Review Article

How Does AI Pose Challenges for Leaders in Organizations? -A Conceptual Study

Divya Upadhyay*

Ph.D., Abu Dhabi School of Management, United Arab Emirates

*Corresponding Author
Divya Upadhyay, Ph.D., Abu Dhabi School of Management, United Arab Emirates.

Abstract
Artificial Intelligence (AI) and its application are becoming ubiquitous. This drastic change creates a plethora of challenges for leaders and leads to a need for more holistic leadership skills. This article aims to give an overview of the challenges of AI for leaders and how leaders or managers can address these challenges in more effective ways. A literature review was conducted. To know the challenges of leaders, an AI technologies practitioner was interviewed working in one of the top software companies. In this article, I discussed various ways in which these challenges can be addressed for leaders while working with AI. To conclude recommendations and strategies are suggested so that AI leaders can enable innovation and collaboration between humans and AI, and change the workforce with a new set of skills that are unique to humans. Also, a few guiding principles may help business leaders sail across the changes in the era of AI, and future implications are discussed.

1. Introduction

Artificial Intelligence (AI) refers to the "technologies that allow a computer to perform tasks that generally require human cognition, including adaptive decision-making" [1]. Simply put, AI in business involves the use of intelligent computer software with humans to increase productivity, improve customer experience, heighten revenue and efficiency, and encourage business growth and transformation. Artificial intelligence can reduce operational expenses in businesses, and companies can engage customers, systematize business logistics and processes and enhance productivity. Companies use AI in customer services, business intelligence, targeted marketing, product recommendation, predictive analytics, and natural language processing to name a few. AI and its application are becoming ubiquitous. This drastic change creates a plethora of challenges for leaders and leads to a need for more holistic leadership skills. AI creates a need for more leadership capabilities that cannot be tackled by technology or by traditional leadership skills. Leadership can bring people skills or soft skills that are difficult for machines to replicate.

The objective of this article is to give an overview of the challenges of AI for managers and leaders and how leaders or managers can address these challenges in more effective ways.

1.1. Leaders in Organizations and Challenges of Applied AI for Managers or Leaders

Mostly business is about foreseeing the future, coming up with innovative solutions, and motivating and inspiring people. Leaders shape and predict future demand and outcomes. Leadership is "the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organization ..." [2]. Leaders can bring up the joint effort of human and artificial intelligence and this can be done by deploying AI as a relevant and effective tool. Leaders can use their skills, creativity, and personality to make a difference that can be helpful to address the challenges faced by businesses. Mostly, leaders and managers are positive and forward-looking toward the usage of artificial intelligence in organizations due to the opportunities it brings for the companies, but with prospects and development, there are potential risks also involved. Its leaders and managers task to deal with these potential risks. Leaders with their skills and personality can come up with ideas to motivate and inspire people to cope with uncertainty, times of change, and close-mindedness.

In organizations, a challenging state is when there are unfamiliar or unusual problems to solve some obstacles to overcome, and decisions where uncertainty and risk are involved to make. Organizations that use AI are seven times more likely to grow fast in their businesses. However, data complexity, talent scarcity and a lack of trust in AI systems are very common and evident and need to be taken care of. On a similar note, when we see the impact of AI on society at large, people hold mainly two opposing views. One is a more pessimistic view stating few jobs for humans and high inequality. Late Stephan Hawking has cautioned that AI could lead to few companies dominating the world. On the other hand, there is a more optimistic view AI could help enhance productivity and growth of society where people will have plenty of income and they can do what they find pleasant work. On one hand, Artificial Intelligence is creating new prospects and more opportunities and efficiencies for both businesses and society while on the other hand, it's also clouding the demarcation lines between jobs done by machines and

humans. A recent study reported by Organization for Economic Co-operation and Development (OECD) stated that many jobs especially those performed by youth jobs will be highly impacted by automation.

Taking both AI and Humans into consideration, people argue that there will be one winner. The important question raised based on this question is whether AI will replace the human workforce in the future assuming that both have the same qualities but in reality, they don't. In contrast to AI machines, humans are intuitive, emotionally culturally sensitive, and intelligent and these abilities and strengths leaders can utilize to address the challenges faced by the impact of AI.

Leaders are enthusiastic about artificial intelligence and the prospects and opportunities in the future but it's also important to consider its potential challenges and risk associated with it. Based on the Infosys survey another challenging issue among business leaders is losing transparency in their business. Sometimes less transparency leads to less control over results. More than half of the CEOs responded that they are afraid that leadership will have less openness and transparency due to AI and automation. Developing an AI-ready workforce or human-focused is one of the key challenges that leaders have to be ready to deal with.

To know the challenges from the horse mouth, I interviewed an AI technologies practitioner working in one of the top software companies.

Question 1: How will AI impact the job market?
The entrenchment of AI is likely to impact the job market in multiple ways. On one side research and development of AI technologies and the engineering effort to adapt those technologies in various sectors is a driver of springing up a new industry, thus creating an entirely new job market, and cascading to an increasing jobs market in supporting industries. On the other side, AI-based technologies adoption is resulting in reduced decision-making by humans, AI-driven automation is reducing labor needs in industries, thus driving some shrinkage of the job market as well. How the net effect of these forces will pan out in the future is hard to predict, but my understanding is as with any new technology emergence the job market will evolve steadily both quantitatively and qualitatively. One additional nuance to consider with AI technologies will be how they will move the workforce up the value chain in terms of job roles. My understanding is by reducing the decision-making and cognitive efforts required for more repetitive tasks, AI will free up employees' bandwidth which organizations will then channel to further value addition activities (e.g. a computer programmer assisted by AI finding time to focus on software designing activities) and thus provide opportunities to the workforce to upskill themselves and find more fulfillment from their jobs.

Question 2: According to you what are the biggest challenges of applied AI in organizations? And how these challenges can be addressed.
I think some of the biggest challenges' organizations face today to adapt to Applied AI are related to their own readiness at governance, operational and technical levels. e.g. On the governance front organizations need to put proper structures in place proactively to resolve issues related to AI biases, and to address grievances in case of conflicts resulting from different (and opposite) AI predictions, or employees not in sync with AI recommendations. Unless this is done, workforce trust in AI technologies will be hard to build thus resulting in fault lines intrinsically. At the operational level, organizations need to set up appropriate roles and responsibilities-, and establish processes that allow for verification of AI-based decisions before they are implemented-, so that employees feel in full control and are accountable for the final outcome. The goal here I think should be to position AI as a complimentary technology to humans and not as a technology that will replace human effort and jobs, which in turn may result in a culture of fear. Finally, at the technical level, organizations need to adapt to agile methodologies and platforms for AI/ML model development and deployment, which requires a paradigm shift compared to how software is traditionally developed and deployed.

Based on responses from this interview and my understanding after reading past work on AI and its challenges, I suggest these are the following key challenges leaders and managers face while dealing with A1:

1.1.1. Human Focused
Companies are on the verge of becoming dependent on technology and the need and value of humans can be ignored. AI has often been talked about as an indication of reshaping the future as it can create an automated atmosphere [3]. It has been reported that in the forthcoming future of 15 years that there is a high risk of getting jobs automated, for example, in the upcoming ten years or so, it has been predicted that AI is estimated to automate 40% of the tasks that educators now perform [4, 5]. AI can overtake humans in conflict management, conflict resolution, problem-solving, negotiation, and crisis response. Little attention to human and cultural aspects can be challenging in the AI era and digital transformation initiatives can fail if not dealt with cautiously. Hence, leaders need to think about how to invest in their employees to maximize their potential with technology in an enabling role, and workforce reduction fear needs to be addressed. Organizations can always align with the aspirations of employees, we as an employee need growth. Business leaders can be empathetic and show care for employees whose roles are hampered or affected by AI and plan to educate and train their employees on digital literacy so that it will be helpful for them to understand new technology. Research has established a strong link between AI and human resource management. Recently, organizations are focused on the usefulness and relevance of AI-based tools and techniques to enhance employee satisfaction, commitment, job engagement, productivity, employee retention, job performance, and decision-making (, and at the same time reduction in HR-related and other operational costs [6-9]. On a similar note, there is a debate going on in the AI-HRM literature about the characteristics and relevance of employees when using and implementing AI-based technologies in organizations effectively. However, researchers have supported the claim that in organizations, employees perform several tasks much better than that machines [10, 11]. Thus, researchers claim that

replacing humans with AI is not beneficial for organizations but rather that both AI and Humans supporting each other will be beneficial, and can together they can achieve and perform well [12]. Training can be an approach to enable the change to work in an AI-centric firm. For example, cultural or sensitivity training can help employees to become well-versed with new technology.

1.1.2. Multi-Disciplinary Teams
In organizations, teams will steadily become a combination of humans and artificial agents or non-humans working together, which De Cremer & Kasparov refer to as the "new diversity" [13]. This new diversity can bring challenges that stereotypical beliefs and biases can have an impact on teamwork and the decision-making of managers and leaders. Humans can treat machines as outgroup members and this can lead to distrust and discourage humans to share information and dislike working together. Leaders need to address negative team dynamics and negative beliefs associated with them. In the AI era, the leader needs to manage a team of people with technical backgrounds. Leaders have to lead a team made up of data scientists, machine learning experts, computing specialists, social engineers, and others. AI leaders and managers need to have a broader perspective in dealing with the teams. Dealing with multidisciplinary team members can be a challenging task for leaders. Leaders have to face different types of conflict e.g. task conflict, process conflict, and relationship conflict among human and artificial agents or among human team members themselves. The communication challenge is one of them, e.g., biomedical scientists and data scientists have different motivations to work while implementing AI. Sometimes data scientists and subject matter experts speak different languages and to intervene there is a need for a third party to act like a bridge to do the translation for the communication.

1.1.3. Talent Management and its Retention
Retaining talent is a key challenge for leaders in this era. The technology sector has the maximum employee turnover rate of any industry, with around approximately 13% of employees changing their jobs in one year and there is demand, opportunities, and scope available for workers with specialized skills that can contribute successfully to AI teams.

A high turnover rate can obstruct the success of AI teams, especially when team or project members leave in the midst of an important project. Motivating and retaining these talented employees to stay in their roles and jobs is one of the crucial challenges AI leaders face. The interest in AI and its influence on human resources is growing among scholars. Past research has reported that in large organizations, AI-based technologies can support and maintain retention, talent acquisition, development, and assessment, also helpful in recruitment to selection, assessment, and interviewing of the most suitable candidates and assess employees' training effectiveness [9, 14, 15].

1.1.4. Dealing With Human Biases and Flaws
AI makes decisions based on the available data. Unlike humans, it doesn't have opinions, but it learns and performs from the opinions of others. And that's where bias happens. Human biases are well documented. It has been acknowledged that human biases can easily creep into artificial intelligence systems and mostly with harmful results. Addressing these biases and risks can be an urgent priority for leaders. Bias can be easily seen in algorithms or data sampling in various ways. AI systems learn to make decisions based on training data, which can include biased human decisions, e.g. it can be seen in sensitive variables such as gender, race, or sexual orientation.

A deeper understanding of AI technologies is required for its implementation and its proper understanding of possibilities and limitations. Unfortunately, today many people are trapped in the myths concerning AI ranging from mundane things like the need of hiring a data science team to science fiction fantasies about smart robots ending humanity. Hence, sometimes the lack of AI know-how hinders AI adoption in various fields of its implementation.

1.1.5. Trust and Fairness Must Be Built as AI is a Black Box
In AI, each deep neural network layer progressively recognizes more complex features and this complexity obscures the decision process. In a CEO pulse survey conducted in 2017, it was found that 76% of respondents mentioned a lack of transparency and potential biases in applying AI and 73% wanted the need for rules and regulations to control AI. Further, the human mind is the soul of the AI or machine learning system that design or manages its AI black box initiating preventing and diagnosing people suffering in healthcare (e.g., see Rudin, 2019) and military sectors, where AI algorithms are used to make vital and risky and dangerous decisions that can affect people severely [16]. People suffer from the fear of the unknown and lack of transparency in these innovative technologies, which can create serious problems. AI's black box represents a lack of transparency and biases, which leads to unfair decisions toward mankind.

2. Addressing the Challenges
There is also a need to identify the attributes of leaders or managers when adapting Artificial Intelligence and related technologies in organizations to deploy this know-how effectively.

It has been argued that it is important and required to consider individual differences such as various types of personality traits, and emotional intelligence, as they can influence how to deal with challenges and business outcomes [17]. In 2019, AI@Work Global Study found that approximately 50 percent of respondents mentioned that they used some form of AI at work. According to this study, Human Resource leaders were keen and enthusiastic about AI's entry into the workplace (36 percent), followed by managers (31 percent). The study stated that most employees seemed to view AI and human managers as complementary, rather than competing in the workplace. Focusing on the human component, the study stated that managers are better than robots at activities like understanding their feelings (45%), mentoring and coaching them (33%), building a good work culture (29%), and appraising team performance (26%). On the contrary, it was supported that robots are better than leaders or managers at tasks such as providing unbiased information (36%), maintaining work schedules (34%), solving problems (29%), and managing a budget (26%). The results of this study supported that AI is in

a position to work together with human managers, not substitute them. Currently, approximately 60 percent of a leader's time is spent on administrative coordination and control. According to Harvard Business Review (2016), 86 percent of managers reported that they would like AI support with their monitoring and reporting responsibilities.

Digitization will need a new set of leadership capabilities. Research has found that agile leaders are best suited to lead in the digital era. Agile leaders are humble, engaged, adaptable, and visionary people [18]. Research has found that leaders' ability to adapt, continuous learning and self-development, and make prompt but effective decisions in a constantly changing environment will be significant. Skills may be defined at different levels of abstraction, ranging from general, broadly defined abilities (e.g., intelligence, interpersonal skills) to narrower, more specific abilities (persuasive ability). Skills are the ability to do something in an effectively accepted approach for classifying managerial skills using the three broadly defined skill categories, technical skills, conceptual skills, and interpersonal skills [19, 20].

Artificial Intelligence (AI) has impacted most of the industry. In the past leaders use to spend a major amount of time on tasks such as coordinating, planning, organizing, scheduling, and making short-term data-driven decisions, but in the current AI era these tasks will be soon taken over and other complex tasks by AI. Managers and leaders have to realize the technical role of AI and address the gaps areas by developing, interpersonal and soft skills. Interpersonal and soft skills are becoming important with growing AI usage. Heuristics rule-based thinking and automation enhance businesses but skills like empathy, sensitivity creativity verbal reasoning, and communication are desirable to deal with people and the growth of a business. Leaders' ability to maintain a conducive environment of stability by being aware of and resolving conflicts due to differing tasks, processes, and perceptions among team members.

This section of the chapter discussed how leaders or managers can address these challenges in more effective ways.

2.1. Trust and Transparency
AI characterizes a new generation of technologies capable of interacting with the environment and aiming to simulate human intelligence. The success of integrating AI into organizations critically depends on workers' trust in AI technology [21]. AI application developers must also be transparent about what the system is doing as it interacts with us. The academic research on organizational behavior suggests that people's intention to use a new technology depends upon their perception or beliefs about that technology. Trust in technology becomes the first step before people even start using that technology. Trust in technology is different from trust in humans. When comparing trust towards humans past research has argued that individuals most likely have less trust towards artificial intelligence by default and this aversion or lack of trust is termed 'algorithm aversion' [22]. Leaders should be aware of this challenge and make sure that employees and other stakeholders are fully aware of the processes and procedures in applying AI.

Transparency is the key and it should be a standard prerequisite when new products are developed based on Artificial Intelligence technologies e.g. natural language processing or image recognition etc. Organizations should opt for transparency regarding what data is used or how the model works this will create a fair-minded, impartial and unbiased decision-making process. Lack of trust is commonly seen in many places due to fear of Artificial intelligence replacing or altering our jobs.

Sometimes there are issues with the type or quality of data fed into AI algorithms. It is also suggested that leaders keep a watchful eye on biases considering both the short-term and long-term goals of their organization.

2.2. Leader and Managers and Their Personality Factors
In this section of the chapter, I will discuss the individual differences between leaders or managers that can be helpful in dealing with the current challenges of applied AI. The future AI company will look very different from anything we know today. So, AI leaders should facilitate innovation, embrace collaboration between humans and AI, and transform the workforce with a new set of skills that are unique to humans. Leaders with the following personality traits will help organizations deal with the challenges of applied AI in more effective ways.

A. Growth Mindset and Agility
"Winning With AI is a State of Mind"
Most of the time we think that implementing AI is about mastering technology, but it's more about changing the way we think.

Executives and leaders must be willing to experiment to identify AI uses that make the most sense for their organizations and teams. Many survey respondents noted "creative thinking and experimentation" as the second most sought-after new skill (33 percent) [23]. In this context leaders' mindset to deal with the challenges of AI plays an important role. Dweck worked on the concept of a fixed mindset and a growth mindset [24].

Individuals with a fixed mindset are fearful of and escape situations in which they may fail. Fixed mindset people perceive failure as evidence of a personal deficiency or lack of ability. While on the other hand, in individuals with a growth mindset, personal characteristics such as intelligence and personality as flexible. People high on a growth mindset are confident in their ability to learn. Individuals with a Growth mindset engage in further education and training and admit their mistakes. In a similar vein, research has also found that employees who attend more training are more likely to be retained [25]. Leaders and managers with a growth mindset have the ability to understand and keep a check on obsolete information over time and keep checking and adjusting relevant information while implementing AI in their organizations. In a similar vein, Watson, Desouza, Ribiere, & Lindič supported the relevance of agility in the period of Artificial Intelligence where decisions are made rapidly but effectively and one also needs to adapt to a constantly changing environment [26]. According to them, the five essential capabilities that need to be continuously updated and advanced: are digital know-how, data-driven focus, networking, ethics,

and agility. Abernethy, Anderson, Nair, & Jiang, Y research showed that managers' mindset influences how they manage key financial and human resources, and the growth mindset of managers is crucial to an organization's success [27].

B. Emotional Intelligence (EI)

Interpersonal skills are crucial to managers' and employees' success in their corporate life. Emotional Intelligence has become a vital part of how today's leaders meet the significant challenges they face. George states that EI enhances a leader's ability to recognize and solve issues facing them and their organization [28]. Furthermore, Caruso et al argue that leaders who can guide decision-making can motivate their employees and encourage open-minded idea generation, decision-making, and planning because they can consider multiple points of view. Additionally, a leader with high emotional Intelligence, who can accurately appraise how their employees feel, can use this information to influence their employees' emotions to ensure that they are receptive and supportive of the organization's goals [28, 29].

According to a Capgemini survey, emotional intelligence is an essential skill set for the age of AI [30]. The survey found that 74% of executives believe that EI will become a significant skill for leaders to lead effectively and successfully.

Emotionally intelligent leaders and managers' ability to work with cooperative attitudes have transparent assignments, honest sharing of information, and joint goal plan with participating decision-making help in dealing with the challenges faced by implementing AI in their organizations. Considering the relevance of EI in the workplace in AI times, business leaders and managers can make sure that their employees participate in EQ training and coaching sessions. In organizations, implementing AI technologies generates challenges related to managing people and their emotions and these challenges can be overcome when employees and leaders are well trained with EI and coaching sessions.

C. Cultural Intelligence

In this technological age where artificial intelligence and digital transformation are at their exponential growth and at this time many international ventures fail because of cultural differences. In this globalized world, cultural intelligence is a crucial leadership competence. Cultural intelligence (CQ) is an important business tool for predicting managerial success in an intercultural environment [31]. CQ is defined as the capability to function effectively in contexts characterized by cultural diversity [32, 33]. Based on Alex Gray's work it has been reported that Cultural intelligence and Emotional Intelligence are two of the top skills needed by leaders to succeed in the Fourth Industrial Revolution [34].

Past research has supported the relevance of CQ in the organizational context. Research findings have supported the link between CQ and team effectiveness and performance [35]. Elenkov and Manev examine the effect of a senior expatriate CQ on organizational innovation [36]. Imai and Gelfand find that the minimum level of CQ predicts joint profits in negotiations [37]. On a similar note, Digital leadership needs tools and means to successfully operate in intercultural environments. Leaders need to communicate successfully and efficiently with employees from various cultures, understanding the needs and requirements of culturally different customers [38].

D. Need for Cognition and Need for Cognition Closure

According to Fortier and Burkell, two traits can enhance the understanding of individual variation in information behavior, the Need for Cognition and the Need for Cognitive Closure [39-41]. The Need for Cognition is conceptualized as an individual propensity to engage in and enjoy cognitive efforts [40]. People who scored high on the Need for Cognition are more likely to involve in information-seeking activities than individuals who scored low on the Need for Cognition [42].

Research has found that personality factors such as the Need for Cognition are likely to moderate susceptibility to decision biases [43]. The Need for Cognition may lead to improved thinking but does not assure better decisions [44]. Leaders or decision makers with a high level of Need for Cognition will show decision-making competence [45]. Past research has suggested that people with a high Need for Cognition are more intrinsically motivated to engage in effortful cognitive thinking marked by uncertainty, novelty and complexity, and uncertainty [42]. Further, people with a high Need for Cognition have better information-elaboration ability and also perseverance in times of adversity. Taking this into account I can postulate that leaders with a high Need for Cognition will be better at handling challenges related to applied AI.

In contrast, the Need for Cognitive Closure is defined as the desire for uncertainty or ambiguity avoidance [41]. Leaders with a high Need for Cognitive Closure seek the need for predictability and express discomfort toward ambiguity and they are close-minded. Leaders with a high score on the Need for Cognitive Closure will not be able to deal with the challenges of uncertainty and ambiguity while implementing AI in their organizations.

Considering both the Need for Cognition and the Need for Cognitive Closure, it is more desirable that leaders or managers high in need of cognition and low in need for cognitive closure will be a better fitment to face the challenges of implementing AI. Future research can be conducted to validate it.

Taking the cognitive aspect further, one aspect of cognitive style is System 1 and System 2 cognitive functioning [46, 47]. System 1 refers to our intuitive system, which is fast, automatic, effortless implicit, and emotional while system 2 refers to a reflective system, which is slower, conscious, effortful explicit, and logical. Milkman, Rogers, and Bazerman stated that different cognitive processes underlie 'want self' and 'should self' [48]. They stated that the 'want self' is driven by immediate desires while making decisions, whereas the 'should self' is mostly directed by more deliberative feelings about what should be done focusing on a person's long-term interests. Also, should options have more long-run benefits than want options? Building on this I conceptualize that leaders 'should self' is better than 'want self' while dealing with challenges faced by applied AI because then

leaders can see the long-term benefits of considering system 2 thinking processes. I anticipate that leaders' or managers' ability to deal with the challenges faced by implementing AI can be influenced by one's tendency to rely on intuition (System 1) versus reflection (System 2).

3. Concluding Remarks

How can leaders and managers succeed in the age of AI? To address this question Kolbjørnsrud, Amico, & Thomas surveyed more than a thousand managers from 14 countries and interviewed 37 senior managers responsible for digital transformation in their organizations and they identified practices such as *leave administration to* AI and *Treat Intelligent Machines as "Colleagues"* that successful leaders or managers need to excel and perform [23].

In the same vein, Infosys conducted a survey of over 1,053 global C-level executives across 7 countries: Australia, China, France, Germany, India, the United Kingdom, and the United States. These companies ranged in size from 500 to more than 5,000 employees, and from $500,000 to more than $1 billion in revenues. The survey results indicated some benefits of AI implementations, 48% of respondents mentioned that AI has increased human skills to make their employees better at work and 45% mentioned that AI has helped to free our time.

Based on the Infosys survey, a few guiding principles may help business leaders sail across the changes in the era of AI and as AI infuses into the future business. Firstly, organizations that are investing in AI should also invest equivalently in their employees. Secondly, organizations should also encourage a culture of learning, training or coaching should not be a one-time event. As AI implementation brings a change in technology to improve and evolve and to support this changing environment learning new skills becomes crucial to run a successful business and overcoming the challenges. Thirdly, transparency and open communication about artificial intelligence initiatives and implementation and their benefits can improve AI effectiveness and minimize the fear and distrust among employees. Based on past research done one can recommend that don't compete with the progress of technology but welcome the change in your industry and work to make it fruitful and complementary.

Organizations should invest in motivating and developing the emotional intelligence and cultural intelligence of their employees. Creativity, trust, and emotional and cultural intelligence will be in greater demand as AI makes paths in management and the workforce. Instead of speculating and worrying about "What role or responsibilities will be there for me once AI is all over?" Leaders can ask themselves, "What else can I achieve?" Candidly, this whole transition is challenging for most leaders, but the opportunities and avenues for more thought-provoking and impactful work with exciting career prospects are awaiting those eager to take on the challenge.

When business leaders incorporate AI implementation into their workflow they mainly need to have a clear vision of how it will be rightly used and what needs to be avoided. Business Leaders should focus that this AI-applied technology will be used to make fruitful use of their time by automating time-consuming administrative work and giving leaders or managers or employees more time to fulfill their interpersonal responsibilities, such as providing team-wide support, developing personnel, and pursuing innovation. Further, leaders from time to time should check periodically to make sure that set goals are met. In the future, there is no doubt that AI can benefit leaders, managers, employees, and businesses as a whole but business leaders have to be strategic, adopt a growth mindset, and exhibit personality characteristics such as emotional intelligence, empathy, and culturally intelligent as they progress and incorporate the technology into their managerial workflow. Today, organizations are also investing in AI for social good to solve global challenges. Companies like Microsoft, IBM, and Facebook contributed to the social good with the help of AI implementations e.g., Microsoft collaborates with an India-based company to eradicate preventable blindness. With the help of their tech team, they created affordable and portable eye-scanning devices. The spread of the Zika Virus was stopped with the help of IBM's Science for Social Good initiative in collaboration with the Cary Institute of Ecosystem Studies.

To conclude, businesses investing in AI can be very sure to invest in their employees. In this context, putting people first concept, HR or the Department of Humanity can act as a facilitator to ensure that businesses make the interaction between personal and artificial intelligence. Another key aspect is to build transparency into every phase of business. Open communication about Artificial Intelligence initiatives can be beneficial to improve AI effectiveness and raise morale, encourage trust, and decrease fear among employees.

References

1. Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resources management: Challenges and a path forward. California Management Review, 61(4), 15-42.
2. House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., Dickson, M., & Gupta, V. (1999). Cultural influences on leadership and organizations: Project GLOBE. Advances in global leadership, 1.
3. Frank, M. R., Autor, D., Bessen, J. E., Brynjolfsson, E., Cebrian, M., Deming, D. J., ... & Rahwan, I. (2019). Toward understanding the impact of artificial intelligence on labor. Proceedings of the National Academy of Sciences, 116(14), 6531-6539.
4. Zeira, J. (1998). Workers, machines, and economic growth. The Quarterly Journal of Economics, 113(4), 1091-1117.
5. Herold, B. (2019). Forty percent of elementary school teachers' work could be automated by 2030, McKinsey Global Institute Predicts. Education Week, 4.
6. Castellacci, F., & Viñas-Bardolet, C. (2019). Internet use and job satisfaction. Computers in Human Behavior, 90, 141-152.
7. Wirtz, J. (2020). Organizational ambidexterity: cost-effective service excellence, service robots, and artificial intelligence. Organizational Dynamics, 49(3), 1-9.
8. Azadeh, A., Yazdanparast, R., Zadeh, S. A., & Keramati, A. (2018). An intelligent algorithm for optimizing emergency

department job and patient satisfaction. International journal of health care quality assurance, 31(5), 374-390.

9. Torres, E. N., & Mejia, C. (2017). Asynchronous video interviews in the hospitality industry: Considerations for virtual employee selection. International Journal of Hospitality Management, 61, 4-13.

10. Agrawal, A., Gans, J., & Goldfarb, A. (2017). What to expect from artificial intelligence. MIT Sloan Management Review, 58(3), 23-26.

11. Maedche, A., Legner, C., Benlian, A., Berger, B., Gimpel, H., Hess, T., ... & Söllner, M. (2019). AI-based digital assistants: Opportunities, threats, and research perspectives. Business & Information Systems Engineering, 61, 535-544.

12. Wilson, H. J., Daugherty, P., & Bianzino, N. (2017). The jobs that artificial intelligence will create. MIT Sloan Management Review, 58(4), 14.

13. De Cremer, D., & Kasparov, G. (2021). AI should augment human intelligence, not replace it. Harvard Business Review, 18, 1.

14. Malik, A., De Silva, M. T., Budhwar, P., & Srikanth, N. R. (2021). Elevating talents' experience through innovative artificial intelligence-mediated knowledge sharing: Evidence from an IT-multinational enterprise. Journal of International Management, 27(4), 100871.

15. Sitzmann, T., & Weinhardt, J. M. (2019). Approaching evaluation from a multilevel perspective: A comprehensive analysis of the indicators of training effectiveness. Human Resource Management Review, 29(2), 253-269.

16. Rudin, C. (2019). Stop explaining black box machine learning models for high stakes decisions and use interpretable models instead. Nature machine intelligence, 1(5), 206-215.

17. Huang, M. H., Rust, R., & Maksimovic, V. (2019). The feeling economy: Managing in the next generation of artificial intelligence (AI). California Management Review, 61(4), 43-65.

18. Neubauer, R., Tarling, A., & Wade, M. (2017). Redefining leadership for a digital age. Global Centre for Digital Business Transformation, 1-15.

19. Katz, R. L. (2009). Skills of an effective administrator. Harvard Business Review Press.

20. Mann, F. C. (1965). Toward an understanding of the leadership role in formal organizations. Leadership and productivity, 68-103.

21. Glikson, E., & Woolley, A. W. (2020). Human trust in artificial intelligence: Review of empirical research. Academy of Management Annals, 14(2), 627-660.

22. Dietvorst, B. J., Simmons, J., & Massey, C. (2014). Understanding algorithm aversion: forecasters erroneously avoid algorithms after seeing them err. In Academy of management proceedings (Vol. 2014, No. 1, p. 12227). Briarcliff Manor, NY 10510: Academy of Management.

23. Kolbjørnsrud, V., Amico, R., & Thomas, R. J. (2016). How artificial intelligence will redefine management. Harvard Business Review, 2(1), 3-10.

24. Dweck, C. S. (2006). Mindset: The new psychology of success. Random house.

25. Alshehhi, K., Zawbaa, S. B., Abonamah, A. A., & Tariq, M. U. (2021). Employee retention prediction in corporate organizations using machine learning methods. Academy of Entrepreneurship Journal, 27, 1-23.

26. Watson, G. J., Desouza, K. C., Ribiere, V. M., & Lindič, J. (2021). Will AI ever sit at the C-suite table? The future of senior leadership. Business Horizons, 64(4), 465-474.

27. Abernethy, M., Anderson, S., Nair, S., & Jiang, Y. A. (2021). GROWTH MIND-SET VS. FIXED MIND-SET MANAGERS. Strategic Finance, 103(2), 23-24.

28. George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. Human relations, 53(8), 1027-1055.

29. Caruso, D. R., Mayer, J. D., & Salovey, P. (2002). Relation of an ability measure of emotional intelligence to personality. Journal of personality assessment, 79(2), 306-320.

30. Dixit, S., & Maurya, M. (2021, February). Equilibrating emotional intelligence and AI driven leadership for transnational organizations. In 2021 International Conference on Innovative Practices in Technology and Management (ICIPTM) (pp. 233-237). IEEE.

31. Rüth, R., & Netzer, T. (2020). The key elements of cultural intelligence as a driver for digital leadership success. Leadership, Education, Personality: An Interdisciplinary Journal, 2(1), 3-8.

32. Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. Handbook of cultural intelligence: Theory, measurement, and applications, 1, 3-15.

33. Earley, P. C., & Ang, S. (2003). Cultural intelligence: Individual interactions across cultures.

34. Gray, A. (2016). The ten skills you need to thrive in the Fourth Industrial Revolution. World Economic Forum.

35. Groves, K. S., & Feyerherm, A. E. (2011). Leader cultural intelligence in context: Testing the moderating effects of team cultural diversity on leader and team performance. Group & Organization Management, 36(5), 535-566.

36. Elenkov, D. S., & Manev, I. M. (2009). Senior expatriate leadership's effects on innovation and the role of cultural intelligence. Journal of World Business, 44(4), 357-369.

37. Imai, L., & Gelfand, M. J. (2010). The culturally intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes. Organizational behavior and human decision processes, 112(2), 83-98.

38. PFEIFFER, D., & Jackson, B. (2008). Cross-cultural leadership. Leadership. The Key Concepts, Routledge, London, 32-35.

39. Fortier, A., & Burkell, J. (2014). Influence of need for cognition and need for cognitive closure on three information behavior orientations. Proceedings of the American Society for Information Science and Technology, 51(1), 1-8.

40. Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. Journal of personality and social psychology, 42(1), 116.

41. Kruglanski, A. W. (1989). The psychology of being" right": The problem of accuracy in social perception and cognition. Psychological bulletin, 106(3), 395.

42. Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. Psychological bulletin, 119(2), 197.

43. Smith, S. M., & Levin, I. P. (1996). Need for cognition and choice framing effects. Journal of Behavioral Decision

Making, 9(4), 283-290.

44. Lerner, J. S., & Tetlock, P. E. (1999). Accounting for the effects of accountability. Psychological bulletin, 125(2), 255.

45. Carnevale, J. J., Inbar, Y., & Lerner, J. S. (2011). Individual differences in need for cognition and decision-making competence among leaders. Personality and Individual Differences, 51(3), 274-278.

46. Frederick, S. (2005). Cognitive reflection and decision making. Journal of Economic perspectives, 19(4), 25-42.

47. Stanovich, K. E., & West, R. F. (1998). Individual differences in rational thought. Journal of experimental psychology: general, 127(2), 161.

48. Milkman, K. L., Rogers, T., & Bazerman, M. H. (2008). Harnessing our inner angels and demons: What we have learned about want/should conflicts and how that knowledge can help us reduce short-sighted decision making. Perspectives on Psychological Science, 3(4), 324-338.

49. Beck, M., & Libert, B. (2017). The rise of AI makes emotional intelligence more important. Harvard Business Review, 15(1-5).

50. De Bilde, J., Vansteenkiste, M., & Lens, W. (2011). Understanding the association between future time perspective and self-regulated learning through the lens of self-determination theory. Learning and instruction, 21(3), 332-344.

51. Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation?. Technological forecasting and social change, 114, 254-280.

52. Kees, J., Burton, S., & Tangari, A. H. (2010). The impact of regulatory focus, temporal orientation, and fit on consumer responses to health-related advertising. Journal of Advertising, 39(1), 19-34.

53. Nuttin, J. (2014). Future time perspective and motivation: Theory and research method. Psychology Press.

54. Nura, A. A., & Osman, N. H. (2013). Gauging the effect of performance management and technology based human resource management on employee retention: The perspective of academics in higher educational institutions in Sokoto State Nigeria. Asian Social Science, 9(15), 295.

55. Strathman, A., Gleicher, F., Boninger, D. S., & Edwards, C. S. (1994). The consideration of future consequences: Weighing immediate and distant outcomes of behavior. Journal of personality and social psychology, 66(4), 742-752.

56. Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. Psychological review, 117(2), 440-463.

57. Wu, Z. X., Nkambou, R., & Bourdeau, J. (2012). The application of AI to cultural intelligence.

58. Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. Journal of Personality and Social Psychology, 77(6), 1271-88.