The talent challenge: Harnessing the power of human skills in the machine age

52% of CEOs plan to increase headcount in the coming 12 months.

60% of CEOs are rethinking their HR function.

77% of CEOs find it difficult to get the creativity and innovation skills they need.
PwC’s global People and Organisation practice brings together an unmatched combination of 10,000 people with industry, business, talent, strategy, HR, analytics and technology expertise in one team across 138 countries.

Together, we build tailored people and organisation solutions with a deep understanding of our clients’ uniqueness, grounded in rigorous analysis and data-driven insight, to create lasting, differentiated value.

We help clients to implement organisational transformation, improve the effectiveness of their workforce, develop and move talent around their business, and manage their human capital risks. We work from people strategy through to organisational execution.
In the age of the machine, people matter more than ever

It’s been 20 years since we first began asking CEOs for their views on talent management through our annual CEO Survey – a period of enormous change, easily on a par with the great industrial revolution. Globalisation and technological change have transformed business, our lives and the way we work. It has brought good – trade flows have quadrupled, living standards have risen and a billion people have been lifted out of extreme poverty – but also turmoil. For the past eight years, CEOs have feared and predicted an increase in political and social tension and a rise in national protectionism; in 2016 they were proved correct.

Public discontent has been laid bare and at the root of this lies people issues. Income inequality, poor prospects for the young and the ever-growing fear that, one day, our jobs will be taken away – whether it's by globalised labour or automation – has led to a profound mistrust of ‘the establishment’. Ironically, at a time when technology is taking over the workplace, people power is reaching new heights.

In this digital age, businesses recognise that trustworthiness is the new currency. If they are to attract the people they need – and concern about the availability of skills has never been higher – and coax the best possible performance and productivity from their organisation, they need to have trust on their side. And the momentum is behind them; people hold considerably more trust in business than they do have in government and expect business to lead the way in improving economic and social conditions.

Maintaining trust is a challenge for CEOs as the march of automation continues. They know that social wellbeing is vital in driving long-term economic performance and that in the future humans and machines will inevitably work ever closer together. How can the two be reconciled? How can they make sure their organisation gains from the connectivity of the digital world, without sacrificing trust?

This is the biggest challenge business leaders will face – and they will need strong support from HR professionals along the way. The world of work is changing – are you ready?

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1 The Edelman Trust Barometer 2017 found that 52% of the population trust business, compared with 41% that trust government. It also found that 75% of the general population expect business to lead the way in improving economic and social conditions. www.edelman.com
Talent, technology and trust:

Strengthening Innovation, Human Capital and Digital.

CEO’s top business priorities:

- **#1 Innovation**: 23%
- **#2 Human capital**: 15%
- **#3 Digital and technology capabilities**: 15%

In the age of automation, CEOs still need people.

- **52%** plan to increase headcount in the coming 12 months, up from **48%** in 2016.

Fighting for talent.

- **77%** of CEOs see the availability of key skills as the biggest threat to their business.
Wanted: Soft skills. CEOs are looking for uniquely human capabilities.

77% of CEOs struggle to find the creativity and innovation skills they need.

Is HR up to the challenge?

60% of CEOs are rethinking their HR function.

Trust is an essential commodity.

58% of CEOs are addressing the implications of automation for stakeholder trust today.
The right mix of people and machines in the workplace – and the implications not only for business but for wider society – is the critical talent question of our age. This is a delicate balancing act for CEOs in every sector and region. Automation and the advent of artificial intelligence (AI) bring the promise of increased efficiency, productivity and profitability within reach, if CEOs can work out how to best access their potential.

Maximising the benefits of automation is high on the CEO agenda: 52% say they’re already exploring the benefits of humans and machines working together, and 39% are considering the impact of AI on future skills needs. But automation has also propelled business into the front line of a raging social and philosophical argument. We’ve rapidly reached the point where we’re questioning the role people play in the world, and in the workplace. Automation has already replaced some jobs entirely; manufacturing output has risen in advanced economies while employment has fallen. Seventy-nine percent of people worldwide are now worried about losing their job to automation. And there’s a more widespread but less visible impact; as more individual tasks become automatable (and the list is growing rapidly, thanks to AI and sophisticated algorithms), jobs are being redefined and recategorised. If machines can think – the one ability that sets humans apart – where do we fit in?

The logical conclusion to the relentless march of automation is that it will transform the role of people at work. Different skills will be needed, some roles will disappear and others will evolve. Some organisations will need fewer people but others may need more – we will see a rebalancing of human capital as organisations adjust. That has wide-ranging consequences for HR – the role of the function may even need a fundamental rethink.

The road to automation is a long and difficult journey with many pitfalls along the way, and success in an automated world will mean people and machines working together, rather than one replacing the other. Exceptional skills (and leadership) will be needed. That message comes across loud and clear from CEOs: They’re on a recruitment drive.

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“In all 50 US states, drivers are the number one or number two job holders. These jobs are going away, and they’re going away within ten years. So what are these people going to do? The answer is a lot of them are not going to work.”

Ian Bremmer
President and Founder
Eurasia Group
Playing catch-up with human capital

We’ve long argued that despite predictions that millions of jobs will be replaced by automation in the future, organisations will always need people. This CEO Survey reinforces that view. Fifty-two percent of CEOs say they plan to increase their headcount in the next 12 months, up from 48% in 2016.

“As we develop our services more, we find that the human interaction is still very important. So we’re investing a lot more in recruiting people, and getting to understand our customer and their needs better. … So, actually, our employment levels are going up, not going down.”

Alex Arena
Group MD HKT Ltd
Hong Kong

Only 16% of CEOs plan to cut their company’s headcount over the coming year, and only a quarter of these say that’s primarily because of automation and technology (although a further 55% say it has some influence over their decision).

See our 2013 report, The Most Extraordinary Technology of All.
The story from regions and sectors

CEOs based in India (67%), the UK (63%), Canada (64%) and China (60%) showed the strongest inclination to increase their headcount over the coming 12 months, with 54% of US CEOs expecting to grow headcount, just above the global average. In terms of sector demand, those leading healthcare companies (64%), asset and wealth management businesses (64%) and technology companies (59%) were more likely to be on a recruitment drive.

The expected impact of technology on headcount also varies from sector to sector. CEOs in financial services expect to see the biggest disruption to the workforce as a result of automation, with 42% saying that any planned reduction in headcount will to a large extent be because of technology. This rises to 48% among CEOs of insurance companies. Four out of ten leaders of entertainment and media companies, and companies in the chemicals sector, also said that any reduction in headcount would be caused, to a large extent, by automation.

Although CEOs are generally feeling upbeat about the future – 38% are very confident about their organisation’s prospects for growth over the coming 12 months, compared with 35% in 2016 – it’s very possible that this willingness to recruit more workers is a sign that CEOs are rebalancing their workforce. CEOs say they need to strengthen their innovation, digital and technology capabilities in order to capitalise on new opportunities and they need the skills to support that investment.

Which brings us to the eternal problem for CEOs – finding the skills and talent they need.

Figure 2: Technology replacing talent

Q: To what extent will the decrease in headcount be the result of automation and other technologies?

19% Not at all
25% To a large extent
55% To some extent
1% Don’t know/refused

Don’t know/refused
The search for skills – and very human capabilities

Seventy-seven percent of CEOs say they see availability of key skills as the biggest business threat (ahead of the speed of technological change and changing customer behaviour). The level of concern varies geographically – 89% of CEOs based in South Africa, 88% of those in China and Japan and 87% of those in India, 83% in UK and 82% in US agree, compared, with 54% in Germany and 58% in Australia – and from sector to sector. CEOs of communications organisations (84%), insurance and industrial manufacturing (81%) were more likely to be concerned than those in the energy sector (64%).

Q: How concerned are you about the following economic, policy, social, environmental and business threats to your organisation’s growth? Percentage of those who were concerned about ‘Availability of key skills’.

“I think that human talent is irreplaceable. You can automate processes. You can have technology as a very significant enabler of business relationships, but human warmth, warm relationships between two people, the ability to create and visualise business models, the ability to develop strategies, to define and contribute to a better society, are very difficult to replace with machines. In this sense, I believe that human talent in organisations is the great distinguishing feature, it is the great enabler of growth.”

Jorge Mario Velásquez Jaramillo
Grupo Argos SA
Colombia
Sixty-five percent of jobs in the future are still unknown. That means we need to prepare people for a different world, a world which is going to change, a world which is going to create new opportunities. Talent is going to be vital.

Ignacio Galán
Chairman
Iberdrola, Spain

So what are these skills that CEOs find so difficult to source? We took business acumen as a given, but asked our CEOs to specify what they’re looking for in talent. While STEM and digital skills were seen as important, demand for these was outstripped by ‘soft’ skills – adaptability, problem-solving, creativity and leadership.

It seems CEOs see the value in marrying technology with exclusively human capabilities. The skills they consider most important are those that can’t be replicated by machines – the (still) uniquely human, capabilities that stimulate innovation. As yet, software cannot imitate passion, character or collaborative spirit; as Dov Seidman, CEO of the leadership consultancy LRN, said recently5: “It seems it’s now the human heart, rather than our ability to think, that sets us apart.”

Figure 4: Soft skills are in demand – but hard to find

Q: In addition to technical business expertise, how important are the following skills to your organisation? Q: How difficult, if at all, is it for your organisation to recruit people with these skills or characteristic?

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https://www.nytimes.com/2017/01/04/opinion/from-hands-to-heads-to-hearts.html?_r=2
Competing for the best talent

The majority of CEOs want to recruit more people and they’re looking for very specific (and very hard-to-define) skills. That should ring alarm bells with HR functions across the globe. Some parts of the recruitment market are about to become very competitive indeed.

Organisations have long found creative ways of finding the talent they need; international mobility and more recently, harnessing the growing army of ‘gig’ workers have been important elements of talent strategy. But these are fraught with risks and unintended consequences, as some organisations that have led the charge in the gig economy have discovered. This may be behind a seeming wane in enthusiasm among CEOs for contract workers: In 2009, 37% of CEOs said they were using more temporary and contract staff to fill talent gaps, but this year the proportion that say they rely more on contractors and freelancers has fallen to 28%.

Talent strategy is complex, risky and difficult to get right – but CEOs have high expectations. For years, they have identified talent strategy as a main target for strategic change but rarely followed that up with specific action. In 2014, for example, 93% of CEOs said they recognised the need to make a change to their strategy for attracting and retaining talent, but a staggering 61% were yet to take the first step⁶.

That has changed; 78% of CEOs now say they’ve changed their people strategy to reflect the skills and employment structures they need for the future. For most, this means taking specific steps to improve their access to talent and attract the people they need, whoever and wherever they may be.

Organisations are also making better use of technology and data analytics to attract and manage their workforce, although progress is still frustratingly slow. In 2015, 46% of CEOs said their organisation always used analytics to provide insight into how effectively skills are being deployed, but only 58% felt that digital investment had created value for the organisation in terms of talent strategy⁷. Today, exactly half of CEOs say their organisation uses data analytics to help find and keep people.

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⁶ PwC 17th Annual CEO Survey.
⁷ PwC 18th Annual CEO Survey.
Figure 5: Wanted: more technology and more people

Q: Given the business environment you’re in, which one of the following do you most want to strengthen in order to capitalise on new opportunities? Top five priorities shown.

CEO’s top business priorities

- **Innovation**: 23%
- **Human capital**: 15%
- **Digital and technology capabilities**: 15%
- **Competitive advantage**: 10%
- **Customer experience**: 10%
CEOs still say that they can’t find the talent they need – and it appears that HR has a long way to go in persuading business leaders that it’s up to the challenge. In 2015, 64% of CEOs felt that HR was unprepared for transformational change and that doubt still lingers; this year, 60% of CEOs say they are rethinking the HR function.

This is a critical moment for HR. But the challenge isn’t necessarily about finding new and innovative ways of accessing the talent market; it’s about using the full range of HR expertise and tools to identify skills gaps, anticipate needs, spot potential and build the workforce of the future.

CEOs have worried about the availability of skills since we began our annual surveys 20 years ago. With a few exceptions, their level of concern has steadily risen year on year; business leaders have clearly been unable to find a solution to the problem.

It’s possible that the problem is not that the skills and people that CEOs want are so difficult to find, but that CEOs are hoping to find fully-formed employees with the precise skills that the organisation needs not only today, but for whatever the future may bring. In other words, CEOs are looking for the perfect employee for them.

But employees like these are made more often than found. Innovation isn’t only about skills; creativity thrives in the right environment, when free-thinking people with diverse views and experiences come together and spark ideas off each other. Innovation-creating skills can be encouraged through the right training and development, the right creative environment and culture, and the right performance management approach.

CEOs know this, and have taken pains in recent years to talk about the importance of culture and diversity. But this requires action, not just discussion; and HR can lead the way.

“We have to adapt to a different new reality. And the most adaptable way of doing it is through people. I think good, well-trained people are the answer to the changes in the environment. We have to empower our employees more, giving them better training. And then provide the information and support for them to focus on what they have to do.”

Angelo Paupério
CEO
Sonae SGPS, Portugal
“I’m a firm believer that our people and our culture are our only sustainable competitive advantages.”
Edward Bastian
CEO
Delta Airlines
This is a difficult time to be an employee. For years, many have been asked to do more with less, the prospect of a comfortable retirement is retreating and now they’re worried that before long, they will lose their job to automation. Disillusionment and demotivation can quickly set in, taking its toll on productivity and culture.

Our ability and willingness to learn new skills kept people employed during the industrial revolution and it’s possible that we will prove equally adaptable during the technological revolution. Some jobs will disappear but others will be created. Nevertheless, the social consequences of automation, globalisation and longevity are profound; one CEO told us that automation could create “a global class of unemployables”. CEOs are reluctant to sit back and benignly allow events to unfold – because they know that this comes down to trust, and trust has become the most important commodity of all.

In 2013, 37% of CEOs were worried that lack of trust in business would harm their company’s growth. This year, the figure has jumped to 58%, and 68% of CEOs believe that it has become more difficult, in a digitalised world, for businesses to gain and maintain trust. They’re right to be concerned; according to the 2017 Edelman Trust Barometer, CEOs are the object for growing dissatisfaction – only 37% of people worldwide now say that CEOs are credible, the lowest ever recorded by Edelman and a fall of 12 points in just 12 months. Employees now trust their fellow workers and peers to ‘tell the truth’ about an organisation – 60% say that their peers are as credible as any expert on a particular topic.

CEOs have an enormous challenge ahead of them. It’s the role of business leaders to protect and nurture the employer-employee relationship through this turbulent transition; without it, organisations will struggle to find and keep the people they need. Yet only 13% say they’re addressing the implications of automation for stakeholder trust ‘to a large extent’ and only 58% in total are giving it any attention. The challenge for CEOs now is to show that in the technological age, humans are their priority.

Successfully navigating the road ahead will take action as well as words. It will mean investing in training, reskilling and education for those displaced by automation. It will mean embracing new working models and developing excellent performance management. It will mean making sure that diversity and inclusiveness statements are a reflection of the organisation, rather than empty promises. And it will mean protecting the human element in a world dominated by technology.
Conclusion

CEOs have to tread carefully to address the dangers of globalisation and technology while capitalising on the opportunities they bring. The workplace model is changing fundamentally and navigating the change is fraught with unintended consequences – as trailblazers for new working structures built around the emerging gig economy have found.

Getting people strategy right in a world where humans and machines work alongside each other will be the biggest challenge leaders will ever face. No one can be sure how the world of work will evolve, so organisations must prepare for any scenario – and if the events of 2016 have taught us anything, it’s that no scenario can be dismissed as too unlikely.

CEOs will be looking for support and guidance from HR as they find a way to exploit technology alongside humans to the best advantage in the workplace. That will mean finding, or creating people with the right skills and capabilities, while protecting the employer value proposition and building a trusting relationship with employees in an uncertain and complex world.

“Learning how to manage human talent with different ambitions, with different ways of segmenting itself, that is much more omnipresent and much more multi-channel, will become an absolutely fundamental competence of organisations, to empower human development as the main centre of companies.”

Jorge Mario Velásquez Jaramillo
Grupo Argos SA
Colombia
Where next?
Five essentials for talent strategy

   Scenario planning is a powerful tool to prepare organisations for a future where no outcome can safely be dismissed as unlikely.
   - Does your scenario planning take into account the growing list of macro trends – geopolitics, trade, tax, regulation, demographics and the potential impact of disruptive technology?
   - Do you have a clear view of what the future of automation and scenarios for your business might mean for the human skills you will need? Do you understand how these skills will change over time?
   - Do you know how these trends will impact headcount requirements? The location of work? Global mobility?
   - Scenario planning isn’t a one-off task and takes constant work. Do you have a plan to maintain the quality and relevance of your scenario planning?

2. Prepare for the recruitment challenge.
   Even in a world of automation, people and skills are still essential and competition for good talent is intense. Is your recruitment strategy up to the challenge?
   - Is there a clear understanding across the organisation, for all geographies and functions, on the skills that are needed today, and in the future?
   - Which capabilities are core to the business (and should be nurtured internally), and which are not (and can be bought in externally when needed)?
   - Does the HR function have the skills, tools and resources it needs to meet the recruitment challenge, and to effectively lead the people strategy in the digital age?

3. Work on soft skills.
   CEOs are looking for specific skills that are difficult to find and keep – nurturing them will become a priority.
   - How will you grow the in-demand ‘soft’ skills that CEOs need – innovation, creativity, problem-solving and leadership? What formal mechanisms are in place to develop these across the organisation? Do current career paths actively encourage their development?
   - Do the organisation’s processes and policies support the development of these vital skills? Are your incentive systems aligned to your talent priorities? Does decision-making and accountability harm development of these skills, or encourage them?

4. Get the people experience right.
   The end-to-end people experience is derived from a complex interaction of elements and it’s essential that each is monitored and understood.
   - Do your ways of working support or hinder the employee experience? This embraces everything from the design of the workplace to flexible working arrangements, the way in which employees interact and organisational design.
   - Are the preferences of your pivotal talent understood, and being met?
   - Do your systems and technology enable work to get done as easily as when your employees use tech outside work?
   - Is communication with employees open and helpful?
   - Does your diversity and inclusion programme contribute to the employee experience?
   - Do you have the right analytical tools in place to monitor all elements of the people experience? Does HR have the right delivery model and capabilities to support a strong people experience?
5. Work on trust – with purpose.
Knowledge is power when it comes to strengthening trust.

- Does the organisation have a clear purpose? Where does it fit into society?
- How is the organisation perceived, internally and externally? What is your workforce feeling? What are your stakeholders thinking? Engagement surveys are useful for tracking employee satisfaction but it’s equally important to track the sentiments of wider stakeholders through social media and other channels.
- What can you do to improve trust? Carry out a careful diagnosis of the root cause of leadership and employee distrust: Is the cause external (macroeconomic worries, fears about political developments)? Or internal (fear of change, a problem with culture)? If you know the cause you can develop a plan to address it.
About the survey

In total, we conducted 1,379 interviews with CEOs in 79 countries between September and December 2016. By region, 493 interviews were conducted in Asia-Pacific, 294 in Western Europe, 152 in North America, 163 in Latin America, 147 in Central & Eastern Europe and 130 in Africa and Middle East.

In addition, 20 CEOs sat down with us near the end of 2016 for more extensive conversations. Their thoughts are reflected in the quotes throughout our report. The interviews were spread across a range of industries.

More details about our survey methodology and findings by region and industry can be found at www.ceosurvey.pwc
Contacts

Carol Stubbings
Joint Global Leader,
People and Organisation
+44 20 7804 9859
carol.a.stubbings@pwc.com

Jon Williams
Joint Global Leader,
People and Organisation
+61 (2) 8266 2402
jon.williams@pwc.com

Justine Brown
Head of Marketing,
Global People and Organisation
+44 113 289 4423
justine.brown@pwc.com

North America
Jeff Hesse
+1 312 298 6881
jeff.hesse@pwc.com

Scott Olsen
+1 646 471 0651
scott.n.olsen@pwc.com

Bhushan Sethi
+1 646 471 2377
bhushan.sethi@pwc.com

Western Europe
Peter Brown
+44 20 7804 7007
peter.c.brown@pwc.com

Henk van Cappelle
+31 88 794 65 63
henk.van.cappelle@nl.pwc.com

Peter De Bley
+32 2 7104321
peter.de.bley@be.pwc.com

Charles Donkor
+41 58 792 4554
charles.donkor@ch.pwc.com

Till Lohman
+49 40 6378-8835
till.r.lohmann@de.pwc.com

Central & Eastern Europe
Alla Romanchuk
+7 (495) 232 5623
alla.romanchuk@ru.pwc.com

Middle East
David Suarez
+971 4304 3981
david.suarez@ae.pwc.com

China/Hong Kong
Johnny Yu
+86 (10) 6533 2685
johnny.yu@cn.pwc.com

Singapore
Nicole Wakefield
+65 6236 7998
nicole.j.wakefield@sg.pwc.com

India
Padmina Alaganandan
+91 80 4079 4001
padmina.alaganandan@in.pwc.com

Australia
Jon Williams
+61 (2) 8266 2402
jon.williams@pwc.com

South and Central America
Joao Lins
+55 11 3674 3536
joao.lins@br.pwc.com

Africa
Gerald Seegers
+27 (11) 797 4560
gerald.seegers@za.pwc.com

Barry Vorster
+27 (11) 797 4864
barry.vorster@za.pwc.com