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Linking Artificial Intelligence and Organizational Change

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Abstract. Adoption of Artificial Intelligence is becoming increasingly prevalent in organizations, due to which organizations are experiencing profound shift in their processes and practices. Artificial Intelligence has the potential to drive significant changes within the organization. It automates the routine tasks and improves decision making thereby enhancing the customer interactions and innovative culture within the organization. Organizational changes are becoming necessary in organizations for them to cope up with a variety of environmental, societal and technological changes. Artificial Intelligence has made managing changes easier by providing various data-driven insights, personalized training and feedback analysis for the change initiators which in turn acts as a basis for the entire change process. It ultimately results in more successful and effective change management by empowering change managers to make well-informed decisions, monitor its progress, assess the impact, manage risks and analyse the success of change initiatives. This article employs a qualitative method of research by analyzing existing literatures to explore the multifaceted influences of Artificial Intelligence on organizational change. The key findings of this article highlight how Artificial Intelligence helps for a successful implementation of organizational change by providing support in various aspects within the organization.

Keywords. Artificial Intelligence, Data Driven, Leadership, Organizational Change, Process Automation.

INTRODUCTION

In the field of business and organizational system, Artificial Intelligence has become a radical force. Major shifts are occurring as businesses from all sectors incorporate Artificial Intelligence technologies into their operations. The changes in the organizations have an impact on how work is done, decisions are made, and strategies are developed. AI adoption frequently necessitates a transformation in the workforce of the organizations as a result of employees being put in a situation to learn new skills, adjust to new roles, and learn to collaborate with Artificial intelligence systems [3]. Further, Artificial Intelligence reduces the need for manual intervention, that influences organizational change by reallocating employees' time to more strategic tasks and tasks that require more of human thinking such as strategic decision making [8]. Adopting artificial intelligence technologies paves way to completely transform traditional business processes with its ability to automate repetitive tasks, analyze vast number of datasets, and make predictive analysis. However, the adoption of Artificial Intelligence technologies represents a more than just a shift in technology because it involves a wide-ranging transformation that affects each and every part of the organization such as the organizational culture, workforce dynamics, and competitive policies [13]. When an organization adopts Artificial intelligence technologies, the organizations' decision-making processes undergo a major shift that ultimately changes their operational strategies [33]. A survey [14] found out that through the use of chatbots and virtual assistants, AI enables more efficient change communication by providing employees with timely information, reducing resistance, and boosting change management initiatives. Organizations are responsible for taking great care in managing the transition and moreover making sure that employees receive the necessary training and assistance for adapting to the change. By doing this, possible drawbacks of AI will be reduced and its advantages can be maximized. Hence, organizations are put under the situation of modifying their workforce development programs, organizational structures, and strategies to effectively manage change in the artificial intelligence era [20]. By doing so, it will help organizations to capitalize on AI's potential while monitoring its disruptive forces as well and it will enable organizations to survive in a constantly changing business environment and manage change more skillfully by utilizing Artificial intelligence technologies [5].

One dynamic and crucial component of contemporary business management is organizational change [11]. It includes a wide range of tactics and initiatives for promoting change, adjustment, and expansion within a company.

Such organizational changes might be caused by internal and external factors such as changes in market conditions and top management leadership decisions, policies and strategies of the organization, regulations of the government and so on [1]. Top organizational members are responsible for instilling readiness among the organizational members to embrace change so as to ensure a smooth transition process [2]. According to latest Oberlo Institute data, over 54% of top management leaders acknowledge that using AI at work has improved their overall productivity and efficiency. Usage of AI systems such as predictive analytics for trend forecasting, and process automation, it enables the top management make important decisions [25]. It delivers real time insights for well-informed decision-making, helps with risk management by recognizing possible risks and provides personalized insights relating to their needs. In broader terms, artificial intelligence helps the top management stay competitive, innovative, and make better judgements [26].

Artificial Intelligence facilitates the process of informed and quicker decisions, supported by data-driven insights. Due to its ability to provide data-driven insights, predictive analytics, simulation, communication tools, personalized training, feedback analysis, and progress tracking, artificial intelligence is a useful tool for supporting organizational change [29]. Hence, its critical to integrate various Artificial Intelligence technologies with the company's change management initiatives in order to capitalize on the potential and capabilities of artificial intelligence [15]. Actually, a lot of AI application development businesses are concentrating on creating solutions that facilitate this smooth and resistance free transition [43]. It is required for the organizations to provide the stakeholders with an understanding of the value of artificial intelligence and the ways it might improve operations after deploying it within the organization. By doing so, the stakeholders will hold a precise understanding about the functions and benefits of AI implementation within the organization [24]. Further, its important to provide education on artificial intelligence to the employees who work with AI [16]. This education programs assist in making the employees clear about the integration of artificial intelligence in the business. As artificial intelligence is a futuristic technology, implantation of such technology may cause resistance among the employees. Thus, educating people provides a more seamless and resistance free integration process, thereby minimizing worries [21]. Therefore, understanding the ways in which Artificial Intelligence promotes and disrupts organizational balance is crucial for effectively directing the constantly changing business environment. For that purpose, this article aims at investigating the impact of Artificial Intelligence on organizational change from a qualitative perspective. The study employs a literature review methodology to acquire detailed insights on Artificial Intelligence and organizational transformation. Percentage of AI that Drives Organizational Change shown in fig. 1.

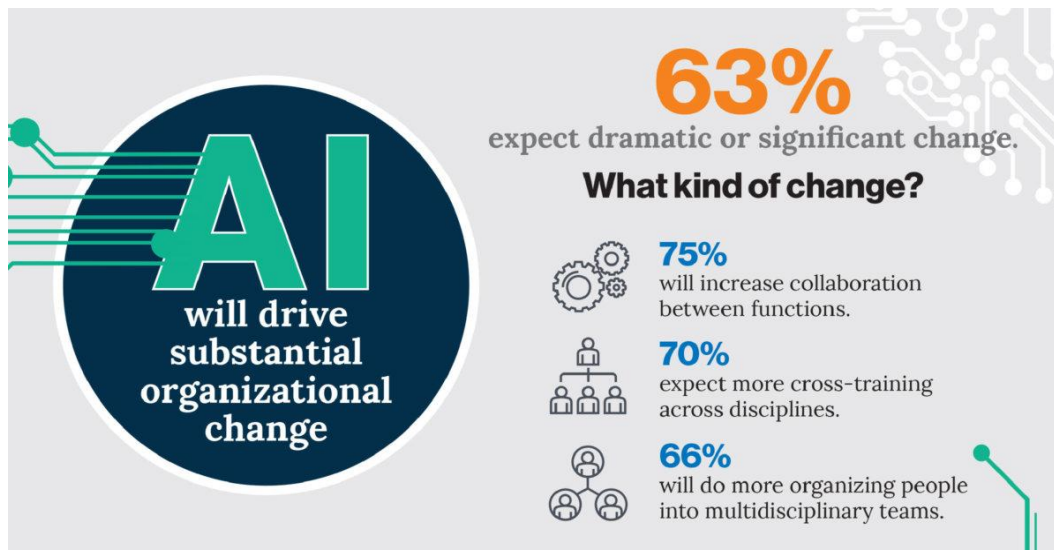


FIGURE 1. Percentage of AI that Drives Organizational Change

Source: mit.edu

PROPOSED CONCEPTUAL MODEL

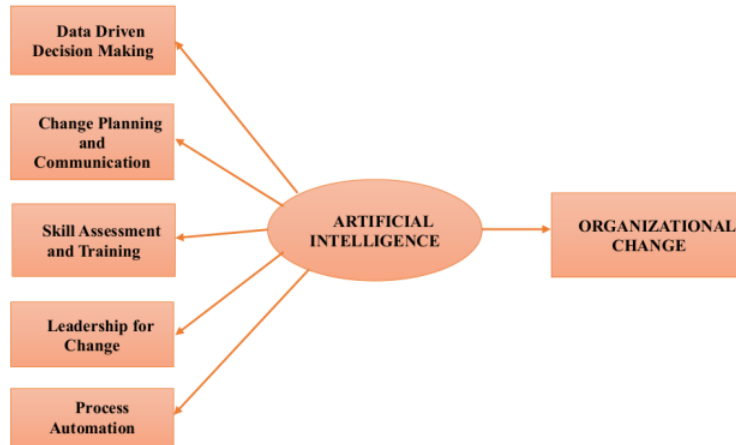


FIGURE 2. Proposed Conceptual Model

Source: Author

LITERATURE REVIEW

Data Driven Decision Making

By facilitating data-driven decision making, artificial intelligence has the potential to completely transform the way businesses make decisions [41]. Utilization huge amount of data and making decisions is known as data driven decision making process [29]. AI assist businesses in an accurate and efficient manner by processing, analyzing and interpreting data, thereby enabling organizations to make well informed decisions. Decision making process can be automated with artificial intelligence, which will result in increase of accuracy and efficiency. Compared to traditional decision support methods, the AI-based framework demonstrated higher levels of accuracy and promptness [10]. Proposed Conceptual Model shown in fig. 2. AI and Data Driven Decision Making shown in fig. 3.

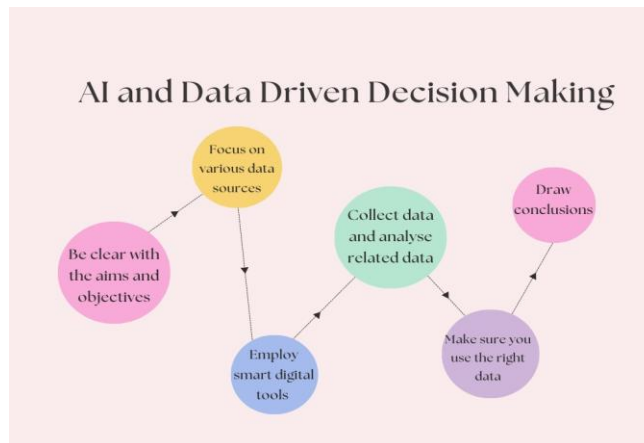


FIGURE 3. AI and Data Driven Decision Making

Source: Author

Decision making that is data driven consists of potential problems such as managerial and cultural risks other than only data or technology related problems, which makes it difficult for the companies to integrate artificial intelligence technologies within their systems [40]. Artificial Intelligence provides real time insights into how a change process affects the future operations of the organization and also provide assistance in managing the risks and uncertainties that arise due to change [30, 44].

Change Planning and Communication

Artificial Intelligence technologies provide a effective approach to change by providing data for change planning as well as communication [17]. Artificial Intelligence technologies provide insights into the requirements and preferences of stakeholders of the company, thereby allowing the managers to manage change more successfully by making them capable to modify the change strategies to meet each and every stakeholder’s unique needs and requirements [13]. Artificial Intelligence technologies play a role in communicating the change process effectively to the stakeholders [4] by providing an insight into the communication preferences of stakeholders [19].

By providing apprehension into the execution process and providing a best solution to any issue that arises, artificial intelligence can direct organizations to more successful change implementation [7]. Chen et al., [10] proposed a change communication model that utilizes AI techniques such as sentiment analysis and natural language processing. The artificial intelligence powered communication systems proved to be more successful in raising the level of stakeholder’s satisfaction regarding the change process. Hence, by providing real-time insights into the change initiative, artificial intelligence is useful in increasing the precision and accuracy of the change evaluation [9].

Skill Assessment and Training

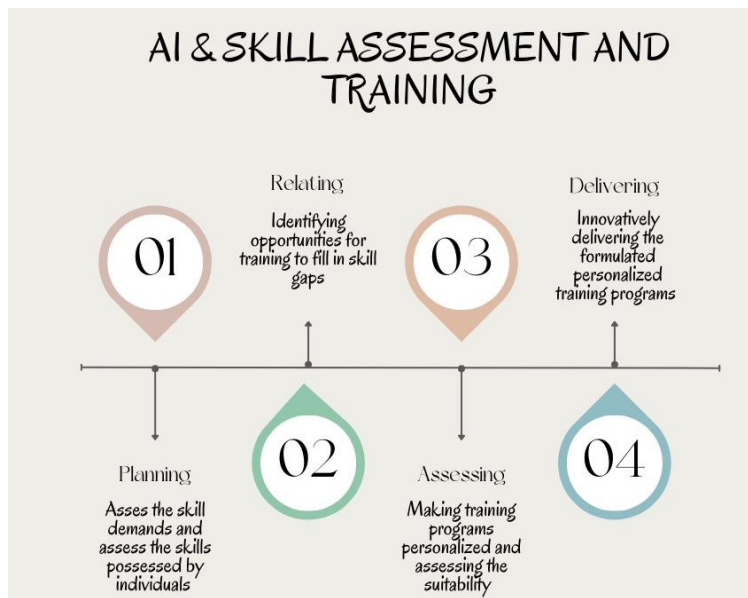


FIGURE 4. AI & Skill Assessment and Training

Source: Author

Artificial Intelligence provides the employees with individualized coaching and feedback, enabling them to learn at their own pace and style [3]. Artificial Intelligence technologies assist companies in determining the competencies and skills that is required to survive in the competitive and constantly changing business environment and also provides them with the materials to upgrade their skills and knowledge for survival [37]. According to a study made [14], artificial intelligence-based solutions can also provide real-time insights in the performance of employees and allowing them to find out areas of deficiencies and provide the right type of training that might be of benefit to them.

AI is also capable of creating customized learning programs for the employees do as to provide them with a more personalized and engaging learning experience, enabling them to learn when and where they want to [27, 28]. AI assist the employees in improving the learner experience by offering feedback in real time [14] and by providing employees access to relevant and needed content, AI can improve learning outcomes [16]. AI & Skill Assessment and Training shown in fig. 4.

Leadership and Artificial Intelligence for Change

Leaders are possible of taking better decisions during the change process with the support of artificial intelligence. AI based technologies such as machine learning and predictive analytics provide managers the apprehension into feasible results of alternate change initiatives [39]. Leaders can use this knowledge to lower risks, make better decisions, and increase the overall efficacy of change programs [18]. The way that executives manage their organizations is being altered by Artificial intelligence. Routine decision-making and administrative duties are among the traditional leadership roles that are being replaced by automation and robotics driven by Artificial Intelligence [42]. This is giving executives more time to concentrate on high-value, strategic tasks including creating new business models, encouraging innovation, and managing staff [6]. AI and Leadership shown in fig. 5.

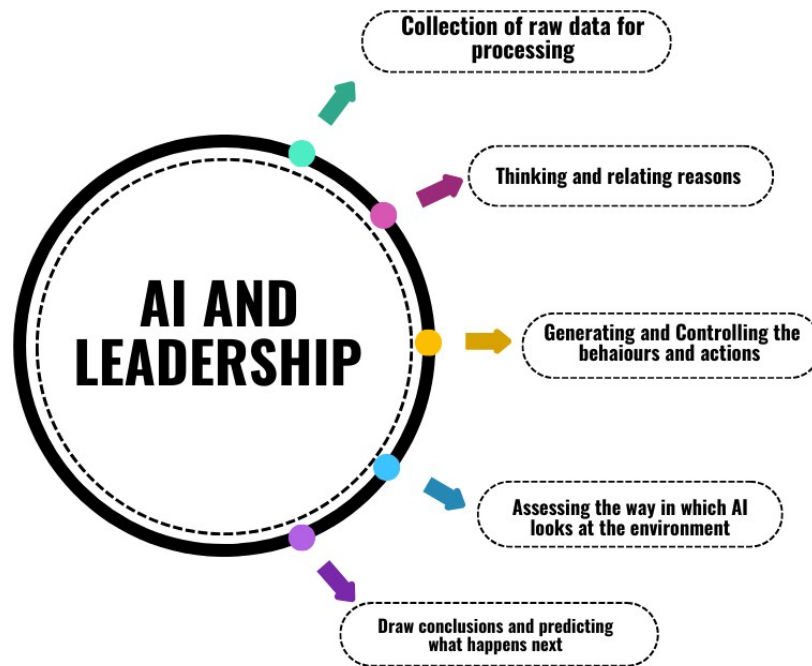


FIGURE 5. AI and Leadership

Source: Author

The interaction between managers and their employees is constantly changing due to Artificial Intelligence. Chatbots, virtual assistants are able to provide the employees with real time data and information, reducing the burden of the managers and enhance the overall effectiveness of communication [32]. Artificial Intelligence technologies are also possible of providing insights into the emotions of employees and so they assist leaders in responding more skillfully to the needs and emotions of the employees' demands, thereby effectively managing the employee emotions [6]. Artificial Intelligence technologies are able to provide real time data and information, and assistance but is not at all possible to take the position of humans who showcase traits like creativity, empathy and

strategic thinking that are necessary for good leadership. So that, artificial intelligence technologies should be used in a complementary way rather than as a replacement for humans [31].

AI and Process Automation

Artificial Intelligence enables automation of processes, that transforms the job into an accurate, efficient and cost cutting job [35]. Through such automation of time taking and routine tasks, artificial intelligence and process automation helps organizations in optimization of tasks [36]. Input of data, processing of documents, customer support are few examples of process automation tasks that are automated, freeing up employees' time to work on high value and strategic jobs [34]. AI and Process automation shown in fig. 6.

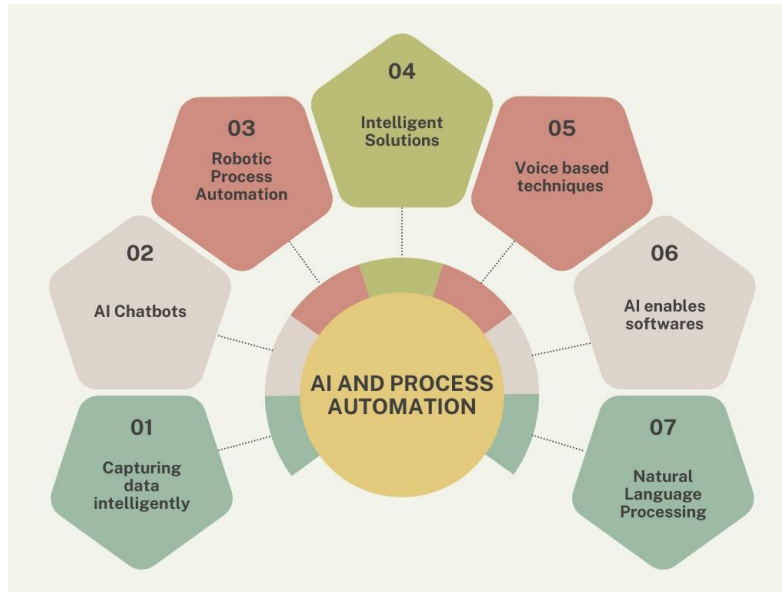


FIGURE 6. AI and Process automation

Source: Author

Process automation and Artificial Intelligence increase process accuracy and dependability during the change process. Artificial intelligence-based decision-making process can assess large amounts of data and provide new insights into the process performance, thereby allowing businesses to point out issues and streamline the procedures [23]. Artificial Intelligence and automation have made the change process more rapid and efficient. Process automation softwares powered by artificial intelligence are able to do jobs quicker and in a precise manner than human employees, intum cutting down on time and expenses [38]. Organizations, with the assistance of AI powered tools such as process automation, it can instantly modify or alter its procedures in reaction to dynamic business situations [22]. One drawback to be noticed is that, even though process automation and Artificial Intelligence increases productivity and accuracy, these processes cannot take place without the intervention of human abilities such as empathy, innovation and strategic thinking [12].

DISCUSSIONS & IMPLICATIONS

Artificial Intelligence powered technologies make it possible for organizations to analyze huge amount of data and extract meaningful results from them. Few examples of such technologies are machine learning tools, natural language processors, and predictive analytics. Organizations are able to make better judgements using artificial intelligence to identify correlations, trends and patterns that humans might not visualize [45]. Organizations might improve their ability in making decisions in relation to change in different areas in the organization such as HR, marketing, finance, supply chain, sales etc. by utilizing artificial intelligence powered data analysis. It is evident from this study that managers or top officials may more effectively discover opportunities, reduce risks, allocate resources properly and streamline procedures as artificial intelligence helps organizations to analyze large volumes

of data rapidly and accurately which ensures deeper understanding of the problem/process and accurate forecasts for efficient and effective change process. This finding was in consistence with the findings of the study made [30].

Furthermore, this study revealed that Artificial Intelligence Technologies have the capacity to analyze larger amounts of data quickly and produce insights that direct the change management process. Artificial Intelligence technologies also enable organizations to modify the change management plans with respect to the dynamic requirements of the organization and the environment. These findings were in coincidence to the findings of the study [17]. This proves Artificial Intelligence is transforming traditional methods of managing an organizational change, eventually becoming an effective means for providing support for change initiatives within the organization.

Moreover, organizations are able to free up the valuable time of employees on strategic and important tasks by automating the repetitive and routine tasks with the aid of data driven systems through AI automation. By identifying the issues, bottlenecks and areas for improvement, AI technologies paves way for optimisation of process. This finding coincides with the results of the study made [34, 23]. Hence, artificial intelligence has the potential to entirely transform the human resource by providing time for the employees to focus on higher value tasks that require intricate human abilities like innovation, critical thinking and emotional intelligence. On the whole, AI plays an important role in assisting change implementation within the organization.

CONCLUSION

The integration of AI technologies into organizational processes plays a significant part in the development of organization and the society as well. Artificial Intelligence powered organizational change impacts leadership, cultural norms and ethical issues in addition to advancement in technology. Organizations are to pay attention to effective leadership, strategic vision and obligation to ethical practices during the progress of organizational change. They must utilize the positive potential of AI to drive change, remain competitive and enhance the value of the organization, thereby cultivating a culture of innovation and collaboration. Organizations also benefit in ways of improved productivity, innovation and competitive advantage through the integration of artificial intelligence and organizational change. Dedication of organization to continuous learning and adaptation, strategic planning and proper change management initiatives are needed for the successful integration of artificial intelligence and organizational change.

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