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Commentary

Marketing with ChatGPT: Navigating the Ethical Terrain of GPT-Based Chatbot Technology

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Abstract: ChatGPT is an AI-powered chatbot platform that enables human users to converse with machines. It utilizes natural language processing and machine learning algorithms, transforming how people interact with AI technology. ChatGPT offers significant advantages over previous similar tools, and its potential for application in various fields has generated attention and anticipation. However, some experts are wary of ChatGPT, citing ethical implications. Therefore, this paper shows that ChatGPT has significant potential to transform marketing and shape its future if certain ethical considerations are taken into account. First, we argue that ChatGPT-based tools can help marketers create content faster and potentially with quality similar to human content creators. It can also assist marketers in conducting more efficient research and understanding customers better, automating customer service, and improving efficiency. Then we discuss ethical implications and potential risks for marketers, consumers, and other stakeholders, that are essential for ChatGPT-based marketing; doing so can help revolutionize marketing while avoiding potential harm to stakeholders.

Keywords: marketing; ChatGPT; GPT technology; Chatbot; ethics; societal implications

Citation: Rivas, P.; Zhao, L. Marketing with ChatGPT: Navigating the Ethical Terrain of GPT-Based Chatbot Technology. *AI* **2023**, *4*, 375–384. https://doi.org/10.3390/ai4020019

Academic Editor: Rafał Drężewski

Received: 18 February 2023
Revised: 1 April 2023
Accepted: 4 April 2023
Published: 10 April 2023

1. Introduction to ChatGPT

On 30 November 2022, OpenAI unveiled a chatbot named ChatGPT, quickly drawing the attention of artificial intelligence (AI) researchers and scholars who tested the technology over several hours and days to follow. The release of ChatGPT also sparked widespread public interest, with individuals across the globe eager to experience the innovation and assess its capabilities. In regions where ChatGPT is not yet available, such as China, the acquisition of a ChatGPT login has become a highly coveted commodity, fueling the growth of an illicit market in which more than 600 vendors peddle logins for a nominal fee [1]. Designed to generate detailed textual responses and articulate answers to any inquiry [2], ChatGPT has garnered attention for its potential application in the field of engineering geology [3]. One study demonstrated that 70% of users favored ChatGPT-powered conversational interfaces over conventional methods, citing convenience, efficiency, and personalization [4]. However, some experts are wary of the tool, with a large AI conference banning its use in conference papers [5]. Additionally, the journal Science has stated that no text generated by ChatGPT or any other AI tool can be used in a paper [6]; Elsevier has established a policy on AI-assisted technologies in scientific writing that requires authors to disclose their use, and not list or cite these tools as authors or co-authors, limiting the use of AI for enhancing the readability and language of the work [7].

ChatGPT is an AI-powered chatbot platform that utilizes natural language processing and machine learning algorithms to enable human users to converse with machines, thereby transforming how people interact with AI technology [8]. Before this advancement, most commercialized AI tools were conventional bots or voice assistants with limited

applications. In contrast, ChatGPT offers numerous advantages over previous AI tools and holds significant potential for application in various fields, including customer service, education, health care, finance, entertainment, creative writing, digital marketing, e-commerce, and many others [9]. For example, e-commerce companies could leverage ChatGPT to provide automated customer service and order fulfillment services round-the-clock, reducing personnel resource costs. Similarly, educators could harness ChatGPT to develop individualized study plans tailored to each student's interests and progress and to deliver instantaneous feedback through automated grading and virtual assistance in answering questions. In the healthcare sector, healthcare professionals could use ChatGPT to triage symptoms, conduct initial consultations, and even diagnose conditions. The customized and empathetic nature of these conversations may promote a more patient-centered approach and alleviate the anxiety and social pressure that patients may experience when discussing certain health conditions, such as mental illness, with an actual human being [8].

A content marketing company recently conducted an experiment utilizing ChatGPT to create promotional Twitter posts advertising an upcoming webinar on whether robots will eventually replace human labor in content marketing [10]. Here are examples of the two generated Twitter posts:

> *Can you tell the difference between human-written and AI-generated content? Put your skills to the test in our upcoming webinar "ChatGPT vs. Content Marketing" on 15 Feb at 2 p.m. EST. Register now! #AI #conTentmarketing #webinar.*
>
> *The future of marketing is here and it's all about AI. Don't miss our webinar "Chat GPT vs. Content Marketing" on Wed. 15 Feb at 2 p.m. EST to learn how to harness the power of AI tools like ChatGPT for your content marketing. Register now! #AI #contentmarketing #webinar.*

The AI-generated posts were completed much more efficiently than human-generated posts, and even suggested hashtags for users. The list of potential benefits goes on [11]. While these benefits are promising, the tool's limitations and potential ethical implications must also be considered. Despite the excitement surrounding ChatGPT and its numerous applications, some individuals have expressed ethical concerns regarding this latest innovation [12,13]. More specifically, there are known risks associated with AI-based chatbots; for ChatGPT, these mainly include the following [11,14]. ChatGPT can collect and analyze large amounts of personal data, leading to *privacy violations* if the data is not adequately protected [15,16]. *Bias* can also be perpetuated and amplified by ChatGPT if it is not adequately designed and tested [17,18]. In addition to these risks, ChatGPT can lead to *job losses* as it automates specific tasks previously done by humans [19].

As ChatGPT becomes more sophisticated, companies may become too *reliant* on it, leaving them vulnerable if the tool fails or if the data used to train it is inaccurate [20]. Furthermore, the tool has been perceived as *a new way to cheat*, making the AI write the work and submit it as your own for credit, which generally constitutes plagiarism [12]. Furthermore, training ChatGPT has caused severe mental stress on its content curators [21,22].

ChatGPT can generate incorrect, incomplete, misleading, biased, harmful information, instructions, or content [23]. In addition, it sometimes generates fake outputs that are not real, which can erode the trust in citing science [24]. Finally, we emphasize that ChatGPT does not have a human oversight system to review and vet all its outputs, which can lead to ethical violations [25].

It is also important to note that ChatGPT is not unique in its potential for ethical implications. Instead, it is a representative example of large-scale pre-trained language models (PLMs), a rapidly developing field in Natural Language Processing (NLP) [26]. To illustrate the potential ethical implications of large-scale PLMs, we chose to focus on ChatGPT as a case study, examining its specific characteristics and design to draw broader implications for large-scale PLMs, although our focus is on marketing. In the following section, we will explore in detail the implications of ChatGPT in the field of marketing and how it can be used to address some of the ethical concerns while maximizing its benefits.

This ethical analysis is based on the well-known framework provided by the core tenets of fairness, accountability, and transparency [27,28].

The main contributions in this paper are as follows:

- We highlight the potential benefits of ChatGPT in marketing, such as automating tasks, providing more accurate insights, and improving customer engagement.
- We emphasize the ethical and societal implications of using ChatGPT, including its potential to perpetuate bias, replace jobs, and create dependencies.
- We provide recommendations for companies to mitigate these potential risks, including appropriate design and testing, protection of personal data, and responsible use of the technology.

2. Implication of ChatGPT in the Field of Marketing

The most popular AI tools the general public uses are voice assistance tools and Smart Home technology such as Siri and Amazon Alexa. There has been a lot of academic research on the usage of AI and its impacts on consumers and other stakeholders [29]. The most recent development of ChatGPT has inevitably generated considerable attention and anticipation in marketing for both academia and practitioners [30]. According to the American Marketing Association, marketing is "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. (Approved 2017)" [31]. Major marketing activities include strategic planning, marketing research and analysis, marketing strategy decisions in choosing the target market, developing competitive advantage, and developing and maintaining customer relationships [32]. Marketers, customers, clients, partners, and society operate in an environment where disruptive technologies change how businesses operate, and how people live their lives. Among all disruptive technologies, such as the internet of things, big data analytics, blockchain, and artificial intelligence, artificial intelligence (AI) has the highest potential to transform marketing and shape the future of marketing [33–36].

2.1. What Does the Most Recent Development of ChatGPT Mean in the Field of Marketing?

Using ChatGPT, marketing content such as product descriptions and promotional messages can be created with less time and potentially with higher quality than human content creators. Consumer feedback and social media conversations can be collected, thanks to ChatGPT's capability to condense and analyze large volumes of data [5]. Therefore, marketing research could be conducted more efficiently to understand consumers' vocabulary, perceptions, and attitudes toward the products and marketing campaigns. Personalized emails and recommendations can be generated and tailored to each customer with little human effort so that each consumer can be treated as an individual with their unique needs and wants being fulfilled. Automated customer service Chatbots can be trained to provide 24/7 support with a human touch so that the issues of generic responses and impersonal tones that existed in traditional chatbots can be overcome. Call center customer service agents can utilize ChatGPT to understand customer questions, identify relevant information, suggest possible solutions, and respond quicker, reducing the cost associated with human intervention and increasing efficiency and accuracy in problem-solving. The new product development team could gather information about current user behavior trends and develop new product innovations based on real-time data collected from different sources by ChatGPT. The above examples are not a comprehensive list of all applications of ChatGPT in marketing. The next few years would witness a giant leap in the marketing field due to the introduction and proper use of ChatGPT.

Admittedly, ChatGPT can provide valuable insights and automate specific tasks, but it may also introduce issues or inaccuracies if not used properly [5]. Therefore, it's essential to carefully consider the data and algorithms used and the ethical implications of the results. Additionally, it's crucial to validate the results of ChatGPT-generated insights with other data sources and to be transparent about the limitations and uncertainty of the

results [37]. The following paragraphs briefly discuss such risks, limitations, and a path to move forward.

2.2. Risks of ChatGPT in Marketing

AI marketing tools, specifically ChatGPT, can pose several potential risks for marketers, consumers, and other stakeholders, as depicted in Figure 1. The potential risks **for marketers** include the following. First, AI marketing tools such as ChatGPT can pull information from *inaccurate* sources and therefore provide incorrect information. In the extreme case that inaccurate information reaches the total amount of data, the results will be false [38]. Second, ChatGPT generates responses based on existing information, which is *outdated* by nature [39]. A forward-looking and proactive marketer would find limited use of outdated data. Third, ChatGPT responses might be similar or homogeneous for the same prompts from different marketers. Therefore, the identity of the marketer or the brand would be impaired. For a field that values creativity and innovation, the issue facing marketers is how to maintain *innovativeness* in strategic marketing decision-making in an AI-driven world [40]. Fourth, as AI marketing tools such as ChatGPT become more sophisticated, companies may become too *reliant* on them, leaving them vulnerable if the tools fail or if the data used to train them is inaccurate [41]. Fifth, AI marketing tools such as ChatGPT can lead to *job losses* as they automate certain marketing tasks previously done by humans [42]. For instance, copy editors and creative writers would shift from more writing to more editing, as faster and more effective writing can be easily generated by ChatGPT. Data analysts and marketing researchers would find data collected and analyzed quickly and automatically. Customer service can be provided 24/7 by interactive and intelligent AI tools rather than human customer service representatives. Sixth, hardly any AI tools can be truly unbiased [40]. AI marketing tools such as ChatGPT can perpetuate and amplify *societal biases* if they are not properly designed and tested [43]. Seventh, the use of ChatGPT seems intuitive but a certain level of *professionalism* and expertise is expected for the marketer's professional use. The mere use of ChatGPT as a black box should be exercised with caution.

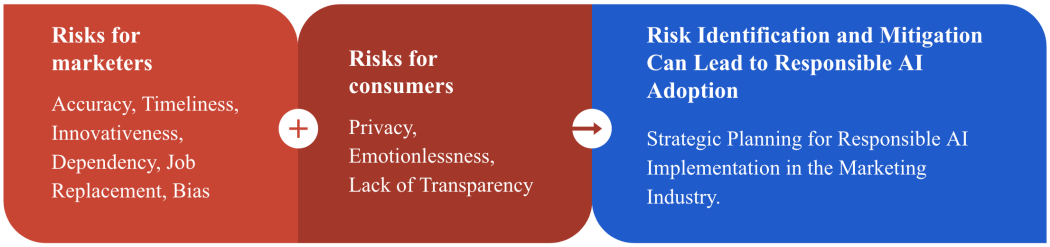

Figure 1. An informed understanding of potential risks and a strategic approach to their mitigation are crucial for ensuring the responsible integration of ChatGPT in marketing practices.

The risks **for consumers** include the following. First, AI marketing tools can collect and analyze large amounts of personal data, leading to *privacy* violations if the data is not adequately protected [44,45]. ChatGPT can learn and adapt to what the user wants and other psychographic characteristics of the user, which implies the user's personal data has been widely collected for better responses around iterations of user prompts. Second, although ChatGPT can detect user emotions and provide a more human feeling than traditional AI tools, it is still not human. In the service sectors or areas where human interactions are valued, customers seek a unique and memorable experience, and they do not expect fully automated and *emotionless* interactions provided by AI marketing [46]. Lack of empathy and understanding of the consumer can lead to consumer disengagement and dissatisfaction [47].

There are risks associated with the application of ChatGPT in marketing. However, these risks can be mitigated through a good and careful design and deployment of ChatGPT and ongoing monitoring and evaluation, as discussed next.

2.3. Ethical Use of AI-Based Tools in Marketing

ChatGPT is expected to become an essential tool for marketing, providing unprecedented opportunities for personalized, engaging, and effective marketing strategies and research [48]. However, with great power comes great responsibility, and companies must be aware of the ethical considerations of using ChatGPT in marketing. In this article, we discuss several ways to make ethical use of ChatGPT in marketing, including transparency, bias mitigation, privacy protection, risk assessment, accountability, continuous monitoring, ethical decision-making, human oversight, recruiting data science experts, and developing best practices.

Transparency is a crucial component of ethical ChatGPT marketing. Companies should be transparent about the data they collect, how it is used, and the algorithms and decision-making processes that use ChatGPT. This ensures that consumers understand how their data is used and can make informed decisions about their privacy. It also promotes trust between companies and consumers, which is essential for long-term customer relationship management. Ma et al. [49], and Rivas et al. [50] suggest that transparency can be achieved by providing precise and concise information to consumers about data collection, data usage, and ChatGPT algorithms.

Bias mitigation is another critical consideration in ethical ChatGPT marketing. Companies should actively work to identify and address any biases in their ChatGPT, including through testing and monitoring. This ensures that content created by ChatGPT is inclusive and fair and does not perpetuate existing biases. Akter et al. [51] suggest that companies use diverse data sources and continuously test their ChatGPT for biases.

Prioritizing *privacy* is essential for ethical ChatGPT marketing. Companies should prioritize protecting personal data and ensure that their ChatGPT-based technology complies with relevant privacy laws and regulations. Grewal et al. [44] recommend that companies provide consumers with control over their data, such as the ability to opt out of data collection or delete their data.

Conducting a *risk assessment* is a crucial step in ensuring ethical ChatGPT marketing. Companies should conduct a risk assessment to understand ChatGPT's potential risks and negative consequences and take steps to mitigate them. De Montjoye et al. [52] suggest that companies should assess the potential impact of their ChatGPT on privacy, security, and social welfare.

Accountability is essential in ethical ChatGPT marketing. Companies should be accountable for the impact of their ChatGPT and be prepared to take corrective action if necessary. Wirtz et al. [53] suggest that businesses need to ensure that they are only collecting and using data necessary for their content creation efforts and are responsible for how that data is stored and shared.

Continuous monitoring is critical for ethical ChatGPT marketing. Companies should monitor the performance of ChatGPT systems to ensure they are working as expected and make changes as necessary. This includes monitoring for unintended consequences. Bogina et al. [54] suggest that companies continuously test and monitor their ChatGPT usage for ethical and legal compliance.

Encouraging *ethical decision-making* is essential for ethical ChatGPT marketing. Companies should establish a clear ethical framework to guide decision-making and train their team on ethical considerations in ChatGPT and content creation. While there are no ethical frameworks specific to ChatGPT, several ethical frameworks are related to language models. One such framework is transcriptivism [55], which deals with the moral responsibility of linguists.

Human oversight is also crucial to ensure that the decisions and content created by ChatGPT systems align with ethical guidelines. Companies should have a human oversight system to review and vet the decisions made or content created automatically by ChatGPT systems [56].

Recruiting *data science experts* is essential for many marketing teams, which lack personnel who can understand the data algorithm, data science, and artificial intelligence, creating challenges when using ChatGPT in marketing data analysis and interpretation [57].

Finally, it is crucial to *develop best practices* in ChatGPT marketing. Rapid learning and experimentation happen during the infancy stage of using ChatGPT in marketing. A well-tested and examined set of practices should be developed and encouraged for more effective and efficient usage of ChatGPT in marketing [58].

It is important to acknowledge that the items discussed above, and summarized in Table 1, are not all-inclusive and will differ based on the specific application of ChatGPT. Moreover, given the rapid evolution of ChatGPT and marketing, it is essential to remain informed about recent advancements, regulations, and recommended protocols.

Table 1. Comprehensive Overview of Ethical Considerations and Stakeholders in AI-Based Marketing: A Summary of Strategies, Primary Stakeholders, and References for Responsible AI Implementation in the Marketing Industry.

Ways to Make Ethical Use of AI in Marketing	Primary Stakeholders	References
Ensuring transparency	Companies, Consumers	[49,50]
Addressing bias	Companies, Consumers	[51]
Prioritizing privacy	Companies, Consumers	[44]
Conducting a risk assessment	Companies, Consumers	[52]
Being responsible	Companies, Consumers	[53]
Continuous monitoring	Companies	[54]
Encouraging ethical decision-making	Companies	[59]
Human oversight	Companies, Consumers	[56]
Recruit data science experts	Companies	[57]
Develop best practices AI marketing	Companies	[58]

2.4. Ethics Evaluation of ChatGPT

Several key factors must be considered when evaluating the ethics of an AI tools such as ChatGPT. These include assessing its potential risks, harms, and benefits, as well as taking steps to mitigate any harmful consequences that may arise.

To begin with, companies should conduct a risk assessment to understand ChatGPT's potential risks and adverse effects and take steps to mitigate them [60]. This is an essential first step in the process, as it allows companies to identify and address any potential issues before they become significant problems.

In addition to assessing potential risks, it is also crucial to consider the potential harms that ChatGPT may cause and its benefits. This requires a careful examination of the tool's capabilities, as well as its potential impact on users, both positive and negative. To ensure that all perspectives are considered, it is important to involve a diverse group of stakeholders in developing and evaluating the tool.

Once ChatGPT has been developed and implemented, it is crucial to continuously monitor and evaluate its performance and impact, making necessary adjustments along the way. This helps to ensure that any issues that arise can be addressed promptly and that the tool remains effective and ethical over time.

When it comes to marketing ChatGPT solutions, transparency is critical. Companies should be transparent about the capabilities and limitations of their ChatGPT tool, as well as its potential risks and harms. To achieve this, there are several ethical considerations that companies should keep in mind.

First and foremost, companies should be transparent about the data they use to train their ChatGPT models, the algorithms and decision-making processes used, and the

potential risks and harms associated with the ChatGPT tool [61]. This helps ensure that users clearly understand how the tool works and what it can and cannot do.

In addition, companies should avoid overstating the capabilities of their ChatGPT tool and provide realistic and accurate information about what it can and cannot do. This helps ensure users have realistic expectations about what the tool can accomplish.

It is also important for companies to be mindful of their audience when marketing ChatGPT. This means ensuring that the marketing materials and communications are appropriate for the intended audience and that users understand how to use the tool effectively.

Companies should also be honest about their ChatGPT tool's limitations and potential risks [61]. By acknowledging these issues upfront, companies can help build trust with users and avoid potential ethical issues.

Finally, companies should be accountable for the impact of their ChatGPT tool and be prepared to take corrective action if necessary [5]. This means being proactive in identifying and addressing any ethical issues that arise and being transparent with users about how these issues are being addressed. Companies can help ensure that their ChatGPT solutions are practical and ethical by taking these steps.

3. Conclusions

ChatGPT has the potential to revolutionize the marketing industry by automating tasks, providing insights more accurately than previous PLMs, and potentially improving customer engagement. However, there are concerns about its use's ethical and societal implications. ChatGPT's ability to collect and analyze large amounts of personal data has raised privacy concerns, and its potential to perpetuate bias requires appropriate design and testing of its derivative products. Furthermore, ChatGPT can lead to job losses as it automates specific tasks previously done by humans. Despite these potential risks, ChatGPT has generated significant attention and anticipation in the marketing field for academia and practitioners. AI, especially ChatGPT and GPT4, have the highest potential to transform marketing and shape its future.

ChatGPT can help marketers create content faster and potentially with quality as good as human content creators. It can also help marketers conduct more efficient research and understand consumer vocabulary, perceptions, and attitudes toward products and campaigns. ChatGPT can also help marketers personalize emails and recommendations, provide 24/7 automated customer service, and improve call center customer service efficiency and accuracy. However, it is crucial to prioritize transparency, bias mitigation, privacy protection, risk assessment, accountability, continuous monitoring, and ethical decision-making in ChatGPT-based marketing. AI marketing tools based on ChatGPT can pose several potential risks for marketers, consumers, and other stakeholders, such as inaccuracies in the timeliness of its training data, dependency, job replacement, and societal bias.

Therefore, companies must carefully consider the potential risks and benefits of ChatGPT before implementing it in their marketing strategies. Developing best practices in ChatGPT marketing is crucial, and recruiting data science experts is essential for many marketing teams. By prioritizing ethical considerations and human oversight, ChatGPT can help revolutionize marketing while avoiding potential harm to stakeholders. Human oversight is crucial to ensure that the decisions and content created by ChatGPT systems align with ethical guidelines set forth by stakeholders or governments. In conclusion, while ChatGPT has the potential to transform marketing, its implementation must be carefully considered to avoid potential risks and ensure ethical decision-making.

Author Contributions: Conceptualization, P.R.; methodology, P.R. and L.Z.; validation, L.Z., investigation, P.R. and L.Z.; writing—original draft preparation, P.R.; writing—review and editing, L.Z. and P.R. All authors have read and agreed to the published version of the manuscript.

Funding: This research was executed while P.R. was funded by the National Science Foundation under grant NSF CISE-CNS Award 2136961.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Acknowledgments: We want to thank the reviewers for their time and valuable feedback.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the writing of the manuscript; or in the decision to publish the results.

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