

HR+AI=TRUE

PAUSE SCHOLARSHIP

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Abstract

This report presents a study of *why* HR is imperative in driving human-machine collaboration (augmenting) and *how* HR can start adopting AI in the employee journey and utilize people analytics in the organization.

The perspective used in the report are three:

- First: how megatrends and especially digitalization change both society and people's ways of consuming, acting, and working.
- Second: what that outlook means for businesses and organizations and people within them.
- Third: how that impacts and creates opportunities for HR to take on a role of championing the human-machine augmentation. This to make people flourish and to unleash the full potential of people and organizations.

The main conclusions are that HR plays a pivotal role in transforming businesses and work practices to remain competitive in a digital world. Since HR are the experts on the human side of the business, now is the time to step up to the role of being experts of the *human-machine augmentation* - with humans in focus.

HR sits on the well of employee data that can be better utilized for the good sake of interventions that will change organizations for the better when it comes to *inclusion, diversity, well-being*, and to better enhance the value of *collective intelligence and continuous learning development*. This will lead to more *innovative and sustainable organizations*.

HR already has the role of being the '*voice of reason*' in the organizations – now expanded with data integrity, privacy, cybersecurity, and *ethical* questions as well.

HR is well situated in the organization to *take the lead* – in good cooperation with data experts – to driving the agenda of changing ways of working by *the introduction of AI both* in the organization as a whole and in their own HR function.

HR - don't fall for the misconceptions of AI. Among many of us lacking a technical background, many seem to think that we don't understand AI. The theoretical method of AI can be well understood even by us. Start deploying AI by asking the right questions (see p. 15) and start small. By working iteratively and agile, you and your team learn and develop as you go. Be brave and treat 'mistakes' as a great learning experience. Be aware and thoughtful of the questions around inherent bias, ethics and data privacy but don't let that be an excuse not to introduce AI.

The organizations and HR professionals who will *succeed to navigate the volatile, uncertain, complex, and ambiguous landscape* are the ones whom dear to embark on the journey of *human-machine augmentation* – and the journey has already begun.

Preface

This report is the results from studies in organizational change that started within the doctorate program at Ashridge Hult International Business school, Berkhamsted Hertfordshire in the U.K.

Thanks to the generous scholarship given by the PAUSE foundation, I got the focus to carry out my own practitioner's research into this specific topic of HR and AI within organizational change. I would like to thank the board of the PAUSE foundation for this opportunity.

I would like to thank the faculty of Ashridge Business School for allowing me the opportunity to reflect on the importance of organizational change and personal change in the light of the artificial intelligence landscape.

As a genuine belief that the best work is done in cooperation and partnership with others - I would like to take the opportunity to thank all of you inspiring and knowledgeable people that I have the privilege of interacting within different settings – thanks to your insights and engagement I have been helped and supported during an extraordinary year.

This is my way of presenting 'a fusion' of my research, workshops, tests, academic articles, and practical hands-on deployment of AI in this report. Any flaws, mistakes and factual errors are, however, solely on my own account and nobody else's.

Saltsjöbaden, April 9, 2021

Camilla Häggroth

Background

The Pandemic and the Coronavirus have drastically redrawn the map for all of us in some way. For the economy and the labour market, there have been significant changes - both in our country and globally. Digitalization has taken a massive leap, and the work environment and well-being of the workforce have climbed up the ranking lists of companies' focuses. In this way, HR, both as a function and competence, has been given even more focus and attention and can take on a more leading role. Seen in the light of that work environment and the organization, resilience has become a strategic management focus both in the short and long term - we see a clearer intertwining of a human-machine in collaboration and influence. With changing customer behaviours and more digital working methods at a distance, sound technology and understanding of the customer experience and the employee experience is required.

This means that HR can and will have to step up to navigating the future for our organizations. With the digital transformation of society at large and the introduction of AI in our workplace, we play many roles. HR should be the futurist of the organization and take the lead in how a changed business model impacts the sourcing of skills – either by recruiting or consultants or gigs and freelancers. This also means re-skill and up-skill and organizational design that accelerates the knowledge-making, so the entire value chain is enhanced. We should take the lead on how changed job roles and the introduction of human-machine collaboration affect both individuals, teams, and business. Finally, we as HR professionals also must prove our data literacy and redesign our HR function and HR processes to be much more data-driven and predictive using AI ourselves. Whilst we also act with data privacy and ethics as the *voice of reason* within our organizations.

Where and how can AI be adopted in HR? And with a particular focus on AI within recruitment (see Appendices).

The (r)evolution of HR – a short backdrop

From administration support to an expert on realizing the value of human-machine partnership

In hindsight, we can understand the role of HR undergoing the same evolution as the evolution from industrialism to today's Fourth Industrial Revolution. From personnel administration via HRM during the 1980s signalling the shift in focus from mere administrative tasks to be a strategic partner within HRM.

From mid-2000, with more emphasis on value creation and a pivotal partner for the whole organization to reach its goals and, in turn, create value to shareholders and clients. During periods of economic recession, HR has been a partner to cost-cutting initiatives and to implement best practices and processes to be part of designing a more effective organization. One of many struggles for the HR function can be described as the challenge to get a '*seat at the table*'. Also, to be recognized for a much more strategic and business-focused agenda is the trail of how to describe and explain the value of HR as a function.

Today we can read about the *21 new HR jobs of the Future* in Harvard Business Review (2020) and envision how HR (or People & Culture) will continue to evolve alongside the ways to the new normal and the future of work. All the listed roles can be described using five core themes:

- *Individual and organizational resilience*
- *Organizational trust and safety*
- *Creativity and innovation*
- *Data literacy*
- *Human-machine partnerships*

With this in mind – let's dig into the core question of why AI matters and should matter for HR. But first, by zooming out and see a bit of the broader context in which our organizations and we operate.

Perspectives - and the bigger picture

In the *Future of Jobs Report 2020 (World Economic Forum)*, we have one of many lenses through which we can see how our business landscape and jobs changes and therefore our own need of changing – or take the lead of that change within or industry or organization. We learn that the pace of technology adoption accelerates and that automation and the Covid-19 recession in tandem creates a ‘*double-disruption*’ scenario. Many companies expect to make changes to locations, their values chains, business models and the size of their workforce in the next coming years. By 2025 one estimate is that *85 million jobs may be displaced* by the shift in what humans do and what machines do. However, based on the same scenario, *97 million new roles* can emerge due to how we *divide labour ‘between humans, machines and algorithms.’* As a possible consequence of the dual impact of technology and the Pandemic recession, *inequality* is likely to deepen when low wage jobs, younger worker and women being the most impacted.

Key takeaways for HR:

- The ‘*future of work*’ has already arrived for white collars.
Impact – 84% of employers are rapidly digitalizing working processes and mean to move 44% of their workforce to work remotely.
For HR, this means – how to handle the *productivity, well-being, and sense of belonging* in the shift to remote work?
- Skills gaps continue to be high, and the need for *re-skill and up-skill of the workforce* is needed.
Impact – 94% of employers expect employees to pick up new skills on the job, and 40% of their workforce is expected to require re-skilling for up to six months.
For HR, this means – that the *window of opportunity to re-skill and up-skill* has been shorter in today’s constrained labour market, an effective strategy and implementation plan need to be in place. Consider based on role and organization design what can be a learning strategy and what needs to be part of potential recruiting efforts. Prominent skills identified as:
 - *Critical thinking and analysis*
 - *Problem-solving*
 - *Self-management*
 - *Active learning*
 - *Resilience*
 - *Stress tolerance*
 - *Flexibility*

Summary – As a combination of the Covid-19 Pandemic and the Fourth Industrial Revolution, a giant leap forward in digitalization has also led to a shift to remote working and e-commerce booming. This shift in how and where we do our job now require different interventions to create a digital work environment, well-being and mental health issues and culture-building initiatives, as well as a well thought re-skill and up-skill agenda. Both physical and digital safety and privacy come into play when we shift our way of working. We see that some roles and businesses are hit hard and need to undertake massive layoffs or other means to survive. In contrast, others drastically need to quickly change business models and, or pricing models to still be in play as the consumer patterns shifts - adoption will be required on many levels. For HR, both the new way of working and the higher degree of digitalization play a massive role in how HR *can* and *will* be positioned to take on the

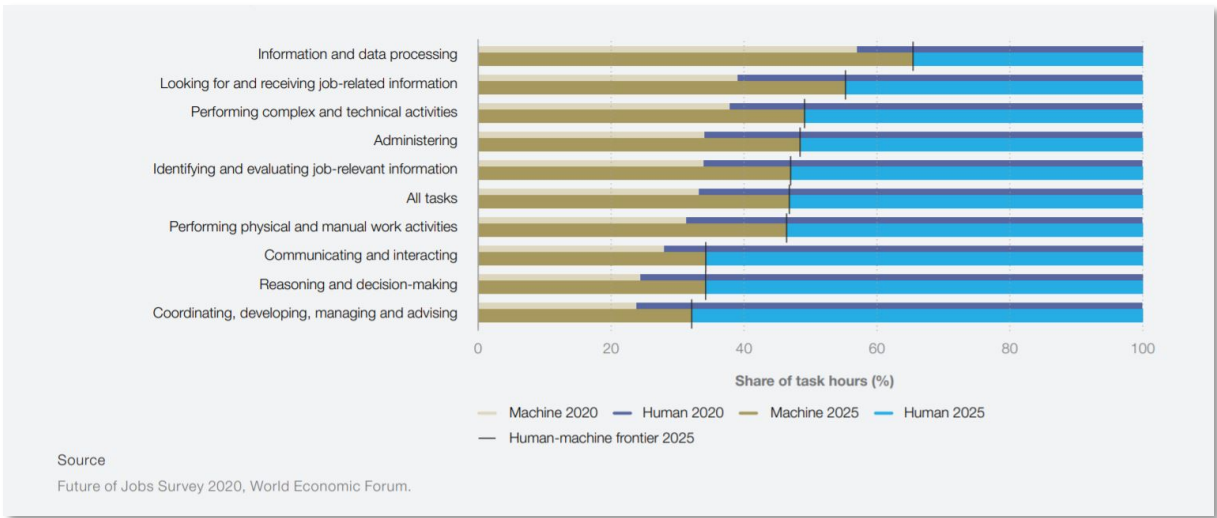
challenge and define itself for the benefit of the customer, shareholders, and stakeholders in the eco-system at large, and workers within the organization.

Perspectives - and zooming in

The digital transformation changes our business landscape, changes consumer patterns, the way we create value and the purpose of the organization. Innovation and partnering in a wider ecosystem to create or add value loosen up the traditional way of organizational design and where value is created. Dependencies and methods of rotating in competencies when needed in the broader network give room for crowd founding, gig, freelancers or any other form of being an essential partner in the value creation process and not necessary as an employee or as a traditional owner or shareholder.

Remote, flexible or hybrid ways of working open much broader possibilities for talent acquisition and impact the culture, well-being at work and the way we meet and interact. It has also a bearing on cybersecurity, data privacy and ethics. How we design our physical workspace or offices and what impact it has when more people are working from home will shift the dynamics of commuting, office leases and design, and the flexibility between work and private time. It is also about how to lead hybrid teams, and how to lead yourself, to handle and thrive in a more volatile, uncertain, complex, and ambiguous environment.

The ‘Human-machine’ frontier (see image 1) tasks and job roles is undergoing the same change. Some tasks or skills are more prone for the machine to take over, and some are most suited for humans. This impacts job roles and responsibilities, and the way work is being done. The meaning of ‘collective intelligence’ changes into the augmentation and co-creation between human and artificial intelligence in a mutual blend. This puts focus on *how* to define skills and competencies – human and artificial ones, *how* to re-skill and up-skill our workforce to have the relevant knowledge. The pure *definition of knowledge and learning* is shifting to encompass that the half-time of core competence is shorter and shorter and needs to embrace continuous learning and iterative learning cycles.



(image 1)

Key takeaways for HR:

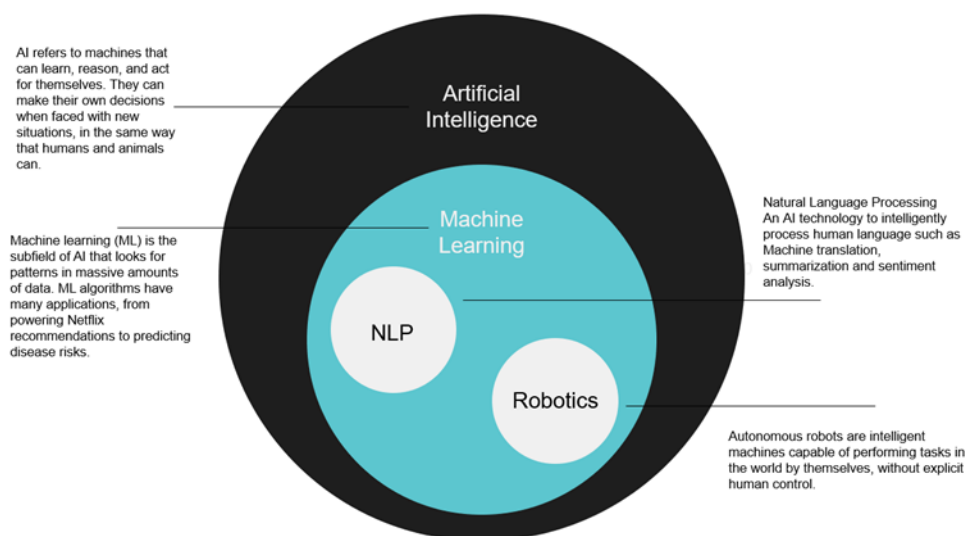
This condensed version of the context in which HR operates is well aligned with the need for changes within HR itself, as mentioned earlier. Let's start with the overarching understanding and knowledge we must show to have:

- *Business focused* and show good business acumen and a thorough understanding of the *customer* and what our organization's *value streams* look like.
- *Organizational understanding* and how different ways of organizing ourselves at a larger scale can unleash the further potential for innovation, cross-functional ways of working to be positioned to reach our overarching goals and vision.
- *Out-side in perspective*, even if HR is most focused on phenomena inside the organization, we have to view both the organization and our internal processes from an outside-in perspective, so we do not design solutions solely from our inside perspective in business solutions as well as HR-processes and solutions. HR need to apply *design thinking* when we design interventions or solutions for our '*internal customers*'.

Summary – In an ever more complex and unambiguous world, HR is ready to step up from only being the transactional, administrative partners to show the entire width of business understanding and how to work in cooperation for business to thrive and be developed further. A genuinely strategic partner whose speciality is the profound insights of the *human side of the business*.

Short on AI – what is AI?

This report is not going to be in-depth, describing what AI is and what is not AI. However, some clarification is needed. As an HR professional with no technical background – but with a deep interest in understanding AI – I have decided to listen to MIT's definitions and ways of defining AI and the different related techniques. Though even the best scientists in the world have different definitions of AI, I guess we are in good company. I like to think of AI as the following:



AI - here refers to machines that can learn, reason and act for themselves very much like humans and animals. John McCarthy is recognized as the "*Father of Artificial Intelligence*" in the mid-1950-s and has been said: "*Our ultimate objective is to make programs that learn from their*

experience as effectively as humans do". He is the one who coined the very term "*Artificial Intelligence*" at a conference at Dartmouth College in the summer of 1956 (see Peart, 2020). *Machine Learning (ML)* – is a subset of AI that looks for patterns in massive amounts of data and improve by experience and the 'training'. It is also able of so-called predictive analyses which are used both in business and within HR. *NLP – Natural Language Processing* – is a technology that can process human language and be used for translation, summarization and sentiment analysis or opinion mining. *Robotics* – the development of intelligent machines that can perform tasks by themselves without much human control, for instance, bomb deactivation and other dangerous jobs.

Perspectives HR and AI

By suggesting that HR now should be the business-driven strategic partner to our organization (as many experts have been saying for years), this today comes with an extra twist. I said that we are the experts on *the human side of the business*. But now when the human side of the business is really *the human-machine side of the business*. Our territory expands to embrace the *partnership* between human and machine. This is the simplest way of connecting the dots between human and machine and why HR and AI are a natural and logical combination.

AI should augment human intelligence

As we have concluded, a great many jobs and activities within jobs will be partly done by machines. HR's responsibility is to exercise at least three perceptive on this phenomenon:

- Digitalization and the adoption of AI in the broadest sense – from a *societal level*
- Digitalization and the use of AI within our organization – the *organizational level*
- The introduction and deployment of AI within the HR function – the *functional level*

I also propose that now HR could act as the champion and take the lead in partnership with CIO's and other experts. To let digitalization become an IT project and merely seen as the introduction of a few new tools would be a mistake. *This is far greater than that.*

Key takeaways for HR:

#1 Build your own knowledge of AI.

- HR is best positioned within the organization to introduce AI with both the aspect of efficiency and the concern of fairness in handling data. As pointed out by others (Tambe et al., 2019 p. 39), *'There is a risk to HR leaders that if they do not engage in the possibilities of AI, some other function in the business will take control of it for them'*.
- This is a call to action for HR leaders to expand and reinvent the HR role and competencies on our plate. If we do not change alongside the external changes, we will be less relevant, and the organization will miss out on the benefits of working with the human and the machine side of the business combined.

AI at the organizational level

What is the overall current state of the use of AI within organizations today?

According to the *2020 McKinsey Global Survey on AI* shows that almost 50% of the respondents (n=2395) said their organization adopted AI in at least one function. (In HR function, 10% in optimization of talent management and 7% of performance management). Two aspects of the reason for organizations to introduce AI – to generate more revenue streams or to reduce costs due to effectiveness. 22% of the respondents' report that more than 5% of their EBIT was attributable to their use of AI. What is significant for those best-performing firms and, what differs them from the rest of the respondents? They report that 20% or more of their EBIT was attributable to their AI use. Apart from better overall performance, two things stand out:

- *Better overall leadership* – they say that their C-suite is very effective and that their AI initiatives have an engaged and knowledgeable champion in the C-suite.
- *Resource commitment to AI* – they have a bigger budget allocation to AI and *develop their AI solutions in-house* and therefore employ more AI talent.

The same pattern is shown in the Bisnode Report '*Sju steg till en datadriven organisation*' (2019). A clear correlation between being high performing within AI and the level of knowledge of AI and engagement in the same from the C-level. If the top leadership's knowledge and interest in AI are low, consequently the organization's ability is being hampered. The high performers in data-driven organizations show to have much less personnel turn over and tend to be much more successful in attracting new talent to the organization. The same pattern is found in the *Future of Jobs Report 2020* (World Economic Forum). Here the perceived barriers to adopting the new technology lie in the skills gaps in the local labour markets, the inability to attract the right talent to the organization *and* skills gaps among the organization's leadership.

Key Takeaways for HR:

#2 Build and challenge your C-level to actively build their competence in AI.

- According to the McKinsey survey, 60% of the top AI performers had their senior management fully aligned and committed to the organization's AI strategy.
- *"Strategically proactive HR agendas include identifying portfolio requirements, selecting mergers and acquisition candidates, creating institutional change capacity, building organizational cultures of radical innovation, and identifying social trends that can be parlayed into products and services. These activities represent the logical extension of the HR field. Those HR departments with the capability to do so will lead the field in creating competitive advantage". (Brockbank, 1999 p. 341)*

AI at the functional level

Now we start to zoom in on AI at the HR functional level within an organization. Why is AI important within the field of HR, and how can it be adopted by us? With hopes to already have set the scene and answered the question of why AI is relevant on a *societal level*, and at an *organizational level*, we have arrived at a *functional level - HR*.

The 2020 McKinsey Global Survey on AI shows that AI adoption within the HR function is 10% within the 'optimization of talent management', i.e. in recruiting and retention, and 7% within performance management. My study shows that a great many steps of the so-called *employee journey* are well suited for the adoption of AI. Still, however, there is a gap between the promise of and reality of AI in HR, part of which can be framed as *four specific challenges* for using HR-data and AI techniques within this area (Tamble et al., 2019):

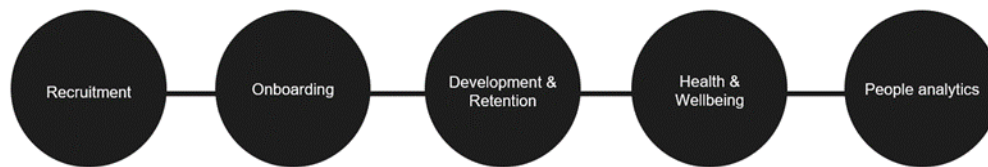
- *The complexity of HR phenomena*
- *Constraints imposed by small data sets*
- *Questions of fairness, ethical and legal constraints*
- *Possible adverse employee reactions to management's decisions via data-based algorithms*

The authors propose practical ways of dealing with the challenges based on the overlapping principles of:

- *Causal reasoning*
- *Randomization and experiments*
- *Employee contribution*

I mention these challenges here, and for the readers who want to read my exploration of using AI within recruitment and retention, I have experienced variations of these challenges, you can read more about this in the Appendices section. It is also a broad array of different definitions of AI, and not even the experts share the same meanings, so it is not a surprise that the confusion of terminology out there. In the following section, we will explore both definitions, application, and challenges and the *pros and cons of using AI* from a layman perspective. It will not be a concise exploration but a few specific processes or activities alongside the employee journey that specifically caught my interest from a professional standpoint.

There are many ways of describing *the employee journey*, and HR professionals are using a vast array of different forms of illustrating the lifecycle of an employee and what you will encounter during that journey. A basic but overarching one use to start already before you are an employee – in the attraction phase and ends after your employment is over and phase into alumni networks or ambassadorship. To simplify this, I have chosen to zoom in on a fewer step of that journey and illustrate the journey as starting with *recruitment* to *onboarding* and further on to *development & retention* (also includes training) then *health & well-being* and *people analytics* which is all present during all stages of the journey seen from a functional HR perspective. Aware of that, I previously stated how important it is for HR to work from an outside-in perspective and also apply much more of *design thinking* in our processes, but please accept this illustration as mere guiding than directed to an employee.



#Recruitment and AI

A good example where we can be helped by *reducing the manual work of screening resumes*. AI/machine learning can automate a recruiter's workflow by auto-screen candidates and standardize processes to objectively assess candidates and removing inherent biases throughout the screening process.

#Challenges – Biases and ethics

However, as we have seen a great many examples of when we train the algorithm on our historical hiring data, that data might very well be distorted and only *perpetuate human biases*. So, the models and systems we train reflect ourselves and our known and unknown preferences. But if you train your AI models to be gender, age, or race-blind, you can learn from your own biases and improve the process. Amazon in 2018 experienced that their algorithm for hiring had been built on historical data, and white men had been the best performers and the ones most hired. When the sex of the applicants was removed, attributes associated with woman candidates still caused them to be ruled out (Tambe et al., 2019), and Amazon decided to stop using the algorithm.

#How to do instead

The Machine-learning team can use the following best practices (Feast, 2019):

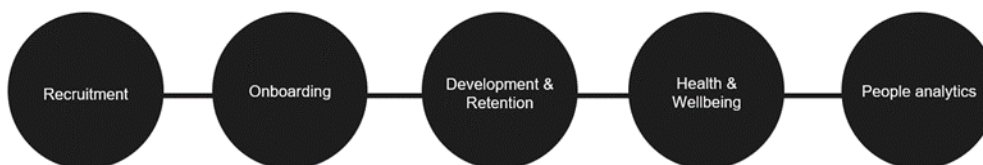
- *In the training samples – ensure diversity there (as many female samples as male samples)*
- *Ensure that humans labelling the samples come from diverse backgrounds*
- *Ensure the machine-learning teams measure accuracy levels separately for different demographic categories to identify if one category is being treated unfavourably*
- *Solve for fairness by collecting more training data associated with sensitive groups*

To combine an effective and fair AI with valid psychometric assessments, job simulations and well-structured interviews, we can still keep a balanced, transparent method of carrying the process out and refrain from using the cheapest (or even) free tools of trying to decode a person's personality from a text sample or mining candidates Spotify playlist and Netflix choices (Chamorro-Premuzic, 2018). Even if that can tell us a few of your personal preferences, but for predicting future job performance, no.

Key Takeaways for HR:

#3 Be the voice of reason and safeguard the ethical use of data and data privacy

- *If HR professionals, together with leaders, researchers, and AI experts, work together to address the protentional risks of using AI, that will lead to even better solutions for reducing bias in AI. (Feast, 2019)*
- *Be transparent with your use of data – and what sort of data you are handling and using for selection and job matching. Consider allowing both internal and external candidate to opt-in, that is, giving active consent and permission to having their data examined (or mined). (Chamorro-Premuzic, 2018).*
- *Also, keep up the excellent standard of explaining why the candidate did not get the job. No black box hiring without being able to tell why AI rejected the candidate.*
- *Reflect on what IBM CHRO, Diane Gherson said about collecting data “Just because you can, doesn’t mean you should”.*



#Onboarding and AI

To welcome a new colleague to the organization and onboard the person in question is a crucial stage after the recruitment process. This more traditional way of meet and greet a newcomer at the front door of the office today entails – so much more, especially during a year of remote working practices for many. One parameter that can help both parties a lot – apart from a well-planned and structured, more traditional onboarding – is using a bot powered by both AI and NLP algorithms (Natural Language Processing). This gives the new employee access to information 24/7 in an easy and complete way so you can use the valuable face-to-face meetings more focused.

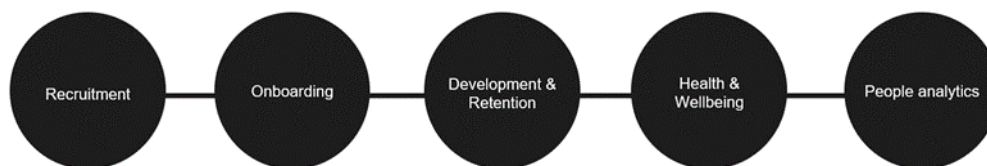
It is well known that a good onboarding process gets a person ready in the new position more quickly and that this tends to correlate to lower personnel turn over. Dependent on the organizational design and the level of distribution, we are aware that securing a similar onboarding experience over the whole organization sometimes is difficult – yet most companies want all their employees to have a more or less similar experience of the company brand and deeper understanding of the organizations and know how we do things around here. With new technology, this is much more in reach, and a chatbot can be a step to assisting that endeavour and to be a hands-on guide.

#Challenges

Fewer than within recruitment but we still must decide what solution be used and what type of information should be available. The return of investment and how this will be integrated into the total blend of solutions and cybersecurity.

Key Takeaways for HR:

- *It can be an excellent way to start a small-scale project within HR (if the ROI proves it to be worthwhile)*
- *I would find out if a combination of a 'regular' first-line HR chatbot would be possible to meet employee demands*
- *Again, design thinking with the '(internal) customers' need in focus – not from an HR perspective only*
- *Follow up - to understand and iterate how to adjust and evolve*



#Development & Retention and AI

Development or learning that might lead to retention is in focus in many organizations and HR practices. *Learning* is a critical strategic imperative for many organizations, and yet we read in the *Future of Jobs Report 2020 (World Economic Forum)* that on average, the employer expects to *offer re-skilling and up-skilling to just over 70% of their workforce by 2025*, but only 42% of the employees are engaged to *pick up on* those courses.

It is a challenge to promote and get the engagement level up for training initiatives offering traditional e-learnings or classroom sessions for a couple of days in a row. Many of the e-learning platforms trigger a lot of administrative work and difficulties in producing training. Today with AI, we can build *bite-sized training* and offer short micro sessions on the go. We can *individualize* the sessions and measure individual baseline knowledge to promote your own learning path than to achieve a higher level of knowledge.

I believe that transforming both the learning experience and how we measure the impact of the very same will change both the engagement and the knowledge curve drastically in the near future. This might lead to higher retention and *more accurate insights on skills gaps* within the organization and individual level. This, in its turn, leads to a visible learning path for myself and my manager and gives the possibility for new roles or internal succession.

#Challenges

Investments and contents still need to be done and facilitated. Also, here the data privacy and ethics of collecting data on my learning curve, ways of learning and implicit signs of my cognitive skills or focus. To mitigate these risks again, transparency and openness about what data we collect and how we use it.

Key Takeaways for HR:

#4 Build a learning culture

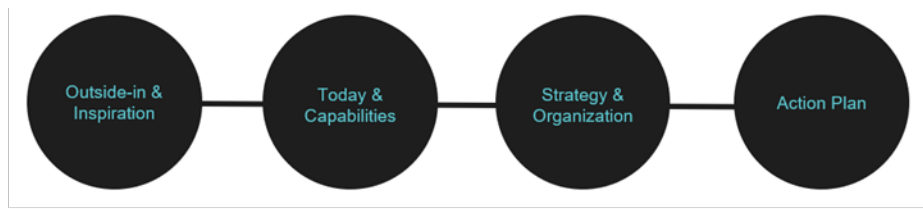
#5 Drive the organizational-wide re-skill and up-skill agenda

#6 Drive change with the augmenting of humans in a human-machine relationship

- *For HR in good cooperation with the senior management team and other functional peers, creating the learning culture is as pivotal as ever before.*
- *To take the lead on the re-skill and up-skill agenda is both strategic and essential for organizations going forward. Here HR has an outstanding opportunity to do so.*
- *When doing this, HR also proves to be the champion for driving the change within the organization and embrace the entire notion of accurate 'collective intelligence' consisting of both human and artificial ones.*
- *As a function of the above, the inclusion and sustainability goals of an organization most likely also will be achieved.*
- *For all these above mentioned, a supplement of people analytics is essential for all different steps and faces within the employee journey. I have decided to include that part within the already mentioned.*

How can HR start to deploy AI?

First, a few things *not* to do – do not fall for the *misconception* that because you might not have a technical background, you don't understand AI. The theoretical logic and method of AI can be well understood by us. And if we instead focus on *the essence of AI and start asking the right questions* – we can disregard the technological aspects and partner with the experts on that bit of the equation. (see Yano, 2017). What HR *should do* is starting to ask the right questions – and go from there. For instance, *do we know what data we do have – and what data we might have to collect?* Using the model below, we start with the bigger context and zoom in on a concrete action plan to get us where we want to be. It is also about mapping out both where we have the data and the competencies to be suited to answer our key questions.



1. What trends and use of AI are relevant to us?
2. What ethical concerns, can we see?
3. How do we ensure cybersecurity?

1. What data do we have today and how do we use that?
2. What would we like to know more about (customers, employees or context) that we do not know today?
3. Do we employ AI/ML today? If so, where?
4. What competence within AI do we have within the organization?

1. What insights can be connected to our strategy and create a competitive advantage?
2. What is our strategy for data and AI?
3. How should we organize ourselves to build a data-driven capability?
4. Which competences will AI replace? Which competences are critical for us to retain, develop, recruit or attract? Long term and short term?
5. How do we ensure the right competence and the right way of working?

1. Ethical guidelines and analysis of our cybersecurity
2. Competence mapping – what is humans doing and what is AI doing? Critical competences for us?
3. Organization – how do we organize ourselves to achieve a data-driven way of working?

(inspired by IAMAI: s model)

To know what key questions to ask can be as hard for everyone. I will illustrate with an example from my practice: a leadership team concludes that recruitment is needed to expand the business. In HR, we were asking (apart from the required university degree) *what is significant for the employees that performed the best and stayed on and thrived with us?* We had data on performance regarding how well you reached your budget, your NPS-score and absence data, and hours present at work but not working on tasks that were not billed to any client. We, however, lacked the psychometric data and didn't know what *personality traits and behaviours were linked with excellent performance* (For more information, see Appendices). By combining all the data and the use of AI, you will reach far more superb insights and see patterns that evolve and get solid predictions.

Key Takeaways for HR:

- As HR professionals, we now must prove our data literacy and redesign our HR function and HR processes to be much more data-driven and predictive using AI ourselves. Whilst we also act with data privacy and ethics as the voice of reason within our organizations.
- By doing so, we have the best of opportunities to evolve our organizations for future success.

Appendices

Case study –

Background: The organization wanted to know more about what is significant for top performers and how to recruit more of those, as well as creating developing programs for existing employees for them to be able to re-skill and up-skill for the future.

What? Several key questions were asked that need deeper analysis to be answered. This for the organization to distil what were the components of success? And how could they recruit more of these talents? Questions we asked:

- *What characterizes the employees?*
- *That is, what qualities, type of performance ability and personality traits do they have in common?*
- *What makes the company successful?*
- *To answer these questions in a scientific, modern way, the company can become even better at external and internal recruitment.*
- *We identify success factors through various tests and statistical analyses.*
- *Through this, we develop a company specific norm group, which gives them greater precision.*

Why? By asking the right questions (and get answers), they will develop more significant insights. By increasing the understanding and knowledge of what is characteristic of their group of employees, who thrive and perform, we see the patterns they can influence as managers and an employer.

- *For example, they can address issues related to work motivation and well-being at the group level.*
- *When recruiting (both internally and externally), they become even better at understanding what the success factors are, and they can recruit with increased precision.*
- *As an employer, the company need to understand how they can, in an even better way, contribute to both the organization and the individual being able to unleash their full potential.*
- *At the individual level, you can gain some self-insight for your development via the test battery.*

How? Through tests and analysis - all employees within the organizational unit were offered the opportunity to share their profile and response pattern via Psykometrika's test battery.

- *All managers were also asked to assess the so-called 'hard criteria' at the individual level.*

- *Psykometrika AB analyzes at the aggregate level and reports back to the management team and HR.*
- *The company can create their own norm group for future recruitments.*
- *The company can further develop their employee EVP through facts.*
- *As an individual, you receive your individual report for personal insight and development.*
- *The company can analyze the gaps (at the aggregate level) to produce exemplary development interventions at the group level.*
- *An offer to the employees who want to do the test again within 4 months to do this and get their report and see their individual evolution.*

Data privacy and ethics:

- *All data is handled by following the GDPR and maintains a high standard of research ethics and data storage security.*
- *Only Psykometrika AB has access to individual results. These will not be delivered to the organization because all analysis takes place at an aggregate level.*
- *As soon as the data has been received by Psykometrika AB and the individual test results have been returned to the individual, all data is anonymized.*

Test-battery:

Psykometrika's test battery was used, consisting of 18 separate subtests reported openly on a nine-point scale, with five (5) as the mean value. These measure all the factors that researchers consider essential for success in today's working life. All subtests are normative and have a high scientific quality. They are both stable (reliable) and reliable (valid).

To compare the participants' performance with each other fairly, several criterion measures are required. Together with consultants from Psykometrika AB and management, the number of success standards were determined, a mixture of "hard" and "soft" criteria. These were:

'Hard' criteria:

- *Customer satisfaction*
- *Attendance percentage*
- *Billing rate*
- *Number of assignments per month*
- *Number of complaints*

'Soft' criteria:

- *Efficiency*
- *Business acumen*
- *Service and sales oriented*

- *Willingness to change*
- *High energy level*
- *Digital mindset*
- *Self-leadership*

Summary:

In the company, all staff were assessed in this way based on a five-point scale regarding the “soft” criteria measures. For the “hard” criteria measures, the company’s own data and internal “approved limits” were used.

Through the statistical analysis, the management’s assessments are then compared with the participants’ test results. In this way, we obtain the factors that statistically certainly characterize the assessed employees in terms of work performance. Based on these success factors, it will be easier for the organization to assess candidates for future external recruitments. It will also be easier to coach existing staff and to identify people with development potential internally in the organization. Any competence gaps in the organization will also be easier to identify.

The management is aware that the survey should be used for a positive purpose and be a support to make better use of the staff’s different skills. The survey itself was carried out in the spring of 2021 (delayed by the ongoing Pandemic).

Participants:

A total of 255 people was assessed by the management and the office managers. Of these, 95 were tested, which is a small basis for statistical calculations. The dropout rate has been considerable, which has made the analysis more difficult. In essence, only the results from those tested are used. Nevertheless, we have found several relationships that are statistically significant and not affected by chance.

The average age of those tested is 39 years. At the same time, the age spread is large, between 24 and 62 years. Of those tested, 17 per cent are men and 83 per cent women. Women are thus greatly overrepresented. The majority are also well-educated, although the spread here is also relatively large.

Overall summary of results:

Because the project only reports the significant differences between the test results, Status Motivation or Balance at work is not registered. There were too few differences, and chance may have affected the results in these factors.

It is worth noting, however, that both management and office managers (including deputy office managers) feel very comfortable at work, measured as an average. The experts in the company have the lowest average value.

Measured in this way, work motivation is relatively low for all occupational categories. (And at least for the experts.) This can be due to several factors: First, the participants answered the test in “non-sharp” situations, they did not apply for a job. We know from experience that people tend to respond differently and perhaps “philosophize” a little more in their positions. You are not as straightforward as if you were looking for a new job. In part, this may be because you are careful and do not know

how the test results will be used. There may be some suspicion about how the management will use the results, and therefore, you do not want to "take the curve" when answering.

Unfortunately, it can also be because you responded as a protest and may want to demonstrate dissatisfaction. It is clear, however, that when it comes to attitudes to work, the experts get the lowest average value for both job satisfaction and work motivation.

'In all the surveys we have done over the years, these two factors have consistently been among the most critical success factors.' (source: Psykometrika AB).

The impression is - statistically speaking - that the experts' performance decreases with the years, they have been employed. The phenomenon is difficult to explain. For logically, it should be the case that the longer you have worked as an expert, the more the clients should be satisfied. With an established customer base, you should also invoice more, have more assignments and a smaller proportion of complaints. This will be further analyzed within the company.

HR summary of results:

This being the first try out for HR to engage AI and psychometrics to predict and create an own norm-group for further recruitment proved a challenge. Partly because of less data than expected. Also, because the data collected not having the expected quality. However, insights of how employees reckon and voice their concerns of an employer to collect (voluntary data) and transparently show for what purpose and that anonymity is guaranteed is insightful. We can also see that the data quality is less than expected, which also proves to be a learning. Because of less data than expected, the AI also shows some challenges to prove any patterns and solid predictions – even if the analysis is not entirely done yet. We can see that job satisfaction and motivation are at the strongest among the senior leadership team and then declines. We note that there is a feeling of overwhelming in terms of the hefty digitalization during the Pandemic and that we need to continue to address concerns of works life balance and the future of work. We continue to collect data transparently and to manage employee concerns to learn and evolve as an organization.

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