



TRENDS AND CHALLENGES OF APPLYING ARTIFICIAL INTELLIGENCE TO BUSINESS PROCESS MANAGEMENT

TENDENCIAS Y DESAFÍOS DE LA APLICACIÓN DE LA INTELIGENCIA ARTIFICIAL EN LA GESTIÓN DE PROCESOS DE NEGOCIO

TENDÊNCIAS E DESAFIOS DA APLICAÇÃO DA INTELIGÊNCIA ARTIFICIAL NA GESTÃO DE PROCESSOS DE NEGÓCIO



<https://doi.org/10.56238/edimacto2025.069-002>

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ABSTRACT

It is undeniable that in the digital era, artificial intelligence (AI) has great potential to transform business processes and generate benefits for companies, whether by automating repetitive tasks, optimizing decision-making in some cases, or improving customer experience. The objective of this research work is to present, through a systematic review, the impact and challenges of applying AI in business process management. Implementing AI is not an easy or immediate task, as each organization involves very specific aspects and requires knowledge of the unique characteristics of its processes. Moreover, human talent plays a relevant role in the analysis and design of processes so that they align with each company's objectives. Although AI generally provides great benefits, there are also challenges to its implementation in business process management. Among the main challenges are the lack of employee skills to implement and maintain AI systems, as well as the need to address ethical and responsibility-related issues. Another challenge is the lack of data, since AI requires large volumes of high-quality data for training. For this reason, organizations must define and implement strategies that ensure the proper and responsible use of AI.

Keywords: Artificial Intelligence. Digital Era. Business Process Management. Human Talent.

RESUMO

É indiscutível que, na era digital, a inteligência artificial (IA) tem um grande potencial para transformar os processos de negócio e gerar benefícios para as empresas, seja automatizando tarefas repetitivas, otimizando em alguns casos a tomada de decisões ou melhorando a experiência dos clientes. O objetivo deste trabalho de pesquisa é apresentar,

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por meio de uma revisão sistemática, o impacto e os desafios da aplicação da IA na gestão dos processos de negócio. A implementação da IA não é uma tarefa fácil nem instantânea, pois cada organização envolve aspectos muito particulares, além de exigir conhecimento sobre as características específicas de seus processos. Ademais, a participação do talento humano é fundamental na análise e no desenho dos processos, de modo que estes se alinhem aos objetivos de cada empresa. Embora a IA geralmente proporcione grandes benefícios, também surgem desafios em sua implementação na gestão dos processos de negócio. Entre os principais desafios estão a falta de habilidades por parte dos funcionários para implementar e manter sistemas de IA, bem como a necessidade de considerar aspectos éticos e de responsabilidade. Outro desafio é a escassez de dados, já que a IA requer grandes volumes de dados de boa qualidade para ser treinada. Por essa razão, as organizações devem definir e implementar estratégias que garantam o uso adequado e responsável da IA.

Palavras-chave: Inteligência Artificial. Era Digital. Gestão de Processos de Negócio. Talento Humano.

RESUMEN

Es indudable que en la era digital la inteligencia artificial (IA) tiene un gran potencial para transformar los procesos de negocio y obtener beneficios para las empresas, ya sea automatizando tareas repetitivas, optimizando en algunos casos la toma de decisiones, así como mejorar la experiencia con los clientes. El objetivo de este trabajo de investigación es dar a conocer por medio de una revisión sistemática, el impacto y los desafíos de la aplicación de la IA en la gestión de los procesos de negocio. La implementación de la IA no es una tarea fácil e instantánea, ya que cada organización involucra aspectos muy particulares, así como tener conocimiento sobre las cualidades propias de sus procesos, además la participación del talento humano es relevante en el análisis y diseño de procesos para que vayan alineados a los objetivos de cada empresa. Si bien la IA generalmente brinda grandes beneficios, también se presentan desafíos para su implementación en la gestión de los procesos de negocio. Entre los principales desafíos se incluyen la falta de habilidades de parte de los empleados para implementar y mantener sistemas de IA, así como considerar aspectos relacionados con la ética y la responsabilidad. Otro desafío es la falta de datos, ya que la IA requiere un gran volumen de datos de buena calidad para entrenarse. Por tal razón, en las organizaciones se deben definir e implementar estrategias que garanticen el uso adecuado y responsable de la IA.

Palabras clave: Inteligencia Artificial. Era Digital. Gestión de Procesos de Negocio. Talento Humano.



1 INTRODUCTION

There is no doubt that in the digital age artificial intelligence (AI) has great potential to transform business processes and obtain benefits for companies, the impact of AI can be perceived in different industries and professions, as well as in various areas of knowledge and in different daily activities carried out by individuals. Nowadays the computer services and products used in AI techniques are everywhere. It is common to see that they appear as computational and software products such as chatbots, virtual assistants such as *Siri* and *Alexa*, search engines and intelligent systems of different types, which are included in equipment designed for different purposes such as advanced robots, autonomous vehicles, and everything related to the Internet of Things environment (Pérez, et al., 2020). In the business context, AI is experiencing an accelerated evolution, mainly due to the ability of this technology to solve complex problems related to decision-making in sectors such as e-commerce, digital marketing, finance, finance, finance (Pallathadka et al., 2021). Among the multiple impacts of AI technology on business organizations, the strongest trends are related to process automation, cybersecurity, data analytics, customer services, and human resources (Salmon-Powell et al., 2021). In all possible aspects, organizations seek to develop their competitive advantages with the strategic adoption of technological innovations based on Artificial Intelligence, mainly to optimize existing processes and improve interaction with humans (Wamba-Taguimdje et al., 2020). In accordance with this context, it is pertinent to raise some reflections regarding the technological development that has occurred in recent decades, especially robotics and AI. What is the current scope of AI like and what will it be like in the future in business? What role will people play in companies? Technological development presents and will continue to present noticeable changes in business routines, in the way of seeing business with the use of new computer technologies and above all in the changes and adaptations that the workforce of organizations implies, and as the use of this technology provides a significant contribution as an important component of competitive advantage, the interest of the business world will increase (Ruiz-Real et al., 2021).

For this review article, we ask ourselves the following questions: What are the current trends of AI in business processes?, What are the methodologies used for the implementation of AI in organizations? What are the challenges and trends of AI in business processes?

The objective of the development of this research work is to present a current panorama of AI through a literature review, in order to establish a theoretical framework that shows the trends and challenges of the application of Artificial Intelligence in the management of business processes.



2 FRAME OF REFERENCE

2.1 WHAT IS ARTIFICIAL INTELLIGENCE?

The term "artificial intelligence" was created by the American scientist John McCarthy in the 1950s (McCarthy, et al., 1955) and has evolved in a debate between the search for reference in the rational or in the human-like (Russell & Norvig, 2010). The European Commission defines AI (after studying several definitions) as: "software systems (and possibly also hardware) designed by humans that, faced with a complex objective, act in the physical or digital dimension: perceiving their environment, through the acquisition and interpretation of structured or unstructured data, reasoning on knowledge, processing the information derived from this data and deciding on the best actions to achieve the given objective. AI systems can use symbolic rules or learn a numerical model, and they can also adapt their behavior by analyzing how the environment is affected by their previous actions." In the first instance, a very important aspect is presented in this definition: "AI is a system designed by humans...", which makes it clear that AI is not intelligent by itself, much less was it created or designed from scratch. AI has been present in everyday life and business for years, for example: in Google searches, in customer service chats, in product or service recommendations, in statistical data analysis and among other activities aimed at optimizing decision-making in business (Rouhiainen, 2021). Another definition of AI is "computer systems that perform data analysis with which you make decisions similar to those of human beings". Another more precise definition offered by Gartner, a technology research company, is: "AI uses advanced data analysis, logic-based techniques, including machine learning, to interpret events, support and automate decisions, and take action." For this reason, it is of utmost importance to take into account the different definitions of artificial intelligence that indicate how the union of engineering and science through the development of algorithms makes a machine perform in the best possible way, and how AI has allowed machines to have the "faculty" to perform so many things that human beings are not naturally capable of being able to perform them with precision and speed than AI (Pérez & Suárez, 2021). The AI algorithms that are currently used began to be invented mathematically in 1950, but at that time they were not actionable due to the lack of data computing capacity and software. Today, and due to the computational revolution in the last five years, it is now possible to launch the so-called neural networks, the technology behind GPTs (Generative Pretrained Transformers), which are systems that allow, through data, to make AI learn without constant human supervision. It is the great technological leap that has allowed AI not only to be able to analyze things, but to generate them. Hence, it has been called generative AI. "These neural networks have been trained with large language models and large amounts of data



that have made it possible to assemble a model in a language so that we can live the experience of talking to a machine almost like a conversation with a person" (Ríos, 2023). Below is the "prompt" (instruction or request that is presented to the AI tool to perform an activity), in this case the prompt is: Define what the AI is. The answers by the three AIs used (ChatGPT, Gemini and Copilot) are shown in Table 1 below.

Table 1

Summary answers obtained by Generative AI when applying the prompt: Define what AI is

AI: ChatGPT
Artificial intelligence (AI) is a field of computer science and engineering that focuses on creating systems capable of performing tasks that normally require human intelligence. These tasks include, but are not limited to: Pattern recognition: Identifying patterns in data, such as images, sounds, or text. Natural Language Processing (NLP): Understanding and generating human language in a way that is useful and consistent. Machine learning: Learning from data and improving performance over time without being explicitly programmed for each task. Reasoning and decision-making: Solving problems and making decisions based on available information. Perception: Interpreting sensory data to understand the environment (e.g., computer vision).
AI: Gemini
Artificial intelligence (AI), also known as computational intelligence, is a branch of computer science that focuses on creating intelligent agents, which are systems that can reason, learn, and act autonomously. These agents can be physical, such as robots, or virtual, such as software programs. AI relies on a wide range of techniques, including: Machine learning: Allows computer systems to learn from data without the need to be explicitly programmed. Natural language processing: It allows computer systems to understand and generate human language. Computer vision: It allows computer systems to see and understand the world around them. Robotics: Allows computer systems to design, build, and operate robots.
IA: Copilot
Artificial Intelligence (AI) is the field of study that allows machines to mimic human cognitive abilities, such as learning, reasoning, perception, problem-solving, and adapting to new contexts. Would you like to know more about how AI is applied in different areas? Machine learning is a branch of AI that focuses on developing algorithms that allow machines to learn from data and improve their performance over time without being explicitly programmed for each task. Use patterns and inferences to make decisions based on past data. For example, it can be used to recognize images, predict trends, or personalize recommendations. Are you interested in a specific example of use?

As can be seen in Table 1, similarities may appear in the answers generated by the three different AIs, but it should be taken into account that each of them provides its answer based on the data with which it was previously "trained by the experts". In addition, in this



case we can also see in Table 1, the AI Copilot presents a series of questions that allow interaction with the user in the context related to the topic, which gives the impression that the AI "knows the topic" and apparently has the ability to maintain a fluid conversation according to the topic in question. It can be said, then, that AI is a system or any program that gets a computer to perform some activity that was previously done by a human...

2.2 WHAT IS GENERATIVE AI FOR?

There are basically two aspects of the usefulness of Generative Artificial Intelligence (AGI). One aspect has to do with creativity, which is related to the creation of content, such as the generation of images, articles or any type of textual content or even audiovisual content. The other part has to do with increased productivity, which is related to the production of text summaries and the classification of documents (Herrera, 2024). But should there be any precautions taken in the use of the AGI, or is everything as good and reliable as it usually seems? Indeed, the use of the IAG entails the latent danger that the IAG sometimes invents the answers, and for this reason the preventive warning that these AIs reveal must be taken into account. In the case of ChatGPT, he says: *"ChatGPT can make mistakes. Consider verifying important information."* In the case of Gemini it says: *"It is possible that Gemini shows inaccurate information, including data about people, so you should check its answers."* In general, the answers by GPTs are acceptable with a good degree of reliability in most cases, but it is important to consider the knowledge and experience of the user who uses them in order to be able to give an opinion on the creation of the content generated. IAGs with a good writing of the right prompt provide very good answers in general cases to answer questions, solve equations, write texts, correct code in cases of programming languages, create document summaries among a wide variety of other tasks as long as it is considered that the AI is trained with the correct data.

2.3 THE IMPORTANCE OF DATA: QUALITY AND QUANTITY

Data is one of the most critical elements in AI, it is the fuel that makes the AI machinery run. The data must cover two very important aspects for the correct application of AI: a high level of data quality and a sufficient amount of data. The higher the quality and quantity of the data, the better the AI applications that will be created, in fact if the data does not meet the quality and quantity requirements, the application of AI would not be possible. Most of the most sought-after companies such as Microsoft, Amazon, Apple, Google, Netflix, among others, have managed to stand out worldwide thanks to the collection of massive amounts of valuable data and applying machine learning (Dávalos, 2023). A common example of



machine learning is the recommendation system of platforms such as Netflix or YouTube. These systems analyze your viewing history and that of other users with similar tastes to recommend movies, series or videos that are likely to interest you. Thus, the more you use the platform, the better it becomes at recommending content that fits your preferences. According to the Society of Artificial Systems (S.A.S., 2021) "Artificial intelligence (AI) makes it possible for machines to learn from experience, adjust to new inputs and perform tasks like human beings. Most of the examples of artificial intelligence you hear about today, from chess-playing computers to self-driving cars, rely mostly on deep learning and natural language processing. Employing these technologies, computers can be trained to perform specific tasks by processing large amounts of data and recognizing patterns in the data." When the volume of data is large enough, the results are surprising, since there are patterns that humans are not able to detect otherwise. The key is to have as much historical data as possible, and instead of looking for formulas, let's let a machine learning engine and historical data do the prediction. Machine learning is one of the fundamental branches of AI. It refers to the ability of computer systems to analyze a large amount of data, make predictions and identify patterns while learning from experience and improving their accuracy over time without being explicitly programmed for each task. Use patterns and inferences to make decisions based on past data. For example, it can be used to recognize images, predict trends, or personalize recommendations. Engineers, programmers, and systems analysts are the ones who determine the coding strategy and logic that will make a robot or computer system appear to respond appropriately to a question because it follows response patterns, movement patterns, or calculation patterns (Amador et al., 2020).

2.4 IS ARTIFICIAL INTELLIGENCE REALLY "INTELLIGENCE"?

In accordance with what was mentioned in the previous paragraph and returning to the definition that was established at the beginning of this article where it is emphasized that AI is "software systems (and possibly also hardware) designed by humans...", the following question becomes pertinent: Is Artificial Intelligence really "intelligence"? Solís (2024), states that the term Artificial Intelligence is a name that is currently used for commercial purposes for something that already exists since the computer was invented, and that since then "Artificial Intelligence" is called something that is not really intelligence, since intelligence is a capacity of human beings to understand, experiment, reason and communicate to generate new knowledge. In the course of history, man, thanks to his intelligence (human, not artificial), has been able to develop machines that allow him to overcome the natural limitations of his physical capacities and even his mental capacities (Solís, 2024). For example, man to



overcome his strength invented the wheel, the cart, the pulley and the crane, with these tools he can move very heavy objects that with his natural strength it would not be possible to carry them. In the same way, to overcome his speed of travel, he invented the automobile or the train. To move around in the water he makes use of boats or submarines, and so on in a similar way for many other activities. In the case of the computer, why was it invented? What human capacity is increased or complemented by the use of the computer or AI tools? Humanity has always been in constant development and innovation in order to improve and strengthen its skills in any activity. In the case of communication, he invented language, writing, printing, the typewriter, the telegraph, the telephone, the radio, satellites, among other inventions. To improve his mental skills such as calculating and analyzing data, he invented the calculator, the computer (around 1945) among other electronic devices and computer systems. All these tools were designed to increase the capacity of humans both physically and cognitively. The point is that nowadays computers and everything that encompasses computer systems do not generate new knowledge on their own (which would imply being "intelligent"), but rather generate new knowledge subject to the user's indications through the algorithms that a human being with natural intelligence has developed for certain specific purposes. in such a way that the results obtained depend on how good or bad the algorithms used to generate those results are (Solís, 2024). For example, let's say we have the annual recorded sales of 50 sellers. In this simple case, there are different ways to obtain the main statistics such as total sales, average sales per salesperson, maximum sale, minimum sale and standard deviation. These calculations can be performed by applying basic mathematical operations manually or with a calculator. An electronic sheet such as Excel could also be used and the results would be obtained through certain formulas or special functions. And of course, putting this case in context, AI could also be used to request it with the appropriate prompt to perform the statistical calculations of the sample of the 50 data. The three ways that are proposed to perform these calculations work, of course if we use AI it is much more likely to have faster and much more accurate results than if it is done manually, since in this case the applied technology of AI increases and improves the human ability to perform calculations more quickly and accurately, but this does not mean that AI is intelligent or smarter than a human being. Below is another example, whose result obtained by the three AIs such as ChatGPT, Gemini and Copilot are really surprising. The example is to ask the AI to count the letters of the word "STERNOCLEIDOOCCIPITOMASTOID". If any of us count the letters of this word, we get relatively quickly that this word has 30 letters, it is not an invented word, it actually exists and has a meaning, it is one of the longest words in the Spanish language, and it is used to refer to a muscle of the neck and head. Well, when asking



the three different AI tools (ChatGPT, Gemini and Copilot) the answers obtained are shown below:

AI: ChatGPT

How many letters does the word STERNOCLEIDOOCCIPITOMASTOID have?

The answer was 31 letters, which is incorrect. The word has 30 letters.

AI: Gemini

How many letters does the word STERNOCLEIDOOCCIPITOMASTOID have?

The answer was shown in three different versions:

Version 1: It says that the word has 32 letters, which is incorrect. The word has 30 letters.

Version 2: It says that the word has 27 letters, which is incorrect. The word has 30 letters.

This version shows more complete information, as it presents a count of vowels and consonants.

Version 3: It says that the word has 32 letters, which is incorrect. The word has 30 letters.

IA: Copilot

How many letters does the word STERNOCLEIDOOCCIPITOMASTOID have?

The answer was 31 letters, which is incorrect. The word has 30 letters.

In this case, the Copilot AI displays some text boxes to interact with the user.

The answers shown by the three Artificial Intelligence tools on the count of the letters of the word STERNOCLEIDOOCCIPITOMASTOID, none were correct. Surely if we count the letters of the words on repeated occasions we will always get that there are 30 letters. Anyone with normal intelligence who knows how to count and who knows letters will get a correct result when performing this activity. Now the question is: What happens to AI tools in this case in a simple letter count? Does the correct answer depend on the size of the word? Of course, with this case the result arrogated by AI does not mean something tragic, nor should its application be underestimated. The answer related to this example is simply that these AI tools are not fully trained or do not have good quality of their data to perform a letter count of this word. Of course, this can also present a serious problem, because normally in other cases or more relevant content, the typical user does not know what the correct information is and may come to assume that the answer is true for the simple fact that it was provided by an AI tool. This entails keeping in mind that the results obtained in the use of AI must always



be verified in the context or area of knowledge that we have experience. We must bear in mind that the computer is a machine developed by man to improve his cognitive capacity, that is, to enhance human intelligence. Intelligence always resides in people who are able to generate or apply algorithms that allow the computer to perform tasks that give the impression that the systems have "intelligence."

2.5 AI AND THE IMPACT ON THE BUSINESS ENVIRONMENT

The impact of AI is rapidly changing the business environment, both in terms of how companies implement AI internally in their business processes, as well as how they apply it to strengthen their business relationships in their supply chain with other organizations. As mentioned by Haefner et al. (2023), after an extensive review of management experiences in the implementation and scaling of AI, they conclude that success in this process

It depends on certain appropriate socio-technical actions, including on the one hand the technical aspects, such as the development of a

adequate data channeling, technical infrastructure and AI models adapted to the company's conditions, and on the other hand, establishing the appropriate social context to expose the vision of the future with respect to AI and establish an appropriate organizational structure. The implementation of AI is not an easy and instantaneous task, since each organization involves very particular aspects, as well as having knowledge about the qualities of its processes, in addition to the participation of human talent is relevant in the analysis and design of processes so that they are aligned with the objectives of each company. While AI generally provides great benefits, there are also challenges for its implementation in the management of business processes. Key challenges include a lack of skills on the part of employees to implement and maintain AI systems, as well as considering aspects related to ethics and accountability. Another challenge is the lack of data, as AI requires a large volume of good quality data to train. For this reason, organizations must define and implement strategies that guarantee the appropriate and responsible use of AI. Before analyzing how and where to apply AI, it is important to study the successes and failures of other companies. Most of the challenges are related to data, they are its identification and understanding of how it should be used in the management of business processes as a support for decision-making or in the development of products and services (Tovar et al., 2023).

3 METHODOLOGY

For the development of this article, the technique of documentary review applied in a systematic manner was taken into account. The reviewed scientific articles considered were



between 2020 and 2024. In this process, the use of Google Scholar was considered as an initial technological search tool. International indexed journal articles were taken into account, which were obtained by applying search engines with Artificial Intelligence such as ResearchRabbit and keenious. For the analysis of the articles found, AI tools such as chatpdf, semanticscholar and scispace were applied to link documents with similar content, analyze the abstracts of the selected articles and build comparative tables of the content based on the keywords of the context of the articles. Of the total number of articles returned by the general search, an exhaustive filter was carried out to select 20 articles that were directly related to the keywords, as well as content related to the main topics with the title of the article.

4 RESULTS

The results obtained from the literature review were included in three relevant themes about AI, which are shown in the following tables:

Table 2: AI trends.

Table 3: AI challenges.

Table 4: Comparison between Artificial Intelligence and Human Intelligence.

Table 2

AI trends

- | |
|---|
| <ol style="list-style-type: none">1. Process automation: AI is increasingly being used to automate repetitive tasks and improve operational efficiency in areas such as data management, customer service, manufacturing processes, and logistics.2. Predictive analytics: AI allows businesses to analyze large volumes of data to identify patterns, trends, and predict future outcomes, making it easier to make strategic decisions based on data.3. Personalization and recommendations: By using AI algorithms, companies can offer personalized customer experiences, such as product recommendations, tailored content, and tailored services.4. Chatbots and virtual assistants: AI-powered chatbots and virtual assistants are used to improve customer service, answer frequently asked questions, automate sales processes, and provide real-time support.5. Supply chain optimization: AI is employed to optimize the supply chain, improving demand planning, inventory management, logistics, and product distribution more efficiently.6. Cybersecurity: AI is used to detect and prevent cyberattacks, identify vulnerabilities in security systems, and improve data protection and privacy in business environments.7. Natural Language Processing (NLP): NLP allows businesses to analyze and understand human language in the form of text or speech, which is applied in customer service, sentiment analysis, machine translation, and content generation.8. Ethics and transparency: There is a growing concern about ethics in AI, which has led to a focus on developing ethical, transparent, and accountable AI systems in terms of privacy and fairness. |
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Table 3

AI Challenges

- 1. Task automation:** AI can automate routine and repetitive tasks, which could lead to job losses in certain sectors.
- 2. Workforce retraining:** Implementing AI will require workers to acquire new skills and knowledge to adapt to new technologies.
- 3. Impact on privacy and ethics:** The use of AI poses ethical challenges in terms of data privacy, algorithmic biases, and transparency in decision-making.
- 4. Labor inequality:** There is a risk that AI will widen the gap between highly skilled workers who benefit from technology and those whose jobs are threatened by automation.
- 5. Implementation costs:** The adoption of AI technologies may require significant investments in infrastructure and training.

Table 4

Comparison between Artificial Intelligence and Human Intelligence

Data processing capacity:

AI: AI can process large volumes of data quickly and accurately, outperforming humans in tasks that require large-scale data analysis.

Human: Human intelligence is capable of processing information in a contextualized way, integrating knowledge, emotions, and values to make complex decisions.

Creativity:

AI: Although AI can generate creative content, such as music or art, its creativity is based on previously analyzed patterns and data.

Human: Human creativity is more diverse and flexible, driven by imagination, intuition, and the ability to think non-linearly.

Emotions:

AI: AI lacks emotions and cannot experience feelings like humans, which limits its ability to understand and respond to human emotions.

Human: Emotions are an integral part of human intelligence, influencing decision-making, social interactions, and perception of the world.

Adaptability:

AI: AI is highly adaptable in terms of machine learning and continuous improvement through algorithms and data feedback.

Human: Humans are inherently adaptable and can face new and unfamiliar situations, applying abstract reasoning and intuition to solve complex problems.

Ethics and morality:



AI: AI lacks intrinsic awareness and ethics, which poses challenges in terms of accountability and ethical decision-making.

Human: Human intelligence is influenced by ethical, moral, and social values, which guides our actions and decisions in ethically complex contexts.

5 CONCLUSIONS

Artificial intelligence (AI) trends in business are constantly evolving and have a significant impact on various areas in the business environment, transforming the way companies operate, interact with customers and make strategic decisions in an increasingly digitized and competitive business environment. In relation to the work environment, AI presents a series of challenges that will impact the way companies operate and the role of employees, as well as empower people to develop new skills aimed at data analysis. For this reason, it is important to consider that artificial intelligence (AI) and human intelligence have significant differences and similarities, have different strengths and limitations, and their combination in business and social environments can enhance efficiency and innovation by taking advantage of the unique capabilities of each, which must define and implement strategies that guarantee the appropriate and responsible use of AI.

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