

---

# 5 Things Every HR Manager Needs to Know about the Fourth Industrial Revolution

THE FUTURE OF JOBS AND SKILLS

---



John Pennington

# THE FUTURE OF JOBS AND SKILLS

“We are at the beginning of a Fourth Industrial Revolution. Developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing and biotechnology, to name just a few, are all building on and amplifying one another. This will lay the foundation for a revolution more comprehensive and all-encompassing than anything we have ever seen.”

The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution, World Economic Forum Report - January 2016.

We now live and work in a world of unprecedented disruption requiring continuous development to survive.

In the future, talent, more than capital, will represent the critical factor of production. This will create substantial challenges for recruiting, training and managing talent.

Currently, only 53% of Chief Human Resource Officers are reasonably or highly confident regarding the adequacy of their organisation's future workforce strategy to prepare for these shifts.

The Future of Jobs report, prepared by The World Economic Forum who are committed to bringing together political, business and other leaders of society to shape global, regional and industry agendas, has tapped into the knowledge of those who are best placed to observe the dynamics of workforces - Chief Human Resources and Strategy Officers, to quantify the degree of skills disruption.

We've extracted the key takeaways and combined the finding from our own research in conjunction with GE Capital International, for HR professionals to better understand the changing landscape and highlight the critical areas for action.

## **1. Entire Industries Will Adjust, With Most Occupations Set to Undergo a Fundamental Transformation**

The expected changes will differ between various industries, but regardless of the specific industry or the particular driver of change, one thing is certain and that is that the overall pace of industry transformation is unprecedented. Some industries are already experiencing it, re-shaping business models and seeking new skill sets across Architecture, Engineering, Computer and Mathematics, but this is set to accelerate over the next 5 years.

A moderate decline in Manufacturing and Production roles is expected globally, and a significant decline in Office and Administrative roles is also anticipated. These predictions will have a significant impact on jobs, ranging from mass job creation to mass job displacement. Heightened labour productivity will be possible with the aid of technology, but we're also set to experience widening skills gaps.

It's also noted that every industry will move toward "specialised sales people", with a growing need to become skilled in commercialising and explaining the company's offerings to business, government clients and consumers. This will be driven by the innovative technical nature of the offerings opening up channels to new customers not dealt with before. The Future of Jobs (p.16)

**Table 1: Significance, timeframe & definition of drivers of change, The Future of Jobs (p. 7)**

DRIVER OF CHANGE	RATED AS TOP TREND	EXPECTED TIMEFRAME	DEFINITION
Mobile Internet & Cloud Technology	34%	2015-2017	The mobile internet has applications across business and the public sector, enabling more efficient delivery of services and opportunities to increase workforce productivity. With cloud technology, applications can be delivered with minimal or no local software or processing power, enabling the rapid spread of internet-based service models.
Advances in Computing Power & Big Data	26%	2015-2017	Realizing the full potential of technological advances will require having in place the systems and capabilities to make sense of the unprecedented flood of data these innovations will generate.
New Energy Supplies & Technologies	22%	2015-2017	New energy supplies and technologies, such as renewables and hydraulic fracturing (fracking), are shaking up the global energy landscape and disrupting powerful players at least as much as yesterday's oil price crises did, with profound and complicated geopolitical and environmental repercussions.
The Internet of Things	14%	2015-2017	The use of remote sensors, communications, and processing power in industrial equipment and everyday objects will unleash an enormous amount of data and the opportunity to see patterns and design systems on a scale never before possible.
Crowdsourcing, The Sharing Economy & Peer-To-Peer Platforms	12%	Impact felt already	With peer-to-peer platforms, companies and individuals can do things that previously required large-scale organizations. In some cases, the talent and resources that companies can connect to, through activities such as crowdsourcing, may become more important than the in-house resources they own.
Advanced Robotics & Autonomous Transport	9%	2018-2020	Advanced robots with enhanced senses, dexterity, and intelligence can be more practical than human labour in manufacturing, as well as in a growing number of service jobs, such as cleaning and maintenance. Moreover, it is now possible to create cars, trucks, aircraft, and boats that are completely or partly autonomous, which could revolutionize transportation, if regulations allow, as early as 2020.
Artificial Intelligence & Machine Learning	7%	2018-2020	Advances in artificial intelligence, machine learning, and natural user interfaces (e.g. voice recognition) are making it possible to automate knowledge-worker tasks that have long been regarded as impossible or impractical for machines to perform.
Advanced Manufacturing & 3D Printing	6%	2015-2017	A range of technological advances in manufacturing technology promises a new wave of productivity. For example, 3D printing (building objects layer-by-layer from a digital master design file) allows on-demand production, which has far-ranging implications for global supply chains and production networks.
Advanced Materials, Biotechnology & Genomics	6%	2018-2020	Technological advances in material and life sciences have many innovative industry applications. Recent breakthroughs in genetics could have profound impacts on medicine and agriculture. Similarly, the manufacture of synthetic molecules via bio-process engineering will be critical to pharmaceuticals, plastics and polymers, biofuels, and other new materials and industrial processes.

## 2. Major Recruitment Challenges and Talent Shortages Are Expected Over the Next 5 Years

Technology is quickly changing the skills that employers need and shortening the shelf-life of employees existing skill sets. Virtually every job will change. It's expected that the compensation for in-demand jobs in every industry will increase, in line with increased productivity and skills requirements. An increase in work-life balance is also anticipated.

---

“Telecommuting, co-working spaces, virtual teams, freelancing and online talent platforms are all on the rise, transcending the physical boundaries of the office or factory floor and redefining the boundary between one’s job and private life in the process. The challenge for employers, is going to be to work out ways and means to ensure that the changing nature of work benefits everyone,” **The Future of Jobs** (p.17)

---

Significant barriers predicted over the next 5 years include:

- A lack of understanding of what the future holds
- Resource constraints and short-term profitability pressures
- A lack of alignment between workforce strategies and innovation strategies

## 3. HR Required to Lead the Way with Strategies to Support the Current Workforce: Re-Training, Re-Skilling and Up-Skilling

The rapid pace of change will require an urgent and concerted effort to develop new skill sets. Human Resource professionals have the opportunity to add significant strategic value in predicting the skills that will be required, and plan for changes in demand and supply. Re-skilling and up-skilling today’s workforce is critical to building a workforce with futureproof skills. Businesses must take an active role in supporting their current workforces through re-training, and encouraging individuals to take “a proactive approach to their own lifelong learning across Big Data analytics, mobile internet, the Internet of Things and robotics,” **The Future of Jobs** (p.11).

## 4. Utilising Data and Planning Metrics Will Be Critical for Anticipating and Managing the Transition

---

“During previous industrial revolutions, it has often taken decades to build the training systems and labour market institutions needed to develop major new skill sets on a large scale. Given the upcoming pace and scale of disruption brought about by the Fourth Industrial Revolution, however, this may simply not be an option,” **The Future of Jobs** (p.20).

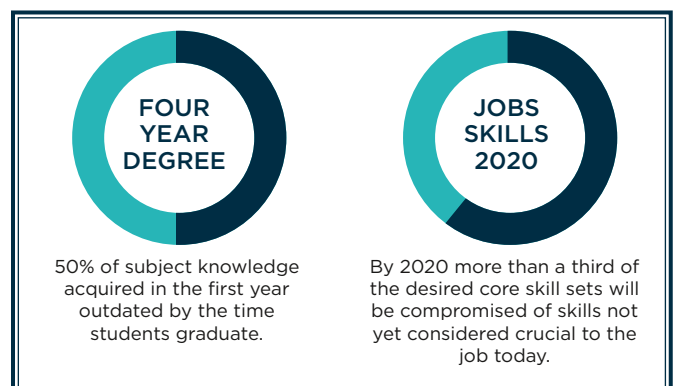
---

Technology-driven business changes are already underway today, so utilising data and planning metrics will be fundamental to anticipating and proactively managing the current transition in labour markets.

Talent will no longer be a long-term issue that can be solved with tried and tested approaches that were successful in the past or by instantly replacing existing workers. Instead, as the rate of skills change accelerates across both old and new roles in all industries, proactive and innovative skill-building and talent management is an urgent issue.

The HR function will need to become more strategic making use of new analytical tools to identify talent trends and skill gaps, that will provide for businesses to align their goals with innovation and talent management strategies.

Businesses that adopt technological approaches to workforce planning and talent management, will benefit with more accurate forecasting, getting ahead of the curve. Early mapping of emerging job categories, anticipated redundancies and changing skills requirements will allow businesses to form effective talent repurposing strategies. Investing in systems that can provide fast and efficient viewing of competencies for every employee, team, and business unit, in real-time, will be a powerful tool to support the business transformation.



#### Winners Are Now Very Different

- The largest taxi firm, Uber, owns no cars
- The most popular media company, Facebook, creates no content
- The most valuable retailer, Alibaba, carries no stock
- The largest accommodation provider, Airbnb, owns no property

#### Winners Need

- The right people
- With the right competencies
- On-boarded rapidly
- Pursuing a proven process
- Constantly developing themselves
- Being continuously coached
- Trained by experts

#### Recognition of Training & Reskilling as a Priority

---

“Across all industries, about two thirds of respondents also report intentions to invest in the reskilling of current employees as part of their change management and future workforce planning efforts, making it by far the highest-ranked strategy overall,” **The Future of Jobs** (p.26).

---

### 5. Businesses Set to Prosper are Already Redefining Talent Management Best Practice

The Future of Jobs report states that only 45% of Australians surveyed believe future workforce planning is a leadership priority. For many HR professionals, the first step will be to highlight the urgency of developing a strategy to senior management, formulating a plan and then implementing it throughout the business.

As 55% of Australian businesses aren't yet preparing for the employment challenges the Fourth Industrial Revolution is predicted to bring over the next 5 years, we've highlighted 7 areas they are likely to neglect and how you can get a head start by doing the opposite.

#### 7 Pitfalls of the Unprepared and What the Winners are Doing Instead

##### 1. Overlooking the Importance of Employee Engagement

It's a proven fact that businesses with more engaged employees have 51% higher productivity and achieve twice the annual net income of businesses whose employees lag behind on engagement ((Harter, J.K.,

Schmidt, F.L., & Hayes T.L., Psychology, 2002 Vol. 87, No. 2, The Impact of Employee Engagement – Kenexa). The scale of change management required over the next 5 years will be very difficult without engaged employees.

#### What should you look for?

It's important to assess a candidate's Company Commitment as individuals who are highly engaged with their employer tend to be loyal and view their job as a source of pride and enjoyment. Assessing Job Commitment will highlight employees who are highly engaged with their job and will typically be inspired to go above and beyond their job description to help meet business goals.

##### 2. On-Boarding Programs That Do Not Go Beyond the First Month

It's important to recognise that effective on-boarding takes place over time and check-in actions should take place at 30, 60, 90 and 120 days up to 1 year. Business that consistently implement on-boarding programs are rewarded with more competent, engaged and satisfied employees. Those who do not are more likely to lose new employees within 18 months. With the anticipated pace of change, rapid new skill development will in part require new hires into specialist roles, and with talent expected to be in short supply, successful on-boarding will be vital.

#### How can you implement an effective on-boarding program?

Focus on helping a supervisor or manager better understand the personality characteristics and learning styles of the new employee in order to maximise performance as quickly as possible. Your aim is to shorten the honeymoon period by the supervisor knowing how well a new employee will adapt to change and how well they will take direction. That knowledge along with specific tips, will help supervisors train and get the new employee up to speed and become a productive team member.

Hand in hand with this is for the supervisor to understand the new hires learning style so that they find out for example, if that new employee prefers to learn new information rapidly or if they prefer to get it in small pieces over time. This shortens the learning curve and produces a quicker return on your investment with new employees.

The candidate's personality and learning style determine their basic work behaviours not only in areas such as learning new things, you also need to look at how they:

- take direction from others
- consistently follow procedures
- are friendly

- handle stress
- work on a team
- handle details

### 3. Not Investing in a Leadership Development Program

Grooming the leaders of tomorrow is essential to the longevity of any business. While it's undeniably important that leaders have the proper skills and commitment to succeed, they must also embrace the values of the company. Businesses that invest in employees, not only develop management expertise, but also prepare the next generation of leaders.

#### How can we implement a consistent long-term framework for developing leadership skills?

Identifying, supporting and nurturing leadership qualities is critical.

A common mistake many organisations make is to promote individuals who are very good in their current job, to management without knowing if they possess core characteristics of leadership. Key characteristics are required such as the ability to motivate others to work hard. There are "measurable" core characteristics that make it easier for people to do this.

Another key characteristic is to be an engaging presenter. Many leaders today need to make engaging and effective presentations in order to get buy in from team members and colleagues. Although you can train for this, there are key core characteristics that an individual requires.

For a leadership program to be successful you need to find out if an individual has core characteristics that will help them deliver critical leadership competencies such as:

- problem solving
- making decisions
- motivating others
- handling feedback and follow up
- managing conflict
- planning and organising
- consistency.

### 4. Promoting the Wrong People into Leadership Roles

Unfortunately, this is a common pitfall and it can cause long-term damage to employee and customer relationships. Discovering existing employees which possess the core behavioural competencies to be effective leaders are gold, and will excel with the right leadership training and motivation.

#### How can you determine the strengths an individual has in terms of leadership ability and the areas that they may need to develop?

Streamline your coaching and training process of your managers by looking to see where they may have some challenges and provide tips to quickly dive into the areas where they may need the most help.

Many individuals may not understand their strengths and weaknesses when it comes to executive level leadership in areas such as "Business Planning and Vision". There are three major components that impact executive leadership capabilities. Those 3 components are Skills/Experience, Attitudes/Motivation and lastly Personality/Learning Style.

Think of Personality/Learning Style as the "raw material" that drives capabilities, success and overall satisfaction within executive leadership roles. Successful leadership programs assist in exploring areas where leaders can be developed as a leader in an executive role.

Most executive level positions are similar to an "entrepreneurial" situation in that the individual is responsible for a business unit or major division of a company with its own requirements for profitability, budgeting, strategic planning, etc. Typically, areas to support that are found within an executive level position are:

- business planning and vision
- leading and managing employees
- selling and marketing
- servicing and building internal/external clients

Tips can be used to improve performance when the particular behaviour is important for the situation. This information should be used to help coach the individual and to allow them to focus on their own development.

### 5. Not Aligning Individual Performance Goals with Company Objectives

How do you define the skills, behaviours, and attitudes that workers need to perform their roles effectively? How do you know they're qualified for the job? In other words, how do you know what to measure?

Results-orientated businesses link individual performance with the goals of the business by using competencies. These are the integrated knowledge, skills, judgment, and attributes that employees require to perform a role effectively. As competencies are expected to change at a rapid rate, having a defined set mapped out for each role provides clear direction for ultimately achieving the company's objectives.

### How can you define, measure and track the competencies required for each employee?

Competencies that drive success in every unique role need to be easily created, customised, and allocated for rapid self-development in addition they need to be linked to high quality coaching and where internal resources are not sufficient to proven external training and coaching. Critical success factors are that you:

- Ensure employees demonstrate sufficient expertise
- Evaluate performance effectively
- Identify skills and competency gaps efficiently
- Provide instant coaching and professional development
- Track results for continual improvement and to reduce costs

### 6. Setting Targets but Failing to Monitor Progress

The saying “you can’t improve what you don’t measure” rings true for employee development. It’s just as important to encourage and reinforce improved performance, as it is to correct and coach when the expectation falls short. This contributes to employee engagement, motivation and the overall success of the business. The Future of Jobs report has identified mass re-training, re-skilling and up-skilling critical strategies for success, monitoring to make better decisions will be extremely important.

### How can you provide fast and efficient viewing of progress for every employee, team, business unit or division?

With online real time tracking and reporting that at a minimum:

- Identifies and assesses individual and organisational learning and training goals
- Tracks progress in meeting those goals
- Allows you to direct training and coaching to where they will have their maximum impact
- Presents you with data for supervising the learning process of the organisation as a whole
- Manages progress through insightful reports to accelerate learning and spread best practices throughout the organisation
- Most important of all it is proactive and not reactive

### 7. Sharing best practice and focusing scarce resources

It’s important to record all training undertaken, who was trained, when they were trained, and what skills they have gained. Training records provide documentation for regulatory agencies, information for employee evaluations, and support for promotion or salary increases. As mass re-training, re-skilling and up-skilling will required a large investment in training programs, insightful information will highlight the training programs which improve competencies to drive success, justifying further investment, or highlighting training that is not delivering as expected.

How can we keep manage training completed for each employee so that it can be quickly accessed, evaluated and continually improved?

Connect the goals of your organisation to the development of what your people need to know and do to be productive, profitable, and world class requires you to:

- Activate real, immediate and clear changes directly aligned to business goals
- Create confidence and buy-in from all stakeholders and
- Save on your internal and external training budget

Are you looking for a complete development solution that is capable of addressing the 7 pitfalls to best practice workforce management?

The Hub is a ground breaking tool that proactively drives businesses towards results through a competency based development platform solution like you’ve never imagined before.

---

“What has actually been delivered has far surpassed all expectations” Director Commercial Excellence, GE Capital International “The Hub is the ultimate performance tool for CEO’s management, HR and Learning & Development. The Hub is specifically designed to focus on continuous workplace performance improvement with a complete and easy online infrastructure with decision making focused reporting for management.”

---

Get in touch to learn how it can accelerate the development of your employees.



Accela is an Australian owned company, established in 2005, renowned for exceptional sales management and leadership training, coaching and consulting. Accela has assisted many Australian blue chip and international companies realise their teams' full potential with a comprehensive range of development solutions. To complement their existing methodology, the Hub was created for clients to measure, report, manage and continuously drive faster, easier sales results.

Accela has over 30 accredited trainers and facilitators across Australia and New Zealand, and over 40 accredited local multi-lingual trainers across Singapore, Hong Kong, Shanghai, Tokyo, London, Frankfurt, Milan and Paris.

[www.accela.com.au](http://www.accela.com.au)