

Digital Marketing in the New Era: Exploring the Affordances of Chatbots in Consumer Engagement and Brand Connection

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Abstract: This article explores the evolving landscape of marketing and personalized communication in the digital era, with a particular focus on the affordances of chatbots as pivotal tools for businesses. As consumers increasingly turn to online platforms for information and purchasing decisions, chatbots have emerged as indispensable tools for enhancing customer engagement and delivering personalized experiences. While previous research has outlined the potential benefits and drawbacks of chatbots in marketing, a critical gap exists in understanding their context-specific impact on user perceptions and behaviors. To bridge this gap, this study adopts the affordance theory to investigate how chatbots offer unique affordances to users across various shopping scenarios. Through in-depth interviews with 10 participants spanning different fields and shopping contexts, this research delves into the intricate interplay between chatbots and users. The findings reveal that chatbots indeed provide interactive intelligence, improve user experiences through flexibility in time and place, and contribute to personalized interactions. Yet, specific technological attributes of chatbots, such as their capacity for emotional support and gender portrayals, can be both advantageous and limiting, contingent on the distinct needs of customers. This research underscores the importance of considering the nuanced context-specific interactions between chatbots and users, thus paving the way for a more comprehensive understanding of their multifaceted role in shaping consumer-company identification.

Keywords: Chatbots, Affordance, Marketing

1. Introduction

Over the years, marketing has evolved significantly, transitioning from traditional methods to digital platforms [1]. As consumers increasingly turn to online channels for information and purchasing decisions, businesses have embraced innovative ways to improve their communication strategies, with AI technologies at the forefront [2]. Among these technological advancements, chatbots, which are rule-based customer service automation applications, have rapidly become indispensable tools for businesses across various industries. It serves as the connection between businesses and consumers in order to offer real-time engagement and personalized experiences to consumers [3].

Previous studies have analyzed why Chatbots have the potential to boost user engagement for businesses and their drawbacks. It is mentioned that Chatbots have limited ability to have extensive conversations so deeper and more specific questions may not be answered [4]. The current gap in previous studies is that they only use a realist approach, assuming that the effects of chatbots are homogeneous and fixed in different contexts. This is where affordance theory comes into play in my research, aiming to fill this gap. We ask the following questions: What is the influence of chatbots on marketing? How do customers perceive the advantages and limitations of chatbot communication across different shopping scenarios? What are some drawbacks that may still need to be improved? Through in-depth interviews with 10 participants, this essay explores the main role that chatbots play in marketing and communication automation, examining their benefits and limitations, and also the impact on customer engagement in modern business.

2. Literature review

Chatbots, also known as conversational agents, are computer programs designed to simulate human conversation through text or speech-based interactions [1]. Their development has evolved significantly, with advancements in natural language processing and artificial intelligence technologies [5]. Today, chatbots find applications in various industries, such as customer service, healthcare, e-commerce, and more, as they can efficiently handle repetitive tasks, provide instant responses, and enhance overall user experiences [2].

Numerous studies have explored the influences of chatbots on marketing. The potential benefits include improved customer engagement and personalized interactions, ultimately leading to enhanced customer satisfaction and loyalty [6]. Additionally, chatbots can streamline sales processes, reducing response times and aiding in lead generation. However, these studies also acknowledge some limitations within chatbot interactions. Chatbots may struggle to understand complex queries, lack human empathy, and occasionally provide inaccurate responses, leading to frustration among users [4].

The existing research in this field has primarily adopted a realist approach when examining the interplay between technological artifacts and social circumstances. Specifically, these studies tend to assume a uniform and unchanging impact of chatbots across various contexts. This oversimplification has created a notable gap in our understanding of the nuanced and dynamic interactions between chatbots and users. By considering the effects of chatbots as consistent and constant, previous studies have failed to account for the diverse psychological, and situational factors that shape users' perceptions and behaviors. This gap hinders a comprehensive understanding of how chatbots are effectively utilized and integrated into different settings. Thus, affordance theory is involved in our research to fill this gap. The advantage of adopting affordance theory lies in the fact that the interaction between people and technical features can be taken into account and the context-specific impact of technology can be explained specifically [7].

Affordance theory, originally introduced by the perceptual psychologist James J. Gibson in the mid-20th century, is a concept within cognitive psychology and ecological psychology. It centers on how the characteristics of the environment and objects within it provide opportunities for action and interaction [7]. In essence, affordances emphasize the dynamic relationship between an individual and their surroundings, highlighting what actions or activities become possible or facilitated by the features of the environment or objects [7]. Over time, this theory has evolved and found new applications, including its adaptation to explain the impact of technology on human behavior and interactions. In the context of technology, affordance theory sheds light on how technological features offer specific possibilities for user actions, taking into account individual abilities, intentions, and perceptions [7]. This perspective is invaluable in understanding the context-specific interactions between users and technologies, such as chatbots, in modern society.

Applying this theory to chatbots, chatbots offer various affordances to users. Firstly, it provides fast and efficient connectivity, allowing users to receive instant responses and support. Secondly, their anytime-anywhere availability enables seamless interactions across different time zones and locations. Moreover, chatbots can be configured to use either voice or text-based communication, accommodating diverse user preferences. However, the gender representation of chatbots remains a debated issue, as it can influence users' perceptions and behaviors. Despite these benefits, chatbots have their limitations, such as being constrained by rule-based question-answer systems, which may limit their ability to handle complex queries. Nevertheless, by adopting the affordance theory, researchers and designers gain a valuable theoretical perspective to analyze the context-specific interactions between chatbots and consumers.

3. Methods

For the purpose of this research, in-depth interviews were conducted to gather more specific and useful information. The aim is to provide valuable insights into the application and potential enhancements of Chatbots in marketing and personalized communication in different consumer-brand interactions. The interviews were conducted in a semi-structured manner to allow for adaptability and depth in responses.

3.1. Participants

The participants consisted of a diverse group of individuals who had interacted with Chatbots in various contexts. In total, 5 males and 5 females were recruited, ranging in age from 17 to 40. Most of them are currently high school students or college students.

3.2. Data collection

Participants were selected based on their experience with Chatbots. They represent across different domains such as medical advice, grocery shopping, luxury shopping, and technology purchases. A mix of other factors was also considered such as their age, gender, and preferences. Each interview was conducted anonymously to ensure the privacy of participants. Participants were required to recall their interactions with Chatbots and share their opinions on the effectiveness and limitations of technology.

3.3. Data analysis

The data analysis process encompassed several crucial steps to extract meaningful insights from the in-depth interviews. Initially, all interviews were meticulously transcribed verbatim, ensuring the accurate capture of qualitative data. Subsequently, an open coding approach was adopted, generating a comprehensive list of codes that encapsulated various aspects of participants' responses. These codes were then organized into broader themes, facilitating the identification of overarching patterns in participants' experiences and perceptions. A contextual analysis was applied within each theme, shedding light on how these themes manifested differently across diverse shopping scenarios, such as medical advice, grocery shopping, luxury shopping, and technology purchases. Participant quotes were strategically incorporated to illustrate and substantiate the identified themes, adding depth and authenticity to the findings. The analysis also conscientiously explored divergent opinions, recognizing that participants may hold varied perspectives based on their unique encounters with chatbots. Additionally, the analysis pinpointed areas for potential improvement in chatbot technology addressed the nuances of emotional support preferences, delved into gender expectations and

stereotypes related to chatbots, and emphasized the role of chatbots in fostering consumer-company identification.

4. Findings

Participants shared their past interactions with chatbots, spanning various industries such as medical advice, grocery shopping, luxury shopping, and technology shopping. They generally recognized both the strengths and limitations of current chatbot technology. Participants recognized the benefits of chatbot technology in enhancing user experiences, providing instant support, and enabling personalized interactions. However, they also mentioned the limitations, such as chatbots' struggles with complex queries and their inability to fully satisfy human emotional needs. The gender representation of chatbots emerged as a noteworthy factor influencing user perceptions. Additionally, chatbots were seen as tools that fostered consumer-company identification by facilitating direct engagement and communication. The findings below showcase the various ways in which chatbots offer affordances across different industries.

4.1. interactive intelligence (interaction & emotional support)

Some participants expressed the desire for chatbots to provide emotional support, particularly in situations that required a deeper understanding of emotions and context. For instance, one participant mentioned that Chatbots could improve by adding a comforting sentence after he asked about the pain in his stomach. Another participant added that Chatbots could also be a blessing for the future of consumers. Luckily, one of the participants actually experienced comfort after she asked about healthcare knowledge.

However, one participant, a 16-year-old teenage boy, described an interaction with a chatbot while making an online purchase of a new computer. He needed technical information about the specifications of the computer and its compatibility with certain software. In this context, he mentioned that he preferred the chatbot to provide straightforward and factual responses. He stated, "I didn't want emotional support for this. I just needed accurate information about the product. So, when the chatbot stuck to the technical details and answered my questions quickly, it was more helpful to me." This example illustrates that in certain situations, such as technical inquiries, users may prioritize receiving factual information from chatbots rather than emotional support. It highlights the importance of tailoring chatbot interactions to the specific needs and preferences of users in different contexts.

4.2. flexibility in time and place

Participants appreciated the ability of chatbots to provide instant and accurate responses, enhancing the efficiency of their interactions. According to the participants, in the medical field, Chatbots have the most outstanding Interactive Intelligence. The users reflected that they could receive useful and reliable responses in just a few seconds.

Interviewer: What fields do you use Chatbot for?

Participant 1: Medical field.

Interviewer: Do you remember the actual scene at that time? And do you mind telling me what specific content you searched for?

Participant 1: That night I had a bad stomachache, so I went online to find out what was causing it and what medicine could help. When I search "what medicine to take for stomach pain", a dialog box automatically pops up and asks me "Where exactly is your pain". After I told him where I was,

he asked me my age and gender. Finally, I was given the possible causes and two over-the-counter medications that can be purchased.

Interviewer: Are you satisfied with the answer?

Participant 1: Of course. I feel it was professional and the advice actually worked.

However, although instant responses are typically well-received, the persistent challenge for chatbots in comprehending intricate queries that demand nuanced understanding might exacerbate the frustration associated with instantaneous interactions. One 16-year-old interviewee had this experience.

Interviewer: Why did you choose to use Chatbot at that time? Do you remember the special scene?

Participant 2: Yeah. It was actually just two weeks ago. I went out of town to take an exam and needed to book a hotel next to the test center. So, I looked online to see the check-in procedures. I noticed that it said I couldn't check in by myself if I was under the age of 16. But actually, I remembered children need parents to help them check in if they are under 18. In this way, I opened the chatbot and asked, can I check in alone if I'm under 18 but over 16? At this point, the chatbot showed it could not answer my question.

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Interviewer: What aspects do you think that Chatbot needs to improve on?

Participant 2: Well...As I experience, I expect that maybe Chatbot can improve on coping with more complex issues.

4.3. personalized experience (personalized recommendation & gender settings)

Participants highly valued the inherent flexibility that chatbots brought to their interactions. The anytime-anywhere availability of chatbots emerged as a significant advantage, enabling users to seek assistance, gather information, or make inquiries at their convenience. This aspect was particularly beneficial for individuals with busy schedules or those living in different time zones. Participants mentioned scenarios where they could engage with chatbots during unconventional hours, such as late at night or during weekends, when traditional customer service might be unavailable. This newfound freedom to engage with businesses or access information without being bound by regular working hours was seen as a major contributor to improved user experiences.

The feature of personalized recommendations stood out as a clear value proposition. Currently, few Chatbots have this function, but most participants considered it a win-win. This is because they were introduced to products or services that resonated with their preferences while also saving time during their decision-making process. This capability showcased how chatbots leverage data and algorithms to enhance user engagement and offer tailored solutions, contributing to a more customized and satisfactory interaction between consumers and businesses.

Furthermore, participants revealed that the gender assigned to chatbots could have a notable impact on how they perceived and interacted with these virtual agents. Several participants expressed the view that the gender of a chatbot could evoke subconscious associations with gender stereotypes and societal roles. For instance, a female-voiced chatbot might be perceived as more nurturing or empathetic, aligning with traditional gender roles often associated with caregiving.

Interviewer: Do you have any gender expectations on Chatbots? What genders do you prefer?

Participant 3: I think it really depends. For example, when I ask something about menstruation, the female chatbot will definitely be better because it is so weird for a male to respond to questions like this.

Interviewer: Great! So, what situations can you think of in which a male chatbot is needed?

Participant 3: I think a male chatbot can be perceived as authoritative or knowledgeable. So, if some professional questions are asked, a male chatbot probably will be more suitable.

These perceptions introduced a complex layer to human-computer interactions. Participants questioned whether these gendered associations were intentional or inadvertent and whether they could potentially reinforce existing gender biases.

4.4. consumer-company identification

Moreover, participants highlighted the role of chatbots in bridging the gap between consumers and companies. Chatbots facilitated direct communication, contributing to a sense of connection and identification with the brand. According to the interview, no one showed they had experienced this function before. Therefore, it also became one of the expectations. Personalization contributed to a sense of being recognized as an individual rather than just another customer, which strengthened their emotional connection with the company. In other words, they would be more loyal to the company.

5. Conclusions

Overall, this passage explores the role of chatbots in marketing and personalized communication, utilizing affordance theory to shed light on the dynamic and context-specific interactions between users and these AI-driven conversational agents. Through our research, several significant findings and contributions to the field are discovered, while the limitations and potential for future research are also acknowledged.

Chatbots offer affordances in terms of interactive intelligence, providing fast and efficient responses, particularly in the medical field. They provide users with the flexibility of engaging with businesses anytime and anywhere, leading to improved user experiences. In addition, what is also worth noting point is that the gender representation of chatbots influences user perceptions and interactions. Moreover, Chatbots play an important role in fostering consumer-company identification, strengthening the emotional connection between consumers and brands.

Both this essay and current research share a common focus on the role of chatbots in marketing and personalized communication. They examine how chatbots impact customer engagement, user satisfaction, and brand identification. In addition, they both recognize the potential benefits of chatbots, such as improved user experiences and efficiency in handling customer inquiries, and the limitations, including the challenge of handling complex queries and the need for more emotional responses. Therefore, integrating affordance theory into the study of chatbots offers a more nuanced understanding of their impact in diverse contexts. The limitations of previous research that assumed a uniform impact of chatbots are addressed, thereby filling a gap in the literature.

It is important to recognize that the impact of chatbots may vary across different societal and cultural contexts. Future research should explore these variations, which can expand the sample size and diversity of participants to gain a more comprehensive understanding of how different demographics interact with chatbots. Moreover, considering the inherent limitations of in-depth interviews such as restricted generalizability, experiments can be an alternative in the future. Experimental studies could complement qualitative interviews to explore causal relationships and test the effectiveness of chatbots in controlled settings.

In conclusion, this research has illuminated the multifaceted role of chatbots in marketing and personalized communication. By applying affordance theory and conducting in-depth interviews, valuable insights into the advantages and limitations of chatbots are provided while paving the way for future research that considers the complex interplay between technology and human behavior. As

chatbots continue to evolve, understanding their affordances and constraints remains crucial for businesses and researchers alike in this new era of consumer-company identification.

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