

# Chapter 5

## Artificial Intelligence in Marketing: A Study on Tools, Use, and Impacts

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### ABSTRACT

*Artificial intelligence (AI) is a technological advance that has revolutionized several sectors, including marketing. This study explores the fundamental concepts of AI, its different types, the controversies surrounding its use, and the types of AI tools available in marketing. This exploratory research used a bibliographical review and quantitative and qualitative empirical study applied to a universe of marketing professionals in Brazil to identify which tools and for what purpose these marketing professionals use them. The results indicate that marketers have extensive knowledge and significant adoption of AI tools, showing growing acceptance. It is concluded that adopting these tools is guided by local peculiarities. Despite the challenges, the positive outlook suggests that AI drives efficiency in marketing, emphasizing the need for an ethical and collaborative approach to its responsible use.*

### INTRODUCTION

As you read this chapter, marketing, advertising and communications professionals have almost 40 Artificial Intelligence (AI) tools (Folha, 2023) to use in their work tasks; 3 conferences were held (O Globo, 2023), one of them in London – England, to regulate the use of AI by professionals, companies and ordinary people; The AI theme graced the cover of two major Brazilian magazines, with extensive reports on its use in Brazil and at least three market surveys (Meio & Mensagem, 2023) had been carried out to understand how business managers are viewing artificial intelligence and CEOs of sizeable Brazilian marketing companies.

This could demonstrate that using AI is increasingly on the agenda, either using tools or due to concerns about its advancement. And if, on the one hand, it represents a technological revolution, on the

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other, it can be seen as a threat, especially regarding jobs. In a report presented in early 2023, the World Economic Forum projected that within five years, 1/4 of all jobs will be affected somehow by Artificial Intelligence (Tawil<sup>2023</sup>). More than 1 billion people will be impacted in their work using AI.

Despite not being so recent, as it was already being used by large online retail companies and search sites, such as Amazon, AliBaba, Shein, Mercado Livre, and Google, to name a few (de Paiva, 2022), AI has leaped significant increase in use with the launch of ChatGPT<sup>1</sup> in 2022. Since then, the emergence of new AI tools has been experienced, some derived from ChatGPT and others similar, launched in different countries. Most have free and easy-to-use versions to create texts of all types, websites, posts for digital social media, slide presentations, marketing planning, video editing, image creation and editing, and even songs.

Although an area of computer science seeks to create systems capable of performing tasks that would typically require human intelligence, such as learning, reasoning, problem-solving, and decision-making, AI has reached other levels. In marketing, AI has become a powerful tool for data analysis, process automation, content personalization, creation of texts, images, and video and audio editing (Shaik, 2023). Tasks such as sending mass emails, creating and publishing content on digital social media, and managing advertising campaigns can be carried out automatically through AI tools, for example (Shahid & Gang, 2019; Verma et al., 2021).

Another advantage highlighted is AI tools for content personalization, as AI algorithms can analyze customer behavior, preferences, and interaction history to create personalized content. This is because, with data collected and analyzed by AI, it is possible to provide customized product and content recommendations, improving the customer experience and strengthening the relationship with the brand. And, because algorithms transform data into information that allows adjustment and the advertising budget, segmentation of ads and messages, maximizing the return on investment (ROI - an acronym in English for *Return Over Investment*) in marketing (Priyanka et al., 2023). As a result, AI contributes to more effective marketing campaigns, greater customer engagement, and higher conversion rates.

Even though the AI theme presents advantages to marketing and is a topic in evidence, when searching in the repositories of scientific articles, it was not possible to locate publications that were the result of a survey with marketing professionals in Brazil on the use of AI tools in the work and how they understand that this “partnership” between humans and artificial intelligence can work.

For this reason, it was decided to develop the present study to understand *whether* and *how* marketing professionals in Brazil have used AI tools in their work activities. Therefore, the general objective is to identify what AI tools and for what purposes marketing professionals in Brazil use in their work. For this, two research methods were used: a bibliographic review of AI in Marketing and quantitative and qualitative research using a questionnaire with open and closed questions. The sample was made up of marketing professionals in Brazil who work in different job positions and have different ages and, therefore, different lengths of professional experience. The result responded to the study’s general objective and highlighted relevant aspects of the relationship between marketing professionals and AI.

## RESEARCH METHODOLOGY

To understand *whether* and *how* marketing professionals in Brazil have used AI tools in their work activities, exploratory research was carried out (Gil, 2002), with multi-methods such as a literature review and questionnaire application for data collection (De Antoni et al., 2001). That way, the following

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