

The Challenges of Implementing AI in Business Models

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THE CHALLENGES

The effective incorporation of artificial intelligence (AI) into business models represents a significant change for companies. AI, an intricate and constantly evolving technology, requires an exhaustive technical understanding and specialized expertise for its successful implementation. According to Rajagopalan (2023), leading companies face the challenge of remaining as global leaders, but in AI.

The incorporation of artificial intelligence faces formidable barriers that encompass technological, organizational, and ethical dimensions. Technologically, the lack of internal expertise and the understanding of the complexities of AI make an effective implementation difficult (Marvut Technologies, 2023).

Image. Evening_tao in Freepik, 2023.



Alibaba stands out with the implementation of AI in daily operations, from predicting customers' preferences to creating smart cities.

Organizations often fight against obsolete systems and inadequate infrastructures, hindering the integration of AI into existing processes (Forbes Magazine, 2023). Another substantial barrier lies on the quality of the data, as AI depends primarily on large and precise data sets to train models and make decisions (Marvut Technologies, 2023). At an organizational level, the difficulty to identify where to implement AI poses a great challenge, particularly on the relevance of reaching strategic decisions to avoid

negative impacts on the customer's experience.

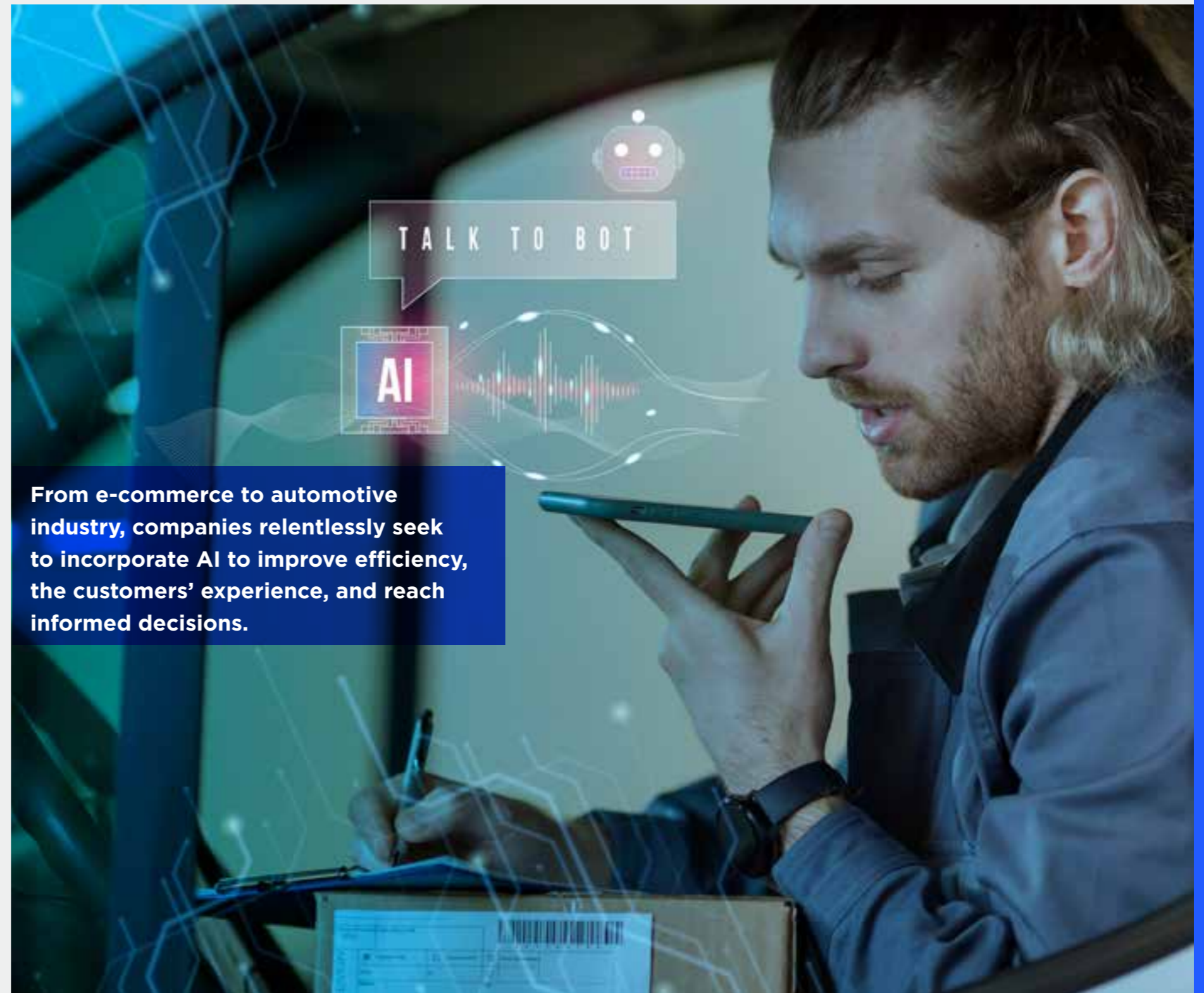
Ethical considerations, such as being concerned about privacy and the potential for biased decisions, come up as critical barriers, demanding transparency on the implementation of AI and compliance of data protection regulations (Marvut Technologies, 2023). Additionally, companies face challenges to determine the intellectual property under the context of the results generated by AI that add legal complexities and uncertainties (Forbes Magazine, 2023).

AI AND INNOVATION

The implementation of AI develops in different industrial contexts, with a constant pressure to innovate. This diverse context underlines the need to overcome barriers in widely different commercial environments. Global competition drives companies to explore AI as a tool to streamline operations, but this exploration is hindered by the lack of internal expertise and the need for a comprehensive understanding of how to integrate AI into the existing business models (Marvut Technologies, 2023).

This multifaceted picture of barriers underlines the need for comprehensive solutions that draw from the investment in employee training and include the promotion of an AI ethical culture within organizations. Overcoming these challenges demands strategical planning, technological preparation, and a commitment to ethical considerations, marking a turning point in the transforming path towards the integration of aAI into business models.

Image: Freepik, 2023.



SUCCESS STORIES

The integration of AI into business models has been successful in a variety of companies, thus demonstrating the possibilities to innovate. Learning about success stories can inspire businessmen in Mexico.

a. Google innovative apps

Alphabet, Google's parent company, leads the integration of AI into several domains. Waymo, Alphabet's division of autonomous driving technology, illustrates how AI transforms transportation. Google's acquisition of DeepMind, demonstrates the commitment with deep learning, achieving milestones such as AlphaGo, the program that defeated a pro player in the complicated

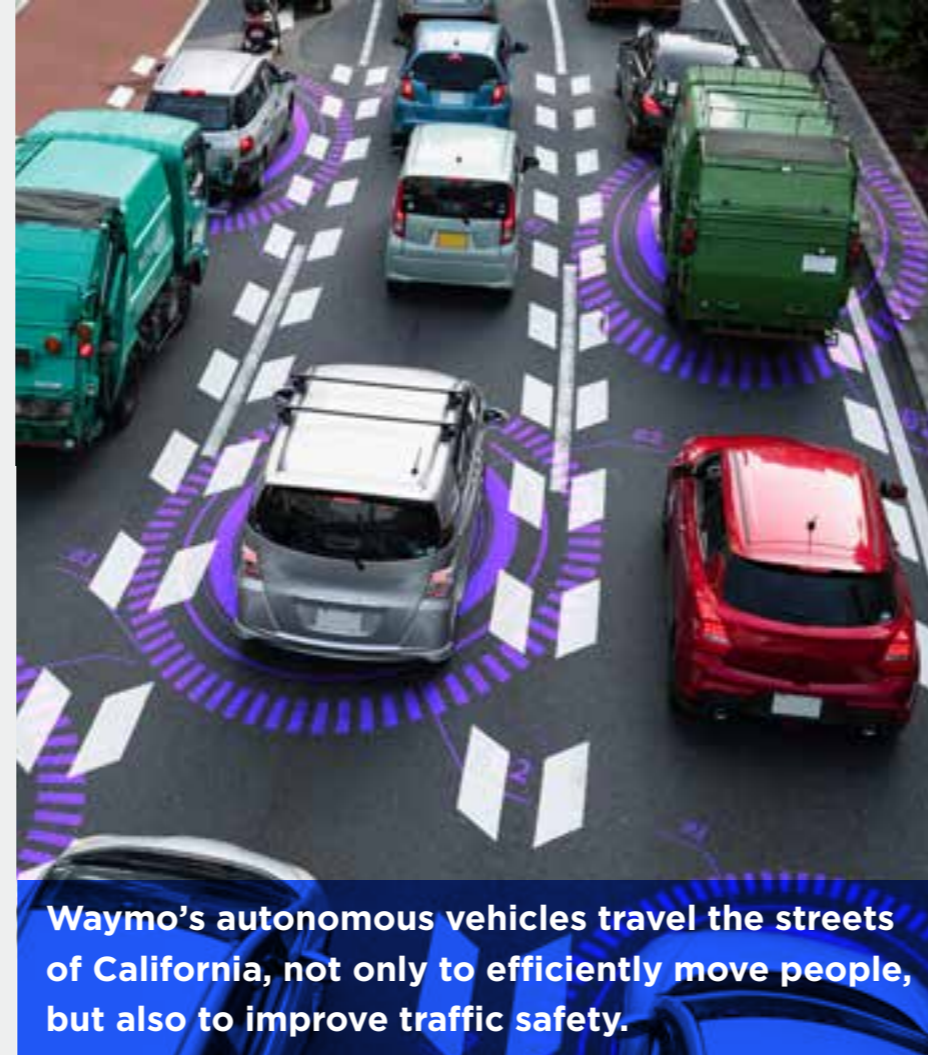


Image. Freepik, 2023.

Go game (Marr, 2021). Google Duplex uses the processing of natural language and enables an AI voice interface to make phone calls and make appointments on behalf of the users. These apps highlight the multifaceted integration of AI into different aspects of Google's operations establishing a precedent for an effective and innovative use of AI.

b. A Retail Revolution Encouraged by Amazon's AI

Amazon, an e-commerce global giant, goes beyond traditional retail sales models with innovative AI apps. The approach based on the company's data enables a predictive analysis to anticipate the customer's needs before they surface. The AmazonGo convenience store concept eliminates the need for payment points through the AI technology. Cameras track the customers' movements, identify the articles selected, and automatically upload them through the app.

This experience of an automated and smooth purchase illustrates how AI can revolutionize retail commerce, offering unparalleled amenities to customers and optimizing operation processes for the company (Pratt, 2023).



c. Voice cloning and Baidu's book reading

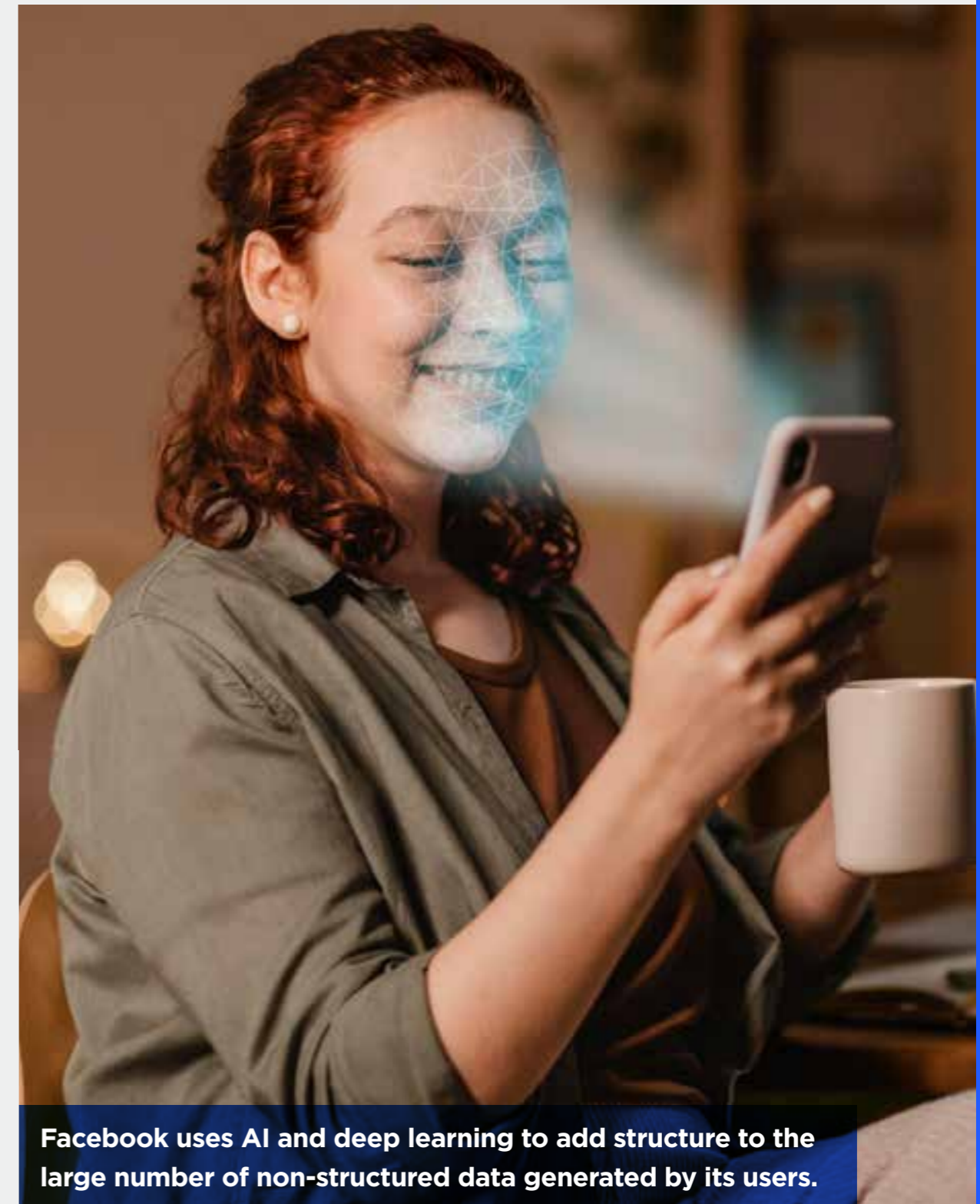
Baidu, often identified as Google's Chinese equivalent, presents unique AI apps. Deep Voice, the tool that only needs 3.7 seconds of audio, can clone a person's voice. This technology extends to a tool that reads books to the users with the author's voice, demonstrating the versatility of AI in voice-related apps. Baidu's innovative use of the AI aligns with the company's commitment to explore several apps, from voice cloning to smart city initiatives (Marr, 2021).

d. Structured data and Facebook's face recognition

DeepText, a text comprehension engine, automatically interprets the content, feelings, and emotions of users' posts in several languages. DeepFace, an AI app developed by Facebook stands out on face recognition and with this it exceeds human capacities. Beyond these apps, Facebook uses AI to automatically detect and eliminate sensitive content, such as revenge porn. With this use, the commitment of the platform with the user's safety and content moderation is emphasized.

These additional examples highlight the different AI apps in several industries with emphasis on the fact that a successful implementation implies adapting AI solutions to address specific commercial needs and challenges. Companies can be inspired by these success stories to innovate and benefit from all the AI potential in their corresponding sectors.

Image. Freepik, 2023.



Facebook uses AI and deep learning to add structure to the large number of non-structured data generated by its users.

A COMPLEX DECISION

The effective adoption of AI demands a strategic and adaptive assessment. Companies that want to start innovating in their business models using AI technology must ask themselves:

How can the company incorporate AI in a personalized way to address specific challenges in their business model?

How can companies generate exponential value in an innovative way in their business models and in the value propositions using AI?

How can companies benefit from the lessons learned from success stories, like the ones presented, to encourage innovation and transformation with AI?

These crucial questions will guide the strategic decisions of companies in their quest to implement and fully benefit from artificial intelligence in their business models.

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