Artificial Intelligence in HR: a No-brainer

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Artificial Intelligence is not the future, it is already happening and widely available.

Introduction

This is basically good news for Human Resources and for your business. Usually HR is one step behind in the digital transformation and AI now offers the chance to catch up. AI can help eliminate repetitive tasks, accelerate the search for talent, reduce employee attrition and improve employee engagement. The algorithms train themselves to simulate human behaviour and to re-imagine workers experience. AI reacts faster in helping draw out the insights and inferences that might otherwise take reams of manpower or stay uncovered at all.

'Digital is not the cherry on the cake, it is the new cake.'

Jean-Paul Agon
Chairman
L'Oréal Group

Still, many HR-professionals are reluctant to embrace this breakthrough technology. Some feel algorithms can never replace human empathy and intuition. There are doubts about the availability and quality of data and whether AI can add something new to what we already know about the dynamics of the workforce.

Reality has overtaken this discussion. Digital intelligence is transforming the workplace. Man and learning machines are working closely together in neural networks, powered by an ever-increasing amount of data in the cloud and the use of big data and artificial intelligence to analyse and direct them. This force crosses a wide range of disciplinary and organizational boundaries and requires a massive shift in thinking about how to execute and operate.

Being the most complex, handcrafted and data-dependent business process, HR must rethink its added value and license to operate. The judgment calls of the human professional are, and always will be, decisive in people management. But AI will provide more time, more capacity, more budget space and better information to do so.

Do we have data to support this? Yes.
According to research, 40 percent of the HR-functions of international companies are currently using AI-applications. Most of them are still US-based, with European and Asian organisations dangling behind. But, seen the outcome of PwC's 20th CEO Survey *(edition 2017)*, things are about to speed up. More and more global business leaders see the value of AI supporting the management of their workforce.

Worldwide 50 percent will invest in data analytics to find and develop talents and keep people loyal to their corporations. 39 percent is considering its impact on future skill needs. And: 63 percent is re-thinking the role of their human resources department.

Why this matters to you?
Do you believe that HR can increase its value to the organization and that data and analytics should play an important role? Do you think HR needs to renew its license to operate in a digital and maybe even disruptive manner? Does HR need increased efficiency, higher impact and shorter process times? Are you looking for an improved employee (and candidate) experience? This white paper addresses these imperatives and can help you shape your thoughts.

We look forward to discuss the possible impact of 'digital' on your HR function.

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Is AI creating or destroying work?

Automation, robotics and AI are advancing quickly, dramatically changing the nature and number of jobs available and the way we organize our work relations. The potential for digital platforms and AI to underpin and grow the world of work is unbounded. To understand the role of AI in this better, it is useful to think of three levels of intelligent digitalisation.

Assisted Intelligence

The technology is already widely available today, and improves what people and organisations are doing by automating repetitive, standardised and time-consuming tasks and providing assisted intelligence as in chat bots. A simple example, prevalent in cars today, is the GPS navigation programme that offers directions to drivers and adjusts to road conditions. Or the Netflix-software that directs you to the visual entertainment suited for your choice and sentiment.

Augmented Intelligence

This emerging technology brings a fundamental change in the nature of work by enabling man and machine to make decisions together. It makes us do things we couldn't otherwise do. For example, car ride-sharing businesses exist because of the combination of programmes that organise the service. AI powers and directs this. Uniquely human traits – such as emotional intelligence, persuasion, creativity, innovation – become more valuable by this co-existence of man and machine.

Autonomous intelligence

This is the most avanced form of technologies relying on AI, establishing machines that act on their own and reach out to the subconscious level of information. An example of this will be self-driving vehicles, when they come into widespread use. But we also see algorithms autonomously take over decision making and selection processes. This creates a new industry of data-science and data-governance and makes data-ethics, privacy and data security C-suite issues.
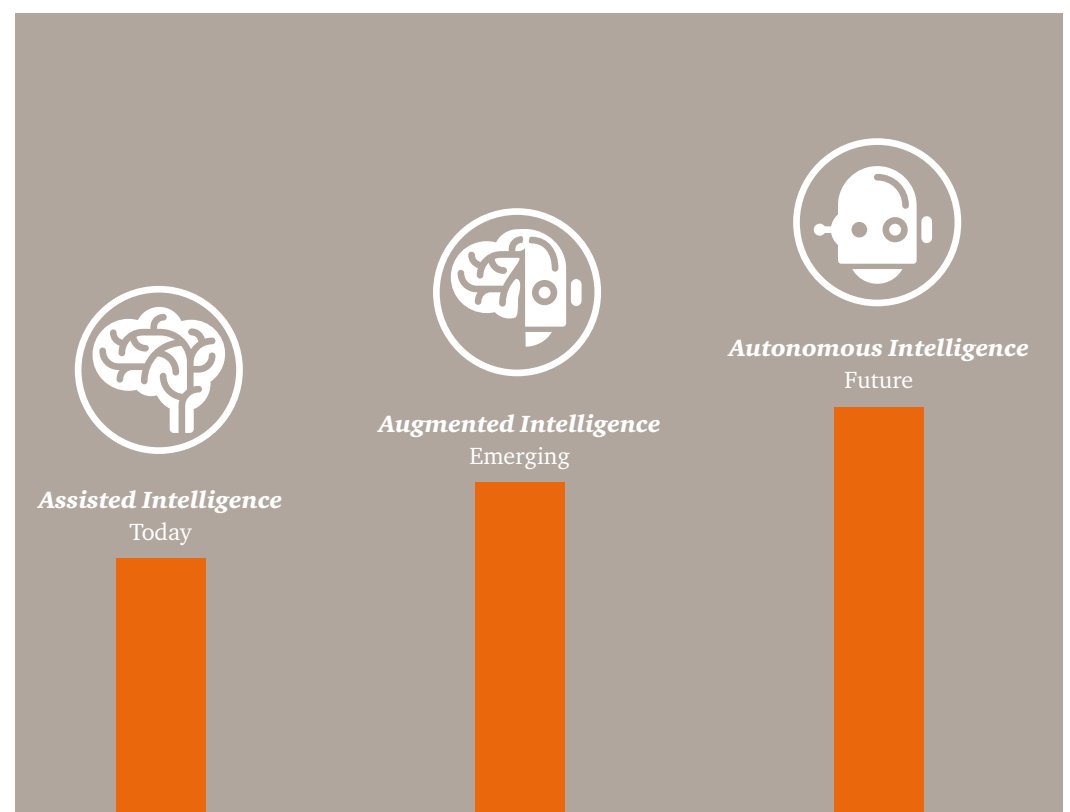
> *'AI forces HR to rethink its added value and license to operate,'*
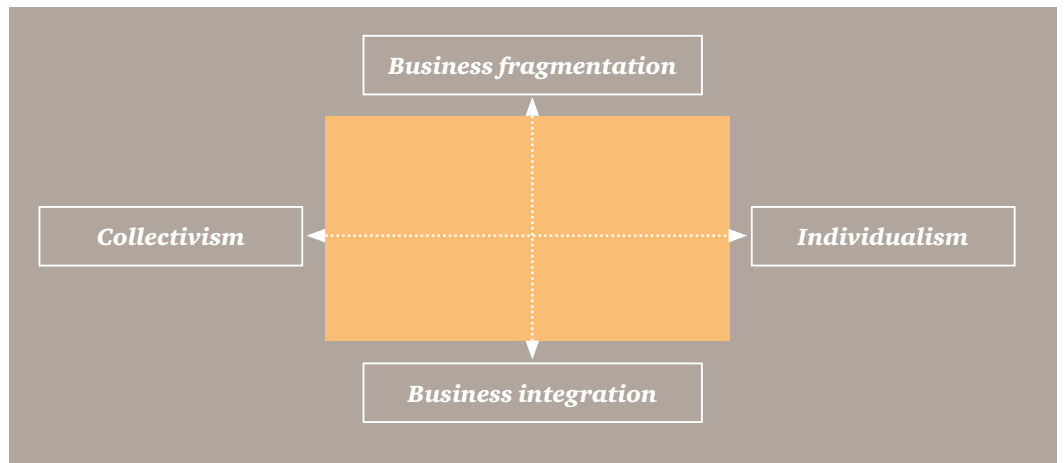>
> **Robert Charlier**
> PwC

Figure 1

Naturally, technology is not the only driving force to shape tomorrow's world of work. For this reason we add some distinctly human dynamics into our *scenario analysis*; the 'push and pull' effect of fragmentation versus integration and of collectivism versus individualism. The outcome will have a strong impact on the interface of man and smart machine and on how fast they integrate.

Fragmentation versus integration
In the fragmented scenario small becomes more powerful through the use of technology. It allows small and medium-sized businesses to tap into a vast reservoir of information, skills and financing that before used to be available only to large organisations. Since all have access to digital platforms and AI-applications, scale is no longer decisive. Legacy businesses lose their dominance and start-ups and scale-ups gain relevance. In the integrated version, technology allows large, data-driven organisations to reduce their internal and external costs (by being more productive with fewer staff and to be able to expand their operations without having to invest significant amounts of money) drastically. Therefore, fewer disruptors can create markets for themselves.

Collectivism versus individualism
Decisive for the future balance between these forces, is whether **collectivism** or **individualism** will be the prevailing cultural and societal trend for the future. Will 'me first' prevail, or will societies work together through a sense of collective responsibility? What is the role of government in balancing a strong economy with the interests of its people? Regions and countries – and even cities – will inevitably take a different view on the level of state intervention needed.

What does this mean for the future of individual workers?
As more individual tasks become automatable, jobs are being redefined and re-categorised. It's clear that automation will result in a massive reclassification and rebalancing of work. Some sectors and roles, even entire sections of the workforce, will lose out - others will be created.

Intelligent digitalisation will not only alter the types of jobs available, but their number and perceived value also. By replacing workers doing routine, methodical tasks, machines will amplify the comparative advantage of those workers with problem solving, leadership, EQ, empathy and creativity skills. Those workers performing tasks which automation can't yet crack, become more pivotal – and this means creativity, innovation, imagination, and design skills will be prioritised by employers.

'There are only few in HR who find it challenging to analyse data.'

Frank Osten
Director human resources analytics
NN Group

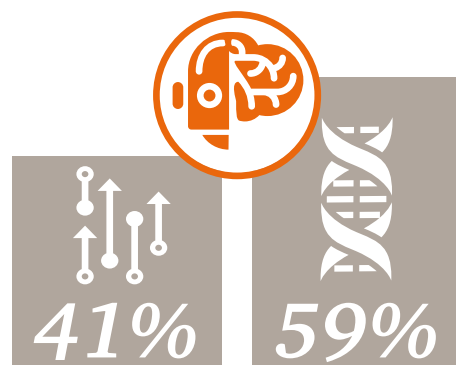*Analysis informing my next strategic decision will primarily require*

41%
Machine algorithms

59%
Human judgement

Which applications are available for HR already?

Disruptions exist where ever one can gain huge efficiency advantages at low costs and little effort. For the HR-function this means that most AI-applications available so far are developed for the recruitment and hiring process. Since there are huge gains to be made here.

'Today, autonomous machines can simulate the emotional and intuitive aspects of human behaviour already in a way that we can act on them.'

Valerie Frissen
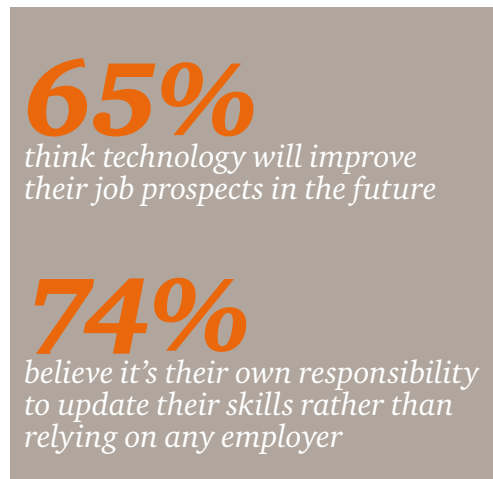*Professor ICT & Social Change* Erasmus University Rotterdam

65%
think technology will improve their job prospects in the future

74%
believe it's their own responsibility to update their skills rather than relying on any employer

Following skills and attriutes

86%	Adaptability
85%	Problem solving
81%	Collaboration skills
76%	Emotional intelligence
74%	Creativity and innovation
69%	Leadership skills
69%	Digital skills
60%	Risk managament skills
53%	STEM skills
50%	Enterpreneurial skills

According to research 75 percent of hiring organisations provides no feedback to unsuccessful candidates, while 18 percent of the candidates stops being a customer of the company that rejected them. The search for passive talent has not yet developed. Combined with the rising costs of sourcing, screening and keeping scarce talents, recruiters must change the rules of their game. Candidates must be considered customers and AI-powered People Analytics must make the process - and the information it is based on - accountable and human-centric.

Example: Speeding up the recruitment process
By using chat bots, the costs of hiring can be lowered significantly. By adding sentiment analysis and computational linguistics, the selection process can be accelerated, multi-focussed and neutralised, and the candidates experience measured autonomously. The expectations of the candidates are matched with the expectations of the teams they might be joining. The engagement of candidates is measured (and predicted) by analysing their activities on social media on choices of words and subjects. The return in performance of a new recruit can be measured; not only in terms of the organisational ROI in hiring, training and remuneration, but also relating to the individual's ability to learn on the job, develop new skills, and his or her social contributions. Various start- and scale up companies develop applications for the recruitment spectrum, including PwC's tech partners like Seedlink and others.

The next phase of People Analytics: increasing the digital IQ and EQ.
By doing the above, the algorithms learn themselves to go one step deeper in what is referred to as 'the unconscious level of information'. By assembling and comprehensively analysing people's statements, mood changes and intentions on social media and other public data sources, and compare them with other data, human behaviour can be simulated by autonomously learning machines. This makes it possible to validate the employee experience on a day to day basis. Corporate-wide skill scans will be daily routine. If analysed properly, the data also provides information on which employees are engaged and challenged (and which are not) and if social cohesion will be challenged in the near future. This gives a new dimension to strategic workforce planning and helps to reduce employee attrition. It is a helpful tool to find the right mix of man and machine in the workplace and which skills and talents are key to maintain balance.

What is to be learned from the L'Oréal business case?

Worldwide, L'Oréal Group has 80.000-plus employees and annually recruits approximately 15.000 candidates. L'Oréal, one of the world's biggest beauty companies, has no problem in finding enough candidates globally – some 5 million candidates visit their website each year searching for job opportunities. But this accumulates on average 134 applicants applying for one job. The costs and time to review all resumes and application letters were huge. With such a huge application volume the objective was to ensure efficient reviews of all of them in a timely manner to not only recruit faster and meet business demands but also to provide a great candidate experience.

'Algorithms learn from the decisions recruiters make. This enables our recruiters to be even more efficient.'

Niilesh Bhoise
Chief digital officer HR
L'Oréal Group

'Our application makes hiring 10 times faster, it increases retention by 25 percent and 25 percent more applicants are interviewed.'

Rina Joosten-Rabou
Co-founder and CCO
SeedLink Technology

Some years ago, the promise of AI was embraced by the global digital officer HR and his team. Adapting the consumer profiling approach, the team collected data & information to understand the candidate better - built candidate personas - explored the candidate journey in the recruitment process to understand their emotions and feelings. This is focussed on the fact that every candidate is a (potential) client to. And, also, they wanted to speed up the recruitment process itself, collect efficiency gains and balance mutual expectations better.

For this reason, one of PwC's tech partners 'Seedlink Technology' was asked to support them with AI-software based on the concept of computational linguistics. This is the scientific and engineering discipline concerned with understanding written and spoken language from a computational perspective. To the extent that language is a mirror of mind, a computational understanding of language also provides insight into thinking and intelligence.

L'Oréal was asked to design three questions on the strategic competencies the company wants most in candidates. One of the questions was: "Tell us about a time when you failed or made a mistake. What happened? What did you learn from the experience?". Others were related to other areas of work behaviour. The same

questions were asked to the employees of the teams the applicants have to work with when hired.

Based on mutual input, a model is developed that feeds the algorithms with what the company expects of a candidate and what the candidate expects from his of her future workplace. This provides a qualitative approach. All this is done keeping one thing in mind; that it is the human recruiter, who ultimately decides. The technology is an enabler in the entire process.

Using the SeedLink-algorithms has had a huge effect on L'Oréal's hiring process and success rate since. It is candidate potential that ultimately wins and not the university they come from or any other factor. Its pure potential that makes the difference. By knowing each individuals expectations, it becomes easier to measure their engagement and set out a personalised career path. On top of this, the data help to manage expectations and are universally accepted as a neutral selection tool.

The efficiency and relevance-rating of L'Oréal's recruitment process has improved remarkably and since the job offer ratio for interviewed candidates is up to 82 percent.

Seedlink was founded with the mission of counteracting human bias and promoting equality. Built with the latest in A.I., Seedlink's algorithm identifies both written and verbal language patterns and make predictions on behavioral traits and culture fit. This enables companies to realize their organization's fullest capabilities through data-driven talent acquisition and internal mobility.

How do you Embrace AI Successfully? The question that has to be asked first, is: How do you crack the digital code?

Turning high-level talk about digital strategy into meaningful, high quality operational action in a consistent, fast and predictable way.

'The toughest thing to do is to keep talents with the company longer than a year. Millennials expect you to digitalize and personalize your relations with them, so we must do just that.'

Harry Na
Global Talent Acquisition Manager
DSM

'A company without machine learning, can't keep up with one that uses it.'

Pedro Domingos
author of the bestseller
The Master Algorithm
University of Washington

Organisations differ as much as the data they produce. The digital disruption impacts an organisation and the markets on which it competes. This effects the mindsets of change and requires constant adjustments of the transition path and the goals that must be achieved. And yet, the hardest part is that all these changes must be marked by revolution, not evolution. An enterprise or institution cannot afford to spend years tinkering with incremental process changes. Digital transformation must be quick and irreversible, or else it is likely doomed to failure.

The digitalization and datafication of the HR-function is key in this process of continuous change.

To be able to execute a digital strategy, PwC selected six leading *digital operating model* practices based on how leading companies achieve results in the digital world. Adopting as many of these practices as possible is a sure step forward to digital success.

Key element is to prioritize talent recruitment and retention. All interviewed business leaders in this survey claim that THE success factor of the digital transformation is having consistent, diverse and multi-disciplinary talent. Without it, or with the wrong people and skills aboard, the digital transformation slows down and the organisation gradually loses its license to operate.

So, it is a strategic strong point for HR to claim dominance in the transition process.

Successful organisations in the digital age use any number of methods to attract and engage top-tier talent. Having a strong brand and progressive culture is naturally a big help here, as is the ability to pay a premium for this talent. To get the right employees, digital leaders are increasingly adapting to the demands of top talents as these employees seek non-traditional roles, benefits, incentives, rewards, remuneration packages, and workplace environments. Empowerment is absolutely critical to their motivation. Core-talents (both inside and outside the organisation) must be given ownership over new initiatives and the leeway to improve their workplace experiences.

The structures of AI-powered digital hubs and delivery pods is an essential part to create this.

Tactically it helps to build up momentum step by step. Beginning with the recruitment process, to show the rest of the organisation what lies ahead by following the example. Finding the right talent against low costs and in less time, is a huge argument in today's organisation. But corporate leaders also want them to work well together and demonstrate a strong cultural fit with the organisation. Their human resources professionals must facilitate this too.

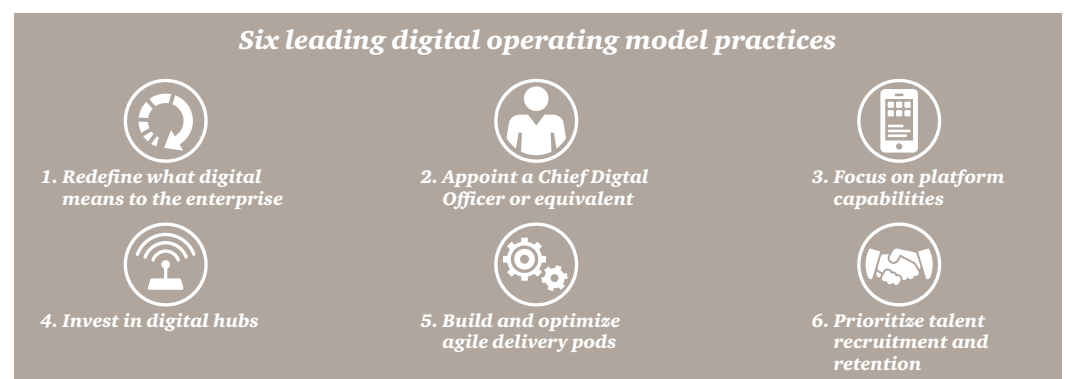*It makes the business case for AI in HR complete.*

Six leading digital operating model practices

1. *Redefine what digital means to the enterprise*
2. *Appoint a Chief Digtal Officer or equivalent*
3. *Focus on platform capabilities*
4. *Invest in digital hubs*
5. *Build and optimize agile delivery pods*
6. *Prioritize talent recruitment and retention*

Figure 5

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