

# FUTURE OF HR FUNCTIONS: TECHNOLOGY DRIVEN TRANSFORMATION OF HRM TO REMAIN EFFECTIVE AND RELEVANT

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## Abstract

Technology shall usher a new character of HRM, if utilized adequately. Technology shall not alter the relevance of HRM but it shall impose an obligation on HRM to undergo transformation in order to remain relevant and effective. Major manifestations of such transformation shall be visible in data driven decision making, departure from traditional performance appraisal methods, role of AI in many areas of HR confluence and employee experience to name a few.

The paper establishes the emerging transformational trends in HRM as it amalgamates new technologies available to businesses. It explores the main research question: "How organizations are transforming and reinventing HRM in order to remain relevant." The objective of this paper is to etch transformation in HRM as it absorbs innovation and exploring the departures from traditional HRM.

A literature review has been done using an archival method to provide a legitimate organization to the research and build a consistent knowledge base in this field that can prove to be a corner stone for future research. For primary data collection, the search for relevant studies and articles was made in Google scholar and Semantic scholar by using a combination of terms: AI, HR technologies, innovation, technology and such similar subject related key words.

The secondary data was independently obtained using standardized data extraction forms from a wide set of assorted and reliable sources. All data are comparable units and have been generated by official authorities that represent the functions that have been included within the scope of the research.

**Keywords:** Technology, Innovation, AI, Performance Appraisal, HRM

## Introduction

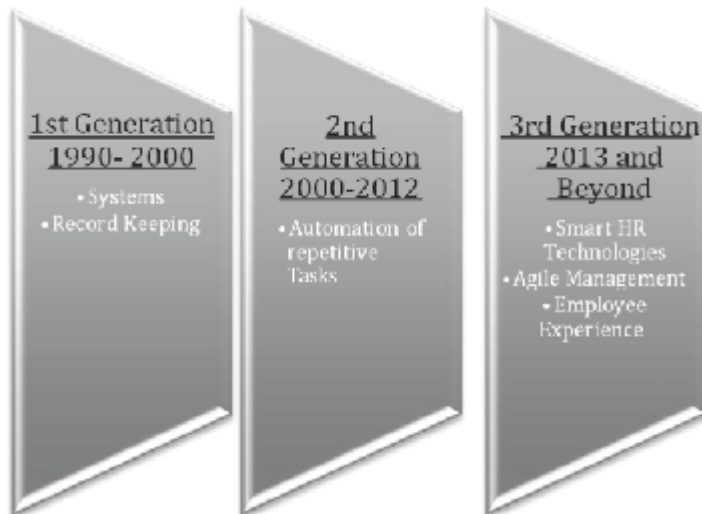
Technology shall usher a new character of HRM, if utilized adequately. Technology shall not alter the relevance of HRM but it shall impose an obligation on HRM to undergo transformation in order to remain relevant and effective. Major manifestations of such transformation shall be visible in data driven decision making, departure from traditional performance appraisal methods, role of AI in many areas of HR confluence and employee experience to name a few.

Artificial Intelligence is a field of Computer Science. In simpler terms, it can be intelligence that is attributed to machines and not humans. It aims to solve cognitive problems commonly associated with human intelligence, by enabling machines to think and perform as humanly tasks such as learning, reasoning, language processing and the like. There are two major technologies that are harnessed for AI: Machine learning and deep learning. Machine learning helps machines to learn and make predictions based on data, where the end objective or target is defined but the steps to be taken to attain the objectives are learnt by the machine itself. Deep learning on the other hand, trains

machines to learn from large amounts of data through neural network, the machine establishes its own parameters.

Till recent years, the application and harnessing of technology was seen very differently than what it is now. Earlier it was used solely to automate redundant tasks where as now, HR is using AI and similar technologies to solve critical problems and drive performance improvements thereby adding positively to profitability. While HR has already become an equal strategic partner in most organizations, AI is further enabling its transition.

Unilever is already harnessing the power of AI by deploying it in their recruitment. Unilever management claims it has saved 100,000 hours of time in the last year by deploying software to analyze video interviews. The system scans graduate candidates' facial expressions, body language and word choice and checks them against traits that are considered to be indicators of job success. Unilever is closely followed by multi national organizations such as Vodafone, Singapore Airlines and Intel that are successfully utilizing similar systems.

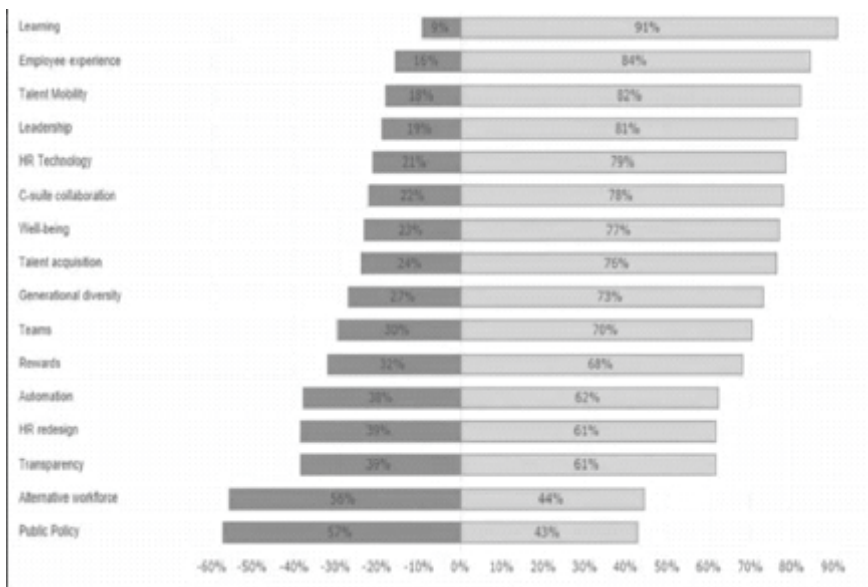


**Figure 1: HR Tech Generation**

New competitive frontiers come to light and conquered, the most apparent competitive frontier for the present is “Employee Experience” which takes forward the theme of employee engagement. It is here that AI can be seamlessly integrated into the employee life cycle at a firm starting with recruitment and onboarding and continuing till career planning. Thereby providing “bespoke” employee experiences.

Humans are going to be assisting AI in order to derive a mutually rewarding relationship. In the course of this paper we shall see how this integration shall come about and how it translates into various forms of partnership.

Deloitte's Global Human Capital Trends report for 2019, provides an insight into emerging trends that are predicted to dominate for the coming ten years to come.



**Figure 2: Global Human Capital Trends**

Source: Deloitte's 2019 Global Human Capital Trends Report

The report is based on a longitudinal survey of 10,000 participants across 119 countries. It highlights key areas that professionals today are assigning value to and consider them chief opportunities and challenges that shall be upon them. With these global perceptions setting the context, it is of prime importance that the HR managers and boards reconfigure how they harnesses technology- which would call for a redesign of its major functions. As AI transforms not only how business is conducted but also how its human assets are managed, the most significant impact it has is the performance gain.

### Methodology

The objective of this paper is to indicate significant works in the field of HR technologies, their integration into HRM, identify sub-functions of such technology deployment, and to examine their effective contribution, leading to subsequent identification of gaps, issues, and scope for further research. A literature review has been done using an archival method to provide a lawful and legitimate organisation to the key elements of the research and build a consistent knowledge base in this field that can prove to be a corner stone for future research. For primary data collection, the search for relevant studies and articles was made in Google scholar and Semantic scholar by using a combination of terms: AI, HR technologies, innovation, technology and such similar subject related key words.

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## **AI in Recruitment**

Many articles and research are focusing their efforts to analyze the characteristics of future of work, propelled by a number of reasons. Recruitment refers to the process of filling a vacancy or vacancies as they arise. Recruitment is a subset of Talent acquisition. Talent acquisition is a broader hiring strategy that monitors talents within the company and their probable growth ladders and does not rest with the HR department alone. By developing an understanding of the inventory of talents within the company the Talent acquisition team creates a hiring strategy to hire to fill in vacancies that shall arise in the coming time.

### **Expansion of the Talent Pool**

- AI can help in finding better candidates as they can continuously monitor large chunk of databases to add to the talent pool, passive candidates. Such technologies can identify signals and predict the availability of candidates for an upcoming opportunity.

### **Reduction in Recruiter's Response Time**

- A sizeable amount of time is wasted in communication during and before recruitment, the HR manager can make use of the time AI saves him or her in order to focus on more customized and effective interactions.

### **Predict widespread changes**

- The biggest threat to business lies in the “uncertainty of the future”. It would be a great advantage to overcome this uncertainty as AI can sense eminent market shifts, indicating trends that would cause a resultant change in the available talent pool. It would add to the HR manager's repertoire if he or she can predict skill gaps, talent shortages and leap ahead of the competition.

### **Employee Verification**

- With employee verification being both crucial and time consuming, the tapping in of AI would mean that the organization would be alerted if any red flags emerge from the data points from employee resumes.

Sourcing and screening of candidates gets more efficient and easier, AI also overcomes the human shortcoming by overlooking stereotypes bias even through gender-coded language. Deployment of technology would call for redesign of many job descriptions; AI shall also assist in creation of more inclusive job descriptions.

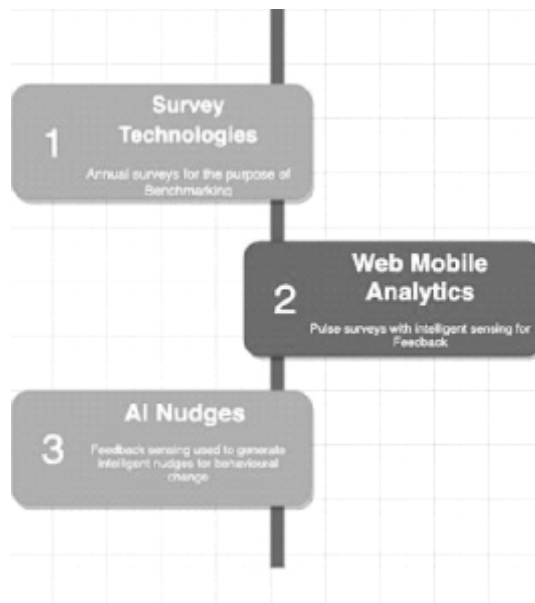
GE's digital division boasts of pioneering novel recruitment experiments. Ascendify has been a leading software provider to GE, IBM and CISCO for such requirements.

A close examination of Hilton's processes clearly points it as one of the leading partakers when it comes to applying AI. Hilton has successfully streamlined their recruiting process and have expanded the scope of AI to other business applications, like digital assistants, for certain critical processes such as feedback and performance reviews. They envision that digital assistants will allow employees to schedule their request for leaves and once the request is made initiate the necessary HR steps. The digital assistant will be available all the time at every location by means of a mobile device or a desktop. Judging by the advantages of AI, the company is looking at AI to focus and help in addressing the needs of, both their employees and their guests.

## AI In Employee Engagement

Employee engagement has continued to enjoy center stage when it comes to organization success and correctly so, organizations with high levels of engagement outperform those with lower engagement levels. Employee engagement is the emotional investment that employees make in their organizations. It is visible in how employees perform their jobs and actively contribute to shape the organizational culture. Dr. William Kahn has postulated the idea of Employee Engagement that over the decades has reincarnated into a more holistic concept, employee experience, which covers all the experiences; an employee goes through during his or her employment. It can be viewed as 360 Degree view of the association with the organization. Organizations are more focused on delivering the best employee experience and in this quest are using or shall be utilizing if not already, AI and Machine learning to greater extent.

AI and machine learning enable organizations to gather employee engagement data through multiple channels.



**Figure 3: Deployment of AI over Engagement Data**

### Measuring Employee Engagement with Technology

Sentiment analytics software uses Machine learning to share insights about the key drivers of employee morale and motivation across a vast number of contexts such as compensations, incentives to name a few. It is easier to predict employee needs and behaviors thereby employee can be marked under relevant themes. Chatbots are the new rising sensation as they are being actively used to provide instant feedback. This is more suited for the workforce that is going to comprise primarily of millennials who believe in the concept of instant gratification. Unlike a human chat experience, Chatbots can speedily scan through complex directories produce the information that the employee desires. Such speed and agility would be impossible for a human. This implies that HR

teams can now deliver information such as policy updates, benefits information, leave available, training and development bulletins, employee directories and much more in a matter of seconds. This shall go a long way in enriching the employee experiences as it humanizes the conversations between, HR teams, Employee and the top management. Even though there is a consensus that engaged employees fuel businesses but HR managers are unable

to divert the kind of time resources and attention that such engagement requires. AI leaps in to fill in the void. The ability to collect constant feedback goes a long way in the management understanding truly who their employees are and creating positive employee experiences.

### **AI in Learning and Development**

The tapping in of key technologies into HR administration creates a more organization specific focus, gone are the days of one-size fits all. AI can gather insights from scanning vast amounts of employee data coming in and augment it with deep analysis and create customized learning modules. The learning insights so derived shed light on the learning behaviour leading to predictive capacities. Such capacities shall go a long way in creation of smart and well positioned content that is: adaptive and responsive on an individual basis, facilitating better retention.

Chatbots are also being utilized in delivering of trainings; they can deliver huge amounts of information on supporting and other activities even before the employee thinks of it, based on predictive capacities. Another big time and cost saver is Virtual mentoring. It helps track the learner's progress and aids systematic evaluation across the learning journey. They are capable of providing feedback and guidance. The twin advantages of virtual learning are augmenting learning productivity and prescribing targeted training programs. Above all such learning management is cost effective and effective on more than one parameters. HR shall make most use of the key insights generated by use of similar technologies to address gaps in the learning program by re-aligning or re designing them.

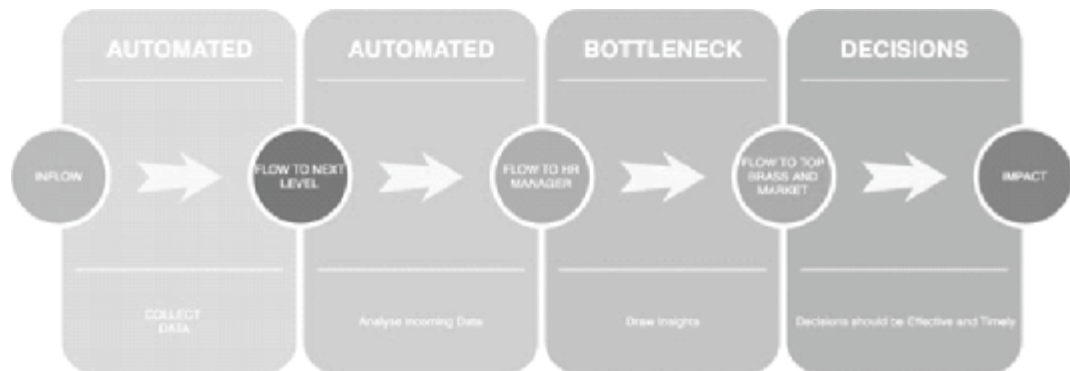
### **How HR is Transforming to Stay Relevant?**

According to an estimate, AI shall eliminate 1.8 million jobs while leading to creation of 2.3 million jobs. This imposes a multi-layered challenge on HR managers of the day. First is to interweave such technologies smoothly into the life cycle of their employee and also their strategic fit secondly, begin a re-definition of the current job roles that shall most like be eliminated or transformed. The transformation of the HR function or rather the embrace of technology with the existing duties and strategic goals of the organization as a whole shall be born out of collaborative intelligence between humans and AI. This collaboration hugely enhances their complementary strengths. Humans can gain in leadership, team work and creativity which are not core AI strengths to begin with and humans can benefit from the quantitative and time saving strengths of AI.

As James Wilson and Paul Daugherty have pointed out such a collaboration, shall be based on 5 principles:

1. Reimagine Business processes
2. Embrace Experimentation and Employee Involvement
3. Actively Direct AI strategy
4. Collect data responsibly

5. Re-design work to incorporate AI and cultivate related AI Skills.



**Figure 4: Data-To- Decision Work Flow**

It is apparent that AI is all set to transform business, it's just a matter of time depending on how much which organization can pay for such technology. AI stands out from many technologies due to the significant characteristic that it intends to enrich or augment Human effort rather than eliminate it. Just like any other management practice, AI also needs an well managed environment to sustain and produce results. In order to create such an environment, companies shall need people who can explain AI outcomes, and also “sustainers”-employees who continually work to ensure that AI systems are functioning properly, safely, and responsibly.

HR managers, like any other managerial role need to take decisions all the time, this takes a large amount of their time, which they would like to divert to other more relevant issues rather than the redundant. HR agility can not be achieved in the absence of deployment of technologies across HR functions.

It is in the phase of “drawing insights” that a lot of time is spent, and if AI can help to speed up the process of drawing insights by helping extracting data and delivering recommendations in real time then HR can become extremely effective. AI assisted decisions shall be superior on the following accounts:

- Faster at Scale
- Decisions will be more data informed
- Consistent
- Inclusive and Unbiased

Such quality of decisions also becomes the pivot of long-term HR strategies. There is a unanimous agreement that efficiency can be increased by:

- Quality people and their optimal usage
- Considering HR or People Analytics
- Focus on team-centric companies
- Agile workforce

Peter Cappelli and Anna Tavies have already pointed out that HR is becoming “AGILE LITE”, that means it is moving away from rules and planning based approach towards a more simpler and faster model driven by feedback from participants. This is being attributed and is being powered by the spillover from rise and rapid advancements in technology. According to Peter and Anna, ninety percent of the organizations in U.S.A. are already using “Agile” practices.

### **The biggest transformations are happening in:**

- Performance appraisals and management when the charade of planning for a year or beyond in advance has been dropped widely. The traditional systems were seen as time consuming, not effective and even failed poorly on their motivational dimension. The major transition has been a movement from iron clad performance appraisal to frequent and more quick performance assessments. Though in this transition there have been many unsuccessful attempts as well. This is where the deployment of technology comes to rescue ensuring that organizations transition to a more specific and quicker ways. Johnson and Johnson, offered its businesses to engage actively in an experiment where they would use a new customized app with which employees, peers and bosses could exchange comments in real time.
- Team management is laden with scrum, as organizations have to deal with multi-directional feedback in new “agile” environments. Many companies use technology to manage the humongous volume of data generated. Apps are designed specifically to allow supervisors, co-workers and clients to share with each other immediate feedback from wherever they may be. Technologies help analyze such conversations providing them a meaningful medium of utilization for better management. CISCO uses proprietary technology to collect weekly data from employees about their peers and monitors deviations.

Jobs and Job roles will need to be revisited, below are a few evident pointers that all organization shall be open to accommodate:

- Organizations shall be ready to embrace more fluidity with respect to their job roles and organizational chart, as strict charts are soon going to become a thing of the past. With the rise of AI powered project based teams, and the nature of the Gen Z workforce employees are more likely to be working as freelancers, consultants or contractors.
- Remote workers are already a common sighting and with the coming of such technologies where employees shall be working from virtual offices, employers will have to work with a larger degree of decentralized work force. This is both an end and facilitator of fluid jobs as cited above.
- Gen Z, like many already, will need to be motivated by a lot of factors not just money. Motivation shall come from creativity, better incentives, and career growth and learning opportunities. Organizations will need to better in providing them and create a culture of life long learning.
- AI and humans shall work together; workspaces will be defined by the co-existence of both. This is a new area of behaviour and people will need to learn to work along side machines and develop a comfort level for such a man-machine relationship. The managers would need to address this area and devise ways to enable employees to get comfortable in the new work paradigm.
- In addition to developing man-machine relationship, people in the modern workplaces can not afford to be complacent about their skills. They would have to



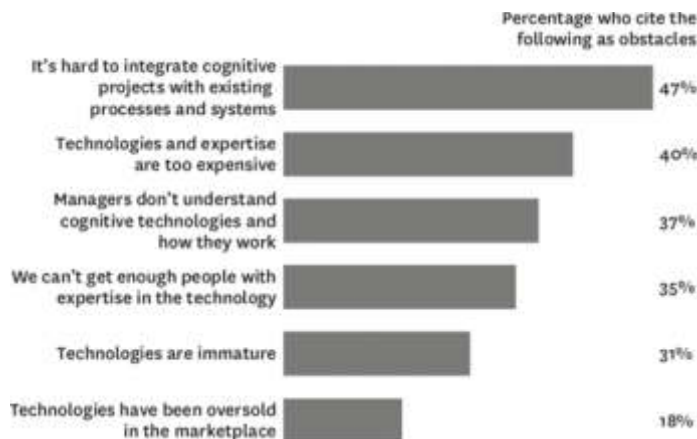
- learn new and newer skills to be responding to reconfigured job roles. Such pro-active adaptation and learning would hold key to the real competitive advantage. Since the life span of skills is going to be extremely short, organizations and employees will continuously need to acquire new skills in order to remain relevant.
- HR managers need to put on their thinking caps for responding to changes in technologies and worker behaviour to review prospective employees' skills and potential to avoid skills that are likely to be automated soon and look for emotional intelligence, critical thinking, creativity and problem solving skills.

Managers will need to hire for skills not specific job roles anymore. Up-skilling and re-skilling will take center stage, as they are already gaining ground.

### Pitfalls and future Scope

AI can support three important business needs: automation of processes, gaining insights through data analysis, and engaging with customers and employees.

There is a short distance to go with regard to the transition to greater deployment of technology such as Blockchain, machine learning and AI but the real manifestations of such transition may take a while to become self evident. Such software is expensive and requires massive man and capital requirements. There is major research gap to explore in almost all domains of the application of new technologies to study transition, change management and their resultant effectiveness. This study aims to identify such technologies and highlight the existing practices with regards to the deployment of technologies and resultant changes in HR functions and perspectives. At the onset of moving towards technologies such as AI companies need to understand which technologies are apt for the jobs they wish to apply them to, and also understand the limitations of each.



**Figure 5: Technology Roll out-Obstacles**

Source: Deloitte's 2019

Many organizations have wasted sizeable amount of money and time resources pursuing the wrong technology for the wrong job, a mismatch. The management shall therefore have a good understanding in order to gain strategic and competitive advantage. There exists a shortage of

cognitive talent pool, hence organizations need to establish such pools of talent. In order to create the right match of jobs and required technology, management shall create portfolios of projects. Once projects have been sorted, pilot projects shall be rolled out to verify the applicability and validity of each technology before an enterprise or function wide roll out.

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