necessary, in every function, and much more use will need to be made of temporary experts.

Cultural change is also essential. Organisations will need to introduce more flexible and collaborative working environments that appeal to millennials, whom they must attract and retain.

Work becomes more complex

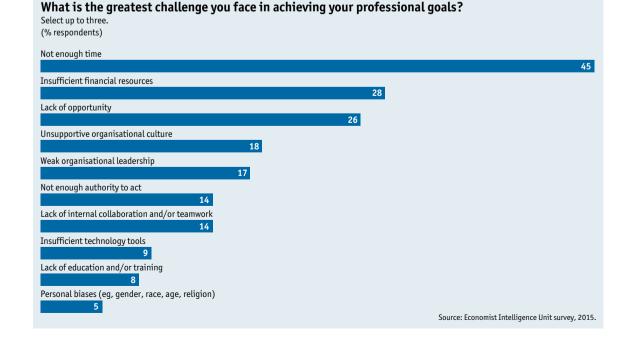
66The customer isthe new CEO.99

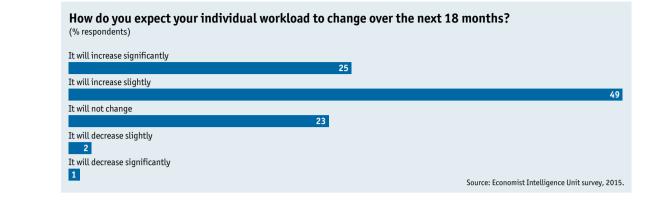
Deanie Elsner, former CMO, Kraft Foods The good news is that the vast majority of executives—86% of respondents—describe themselves as successful in their careers, feel they have realised their potential and are optimistic about their career growth prospects. However, many say their working lives are made more difficult by lack of time, money and opportunities. Weak leadership and poor collaboration are other common complaints.

(1)

Technology creates some of the most pervasive challenges. Big data, powerful analytics software and high-speed Internet communications bring huge opportunities for organisations to move closer to customers. But work has become more complex, workloads are increasing and individuals often struggle to keep their technology skills up to date. Meanwhile, customer expectations are constantly rising, fuelled by increased competition and the spread of social media.

In one sense, business is becoming simpler because it is increasingly focused on the customer. "The customer is the new CEO," says Deanie Elsner, former CMO, Kraft Foods. But this makes roles such as marketing more complicated, says Mayur Gupta,





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'Customer centricity' means you need people who have a higher risk tolerance. They need to be able to handle variability and ambiguity.

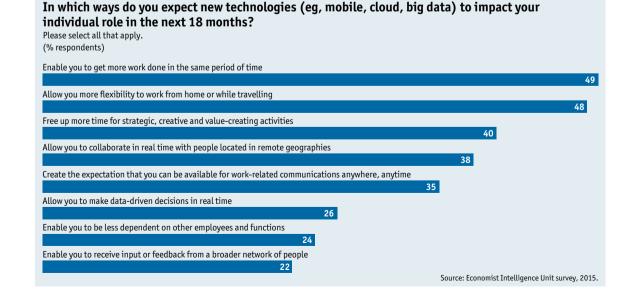
Dana Landis, VP talent research and analytics, Korn Ferry Institute global head, marketing technology and innovation, Kimberly-Clark, because marketers need expertise in areas such as data analysis, technology and content in addition to their traditional skills.

"'Customer centricity' also means you need people who have a higher risk tolerance," says Dana Landis, vice-president, talent research and analytics, Korn Ferry Institute. "They need to be able to handle variability and ambiguity." Even in manufacturing, these skills are essential, says Gordon Graylish, vice-president general manager enterprise solutions, Intel. "Five years from now, every factory machine will be intelligent and everyone will have to understand analytics," Mr Graylish says.

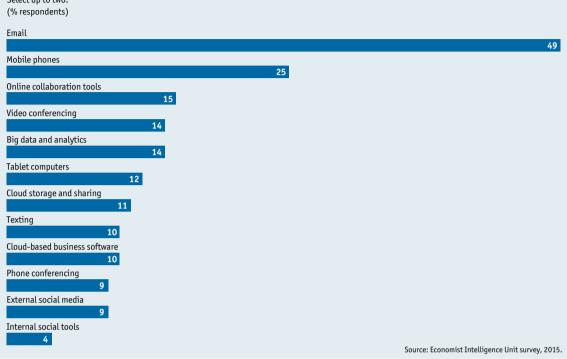
Technology can enhance job satisfaction

Technology helps companies be more proactive, predictive, productive and personalised in their approach. Organisations can use it to enter new markets more efficiently, develop innovative business models, introduce products and services, and forge closer links between IT and lines of business.

Cloud computing, for example, is liberating organisations from the need for in-house IT systems, which are expensive, time consuming and difficult to maintain. By using pay-as-you-use cloud services and handing over the management of applications and data to third-party providers, companies can improve flexibility, reduce







Which of the following technologies will be most helpful in realising your professional goals? Select up to two.

overheads and benefit from constant cutting-edge technology.

The EIU survey demonstrates that where cloud services are used, they can make work easier and more satisfying. Some 36% of respondents say cloud storage and sharing technologies are having a positive effect on their career. Among the office technology tools we surveyed, cloud storage, along with videoconferencing, was forecast to have the biggest percentage increase over the next 18 months.

Respondents who describe themselves as successful are more likely to use cloud-based business technology. More than half (59%) expect to do so either regularly or extensively in future compared with just 34% of "unsuccessful" respondents. Overall, heavy cloud users forecast an increase in use of several business technologies, the biggest jump being in "automation of tasks", predicted by 53%. However, heavy cloud users are more likely to anticipate a heavier workload-83% versus 65% of light cloud users.

Access to more affordable and accessible technology tools can also undermine IT strategy by the relative ease with which new applications can be developed. This has led to a phenomenon known as "shadow IT"—the emergence of IT systems specified and deployed by business units other than centralised IT. While being an important potential source of innovation, this also has the potential to undermine control, documentation and security.

Don't rush to the data mine

Technologies such as cloud computing, mobile and the Internet of Things are enabling organisations to make increased use of real-time data in strategic decision-making. However, Mark Nasr, managing director, corporate strategy, United Airlines, says management teams can suffer from information overload if data are not synthesised and viewed in context so that the patterns are clear. There is also the risk of reacting tactically rather than strategically, he notes.

Looking at information in real time doesn't necessarily provide a full view of why customers are acting in a certain way, and the danger can be responding too guickly or emotionally, Mr Nasr

says. "For example, social media, though wonderful and powerful channels, can spin out of control and overemphasise one direction." Even a little extra time can improve objectivity and allow space for objective, reasoned and longer-term decisions, Mr Nasr believes.

The challenge for organisations is to let executives use some of the time savings of technology to pause and reflect rather than just take on more work. Another problem is the lack of easy, accessible tools with which to manage the data.

The current enthusiasm for data mining is "a little bit like a gold rush", says Ms Landis. "Everyone's running towards the data. But there's a lot of spurious information and random correlations that aren't telling you anything. It's very hard to find the signals in the noise." In future, she says, "there will be a lot more focus and homing in on the signals that provide an answer to the 'What now?' question."

Companies also need to focus on many more areas than previously because continuous convergence is happening across sectors such as food, energy, health, IT, manufacturing, transport and urban development. Vinod Kumar, managing director and CEO, Tata Communications (India), says, "At Tata Communications, in the past two years we have had to drive our learning of trends across many of these industries to help understand what could happen and how it applies back to our business, for example, where to locate data centres."

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Everyone's running towards the data. But there's a lot of spurious information and random correlations that aren't telling you anything. It's very hard to find the signals in the noise.

Dana Landis, Korn Ferry Institute

Together is better

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While we pay lip service to collaboration, we still operate in traditional ways and isolated verticals because that is easier. We are still very channel- and technologyobsessed instead of being customer-focused.

Mayur Gupta, global head, marketing technology and innovation, Kimberly-Clark The need to collaborate and work in diverse and geographically dispersed groups is a growing business challenge. Some 45% of survey respondents say collaboration will become increasingly important.

(2)

However, Mayur Gupta, global head, marketing technology and innovation, Kimberly-Clark, says that people find it difficult to change their behaviour. "While we pay lip service to collaboration, we still operate in traditional ways and isolated verticals because that is easier," he says. "We are still very channel- and technologyobsessed instead of being customer-focused. It hasn't become second nature and is not in our muscle memory."

That said, collaboration is beginning to happen, for example, in financial departments. Dennis Hewitt, treasurer, Omnicom Group Bank, and CEO, Omnicom Capital, anticipates that further technology-driven changes in finance will accelerate the decision-making process and technology will enable the availability of more precise information in a timely manner. "Teams will be formed with members that have relevant skill sets. More experienced members will be matched with younger, more technologically skilled members to address the issue before them. Team decision-making will become more common with accountability being shared," he says.

Helen Souness, managing director, Australia & Asia, Etsy, sees global virtual teams as the most effective way to address increasing market disruption. These teams need autonomy to determine how to solve problems and innovate rapidly for different markets, she says. "I think teams will be even more fluid and global, with experts from all over the world, some of whom may not be employees, forming around projects and problems."

Software tools can make team-working easier regardless of people's locations. Videoconferencing, for example, is being deployed to competitive advantage by global organisations such as Tata Communications as a powerful tool for long-distance collaboration. Yet 75% of survey respondents foresee the number of face-to-face meetings staying the same or increasing, and 77% expect the same trend in business travel. New skills required as job functions shift

There is little doubt that the employment landscape is evolving quickly with advances in technology. Artificial intelligence and robotics can do a lot when factories undergo upgrades or when organisations come under cost pressures, says Mr Kumar. Instead of one-for-one replacement, he thinks, more work in future will be done by machines and software.

(3)

There will also be new employment models, such as organisations bringing in more specialist expertise when needed and individuals who have those skills working for multiple clients.

Perhaps people will work for multiple organisations, says GE's Mr Gopalakrishnan. "Some times I wonder, 'Why should I work for only one company when I can bring a skill set to three different companies that have the same problem? Why can't I do that without being a consulting firm?'

"I could be employed by three different companies to do the same thing," Mr Gopalakrishnan continues. "And I will probably do it at the same pace, because I'll have all the organisational structures needed to support this."

Abhi Ingle, senior vice-president big data and advanced solutions at AT&T, believes that people will use technology to work and collaborate in "radically different", multi-modal ways. "You will e-mail, text, video, short-form, long-form, across boundaries of time and space. It could be recorded meetings where you can jump in and jump out.

"It'll be the device or the mode that's most

convenient to you at a particular point in time or in a particular context," Mr Ingle continues. "Your identity will just migrate into the cloud, and communication will happen across all your panes of glass."

But so far, the digital economy has created relatively few new jobs. Dr Carl Benedikt Frey, co-director, Oxford Martin Programme on Technology and Employment at Oxford University, estimates that less than 0.5% of the US workforce is employed in digital industries that did not exist before the turn of the century. "A few software entrepreneurs can build a valuable business much faster than a traditional manufacturer with an assembly line—and with much less capital," he says.

Over the next few decades, a massive 47% of US jobs will be susceptible to automation, says Dr Frey, from transport logistics to back-office administration and sales. However, he believes skilled professional jobs are unlikely to be replaced by machines in the next couple of decades. "There is lots of good software for sophisticated analysis, but you need human creativity, intuition and judgement to identify the questions in the first place." Jobs where computers are unlikely to outperform humans, says Dr Frey, include those that require creativity and social intelligence like persuasion, negotiation, managing people and caring for others.

Everyone has something to offer

The other big workplace change with regard to technology is the rise of the millennials. The irony

Sometimes I wonder, 'Why should I work for only one company when I can bring a skill set to three different companies that have the same problem? Why can't I do that without being a consulting firm?'

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Mani Gopalakrishnan, senior leader for digital learning and technology, GE is that the most savvy people in the organisation, in terms of technology and marketing, are frequently the youngest and most junior, says Ms Elsner. "They are so much better. They are native to this world. Your senior and executive teams, for the most part, have grown up in a world that is very quickly going away. They have no idea what's really going on out there, and they almost have to unlearn what they've learned to relearn a whole new skill set. You have to find a way to marry their experience and knowledge with the capability and comfort of your junior team."

Millennials, young entrepreneurs and senior people can teach each other, says Mr Gopalakrishnan. "Many large companies are looking at start-ups to learn from them and vice versa." GE is implementing a culture that is about bringing products to market more quickly, with principles modelled on the start-up world, Mr Gopalakrishnan says. "This is about understanding that customers determine our success. Winning in an ever-changing world requires us to stay lean, fail, learn, and adapt fast, and lastly inspire and empower each other as a team."

Many large companies are looking at startups to learn from them and vice versa.

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Mani Gopalakrishnan, GE

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Functional differences

The advantages of new technology are not being uniformly enjoyed across all organisational functions. For example, marketing executives are proving relatively slow to gain time- and costsavings, while HR and IT leaders are not making the most of collaborative software.

Financiers become forecasters

The link between effective deployment of new technology and satisfaction with personal and professional development can be seen clearly in the finance function. Finance executives surveyed are more prone to describe themselves as very successful and are more likely to expect to leverage new technologies to make data-driven decisions.

Mr Hewitt says technology-driven changes in finance will accelerate decision-making and allow more precise and timely information. Instead of reviewing such things as capital budgets and projects on a calendared basis, he says, "reporting will become more dynamic and frequent as the need arises, with treasurers playing a greater role." Managing financial considerations such as currency movements and interest rates in real time will be crucial for global companies because of their impact on funding decisions.

As the use of predictive analytics becomes more commonplace, it will be employed extensively in the finance function to detect trends, provide insights and influence decisions, Mr Hewitt says. Learning to use this technology should help finance executives meet their goals, as identified in the survey, of achieving excellence and more.

Mr Hewitt believes that finance will become much more closely aligned with other functions such as marketing, manufacturing, engineering and HR, providing them with information to help achieve their goals. "Overall, the treasury function, which primarily has the responsibility of providing the liquidity of the corporation, will become much more important in influencing how resources are deployed," he says.

Marketers keep learning

Marketing and sales professionals are relatively more focused on using technology to work more efficiently, collaborate remotely and in real time, and having the flexibility to work from home or while travelling. Far above other functions, marketing and sales professionals are attracted by the opportunities to better understand their customers' behaviours and needs and to leverage new technologies. They are significantly more inclined to think customer expectations will rise.

The customer is the focal point, says Mr Gupta. "Adtech and martech will be increasingly connected, and channels combined to focus on the customer and drive seamless brand experiences that change customer behaviours. You can't think about sales and marketing in silos."

Marketing professionals will have to keep learning or they will become obsolete. Technology such as social media is creating new opportunities and customer needs and expectations are

66 Reporting will become more dynamic and frequent as the need arises, with treasurers playing a greater role.

Dennis Hewitt, treasurer, Omnicom Group Bank, CEO, Omnicom Capital continuously changing, says Mr Gupta. "Marketing must respond to that. CMOs can no longer sit in the back seat; they need to understand statistics and data modelling."

HR matches dogs to walkers

Technology can give HR professionals insight into the expertise of individuals, enabling them to recognise unusual career paths and assemble teams to solve specific problems. HR should enable people to spend more time doing what they are good at and interested in, says Mr Graylish: "It's the corporate equivalent of matching somebody who wants a task done—such as having a dog walked but no time or ability to do it—with people who are willing and able to fulfil that role."

The problem is that organisations don't have the HR and finance structures to set targets and measure the performance of people who come from other departments or outside the business. HR survey respondents seem aware of this, as they are more likely to forecast greater need for coordination between more stakeholders.

Companies that use HR analytics to create more diverse, flexible teams outperform the competition, says Korn Ferry's Ms Landis. "HR big data is in its early days and very exciting—it feels like a revolution. But most HR people live in the dark ages in terms of knowing what's actually going on inside their company."

Technology opportunities continue to grow

In IT, as in finance, executives are more likely to feel successful. While they are most inclined to predict increased complexity in their work, they also forecast greater transparency. Not surprisingly, given their role, they anticipate greater automation of tasks, utilisation of large datasets, and deployment of internal social and knowledge-sharing networks. They are less likely to use e-mail and mobile and more prone to employ all other technology tools, including cloud applications, big data, texting and social media.

IT is one area where staff numbers are likely to rise. United continues to invest more in its technology division, Mr Nasr says, as well as broadening its scope and global reach, with this expansion set to continue for the foreseeable future. Dr Frey says most new industries that have emerged since the beginning of the century relate to digital technologies. "Jobs in video and audio streaming, web design, online auctions did not exist before the 1990s," he says. Not surprisingly, IT survey respondents put a relatively high value on the opportunity to network within their own function and to develop relationships with recruiters.

66 HR big data is in its early days—it feels like a revolution. 99

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Dana Landis, Korn Ferry Institute The Intelligence

Conclusion

Technology is already disrupting the workplace. Forward-looking organisations are deploying big data, analytics software and cloud-enabled collaborative applications to improve efficiency, introduce new business models and deliver more customer-centric products and services. They are moving towards team-working and hiring experts for specific requirements. Even domestic players are taking a global view.

It is encouraging that about half of respondents to the Economist Intelligence Unit survey say that technology is letting them do more in less time and work more flexibly. And it is also good news that most executives feel successful, fulfilled and optimistic about work.

Interestingly, those who see themselves as most successful are already making the widest use of technology at work and expect to use it more in future. This is likely to help them achieve their personal aspirations—finance executives to improve their relationships, IT professionals to gain time with their families, and HR and marketing people to free up more time for leisure.

However, there are worrying signs that realising the benefits of technology is getting harder. A disturbing number of respondents foresee increased complexity and time pressure. There is the risk that some individuals and businesses may be overwhelmed by the data deluge and inadequate software tools. This can cause poor decisionmaking and tactical responses that undermine long-term strategy. The need to collaborate in more disparate teams across departments, functions and even between rival organisations is also proving painful for some.

Making the most of the opportunities provided by technology is difficult, says Mr Gupta. "Technology is growing exponentially, but organisations can only respond algorithmically." The potential can only be realised if companies empower their workforces and equip them with appropriate skills and resources. Organisations should not expect executives to use the time saved by technology as an opportunity to take on more work.

Continuous retraining is essential for all. Even at the executive and professional level, people will need to keep their knowledge and expertise up to date if they are to compete with millennials.

New ways of working are needed across all functions. This requires culture change. In the words of Mr Kumar: "Successful change won't work unless organisations win people's hearts and minds too."

Some established working practices will be particularly slow to change. The survey identifies little enthusiasm for videoconferencing as a big replacement for business travel and face-to-face meetings. And there will be huge challenges for employment, with almost half of jobs lost to automation.

New roles will appear, such as data scientists. The Terminator scenario is not imminent. But organisations must, like Iron Man, use technology to help make them invincible.

Successful change won't work unless organisations win people's hearts and minds too.

Vinod Kumar, managing director and CEO, Tata Communications (India)

Changing roles: How technology is transforming business functions



Percentages may not add to 100% owing to rounding or the ability of respondents to choose multiple responses.

Approximately how long have you been pursuing your current career? (% respondents)

Less than one year		
1		
1-5 years		
	13	
5-10 years		
		18
10-15 years		
		20
15-20 years		
	12	
More than 20 years		

How successful do you consider yourself in your current career? (% respondents)

53

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> How much of your potential do you feel you have realised thus far in your current career? (% respondents)

ully realised (90-100%)		
	18	
argely realised (60-90%)		
		56
lalfway realised (40-60%)		
	20	
omewhat realised (10-40%)		
5		
argely unrealised (0-10%)		
2		

How optimistic are you about growth prospects in your current career? (% respondents)

Very optimistic	
	28
Somewhat optimistic	
	44
Neutral	
21	
Somewhat pessimistic	
Very pessimistic	
2	

What are the greatest challenges you face in achieving your professional goals? Select up to three. (% respondents)

1

Insufficient financial resources	45
Insufficient financial resources	
28	
Lack of opportunity	
26	
Unsupportive organisational culture	
18	
Weak organisational leadership	
17	
Not enough authority to act	
14	
Lack of internal collaboration and/or teamwork _	
14	
Insufficient technology tools	
9	
Lack of education and/or training	
8	
Personal biases (eg, gender, race, age, religion)	
5	



What are your top professional goals over the next 18 months? Select up to three. (% respondents)

Achieve excellence in my current role

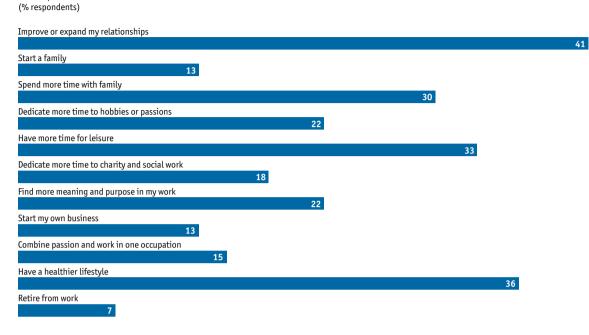
	64
Increase my compensation	
	59
Earn a promotion	
33	
Manage more people	
29	
Switch to a different department	
11	
Lead a business or a department	
12	
Build a new product or business within my organisation 20	
Switch to a different company in the same industry	
10	
Switch to a different industry	
8	

What are your top professional goals over the next 5 years? Select up to three. (% respondents)

Achieve excellence in my current role	
	28
increase my compensation	
	37
Earn a promotion	
	25
Manage more people	
	25
Switch to a different department	
15	
ead a business or a department	
19	
Build a new product or business within my organisation	
23	
Switch to a different company in the same industry	
14	
Switch to a different industry	
18	



What are your top personal goals over the next 18 months? Select up to three.



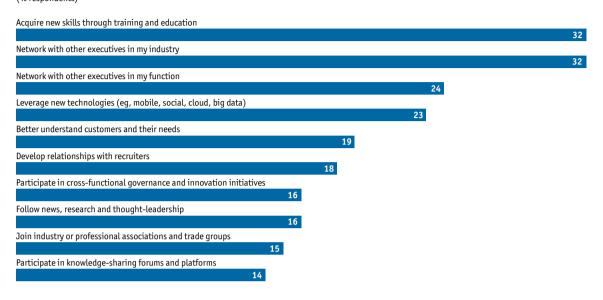
What are your top personal goals over the next 5 years?

Select up to three. (% respondents)

Improve or expand my relationships			
	16		
Start a family			
12			
Spend more time with family			
			23
Dedicate more time to hobbies or passions			
			23
Have more time for leisure			
Dedicate more time to charity and social work		10	
Finder and the second		19	
Find more meaning and purpose in my work	17		
Start my own business	17		
Start my own business		21	
Combine passion and work in one occupation			
		19	
Have a healthier lifestyle			
		21	
Retire from work			
		20	

Which of the following opportunities would most help you to achieve your professional goals if you could take advantage of them?

Select up to three. (% respondents)



How will the nature of your work change over the next 18 months? Select up to three most profound changes.

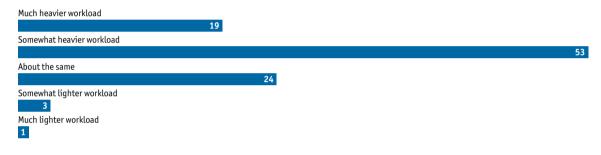
(% respondents)



How do you expect your individual workload to change over the next 18 months? (% respondents)

It will increase significantly	
2!	5
It will increase slightly	
	49
It will not change	
23	
It will decrease slightly	
2	
It will decrease significantly	
1	
* ·	

How do you expect your department's workload to change over the next 18 months? (% respondents)



How do you expect your work to evolve over the next 18 months?

(% respondents)

(% respondents)	Will increase	Will stay about the same	Will decre	ease	Don't know
Automation of tasks					
41					49 5 5
Work with large datasets					
41					49 3 7
Remote collaboration with others					
	45			4	5 6 5
Utilisation of mobile technology for business purposes					
	45			44	4 4 6
Utilisation of cloud-based business technologies (ie, business soft	ware, information sto	rage and sharing)			
	47			39	7 7
Utilisation of internal social-networking tools					
32				52	7 9
Utilisation of external social media for business purposes					
35			4	7	9 9
Virtual meetings (ie, video conferencing, screen sharing)					
42				45	7 6
Face-to-face meetings					
23			52		22 3
Travel for business					
26			51		20 3



(% respondents)	Extensively	Regularly	Sometimes	Rarely or
Email				Not at all
			75	21 3 1
Texting				
22		39		26 13
Mobile phones				
	48		35	13 5
Tablet computers				
21	30		23	26
Phone conferencing				
24		34	26	16
Video conferencing				
14	26	30		30
Online collaboration tools				
18	27		32	24
Internal social tools				
11	26	29		34
External social media				
11	26	29		33
Cloud storage and sharing				
15	34		24	27
Big data and analytics				
13	28	28		31
Cloud-based business software				
13	29	23		35

To what extent have you been using the following technologies for business purposes in the past 18 months?

To what extent do you expect to use the following technologies for business purposes in the coming 18 months? (% respondents)

(% respondents)	Extensively	Regularly	Sometimes	Rarely or
Email				Not at all
		70		24 5 1
Texting				
26		39		23 12
Mobile phones				
	50		34	13 4
Tablet computers				
29		34	19	18
Phone conferencing				
28		38	2	1 13
Video conferencing				
20	34		24	22
Online collaboration tools				
20		38	22	19
Internal social tools				
15	34		24	27
External social media				
17	33		22	27
Cloud storage and sharing				
25		36	19	20
Big data and analytics				
21	35		21	23
Cloud-based business software				
22	34		22	23

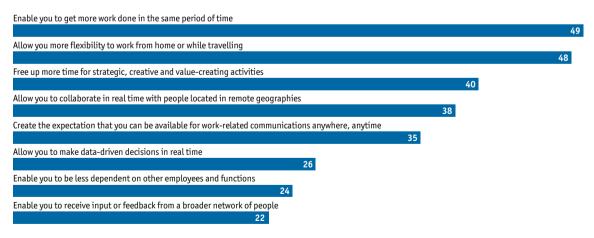
How strong of an impact do you expect the following technologies to have on your individual role (ie, daily tasks, responsibilities and modes of working) in the next 18 months?

(% respondents)	Strong impact	Moderate impact	Minor or no impact	Not applicable / Don't know
Email				
	57		29	12 2
Texting				
22	3	7		34 7
Mobile phones				
	39		38	18 5
Tablet computers				
24		38	2	5 13
Phone conferencing				
24		38		26 11
Video conferencing				
23	34		29	14
Online collaboration tools				
21	3	8	27	13
Internal social tools				
14	32		35	18
External social media				
17	33		31	19
Cloud storage and sharing				
22	36		25	17
Big data and analytics				
23	34		25	18
Cloud-based business software				
21	37		25	18

In which ways do you expect new technologies (eg, mobile, cloud, big data) to impact your individual role in the next 18 months?

Please select all that apply.

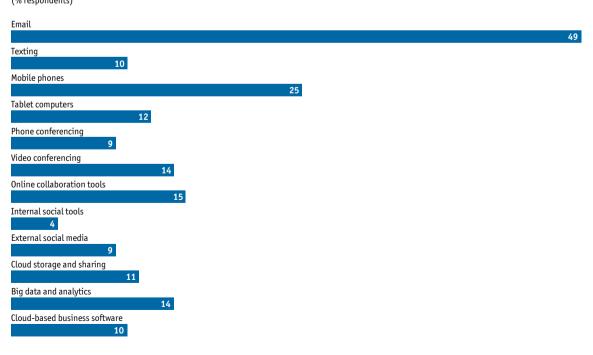
(% respondents)



How would you rate the effect that the following technologies are having on your career?

(% respondents)	Positive	Neutral	Negative	Not applicable /
Email	_			Don't know
		67		26 4 2
Texting				
	36		5	0 5 9
Mobile phones				
		60		31 5 4
Tablet computers				
	41		42	3 13
Phone conferencing				
	45		39	5 10
Video conferencing	20			45
Online collaboration tools	39		44 3	15
Unline collaboration tools	39		43 3	15
Internal social tools	55		45 5	15
24			50 7	19
External social media				
26			48 8	17
Cloud storage and sharing				
, , ,	36		43 4	16
Big data and analytics				
	35		44 4	18
Cloud-based business software				
32			45 4	19

Which of the following technologies will be most helpful in realising your professional goals? Select up to two. (% respondents)



In which region are you based? (% respondents)	What is your pr (% respondents)
Western Europe	Financial services
North America	45 IT and technology
Asia-Pacific	45 Professional servic
10	Manufacturing
	Construction and r
Which of the following best describes your job title? (% respondents)	Healthcare, pharm
Board member	Retailing
5 CEO/President/Managing director	Consumer goods
24 CFO/Treasurer/Comptroller	Transportation, tra
CIO/Technology director	Automotive
Lief digital officer	3 Aerospace/Defenc 2
Chief marketing officer	Chemicals
Chief experience officer	Education
chief security officer	2 Entertainment, me
1 Other C-level executive	2 Government/Publi
SVP	2 Logistics and distr
3 VP	2 Telecommunicatio
9 Director	2 Energy and natura
Other	25 1 Other
0	

What are your organisation's global annual revenues in US dollars? (% respondents)

\$500m or less				
				50
\$500m to \$1bn				
	15			
\$1bn to \$5bn				
	16			
\$5bn to \$10bn				
8				
\$10bn or more				
10				

is your primary industry? spondents)

14 technology 12 sional services 12 facturing 10 ruction and real estate ncare, pharmaceuticals and biotechnology 5 ing 5 mer goods portation, travel and tourism notive pace/Defence 2 cals 2 tion 2 ainment, media and publishing 2 rnment/Public sector ics and distribution 2 ommunications y and natural resources

What is your main functional role? (% respondents)

Finance

Human resources
Π
Marketing and sales
General management
10
Strategy and business development
3
Operations and production
2
Customer service
1
Information and research
1

Risk 1 0ther 1

Whilst every effort has been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor the sponsor of this report can accept any responsibility or liability for reliance by any person on this white paper or any of the information, opinions or conclusions set out in the white paper.

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