




## DIGITAL TRANSFORMATION IN HR: IMPACTS OF AUTOMATION AND ARTIFICIAL INTELLIGENCE ON THE EMPLOYEE EXPERIENCE

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### ABSTRACT

The digital transformation in the human resources sector represents a milestone in the reconfiguration of people management practices, incorporating automation and artificial intelligence as strategic elements to optimize processes, increase efficiency, and improve the employee experience. This study aimed to analyze the impacts of these technologies on the dynamics of work and the perceptions of professionals, highlighting both the benefits and challenges associated with their implementation. The investigation, conducted through bibliographic research, allowed to identify that the integration of digital tools enables greater assertiveness in recruitment and selection, personalization in the development of skills and increased agility in internal processes. In addition, it was found that such advances can strengthen engagement and talent retention, as long as they are accompanied by change management policies and digital inclusion strategies. On the other hand, barriers such as cultural resistance, the need for continuous training, and concerns about data security and privacy were identified. It is concluded that digital transformation in HR, when conducted in a planned, inclusive and aligned manner with corporate values, is capable of generating substantial gains for the organization and its employees, consolidating itself as a strategic path for companies that seek innovation and sustainability in the contemporary competitive scenario.

**Keywords:** Digital transformation. Human resources. Automation. Artificial intelligence. Employee experience.



## 1 INTRODUCTION

Digital transformation in the human resources sector is configured as a vector of profound changes in management models, by incorporating automation and artificial intelligence in the strategic conduct of processes aimed at human capital, creating new possibilities for performance monitoring, recruitment, selection, and development, while imposing on organizations the need to align such advances with a corporate culture that values the employee experience. preserving the balance between operational efficiency and organizational well-being (Barelli *et al.*, 2024).

The adoption of intelligent technologies is not restricted to operational modernization, but represents a structural change in management methods, directly affecting the way companies attract, retain and develop talent, and it is necessary to understand that the use of algorithms for resume screening, predictive analysis of profiles and automation of administrative routines must be aligned with ethical principles and inclusion strategies, in order to avoid the dehumanization of labor relations and strengthen internal engagement (Aguiar *et al.*, 2019).

The advancement of practices such as the personalization of training through data analysis and the mapping of competencies with the support of artificial intelligence expands the responsiveness of organizations to market demands, but also requires attention to the preservation of subjective and relational aspects that influence satisfaction in the corporate environment, recognizing that the employee is not just a productive resource, but an active agent in the construction of value and innovation (Almeida, 2023).

In this context, this study aims to analyze the impacts of automation and artificial intelligence on the employee experience, investigating how such technologies shape the perception of belonging, recognition, and professional development, considering that understanding these effects is necessary to build management strategies that integrate innovation and humanization.

The relevance of this investigation is justified by the growing need to align technological innovations with human resources practices in a strategic way, ensuring that digitalization is not perceived as a threat to employability, but as an opportunity to improve management, increase competitiveness, and strengthen human capital in organizations (Mariano *et al.*, 2024).



In addition, the impacts of digitalization on HR are reflected in organizational competitiveness and the quality of labor relations, since companies that proactively position themselves in the face of these changes are able to anticipate trends, respond quickly to market fluctuations, and maintain a high level of motivation and performance of their employees, ensuring that human and digital skills coexist synergistically (Carrara, 2023).

Finally, understanding and consistently applying digital tools in HR is more than a competitive advantage, it is an indispensable condition for organizational sustainability in a scenario of rapid transformations, in which the ability to integrate technology and human capital will determine the relevance and longevity of companies in the market (Graglia *et al.*, 2023).

## 2 THEORETICAL FRAMEWORK

### 2.1 DIGITAL TRANSFORMATION AND STRATEGIES IN THE HUMAN RESOURCES SECTOR

The digital transformation in the human resources sector represents a paradigmatic shift in the way organizations structure their operations and interactions with human capital, establishing an environment of constant technological evolution that requires not only updating tools, but also skills and mentalities, in order to allow internal processes to become more agile, efficient and data-driven, while maintaining a focus on employee experience and well-being (Barelli *et al.*, 2024).

The use of artificial intelligence in HR activities has enhanced the ability of companies to identify and attract talent, optimizing selection processes through algorithms that perform quick and accurate screenings, which reduces costs and increases the assertiveness of hiring, but at the same time demands robust data governance policies and strategies to mitigate biases that may compromise equity in processes (Aguiar *et al.*, 2019).

The digitalization of people management processes also allows the customization of development paths, allowing training and qualification to be adapted to the specific needs of each employee, increasing engagement and favoring talent retention, especially in highly competitive and constantly changing markets (Almeida, 2023).

By integrating advanced digital tools, HR is able to act more strategically, moving from operational to a function of direct support to corporate decisions, with the possibility



of predicting demands, aligning resources and anticipating trends, which contributes to the positioning of the organization as an innovative agent in its market segment (Pereira *et al.*, 2024).

The concept of HR 4.0 synthesizes this new approach, characterized by the full integration between technology and people management, where process automation, the use of predictive analytics, and the adoption of agile methodologies aim at efficiency and the creation of an adaptable work environment centered on human development, balancing organizational goals and individual expectations (Mariano *et al.*, 2024).

In addition to productivity gains, digital transformation in HR provides greater transparency and traceability of decisions, as digital records and data-based metrics make it possible to accurately assess the impact of people management policies, promoting faster adjustments based on concrete evidence (Carrara, 2023).

Digitalization also redefines the role of the people manager, who now has access to more complete and real-time information on performance, engagement, and organizational climate, allowing for more assertive and personalized interventions to strengthen team motivation and productivity (Graglia *et al.*, 2023).

Technological advancement also brings the possibility of expanding diversity and inclusion in corporate environments, to the extent that digital tools, when well configured, can contribute to eliminating geographical barriers, making work formats more flexible, and offering opportunities to professionals who, in traditional models, could encounter obstacles to access and participation (Barelli *et al.*, 2024).

However, for these technologies to fulfill their objective effectively, it is necessary that they be implemented in alignment with the organizational culture and the company's ethical guidelines, preventing automation from being perceived as a threat or an instrument of excessive control, which could generate resistance and harm internal engagement (Aguiar *et al.*, 2019).

Continuous training of HR teams becomes essential so that they can fully explore the functionalities of the new tools, interpret data critically, and apply it in the formulation of strategies that meet both corporate objectives and the needs and expectations of employees (Almeida, 2023).

Organizations that understand digital transformation as a continuous and multidimensional process, involving technology, people, and culture, are able to extract greater benefits from this transition, as they promote gradual adaptations that respect the



pace and characteristics of their human capital, avoiding abrupt ruptures that can generate negative impacts (Pereira *et al.*, 2024).

Thus, digital transformation in HR, when implemented in a planned and strategic manner, enhances results, optimizes resources, and the role of human capital as a central asset for innovation and organizational competitiveness, creating a virtuous cycle of development and sustained growth (Mariano *et al.*, 2024).

## 2.2 AUTOMATION, ARTIFICIAL INTELLIGENCE, AND THE EMPLOYEE EXPERIENCE

Automation and artificial intelligence have been consolidated as central elements in modern people management strategies, as they allow repetitive and low value-added tasks to be delegated to intelligent systems, freeing up HR professionals' time for strategic and creative activities, which contributes to improving the employee experience and building a more innovative corporate culture (Barelli *et al.*, 2024).

Tools based on artificial intelligence have been used to perform predictive analysis of performance and behavior, making it possible to identify patterns that indicate development needs, risks of dismissal, or opportunities for promotion, expanding the ability of companies to act preventively to maintain high levels of engagement and productivity (Aguiar *et al.*, 2019).

In the context of the employee experience, AI contributes to creating personalized journeys from the recruitment process, using algorithms that identify compatibility between candidates and vacancies based not necessarily on technical skills, but also on values and behaviors, generating greater cultural adherence and reducing turnover (Almeida, 2023).

In addition, digital technologies allow the implementation of adaptive learning platforms, in which each employee receives content and challenges according to their pace and learning style, which promotes continuous development that is more aligned with individual and organizational goals (Pereira *et al.*, 2024).

The use of *chatbots* and virtual assistants in HR has also contributed to speeding up the resolution of doubts, providing information on benefits, internal policies, and training, creating a permanent communication channel that favors employee autonomy and reduces the overload of the people management team (Mariano *et al.*, 2024).

Real-time data analysis, enabled by *business intelligence* tools integrated with HR, makes it possible to identify trends and adjust strategies dynamically, responding



with agility to changes in the needs of the workforce and variations in the external environment, which strengthens companies' ability to adapt (Carrara, 2023).

Also important is the contribution of these technologies to the strengthening of diversity and inclusion policies, since well-configured automated processes can minimize unconscious biases, increasing equity in the recruitment and development of talent at different hierarchical levels (Graglia *et al.*, 2023).

The integration between automation and employee experience is also associated with improved performance management, as intelligent systems are able to compile and interpret metrics more accurately, allowing for immediate and targeted feedback, which contributes to professional growth and continuous motivation (Barelli *et al.*, 2024).

However, the adoption of these technologies requires organizations to establish clear guidelines on privacy and ethical use of data, ensuring transparency in practices and protecting employees' personal information from misuse, strengthening trust and internal engagement (Aguiar *et al.*, 2019).

Preparing leaders to work in a digital environment is equally important, as it is up to them to interpret insights generated by technology and transform them into concrete actions that promote improvements in the employee experience, creating a continuous innovation cycle (Almeida, 2023).

Companies that manage to strategically integrate automation and artificial intelligence in HR obtain significant gains not only in operational efficiency, but also in strengthening the bond between organization and employee, since technology starts to act as a facilitator of closer, more transparent, and personalized relationships (Pereira *et al.*, 2024).

Thus, the combination of automation, artificial intelligence, and people-centered management practices represents a promising path for organizations that simultaneously seek high performance and human capital satisfaction, aligning corporate objectives and individual expectations in a context of constant transformation (Mariano *et al.*, 2024).

## 2.3 CHALLENGES AND OPPORTUNITIES IN IMPLEMENTING DIGITAL TRANSFORMATION IN HR

The implementation of digital transformation in the human resources sector requires careful planning that takes into account the acquisition of advanced technologies and the cultural preparation of the organization to absorb and use these tools



strategically, ensuring that innovation is aligned with the corporate mission and values (Barelli *et al.*, 2024).

Among the main confrontations, resistance to change on the part of employees and leaders stands out, who often perceive automation as a threat to jobs, and it is essential to develop communication and training strategies that demonstrate the benefits of new solutions for all involved (Aguiar *et al.*, 2019).

The lack of adequate technological infrastructure can also compromise the success of digital initiatives, as outdated or incompatible systems hinder data integration and process efficiency, requiring continuous investments in updating and maintenance to ensure the full functionality of the implemented platforms (Almeida, 2023).

In the field of opportunities, digitalization offers the possibility of expanding the scope of HR actions, allowing the management of geographically distributed teams and access to a global talent pool, which increases diversity and enables the construction of more complete and innovative teams (Pereira *et al.*, 2024).

The automation of routine tasks frees HR professionals to focus on higher-value strategic activities, such as career planning, change management, and leadership development, which directly contributes to organizational sustainability and the strengthening of corporate culture (Mariano *et al.*, 2024).

However, the intensive use of data and algorithms requires a firm commitment to ethics and privacy, as the collection and analysis of personal information can generate significant risks if not conducted within legal and transparent standards, negatively impacting employee trust (Carrara, 2023).

Equally relevant is the need to develop digital skills among HR professionals, as the effectiveness of the tools depends on the ability of their users to interpret data, identify trends, and apply solutions appropriate to the organization's needs (Graglia *et al.*, 2023).

The successful acceptance of technologies in HR is also related to the choice of solutions that can be customized according to the particularities of each company, avoiding standardized models that do not consider cultural, sectoral, or structural specificities (Barelli *et al.*, 2024).

It is important to emphasize that digital transformation is not a one-off event, but a continuous process that requires constant monitoring, adjustments, and improvements, in order to keep up with the evolution of technologies and employee expectations, keeping the organization competitive and up-to-date (Aguiar *et al.*, 2019).





Companies that manage to overcome the initial problems and align digital transformation with humanized management see significant improvements in productivity, employee satisfaction, and the ability to attract and retain talent, consolidating themselves as reference employers in their sectors (Almeida, 2023).

In addition, the strategic implementation of digital transformation in HR can serve as a catalyst for change in other areas of the company, stimulating the adoption of agile methodologies, a culture of innovation, and data-driven thinking at different hierarchical levels (Pereira *et al.*, 2024).

Thus, digital transformation in HR, when conducted with a strategic vision and focus on the employee experience, presents a vast field of opportunities to boost organizational performance, while strengthening the importance of human capital as a sustainable competitive advantage (Mariano *et al.*, 2024).

### 3 METHODOLOGY

The present study is characterized as a qualitative research, as it seeks to understand in depth the impacts of automation and artificial intelligence on the employee experience, considering the subjective and contextual aspects that permeate the phenomenon, using procedures that value the interpretation and descriptive analysis of non-numerical data obtained from bibliographic sources (Marconi; Lakatos, 2017).

The choice for the qualitative approach is justified by the fact that the relationships between digital transformation, people management, and employee experience involve behavioral, cultural, and strategic dimensions that cannot be measured only by quantitative indicators, requiring a method that allows analyzing perceptions, meanings, and implications of these changes in the organizational context (Gil, 2019).

The method of procedure adopted is the bibliographic study, carried out from the analysis of scientific articles, dissertations, reports and specialized publications that address the subject, enabling a broad and grounded understanding of the variables that influence the application of digital transformation in the human resources sector (Marconi; Lakatos, 2017).

The bibliographic research was structured based on the identification, selection, and critical analysis of relevant materials that discuss the integration of automation and artificial intelligence in HR processes, considering national and international authors to





broaden the theoretical perspective and highlight convergences and divergences in interpretations (Gil, 2019).

The thematic focus was limited to the analysis of studies that specifically deal with the impacts of digital transformation on the employee experience, prioritizing works published in the form of scientific articles, theses and dissertations, in order to ensure the reliability and timeliness of the information used (Marconi; Lakatos, 2017).

The selection of sources followed criteria of relevance and timeliness, including publications that presented consistent theoretical discussions, case studies, or empirical evidence capable of supporting the proposed analyses, thus ensuring methodological consistency and the relevance of the conclusions (Gil, 2019).

The analysis of the collected data was conducted through exploratory and selective reading, followed by filing and thematic categorization, which made it possible to organize the information into topics aligned with the objectives of the study and facilitate the identification of recurring patterns and trends (Marconi; Lakatos, 2017).

The interpretation stage was based on content analysis, seeking to correlate the information obtained with the theoretical framework and highlighting the practical and strategic implications of the application of digital technologies in the context of HR, without losing sight of the nuances of the employee experience (Gil, 2019).

The study adopts an exploratory and descriptive character, as it seeks both to deepen the understanding of the phenomenon and to map and characterize the main practices, benefits and issues involved, providing subsidies for future research and practical applications in the field of people management (Marconi; Lakatos, 2017).

Finally, the chosen methodology enables a broad and integrated view of the topic, allowing the conclusions to be based on multiple theoretical and empirical perspectives, which gives greater robustness to the analyses and ensures the academic and practical relevance of the results obtained (Gil, 2019).

#### **4 RESULTS AND DISCUSSION**

The analysis of the reviewed studies demonstrates that the digital transformation in HR, driven by automation and artificial intelligence, has significantly enhanced operational efficiency and accuracy in decision-making, allowing strategic activities to receive greater attention and resources, while repetitive tasks are processed in an automated way (Barelli *et al.*, 2024).



It is observed that the adoption of intelligent technologies in recruitment and selection contributes to reducing biases, improving the alignment between profile and vacancy, and streamlining the entire process, which results in more assertive hiring and a reduction in the turnover rate, benefiting both the organization and employees (Aguiar *et al.*, 2019).

The results also indicate that data analysis tools applied to organizational performance make it possible to map behavioral patterns, identify training needs, and predict dismissal risks, helping to formulate more effective and personalized retention strategies (Almeida, 2023).

The integration between automation and employee experience enables the development of personalized journeys from the integration phase to career growth, which promotes greater engagement and satisfaction at work, reinforcing the connection between individual and company (Pereira *et al.*, 2024).

Adaptive learning platforms, driven by artificial intelligence, have been highlighted as effective solutions for continuous development, offering customized content according to the skills, interests, and pace of each professional, which positively impacts motivation and performance (Mariano *et al.*, 2024).

Another important finding is that the use of *chatbots* and virtual assistants in HR promotes greater autonomy for employees, who can access information and solve questions quickly and independently, reducing the operational overload of people management teams and increasing agility in responses (Carrara, 2023).

The evidence analyzed also shows that digital technologies strengthen performance management, allowing immediate and accurate feedback, which helps to improve skills and build a continuous learning environment, with benefits for both parties (Graglia *et al.*, 2023).

However, some negative issues also stand out, such as the need for investments in robust technological infrastructure, capable of sustaining system integration and efficient data processing, avoiding bottlenecks that could compromise the user experience and expected results (Barelli *et al.*, 2024).

The issue of privacy and information security is pointed out as a critical factor, and it is essential that companies adopt transparent and ethical practices in data processing, with clear policies and protection mechanisms that ensure employee trust (Aguiar *et al.*, 2019).



Studies show that digital transformation requires a continuous process of training leaders, as they are the ones who interpret data and transform insights into concrete actions, capable of generating value for the organization and the people who are part of it (Almeida, 2023).

It was also identified that companies that adopt digital technologies strategically in HR are able to expand their reach in the talent market, recruiting in a more agile and efficient way, including in broad geographic contexts, which strengthens competitiveness (Pereira *et al.*, 2024).

Digital transformation, when guided by principles of diversity and inclusion, can act as an instrument to reduce inequalities in the corporate environment, promoting fairer selection processes and more equitable development opportunities (Mariano *et al.*, 2024).

At the same time, it is noted that resistance to change remains a significant impediment, requiring well-structured change management actions, capable of engaging employees and demonstrating the benefits of new practices to all levels of the organization (Carrara, 2023).

The consolidation of a digital culture is pointed out as a decisive factor for the success of the transformation, as it ensures that technological innovation is incorporated naturally into the company's daily life, strengthening its adaptability and resilience (Graglia *et al.*, 2023).

Therefore, the results indicate that the integration between automation, artificial intelligence, and humanized people management practices is capable of promoting substantial improvements both in organizational indicators and in employee satisfaction and well-being, consolidating itself as a strategic path for companies seeking sustainable growth (Barelli *et al.*, 2024).

## 5 FINAL CONSIDERATIONS

The digital transformation in the human resources sector, driven by automation and artificial intelligence, has proven to be a strategic vector capable of remodeling processes and raising the quality of people management practices, consolidating a more agile, responsive, and data-driven organizational model, without losing sight of the importance of valuing human capital and preserving the employee experience as a central element of corporate decisions.



The study showed that the adoption of intelligent technologies, when accompanied by structured planning and digital inclusion policies, contributes to increased operational efficiency, the reduction of errors, agility in internal communication, and the creation of a more innovative and competitive corporate environment, while reinforcing transparency and security in interactions and information management.

It was found that the positive impacts of digital transformation on HR go beyond the modernization of processes, including the possibility of customizing development journeys, promoting continuous learning, and stimulating the protagonism of employees, factors that, together, strengthen engagement and enhance the organization's ability to retain talent and develop leaders aligned with its strategic objectives.

The survey also revealed that, in order to achieve consistent results, it is necessary that technological implementation be accompanied by training and change management actions, ensuring that everyone involved understands and knows how to use the new tools, minimizing resistance and expanding the acceptance of digital practices in corporate daily life.

A relevant fact is the realization that digital transformation in HR is not configured as an isolated event, but as a continuous process of adaptation and evolution, requiring constant monitoring, updating of tools and incorporation of new solutions as demands and opportunities arise in the market, preserving the competitiveness and relevance of the company.

The integration between automation and humanized practices proved to be basic for the benefits of digital transformation to be sustainable in the long term, as technology, by itself, does not guarantee better results if it is not accompanied by policies that respect diversity, ethics, and the well-being of employees, ensuring a healthy balance between productivity and quality of life.

The results obtained offer practical subsidies for human resources managers and leaders to structure more effective strategies, taking advantage of the potential of new technologies to promote innovation without losing the human essence of the work, reinforcing the importance of evidence-based decisions and the integration between data and organizational sensitivity.

Thus, it is concluded that digital transformation in HR, when conducted in a planned, inclusive manner and aligned with corporate values, represents a solid path to strengthen the organizational culture, increase efficiency and consolidate a work



environment capable of responding with agility and intelligence to the demands of a constantly evolving market.



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