



Artificial Intelligence and Human Resources Management

Dr. Saloni Garg
Associate Professor

ABSTRACT

Artificial intelligence (AI) is increasingly present in the organization. In the specific area of Human Resource Management (HRM), AI has increasingly relevant in recent years. This article aims to connect the impact of AI in the field of HRM. It shows that AI applied to HRM is a developing field of study with constant growth and positive future vision, the research is focused on the application of AI in recruitment and selection actions, leaving aside other sub-areas with a great potential for application.

Key words: Artificial, Intelligence, Human, Resources, Functions, Implications

INTRODUCTION

In computer science, artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and other animals. Computer science defines AI research as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals. Kaplan and Haenlein define AI as "a system's ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation". Colloquially, the term "artificial intelligence" is applied when a machine mimics "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving". Artificial intelligence is helpful in various business functions where it can help to reduce the workload and work pressure on the employees at workplace. Rapid changes in business needs fast response. With using AI system organization can able to inform the existing performance and day to day function. In business pressure has been increasing, tough managers understood the importance of artificial intelligence at workplace. Now a days artificial intelligence has entering into the overall system of an organization and one of the area is human resource department where by using AI system human replaced the human and all functions in human resource department is carried like candidate screening, recruitment, alignment of human resource activates and performance management.

AI: A new paradigm in HRM

Industry 4.0 has introduced intelligence technologies like AI. The increased development of information and communication technologies (ICT) allows phenomena like AI to greatly influence different parts of society becoming one of the most relevant elements of all possible changes in various aspects of life in this era.

Although different departments of multiple organizations have adopted or integrated AI based tools, the HR department still cannot implement them. Despite there being many people in the HR department of organization that recognize the importance of applying AI, they also point out that they have not taken any actions regarding this. It shows that even though AI in the HR area is still developing revolution& is mostly limited to large companies.

Artificial Intelligence Applied to People Management

The role of AI in an organization is to improve efficiency and effectiveness of the HR function by making the various management processes agile and accurate. For HRM, AI will enable the understanding and control of a data collection process so that this process is included in an organizational and economic efficiency strategy. Among the different areas that make up the HRM in an organization where AI is starting are :-

- Talent search and recruitment
- Training and development
- Performance analysis
- Career development
- Compensation, and
- Staff turn over

Benefits and Challenges of Artificial Intelligence in Human Resource Management

As with any technological advances, AI brings both benefits and challenges, and its application in HRM is no different. Benefits can be approached from these points of view :-

1. **Employees:** – the reduction or minimization of errors owing to machine learning also helps improve decision-making providing more and better-processed information. According to a 2019 survey, 61% of the companies were using AI to improve HRM in key AI-transformed HRM areas.
2. **Company** – for companies, AI means greater effectiveness and efficiency as it streamlines management processes and reduces associated costs. AI helps to improve the successive stages of the recruitment process: identifying, selecting, and retaining talented people.
3. **Society** – the creation of new professional profiles linked to AI, like robotics specialists, data scientists, deep learning experts, generate new scenarios which can benefit the public.

As far as **challenges** are concerned, the following can be highlighted:-

1. **Employees:** - the application of AI may contribute to burnout, with some employees being worried about their career uncertainty. There is also dehumanization of personal relationships, as some of the HRM processes may be performed entirely by machine, like the use of chatbots.
2. **Company:-** the need for highly qualified personnel to manage and acquire the necessary skills to keep up with the increasing technological development is a reality in AI. It has implementation costs and the increased risk of its data security breach.
3. **Society:** - one of the main challenges in this area is the “technologies gap”, since technology in general and AI has divided the world, it has created greater technological inequality. This is because not all countries can implement and maintain technological infrastructure.

Discussion:-

AI is not some magical computerized persona; it is a wide range of algorithms and machine learning tools that can rapidly ingest data, identify patterns, and optimize and predict trends. The systems can understand speech, identify photos, and use pattern matching to pick up signals about mood, honesty, and even personality. These algorithms are not “intuitive” like human beings, but they are fast, so they can analyze millions of pieces of information in seconds and quickly correlate them against patterns. Statistically AI systems can “predict” and “learn,” by plotting curves of possible outcomes and then optimizing decisions based on many criteria. So you could imagine an AI system that looks at all the possible demographics,

job history, and interview questions with a candidate and then “predicts” how well they will perform on the job. (Hired Score, Pymetrics, HireVue, IBM, and others are working on this).

All these applications are new, and as exciting as they seem, there are plenty of risks to worry about. The biggest is that AI cannot work without “Training data.” In other words, the algorithms learn from the past. If your current management practices are biased, discriminatory, punitive, or overly hierarchical, you may just wind up institutionalizing all the things you hate. We need AI that is transparent and “tuneable” so we can inspect the algorithms to make sure they’re doing the right things.

There’s a risk of data exposure and inadvertent misuse as well. Consider a common use of analytics where we try to predict the likelihood of a high-performer leaving the company. If we tell managers “this person has a highly likelihood of leaving” we may in fact create the wrong behavior – the manager may ignore this person, or treat him or her differently. We have to learn how to apply behavioral economics carefully. AI is a “tool” for suggestion and improvement – not an independent decision making system today.

AI leaders at Entelo discussed the need to create “interpretive” and “transparent” AI systems. In other words, whenever the system makes a decision, it should tell us why it made this decision, so we as humans can decide if the criteria it used are still accurate. This is one of the most important criteria for new tools, and unfortunately today most AI systems are a complete black box.

And don’t buy a system that’s a black box unless you can really prove it in your company. Every company’s management and people decisions are often culture based, so we’ll have to take time to try these systems in the real world and tune them for best use. IBM, for example, has spent years optimizing its AI-based compensation and career solutions for its company, culture, and business model. They are now bringing these tools to corporate clients and finding that each implementation teaches IBM new things about the algorithms to make them better for that industry, culture, or organizational need. Despite these challenges and risks, the upside is enormous. Companies spend 40-60% of their revenue on payroll and much of this enormous expense is driven by management decisions we make on gut feel. As AI systems in HR get smarter, more proven, and more focused on specific problems, I believe we will see dramatic improvements in productivity, performance, and employee wellbeing. We just have to be patient, vigilant, and willing to invest.

Conclusions

The most relevant conclusions derived from the results obtained and their analyses are:

First, there has been an extraordinary development in technology in recent years, especially AI. Despite its development, importance of its impact in the HRM field has not been as expected. AI application in HRM is a very specific field of study, since most of the research has focused on its application in the recruitment and selection of personnel, besides important functions like training, development, or personnel rotation. There is indeed an increasing interest in talent and the recruitment of highly qualified personnel, which is necessary for facing the changing environment and high competition. But it should be

noted that talent must not only be found, but also maintained and developed to turn it into a competitive advantage. For this reason, it is essential to use AI technologies in other functions and extract the maximum added value from each process.

Second, based on the results obtained, it can be seen that there are still fears and negative feelings in HR employees and managers about the AI application. These feelings can complicate or slow down the use of AI in this area. Although technology has strongly disrupted the labor market and has helped create new businesses and develop existing ones, it has also eliminated many others, thus causing greater concern. But it should be noted that AI technologies need people for their proper management. Despite being faster, working 24 hours a day, optimizing time and tasks, etc., AI does not have the essential soft skills for any work environment.

Like any new technology, AI has its strengths and weaknesses. This makes it essential for HR departments to carry out an effective AI implementation strategy to integrate it safely within organizations, thus eliminating the potential damage. It is obvious that in the long term, the use of disruptive technologies will no longer be optional but rather necessary to remain competitive among other organizations; otherwise, they will lose their market positions or worse, will disappear.

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