Ethical Implications of Artificial Intelligence in Business Decision-making: A Framework for Responsible AI Adoption

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Abstract

This study explores barriers to AI adoption in automated organizational decision-making. Through qualitative interviews with 13 senior managers in South Africa, the study identified human social dynamics, restrictive regulations, creative work environments, lack of trust, dynamic business environments, loss of power, and ethical considerations. The study applied the adaptive structuration theory (AST) model to AI decision-making adoption, providing recommendations to overcome these barriers. The AST offers a deeper understanding of the dynamic interaction between technological and social dimensions.

Keywords: Ethical Implications, Artificial Intelligence and Responsible AI Adoption

Introduction

The term "AI" refers to a subfield of computer science devoted to the development of intelligent software and machines (Leopold et al., 2016). Automated or autonomous systems employing machine learning, neural nets, statistical methods, recommenders, adaptive systems, speech, facial, image, and pattern recognition, all of which are included in Shneiderman's (2020) definition. While huge language models like Talk Generative Pre-preparing Transformer are as of now

upsetting schooling, purchaser counsel and web look, specialists are bringing up the risks of wrong data in conceivable persuading replies (Pierani and Bruggeman, 2023).

Albeit a few examinations (Repel et al., 2016) have been finished on the advantages and worries of involving man-made intelligence in a hierarchical setting, restricted research has been directed on which boundaries influence reception of simulated intelligence in the association explicitly for navigation.

The commitment of the ongoing paper is uncovering the discernments and fears around simulated intelligence reception and how associations could deal with these insights and relieve the dangers related with artificial intelligence reception.

Kshetri (2021, p. 970) prompts, "Man-made consciousness (simulated intelligence) is a possibly groundbreaking power that is probably going to change the job of the board and hierarchical practices". Machines can coordinate or beat people in work exercises, which require high mental abilities because of new handling equipment, all the more remarkable calculations and huge measures of information in the brilliant machine age (Autor and Dorn, 2013; Manyika et al., 2017).

According to Davenport and Kirby (2016), there is a global automation trend that involves machines that can make autonomous decisions in a data environment that is more complex and less structured. This contention has been validated by concentrates on that showed that early mechanization was for the most part centered around routine undertakings and choices performed by low-and medium-talented laborers - contrasted with current computerization progresses, which are equipped for robotizing errands and choices performed by information laborers that have high mental abilities, which features the risk of the "machine for human" replacement in associations (Autor and Dorn, 2013; Frey and Osborne, 2013; Loebbecke and Picot, 2015).

According to a case study conducted by Davenport and Kirby (2016), the overall return on investment over the course of three years ranged from 650 to 800 percent. Additionally, Bank of America Merrill–Lynch predicted that the impact of AI could be between $14 trillion and $33 trillion by 2025, with a $9 trillion reduction in employment costs (The Economist, 2016). It is, consequently, nothing unexpected that in 2015 alone $8.5bn was spent on artificial intelligence organizations, four fold the amount of as in 2010 (The Financial specialist, 2016).

Various kinds of artificial intelligence, like brain organizations, swarm insight, hereditary calculations and fluffy rationale, can be utilized to take care of various true issues (Autor, 2015). This exploration paper focuses principally on the utilization of brain networks connected to the idea of AI or profound learning.

The ongoing review centers around brain networks because of their capacity to learn and further develop dynamic execution (Duana et al., 2019). The learning skill of brain networks separates this sort of man-made intelligence from the robotization utilizing rule-based or master framework choices, which can without much of a stretch be classified. An illustration of a standard based choice will be in the event that this condition is met, do this activity (Davenport and Kirby, 2016).

Brain networks motivated by organic models reproduce associated brain units demonstrating how neurons in the mind connect (Duana et al., 2019). The reproduced neurons in the organization either fire or stay static relying upon the weighted amount of their bits of feedbacks. Learning happens by means of a course of changing the loads until such time that the activity figuring execution is satisfactory (Nilson, 1998).

Rogers (1995), a generally utilized hypothesis on the reception of innovation, tries to make sense of how, why and at what rate novel thoughts and innovations spread. His center is, hence, on the dissemination of such developments (Detjen et al., 2021). In terms of particular aspects of AI, such as automated decision-making, this theory is limited. This characteristic of AI goes much further than the initial function of technology, which is to enable and assist humans: into working freely from people whenever it has been customized to learn. We surveyed the writing on versatile structuration hypothesis (AST) to develop how we might interpret the hindrances to artificial intelligence reception.

The antecedents, processes, and outcomes of the recursive relationship between technology and social action, each iteratively shaping the other, are comprehensively depicted in DeSanctis and Poole's (1994) AST model. DeSanctis and Poole (1994) stress that the effect of cutting edge data advances relies on how well friendly and innovative designs are mutually streamlined. They utilized the case of videoconferencing and what this innovation means for how individuals cooperate in the business climate. The AST has not been applied in the artificial intelligence dynamic climate, and the ongoing review plans to fill that hole. Cortellazzo and others 2019) warn against adopting a technocentric perspective on how technology influences human thought and behavior; all things being equal, the AST focuses to human mental interpretive plans, or social development of innovation, which impact innovation assignment. Lined up with Cortellazzo et al. (2019), the ongoing review contends that a technocentric perspective on man-made intelligence is fairly restricted and that the AST viewpoint is promising since it thinks about the recursive connection among innovation and social activity. The literature review showed that there is not much of a theoretical foundation for AI, and several recent high-level journal articles did not talk about a theory of AI (Chong et al., 2022; Duana and co., 2019), particularly with regard to management science and obstacles to AI adoption in decision-making. An intriguing part of AST, featured by DeSanctis and Poole (1994), is the "soul" of innovation. Instances of aspects that portray the soul of innovation because of its impact on friendly design incorporate choice interaction, initiative, proficiency, refereeing and environment.

Review of Literature

Ahmad, A. (2024). The increased use of Artificial Intelligence (AI) in international businesses as a result of the rapid advancement of AI in accounting has raised significant ethical concerns. The focus of this study is on international corporations operating in Jordan and the ethical implications of using AI in accounting practices. The target of this exploration is to give an extensive system to the moral and dependable incorporation of simulated intelligence inside the bookkeeping space. The exploration utilized a study strategies approach while 379 respondents were chosen utilizing bunch and relative inspecting. The subjective part of the exploration researches the perspectives and worries of people relating to the utilization of man-made intelligence. The review results give huge commitments to the improvement of a setting explicit worldview for computer based intelligence morals that focuses on ideas like straightforwardness, reasonableness, and responsibility. The discoveries of this study have significant incentive for worldwide companies took part in business tasks in Jordan and comparable areas. The outcomes give associations the fundamental devices to capably address the moral situations that arise because of involving man-made reasoning in bookkeeping strategies.

Tarba, S. Y. (2023). The Throughput model framework aims to understand ethical positions in human resource management decision-making processes and post-decision accounting. It focuses on the impact of artificial intelligence (AI) integration in HRM, highlighting the use of algorithmic ethical positions for better outcomes. The model highlights the importance of intelligibility and accountability of AI-generated HRM decision-making, which is often underexplored in existing research.

Sivarajah, U. (2022). The utilization of Man-made brainpower (artificial intelligence) in Computerized advancements (DT) is multiplying a significant socio-specialized change. Legislatures and artificial intelligence grant have embraced key computer based intelligence standards yet need bearing at the execution level. Through a precise writing survey of 59 papers, this paper adds to the basic discussion on the moral utilization of simulated intelligence in DTs past significant level computer based intelligence standards. As far as anyone is concerned, this is the main paper that distinguishes 14 computerized morals suggestions for the utilization of simulated intelligence in seven DT models utilizing a clever ontological structure (physical, mental, data, and administration). The paper presents key discoveries of the survey and a reasonable model with twelve recommendations featuring the effect of computerized morals suggestions on cultural effect, as directed by DT prime examples and interceded by hierarchical effect. The ramifications of clarity, responsibility, reasonableness, and independence (under the mental space), and protection (under the data space) are the most generally talked about in our example. Moreover, moral ramifications connected with the administration space are demonstrated to be by and large pertinent for most DT models. Suggestions under the actual space are less conspicuous with regards to simulated intelligence dissemination with one exemption (security). There are professional and academic implications for the key findings and conceptual model that resulted.

Hofeditz, L. (2021). Many AI-enabled products and services are granted greater autonomy in decision-making, potentially exerting diverse influences on individuals and societies, as artificial intelligence (AI) becomes increasingly capable of handling highly complex tasks. While associations and specialists have over and over shown the gifts of artificial intelligence for humankind, serious man-made intelligence related misuses and episodes have raised squeezing moral worries. Thus, scientists from various trains broadly recognize a moral talk on man-made intelligence. In any case, chiefs — anxious to ignite moral contemplations all through their associations — get restricted help on how they might lay out and oversee simulated intelligence morals. In spite of the fact that examination is worried about mechanical related morals in associations, research on the moral administration of simulated intelligence is restricted. In light of this, the objectives of this article are to highlight future research opportunities and to provide a starting point for research on AI-related ethical issues. We propose a moral administration of simulated intelligence (EMMA) structure, zeroing in on three viewpoints: administrative navigation, moral contemplations, and full scale as well as miniature ecological aspects. With the EMMA structure, we give specialists a beginning stage to address the dealing with the moral parts of simulated intelligence.

Method

This research uses the interpretivism paradigm to study barriers affecting AI adoption in organizations, specifically decision-making. The study focuses on the interplay between humans and machines, and uses a cross-sectional design due to AI advancements and big data technologies.

Data collection and sampling

The study used qualitative data collection through semi-structured interviews to study the adoption of AI in financial services and high-tech industries. The researchers selected candidates based on the list of industries leading the adoption of AI, the organization that has adopted AI or investigated AI but declined to implement it, the job title of C-level executives, and companies or individuals focused on AI development and products. The researchers completed 13 in-depth interviews, recording 613 minutes of interviews and transcribed 87,672 words. The analysis was performed using ATLAS.ti software, with two passes at coding to ensure the research questions were answered. The respondents' words were taken at face value during coding, and no hidden meaning was sought behind words or phrases. The study provides valuable insights into factors affecting AI adoption in organizations.

Reliability and validity of the data

The researchers achieved code saturation as the number of new codes detected decreased, and by the end of the 13th interview, the researchers were confident that all topics and categories had been covered and that doing additional interviews would add little value to the research. The credibility of the data was verified by respondent validation, as the majority of respondents either supported or refuted the themes selected from literature.

Incorporation of the throughput model in AI system analysis for HRM practitioners

The throughput model (TP) is being used in AI system analysis to help HRM practitioners assess the ethical implications of AI-based decision-making. This involves understanding the hierarchy levels of decision-making in organizations and the context of decision makers. The TP model can help HRM practitioners account for decision outcomes and mediate between low and high levels of human involvement. The decision-making process in organizations can be divided into strategic, tactical, and operational layers. The TP model allows for continuous reinforcement learning of decision outcomes, allowing flexibility based on previous decisions. The neural network diagram illustrates the adoption of the TP model ethical pathways in AI decision processing. This approach can help HRM practitioners better manage the ethical implications of AI-generated decisions.
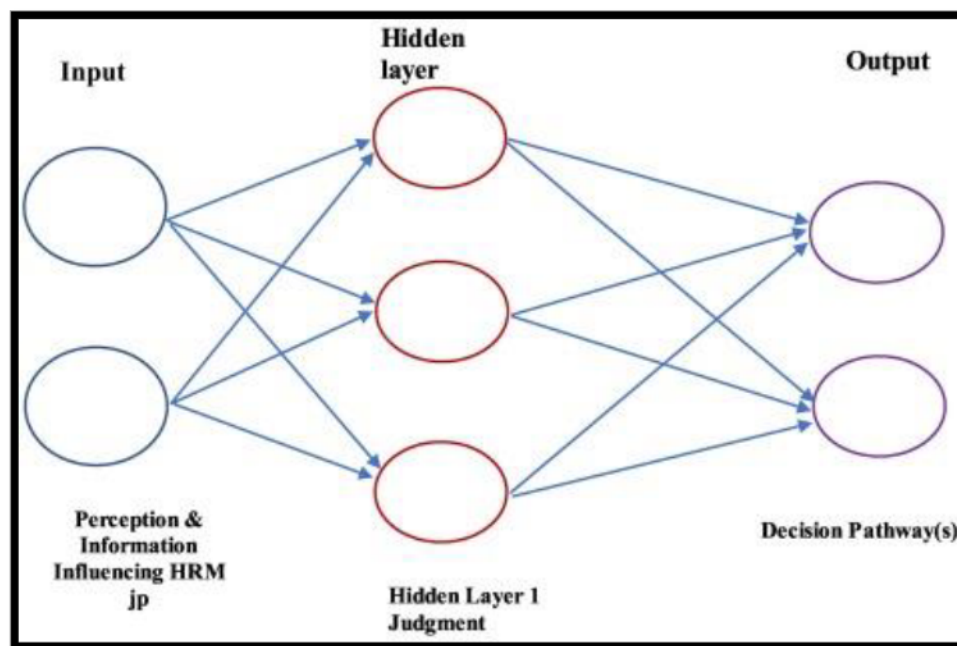
An AI algorithmic ethics framework is crucial for AI technology implementation, but bias may not be fully addressed. It can help organizations minimize bias in algorithms, leading to unbiased recruitment, merits, promotions, and quality hiring when combined with human intervention.

Authoritative pioneers and HRM experts who are thinking about embracing computer based intelligence or who are currently assessing or executing existing arrangements can follow the successive cycle in Table 5 and Fig. 3 as a logical rule for assessing moral fuse into algorithmic direction. Each variable on the "dashboard" is adjusted on the way to the decision outcome, which can be measured and evaluated, by giving weight to variables within the ethical framework of the TP model in the Decision Dashboard. These factors will have both static and liquid positions, affecting the choice interaction and responsibility. In any case, by utilizing RCA with the Choice Dashboard, HRM professionals can survey the weight given to the succession of parts bringing about a specific computer based intelligence choice result, and furthermore assess the degree of their connection and separation from these choices.

The reception of some man-made intelligence advancements might challenge HRM in creating ability and vocation ways while accomplishing an association's objectives and targets. It is sensible for one of the association's targets to be to keep up with capital and efficiency by consolidating new man-made intelligence innovation; in any case, the utilization of the innovation might diminish the labor force (World Monetary Discussion, 2018) and preclude vocation improvement choices (e.g., organization bookkeeper supplanted with cloud-based bookkeeping membership administration). Ongoing exploration by Nguyen and Malik (2021a, p. 21) reports how "unwavering quality, adaptability and practicality are the three components of a computer based intelligence framework that regularly should be checked to help the information dividing process between representatives." The time part influencing direction is reflected in the TP model's Choice Dashboard, permitting HRM professionals to help decide whether time is a variable influencing whether one choice pathway is picked over another.

An examination of hierarchical choices utilizing the TP moral calculations inside the Choice Dashboard gives the open door to HRM to dissect the moral position and effect at each authoritative level and whether time or ecological parts influence the choice decision and result.

An illustration of a HRM-put together choice centered with respect to staff preparing and advancement is that of a structural firm expected to utilize building data displaying (BIM) programming for the firm to be held on acquisition consortiums. This venture, requiring staff improvement to work it, might bring about unforeseen results because of a period pressure variable driven by a senior administration level choice for programming reception, bringing up issues about the mindfulness and abilities at each level of the association. Unforeseen results might show just when the plan project is nearby (e.g., excessively complex development subtleties comparative with current market assets) because of the experience and information on more established administration not being integrated into the man-made intelligence calculations consolidated inside the product worked by more junior staff.

The essential choice purpose in this situation was driven by the financial natural variable to hold contract amazing open doors, and it was required under investment tension, with the executives not completely mindful of the time rebuilding expected to foster staff preparing. The choice by the board might be founded on a humanized impression of man-made intelligence processes (Bankins and Formosa, 2020), rather than a data based choice. Functional based judgment might have followed a logical utilitarianism pathway driven by a companion confined social climate inside the workplace, with result choices repeated with noteworthy harm to the association's standing. In this situation, HRM's utilization of the TP model inside the Choice Dashboard would emphatically assist this association with fostering the workplace social climate socioeconomics, break down discernments held by the authoritative pecking order and their sharing of data to foster junior profession preparing, and coordinate using time effectively to execute change.

Conclusion

AI has significantly impacted HRM, reducing inefficiencies and time required for tasks. However, trust issues remain, and organizations must adapt to AI technology to compete effectively in attracting and recruiting employees. To address these challenges, this paper focuses on designing ethical HRM systems to eliminate design bias. A TP model is proposed to provide solutions to reduce AI system bias, which may lead to unethical actions. The integration of AI-driven HRM decisions may de-bias human recruiting, but privacy concerns may also arise. A multidisciplinary perspective provides insights into adopting an ethical framework in decision analysis. The TP model can help uncover algorithmic pathways management accountants use before arriving at a decision, and incorporating ethical considerations like monitoring and privacy into AI processes can positively impact decision-making.

Implications and directions for future research

AI algorithms are evolving and growing, raising ethical concerns for HRM practitioners. The traditional employment relationship based on reciprocity has eroded with the increasing reliance on AI algorithm-based technology. A clear pathway for understanding the ethical position of organizations and their decision makers can help HRM practitioners interpret AI-generated decisions. The TP model's algorithms can help address accountability related to HRM decision-making in AI environments by embracing six dominant algorithmic pathways. These pathways can act complementarily toward ensuring ethics and fairness by HR professionals.

Ethical egoism, deontology, utilitarianism, relativivism, virtue ethics, and ethics of care can help HRM practitioners make ethical decisions in AI environments. The Covid-19 pandemic has further challenged HRM's role in the gig economy, with psychological contracts and workplace flexibility practices emerging. The application of analytics and algorithmic decision-making has delivered practical and conceptual problems, raising questions about accountability, accuracy, reliability, and bias within data.

Multidisciplinary knowledge sharing and effective AI-mediated knowledge sharing suggest that incorporating ethical considerations (such as monitoring and privacy) into AI processes by HRM practitioners will have a positive impact on decision-making.

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