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IMPACT OF ARTIFICIAL INTELLIGENCE ON TRANSFORMING THE BUSINESS WORKPLACE

Juvenal Laurinda da Silva Chadreque | E-mail: juvenall.chissemo@gmail.com

Universidade de Bordeaux | Programa de pós-Doutorado | França

Abstract

This article examines the growing impact of artificial intelligence (AI) on transforming the business workplace. With the rapid advancement of technology, AI is becoming a disruptive force in various industries, redefining business processes and operational models. This research adopts a qualitative approach, using an inductive strategy, to analyze how AI is influencing the way companies operate and how employees perform their daily tasks. Regarding the technique, a documentary research method was chosen, and data collection was conducted through the analysis of documentary sources. The documentary methodology allows for a comprehensive analysis of primary and secondary sources, including academic articles, research reports, and relevant case studies. Recent advances in AI, its business applications, and the challenges organizations face in implementing this innovative technology will be examined. The study will investigate how AI is automating repetitive processes, optimizing decision-making, and improving operational efficiency in companies. Additionally, the implications of AI on the workforce, including changes in required skills and team dynamics, will be explored. By analyzing the impact of AI on the business workplace, this article aims to provide valuable insights for business leaders, human resources professionals, and researchers interested in the future of work. The documentary analysis will help identify patterns and trends in the use of AI, as well as the main obstacles and opportunities associated with its implementation. We conclude by highlighting the importance of a strategic approach to integrating AI ethically and effectively into business operations, ensuring benefits for both organizations and their employees. In summary, this study provides a detailed view of how AI is reshaping the workplace and offers practical recommendations for managing this transformation, emphasizing the need to prepare the workforce for a technology-driven future.

Keywords: Artificial Intelligence, Digital Transformation, Business Workplace Environment, Automation, Decision Making.

Juvenal Laurinda da Silva Chadreque

Introduction

In recent years, Artificial Intelligence (AI) has emerged as one of the most disruptive technologies, radically transforming the way businesses operate and professionals perform their daily tasks. This transformation is driven by a series of technological advances that enable AI to perform tasks previously reserved for humans. In this context, two hypotheses arise as starting points to explore the impact of AI on the corporate work environment.

The first hypothesis (H1) posits that AI will predominantly replace repetitive and low-complexity jobs, which do not require advanced cognitive skills or decision-making. This perspective suggests that AI is more suited to automate routine tasks, freeing employees to focus on activities that require creativity, critical thinking, and complex problem-solving.

On the other hand, the second hypothesis (H2) argues that AI will not only replace repetitive tasks but also facilitate broader business processes through the adoption of technologies in the workplace. This implies that AI will not only complement human skills but also optimise operational efficiency, improve decision-making, and drive innovation in various business areas.

In this line of thought, this article aims to explore the impact of AI on the corporate work environment, investigating how the two hypotheses manifest in practice and how they influence organisational dynamics. To achieve this, we adopt a documentary approach, analysing a variety of primary and secondary sources to better understand how AI is redefining business processes and operational models in companies from various sectors.

The main objective of this research is to investigate the profound transformations in the corporate work environment driven by AI. With the accelerated advancement of AI technologies, this research seeks to understand not only superficial changes but also the structural and operational impacts on organisations. Specifically, the research objectives are: (i) To investigate the impact of Artificial Intelligence on the replacement of repetitive and low-complexity jobs, analysing how automation is redefining traditional tasks and roles within companies; (ii) To explore how Artificial Intelligence facilitates business processes and the adoption of new technologies in the workplace, evaluating operational efficiency and digital transformation in organisations; and (iii) To critically analyse the implications of these changes

for organisational dynamics and the future of work in companies, considering the challenges and opportunities that arise with the integration of AI in daily business operations.

By critically examining these hypotheses and their relevance to the corporate work environment, we aim to provide valuable insights for business leaders, human resources professionals, and researchers interested in the future of work in an era increasingly dominated by AI.

Impact of Artificial Intelligence on the Corporate Labour Market

The corporate landscape is being significantly influenced by the growing integration of AI into various operational areas. While many fear that AI-driven automation will lead to widespread job losses, other experts argue that the technology is actually creating opportunities and demanding unique human skills.

Reif (2018) emphasises the importance of recognising that AI-driven automation is reshaping the future of work. He highlights estimates from the World Economic Forum, indicating that certain types of jobs are susceptible to automation. Reif (2018) stresses that, to ensure an inclusive and fair transition, it is essential for society as a whole to engage in this process of work reinvention.

Daugherty (2019), on the other hand, highlights that although many jobs may be replaced by AI, others will be created, especially those requiring specific human skills. He argues that AI is increasingly involved not only in repetitive tasks but also in complex activities historically performed exclusively by humans. Daugherty emphasises the importance of a "human + machine" approach, where AI complements human skills, resulting in a genuine opportunity for improvement.

Kurzweil (1990) defines AI as the art of creating machines that perform functions requiring human intelligence, while Rich and Knight (1991) describe it as the study of how computers can perform tasks currently better executed by humans. These definitions highlight AI's ability to augment and enhance human capabilities rather than replace them.

Mortensen (2018), in turn, adopts an optimistic view, predicting that AI and other technologies will drive economic advances and create opportunities and learning experiences for

entrepreneurs and professionals. He does not believe in the end of jobs due to AI, but rather in their evolution and adaptation to economic processes.

Given these diverse perspectives, this study seeks to explore the impact of AI on the corporate labour market, analysing how different views influence organisational dynamics and emerging opportunities.

Artificial Intelligence and Its Similarities to Human Intelligence

Mortensen (2018) highlights that while AI is intelligent, it has not yet reached the level of human intelligence in many areas. He notes that while AI improves the resolution of complex problems, it still cannot perform many tasks associated with human jobs. Mortensen (2018) emphasises the ongoing debate between the replacement of humans by AI and the potential to augment human intelligence with the aid of technology.

For Mortensen (2018), workdays often involve repetitive tasks, leaving little time for creative activities. He points out that as AI takes over automated tasks, human professionals can focus on emotional and creative aspects of work, such as building relationships and providing creative solutions to clients.

The author stresses that while technical skills remain important, AI is driving the appreciation of personal skills such as communication, emotional intelligence, creativity, and critical thinking. According to Mortensen (2018), these skills will be increasingly sought after as automation advances in various economic sectors.

The STRONG ESAGS journal (2018) highlights that the development of AI will transform the labour market, allowing humans to deal with more complex and meaningful issues. This will result in greater job satisfaction as professionals focus on intellectual and strategic activities while machines take over repetitive manual tasks.

Challenges in Implementing Artificial Intelligence in Companies

Implementing AI presents several challenges for companies; however, the potential benefits of this technology outweigh the efforts required. According to the Content Team journal (2017),

some of the challenges faced include the technological learning curve, prioritising use cases and practical application, and effective management of these solutions.

AI represents a significant technological innovation, with roots dating back to the Industrial Revolution. Its continuous advances have enabled the creation of increasingly intelligent and sophisticated machines, with enormous potential to transform business relations and labour market dynamics.

The intersection between the internet and AI is promoting sophisticated analyses and fundamentally altering how organisations interact with their customers. This transformation aims not only to reduce corporate costs but also to identify new markets and provide customers with higher-quality products and services.

Intelligent systems become particularly effective in significantly increasing productivity, product quality, customer service improvement, and precise logistics, among other benefits. A report by Accenture (2019) reveals that the adoption of AI technology can increase labour productivity by up to 40%, while it is estimated that by 2035, the annual economic growth of many developed countries will double due to AI.

Contrary to the humanoid robots of science fiction, AI is present in a wide variety of devices, from personal assistants in mobile phones to autonomous cars. This increasingly ubiquitous presence is rapidly transforming daily life and promises to grow even further in the future, as highlighted in the Accenture report (2019).

Impact of Artificial Intelligence on Organisational Operations

AI is reconfiguring the operational models of financial institutions, which are adapting and incorporating this technology into their activities. The adoption of AI by financial services companies is generating significant changes in how they engage with customers, requiring specific skills to deal with new business models and collaboration among competitors. The report “The New Physics of Financial Services: How Artificial Intelligence is Transforming the Financial Ecosystem,” conducted by Deloitte in partnership with the World Economic Forum, highlights the transformations, impacts, and new regulatory issues that AI will bring to the financial market.

Organisations must seek continuous innovation and competitiveness to improve their systems, security, and information, leveraging AI to remain relevant in the financial market. This includes the use of accurate data, creative collaborations, efficient operational solutions, and effective logistics.

Daugherty (2019) emphasises the importance of reassessing the types of knowledge and skills needed for the future, especially for those most affected by changes in employment and income. He suggests that professional training should adapt to keep pace with technological changes.

Additionally, Daugherty suggests the need to update laws to keep up with the pace of technological evolution, including using AI itself to create more dynamic and adaptable laws, bridging the gap between the speed of technological changes and regulatory response times.

Abellán (2017) highlights the need for companies to adopt a responsible stance regarding the use of AI. Just as organisations today are responsible for issues such as ecology, sustainable manufacturing, and corporate social responsibility, they must also reflect on the ethical use of artificial intelligence and how it can contribute to building a better world and society.

Integration of Artificial Intelligence into Companies and Its Impact on the Workforce

While it is incorrect to claim that the introduction of new technologies will lead to the elimination of the workforce, it is undeniable that the presence of AI in companies and the use of advanced technology machines will require greater specialisation for the maintenance and operation of these new systems. The transition of unskilled workers to specialised roles requires training programs to deal with the changes brought about by AI. For example, where operators once performed repetitive tasks, they can now be trained to execute, maintain, and program automated machinery in production lines. Besides providing qualifications, this transition can result in better wages and reduced working hours, contributing to improved quality of life for workers.

For companies, AI brings a range of benefits. In addition to technologies capable of performing tasks previously carried out by humans, the time gain during production is significant. With the ability to automate 24 hours a day, without the need for breaks, there is an increase in productivity. Furthermore, machines can operate without lighting, resulting in energy savings.

Therefore, every entrepreneur, manager, or business decision-maker needs to evaluate the benefits that AI can offer and how it can generate positive results in the medium and long term.

Implementation of Artificial Intelligence in Corporate Governance

The implementation of AI in corporate governance is a complex and multifaceted process that can bring significant transformations to business management, as highlighted by Davenport et al. (2010). In this context, it is essential to adopt a structured and scientifically based approach to effectively integrate AI into corporate governance practices. Thus, we outline fundamental steps and strategies to guide this process. Firstly, it is crucial to define objectives and scope, identifying areas of corporate governance that can benefit from AI and establishing clear goals for its implementation. Next, the selection of appropriate technologies and tools is essential, including AI platforms and their integration with the organisation's existing systems. The collection and preparation of quality data are subsequent steps, ensuring data accuracy and up-to-date information, as well as establishing robust systems for storage and access. The development and training of AI models follow, creating specific algorithms for risk analysis, fraud detection, and process optimisation, followed by testing and validation before implementation. In the implementation and integration phase, starting with a pilot phase allows for evaluating AI systems' performance before full integration across the organisation. Finally, continuous monitoring of AI systems' performance and adjustments based on feedback and performance data are essential to ensure AI continues to meet the organisation's needs.

The integration of AI in corporate governance has been the subject of growing academic and practical interest. According to Marr & Ward (2019), the practical possibilities of applying AI in this context are vast and promising. A notable example is data-driven decision-making, which benefits from tools such as scenario analysis. Through AI, it is possible to simulate different contexts and anticipate the impacts of strategic choices, providing managers with a more precise and comprehensive view of the future. Furthermore, AI algorithms can offer automated recommendations based on detailed analyses of complex data. These recommendations are essential for helping business leaders make informed and strategically sound decisions, boosting organisational performance and corporate governance effectiveness.

Challenges and Ethical Considerations of Artificial Intelligence in Corporate Governance

The integration of AI in corporate governance not only presents significant opportunities but also brings a series of challenges and ethical considerations, as highlighted by Gartner (2020). These critical aspects include ensuring that AI implementation respects data privacy and security standards, maintaining transparency about how AI algorithms make decisions to avoid biases and ensure stakeholders' trust, and training employees to understand and use new AI tools, promoting an organisational culture adapted to technological innovation.

The strategic approach to integrating AI in corporate governance requires careful planning and a deep understanding of the challenges and opportunities involved. When implemented effectively, AI can provide more efficient, transparent, and responsive governance, empowering organisations to face the challenges of an increasingly complex and dynamic business environment. At the same time, careful consideration of AI's ethical aspects is fundamental to ensuring that its impact is positive and aligned with organisational values and principles.

Integration of Artificial Intelligence with Balanced Scorecard in Companies

The integration of AI with the Balanced Scorecard (BSC) in companies, enhanced by the approach described by Mitchell (2019), emerges as a strategic resource for data-driven management and informed decision-making. The BSC, conceived by Robert Kaplan and David Norton, is a fundamental tool aimed at aligning business activities with organisational goals and strategies, improving communication and monitoring performance against strategic objectives through four distinct perspectives. The first perspective, financial, focuses on financial results and value generation for shareholders, reflected in indicators such as revenue, profit, and return on investment. Next, the customer perspective evaluates customer satisfaction and retention, as well as market share, through indicators such as customer satisfaction and retention rate. The internal processes perspective analyses the efficiency and effectiveness of internal processes, such as production cycle time and operational efficiency. Finally, the learning and growth perspective focuses on the organisation's capacity for innovation, improvement, and learning, measured by indicators such as employee engagement and the number of innovations (Kaplan & Norton, 2001). These perspectives are enriched by the integration of AI, which offers more

detailed analyses, more accurate forecasts, and more valuable insights, driving operational and strategic excellence in companies.

The integration of AI with the BSC represents an innovative and robust approach to organisational management. According to Agrawal and Goldfarb (2018), this synergy results in substantial improvements in various strategic areas. The automation of data collection and analysis is facilitated by AI, allowing for real-time information retrieval from various internal and external sources, reducing errors and providing more accurate insights into organisational performance. Additionally, performance forecasting is enhanced through AI predictive models, which use historical data to anticipate future trends and simulate different strategic scenarios, contributing to more informed decision-making and minimising risks. The personalisation of performance indicators, interactive and intelligent dashboards, continuous feedback and learning, as well as risk management, are other areas benefited by the integration of AI with the BSC, providing more efficient, adaptable, and data-driven management.

Implementation of Artificial Intelligence with Balanced Scorecard in Companies

The successful implementation of AI in conjunction with the BSC in companies, as outlined by Mitchell (2019), demands a careful and strategic approach. Initially, it is essential to conduct a thorough assessment of the organisation's specific needs, establishing clear objectives for this integration aimed at enhancing business management. The careful selection of AI technologies and BSC platforms is the second crucial step, ensuring that the chosen tools align with the company's goals and demands. Efficient integration of AI and BSC systems is then prioritised, ensuring the smooth and secure exchange of data between these platforms. Finally, investing in employee training and adaptation is fundamental for the success of the implementation, equipping them to use the new tools and adjust to changes in management processes. Continuously monitoring the integrated system's performance and making necessary adjustments to optimise results completes the implementation cycle, providing companies with a significant opportunity to enhance their strategic management and make more informed and proactive decisions. This integration not only optimises operations and processes but also promotes significant advances in the scientific and social business sphere by driving a more intelligent, efficient, and adaptable approach to organisations' strategic management.

Methodology

This research adopts a qualitative approach, aiming to deeply understand the impact of AI on companies and how it is changing work processes. The choice of a qualitative approach is justified by the exploratory nature of the study, which seeks to capture participants' insights and perceptions regarding the phenomenon in question.

The method used is inductive, allowing for the analysis of data to identify emerging patterns, trends, and relationships from the collected information. The inductive approach enables the formulation of hypotheses and theories based on observed data, contributing to the development of new understandings of the subject.

Regarding the research technique, documental research was chosen. This choice is due to the nature of the study object, which involves analysing documents, reports, articles, and other publicly available sources of information. Documental research offers access to a wide range of data and allows for a detailed and in-depth analysis of the subject in question.

Data collection will be carried out through a bibliographic survey, aiming to identify and gather relevant information about the impact of AI on companies and its implications for the work environment. Various sources will be consulted, including scientific journals, books, research reports, and government publications.

After data collection, a qualitative analysis of the selected documents will be conducted, seeking to identify relevant patterns, trends, and insights. The data will be organised and interpreted to answer the research questions and achieve the proposed objectives of this study.

Finally, it is important to highlight that this research adopts an ethical stance regarding the use of data and information sources, ensuring the credibility and reliability of the obtained results. All information will be properly cited and referenced, respecting copyright and the ethical standards of scientific research.

Final Considerations

As AI continues to evolve, it becomes clear that its role in companies is complex and multifaceted. While some expectations suggested that AI could fully replace humans in various activities, the reality shows that it still lacks the capability to perform many tasks associated

with human work. As highlighted by Mortensen (2018), AI is improving how we handle complex problems, but it still has significant limitations.

Thus, hypothesis one (H1), which suggested that AI would replace only repetitive and non-complex activities, proves false in the face of reality. Daugherty, Accenture's director, commented on the difficult measures governments and companies will have to take, reflecting the need for adaptation and resilience in the face of changes brought about by AI.

On the other hand, AI has been shown to facilitate business processes, as stated in hypothesis two (H2). Authors such as Daugherty and Abellán highlight that AI has contributed to business management by reducing errors in industrial processes and providing safer paths. The adoption of technologies in the workplace, such as AI, promotes operational advances in institutions and increases results by automating simple tasks, such as sending emails and notifications.

However, it is important to recognise that there are challenges and limitations associated with integrating AI into companies. For example, the need for specialised training to deal with new systems and the importance of rethinking regulatory issues to keep pace with technological changes are areas that require attention.

The integration of AI into companies has a significant impact, requiring workforce reskilling and adaptation in corporate governance to ensure ethics and responsibility. AI improves strategic management with tools like the BSC, but its success depends on careful alignment between strategic objectives and technological capabilities. Addressing ethical challenges and adequately preparing the workforce are essential to maximise AI's benefits and ensure a smooth and sustainable transition in the business environment.

For future research, it is suggested to conduct a deeper analysis of AI's social, ethical, and regulatory impacts on companies, as well as an investigation into how to ensure a smooth transition for workers affected by technological changes. At the same time, it is essential to continue exploring ways to maximise AI's benefits, promoting innovation, efficiency, and informed decision-making in companies.

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