Challenges Faced by Graphic Designers in Developing Brand Communication within the Realm of Artificial Intelligence

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Abstract. The main purpose of this research is to present a comprehensive analysis of the obstacles encountered by graphic designers while formulating brand communication strategies in the context of artificial intelligence (AI). This research aims to provide a comprehensive understanding of the specific challenges encountered by graphic designers as they strive to achieve successful brand communication within the context of an AI-dominated era. This research employed an exploratory qualitative methodology. The data collection methods employed in this study encompassed interviewing, observation, and literature review. The interviews focused on collecting data by directly engaging with graphic designers as informants, while observations were conducted to gather field information. The findings of this research suggest that the incorporation of artificial intelligence (AI) into brand communication strategies signifies a noteworthy shift in current marketing practices. Organizations are progressively leveraging the capabilities of AI to augment customer experiences and strengthen the bond between consumers and brands. In the era of artificial intelligence, graphic designers have undergone a transformation, assuming more strategic and creative responsibilities. They now engage in collaborative efforts with marketing teams and brand management professionals to ensure the effective communication of a robust and unified brand message. Most graphic designers perceive artificial intelligence (AI) to augment productivity rather than a source of concern. They incorporate AI technologies into their work processes while upholding a steadfast emphasis on creativity and the emotive dimensions of design.

Keywords: Brand Communication, Graphic Designer, Artificial Intelligence, Logo.

1 Introduction

In today’s competitive and visually driven marketplace, brand communication plays a crucial role in capturing the attention of consumers and building a strong brand identity. One key element of effective brand communication is graphic design. The design of a logo holds significant importance in shaping the perception of a brand and influencing consumer behaviour. Despite the substantial allocation of resources by firms towards
logo design, there exists a dearth of academic study examining its effects [1]. Numerous studies have been conducted to examine the efficacy of logo design in shaping consumer reactions. Graphic design has the profound ability to instantly attract individuals towards a targeted idea.

Graphic design as a communicative logo tool is a newer strategy employed by recent corporations in the commercial sector. Effective logo design is a crucial aspect of brand communication as it serves multiple purposes such as advertisement, branding, and accentuating meaning. Zhu et al. [2] discovered that unique name designs can make people like a business. This means that names that are new and different can get people's attention and make a good impression. Graphic design in brand communication is not limited to the use of computer software or mobile applications alone. The design aspects of a logo are an additional factor that exerts an effect on consumer perception. According to Lieven et al. [3], several design components like logo shape, font, and colours were manipulated in experimental conditions. Similarly, Machado et al. [4] conducted a study to examine the effects of natural logo designs on emotive reactions. Their findings indicated that the presence of natural elements in logos can have a beneficial effect on customer perception. It encompasses various sciences such as typography, nirmana, illustration, layout, psychology, communication, marketing, branding, and culture.

The impact of logos is influenced by cultural variables as well. It was discovered that although a global logo strategy can be applied, the optimization of logos for specific countries can lead to more favorable outcomes and investigated the cross-cultural responses to logo design and observed that many national cultures exhibit comparable reactions towards logo designs. [5] [6]. This implies that the incorporation of cultural preferences and aesthetics is crucial in the process of designing logos for international markets. The industry of brand communication has witnessed a growing significance of artificial intelligence (AI) in recent times. According to Medina et al. [7], this phenomenon presents a range of advantages and prospects for companies to augment their interactions with clients. Artificial intelligence (AI) presents graphic designers with both challenges and opportunities. Artificial Intelligence (AI) possesses the capacity to automate monotonous operations and produce designs grounded in data and user preferences, fostering heightened productivity, efficiency, and personalization within the realm of the graphic design industry [8]. This has the potential to enhance user engagement and foster client loyalty. Nevertheless, the integration of AI into brand communication poses certain obstacles for graphic designers.

The consumer perception of AI is a challenge. According to Chen et al. [9], empirical evidence indicates that consumers possess a multifaceted understanding of artificial intelligence (AI), encompassing its functional attributes, emotional implications, and the juxtaposition between AI and human capabilities. Although artificial intelligence (AI) has the capacity to imitate intelligent human behaviour, it remains imperative to acknowledge the continued necessity of human creativity and skill within these domains [10]. The incorporation of human touch and imagination plays a crucial role in the development of brand identities and the creation of aesthetically captivating designs. Hence, achieving an optimal equilibrium between artificial intelligence and human engagement is imperative to surmount this problem. A further difficulty is the influence of AI on branding and marketing communication. The utilization of artificial
intelligence (AI) is prevalent in operational marketing, encompassing activities such as brand advertising and pricing, with the aim of optimizing profitability [11]. Artificial intelligence (AI) has a profound influence on marketing communication and channels, manifesting in various ways such as the utilization of big data analysis, machine learning algorithms, and social media analysis. According to Varsha et al. [11], there is a growing consensus that artificial intelligence (AI) is increasingly influential in enhancing brand awareness inside the worldwide market. This implies that graphic designers must adjust their practices to use artificial intelligence (AI) in the realms of branding and marketing communication to efficiently engage with their intended demographic.

The impact of AI technology on the creation of artistic digital content, such as online poster design and video design, has been acknowledged [12]. The integration of AI technology in the development of creative digital content necessitates that designers consider the transformative effects of advancements in communication technologies. According to Cui et al. [13], artificial intelligence (AI) has the potential to enhance the precision of capturing customer demand and effectively representing consumer groups, hence facilitating the development of high-quality brand marketing strategies. Nevertheless, the utilization of AI-generated text in brand marketing gives rise to inquiries regarding its legitimacy. According to a study conducted by Kirkby et al. [14], it has been found that there is no significant difference in the perceived authenticity between text that is explicitly identified as AI-generated and text that is authored by humans. This implies that graphic designers have the potential to utilize AI technology in brand communication while maintaining the integrity of authenticity.

One of the significant obstacles facing researchers in the field of visual design languages in improving brand communications is the lack of scientific investigations regarding intelligent recognition. Graphic design serves as a channel for the transfer of information, with its work fulfilling the practical purpose of transmitting specific information. However, there is a significant lack of scientific investigation related to artificial intelligent understanding of graphic design languages. This research provides an overview of the multifaceted challenges encountered by graphic designers in the development of brand communication strategies within the evolving landscape of artificial intelligence (AI). As AI technologies continue to reshape the way businesses communicate and connect with their audiences, graphic designers play a pivotal role in crafting and adapting brand messages. This study seeks to elucidate the unique hurdles faced by these professionals in the pursuit of effective brand communication in an AI-driven era. The research aims to identify specific pain points, innovative strategies, and best practices for addressing these challenges. It also explores the evolving role of graphic designers as they become stewards of brands in the AI era, balancing creativity with technology, and ethics with engagement. By addressing these challenges head-on, this research contributes to the broader discourse on the intersection of graphic design, AI, and brand communication. Insights gained from this study can inform educational curricula, industry guidelines, and policy discussions, allowing graphic designers to harness the power of AI while maintaining the integrity and authenticity of brand messaging. Ultimately, this research underscores the critical role of graphic designers as the custodians of brand identity and communication in the age of artificial intelligence.
2 Method

The exploratory qualitative methodology was applied in this research. Data collection methods included interviewing, observation, and literature review. For a later review, the researchers gathered documents and any logo designs associated with the research themes through literature investigations. The interviews focused on collecting data by directly engaging with graphic designers as informants. The research population for this study comprises actively involved graphic designers who are generating brand communication. The researchers primarily target graphic designers with expertise or engagement in initiatives pertaining to the incorporation of artificial intelligence (AI) into brand communication. The study's sample consists of four persons who were chosen from the I-Tutor group at Ideoo Academy. Aside from the four participants, I, as the researcher, who is also a practicing graphic designer, actively engaged in the experimentation of the AI design application. These experts were selected based on their expertise in the overlap between graphic design and AI research, making them excellent sources of information for understanding the difficulties that graphic designers have in the realm of AI-driven brand communication. The purpose of selecting this sample is to obtain comprehensive views from experts currently engaged in the sector, so ensuring that the difficulties highlighted and explored in the research are based on real experiences and perspectives. The I-Tutor group's proficiency in graphic design and their familiarity with AI applications in the area make them well-informed sources for the study's goals. Data was collected through field observations to gather information.

Both primary and secondary data were used in this research. In this qualitative study, the main sources of data were the informants themselves, whereas secondary sources included books, journals, academic papers, other types of literature and any logo designs. Interactive Miles and Huberman [15] models were employed in the analysis of research data. Data collecting was the first step in the analysis process. To help researchers better understand the results, the amount of data was reduced in the following stage. The decision came after the data had been gathered and assessed as credible and sufficient.

3 Result & Discussion

The integration of artificial intelligence (AI) into brand communication strategies represents a significant paradigm shift in contemporary marketing practices, with organizations increasingly harnessing AI's potential to enhance customer experiences and solidify the connection between consumers and brands [16]. This surge in AI adoption underscores the ever-growing importance of this technology in reshaping the landscape of marketing communication. As we delve deeper into this transformative wave, it's essential to thoroughly scrutinize the multifaceted dimensions and implications of AI integration within the context of brand communication. A crucial facet to consider, as highlighted by Chen et al. [9], is the intricate perception held by consumers regarding AI in marketing communication. Consumers don't perceive AI as a monolithic entity but rather as a multifunctional and sophisticated tool with diverse functionalities. Their
perception is a composite of various factors, including their evaluation of AI's functional capabilities, its emotional appeal, and their comparisons between AI and human interactions. This nuanced viewpoint sheds light on AI's evolution from being a mere technological tool to a dynamic and multifaceted entity that significantly influences the dynamics of customer-brand relationships.

One of the intriguing aspects of AI in marketing communication is voice-assisted AI, particularly voice-activated digital assistants. These AI-driven voices are perceived to excel in numerous areas, encompassing effective communication, adaptability to diverse user needs, the ability to foster and nurture relationships, and the safeguarding of user privacy. This recognition of voice-assisted AI as more than just a mechanical tool highlights its potential to be a central player in the facilitation of meaningful customer-brand interactions. However, while consumers acknowledge the inescapable presence of AI in their interactions with companies, they simultaneously recognize that the impact of AI on their evaluations of products or brands and their consumption patterns is not boundless. This demonstrates the complex interplay between consumers' acknowledgment of AI's utility in marketing communication and their determination to maintain a degree of control over their choices, thus illustrating the multifaceted nature of consumer-brand interactions in the AI era. Based on interviews with distinguished graphic designers specializing in logo design and brand communication, we gain profound insights into the evolving role of designers in the age of AI. These interviews highlight a transformation in which graphic designers are adapting to play more strategic and creative roles. While AI increasingly takes on repetitive tasks, graphic designers remain the backbone of creativity and the emotional bridges in conveying compelling brand narratives through design.

The role of graphic designers in the era of AI has undergone significant evolution. They are no longer confined to traditional design tasks but are more involved in conceptualizing effective brand communication strategies. They collaborate with marketing teams and brand management to ensure a strong and cohesive brand message. Furthermore, graphic designers are still highly instrumental in shaping a brand's visual identity. The logo is considered a fundamental element of corporate brand identity, serving as a visual representation of a firm [17] [18]. Apart from its functional advantages and aesthetic attractiveness, logos have been shown to play a role in enabling the expression of corporate identity [19]. The importance of congruence between the self and the brand is emphasised in the literature, as a logo has the potential to convey desired identities [20]. According to this perspective, logos serve to establish connections between the brand and the individual, encompassing both the organisation they symbolise and the identity of the consumer. They ensure that brand designs reflect the core values of the brand and speak directly to the target audience. In this regard, human creativity and intuition cannot be replaced by AI. Graphic designers still hold a crucial role in understanding and interpreting the brand for the audience. Additionally, they continue to serve as emotional bridges between the brand and consumers, ensuring that brand designs are not only visually appealing but also evoke emotions and narrate compelling stories. The presence of fragmented identities can complicate efforts to establish a consistent brand [21]. This, in turn, fosters a deeper connection between consumers and the brand, which is a distinctly human aspect that cannot be replicated by AI.
Most of these designers view AI as a tool that can enhance their productivity rather than as a threat. They integrate AI tools into their workflows to assist in specific tasks, such as automated content creation. However, they always ensure that the creative and emotional aspects of design remain their primary focus. In other words, the role of graphic designers has evolved into a more strategic one, focused on brand understanding, creativity, and emotional interaction with the audience. This adds value that cannot be achieved by AI. Graphic designers continue to adapt and prepare for changes in the AI era by nurturing their creativity and uniqueness in their profession. "Data-Driven Branding" has emerged as a fundamental dimension in the era of artificial intelligence (AI), reshaping the landscape of brand communication. With AI-powered data analytics taking center stage, graphic designers are confronted with the task of navigating the intricate realm of AI for data analysis. This transition necessitates designers to ensure that data-driven decisions align with the brand's core values while resonating with the preferences of the target audience. As AI's influence on brand communication continues to grow, graphic designers must evolve to embrace this data-driven paradigm.

The profound transformation in marketing practices brought about by the integration of AI represents both opportunities and challenges for graphic designers. One of the primary challenges they face is the adaptation to AI and the relentless pursuit of technological updates. Graphic designers are not merely passive users of AI tools but active learners, constantly enhancing their skills to effectively incorporate AI into their design processes. This adaptation is not about replacing human creativity but rather augmenting it with the capabilities of AI, marking a paradigm shift in the role of graphic designers. To retain their creative uniqueness and add value that goes beyond what AI can achieve, graphic designers have started exploring unconventional sources for inspiration. They transcend the confines of the digital realm, seeking fresh perspectives from art, nature, and diverse cultures. Moreover, collaborative efforts have gained prominence as designers join forces with AI specialists and other professionals. This collaborative approach allows them to utilize AI as a complementary tool, recognizing its efficiency in handling repetitive tasks while reserving the uniquely human ability to understand the brand's values, the dynamics of the target audience, and the emotional triggers that drive consumer engagement. It's a fusion of AI's precision and human creativity.

The increasing role of AI in brand communication gives rise to a series of ethical considerations, such as data privacy, transparency, and the potential for algorithmic bias. Graphic designers find themselves in a dual role as creative designers and ethical guardians. They are entrusted with crafting brand narratives that are not only visually appealing but also in alignment with ethical standards. Safeguarding the brand's ethical reputation within the context of an AI-driven landscape becomes a critical responsibility. This dual role highlights the multifaceted nature of their responsibilities in the AI era, underscoring the importance of trust and credibility in brand-customer relationships.

In conclusion, the integration of AI into brand communication is far more than a mere technological upgrade; it signifies a profound shift in marketing practices. The
The multifaceted nature of this transformation is underscored by consumers' evolving perceptions of AI, the increasing prominence of voice-assisted AI, the shifting role of graphic designers, the advent of data-driven branding, and the ethical dimensions surrounding AI adoption. As AI continues to exert its influence on marketing strategies, it becomes imperative to understand consumer perceptions, adhere to ethical standards, and empower creative professionals for seamless integration. Future research should delve deeper into the nuances of effective collaboration between designers and AI and explore the evolving AI landscape, especially within industries like healthcare, where corporate communication and branding intersect with profound implications. This multifaceted integration of AI signifies a dynamic realm full of opportunities and challenges, marking a new era where human creativity and technological prowess converge to redefine brand communication.

![Figure 1 - AI Generated Logo Design Represented by LogoAI.com](image1)

![Figure 2 - Human Graphic Designer Using Software Photoshop](image2)
Additionally, the research conducted a visual comparison of logo designs between AI and human (Photoshop) approaches, revealing distinct differences in design style, color scheme, versatility, memorability, and emotional impression, providing a comprehensive understanding of the unique characteristics each approach brings to brand communication. The AI-generated logos, created using LogoAI.com, exhibited a clean and modern design, emphasizing professionalism, with a color scheme of red and white for eye-catching and memorable aesthetics. In contrast, the logos generated by human designers using Photoshop showcased a minimalist and modern style, reflecting simplicity and elegance, with a color scheme of gold and black, creating an elegant and contrasting look.

Figure 3 - AI Logo Design (LogoAI.com)

Figure 4 - Human Logo Design (Photoshop)

This comparative analysis extended to the aspects of versatility and usability, where AI-generated logos were designed for easy application in branding and marketing materials. On the other hand, logos designed using Photoshop demonstrated versatility and practicality, suitable for various contexts and media. The examination of memorability indicated that while the simplicity of AI-generated logos could raise concerns about memorability and distinctiveness, the minimalist approach of Photoshop logos might face similar challenges.
Furthermore, the emotional impression derived from the logos differed significantly. AI-generated logos emphasized professionalism and trustworthiness, while logos created with Photoshop aimed to evoke a sense of elegance and luxury. This comprehensive comparison offers insights into how AI and human approaches to logo design produce distinct characteristics, contributing to unique impacts in brand communication. The visual representations of these differences, presented in the comparative pictures, provide a tangible understanding of the contrasting outcomes between AI-generated logos and those designed by humans using Photoshop.

The research faces several potential limitations: limited applicability due to its focus on specific graphic designers, the possibility that findings may not represent the entire graphic design community due to the inclusion of a specific group, the introduction of subjectivity in data interpretation because of the qualitative nature of the research, the challenge of keeping up with the rapid evolution of graphic design and AI, the potential for bias influenced by researchers' backgrounds, a predominant focus on the impact of AI on graphic design and brand communication that may overlook other relevant aspects, acknowledgement of cultural variables without a thorough exploration of diverse global cultural influences on graphic design practices, and a potential overemphasis on positive aspects, indicating the need for a more comprehensive examination of potential drawbacks and challenges to achieve a balanced perspective.

Anticipated are forthcoming research exploring the correlation between artificial intelligence (AI) and professional competencies within the realm of employment. Perform an extensive analysis to examine the changing patterns in how consumers perceive AI in marketing communications. Explore novel methods for graphic designers to incorporate AI into design processes driven by data. Investigate the ethical considerations related to the use of AI in graphic design. Broaden the investigation of the influence of AI on communication brands across various industries. Explore efficient models of collaboration between graphic designers and AI systems. Perform a longitudinal study to evaluate the continuous effects of integrating artificial intelligence (AI), investigate unique sources of inspiration and creative methods employed by graphic designers in the AI era, analyze the influence of AI on the development of multimodal brand communications, examine the cultural adaptation of AI in branding across various regions, and explore the consequences of AI on graphic design education in order to appropriately modify the curriculum for upcoming designers.

4 Conclusion

Moreover, it is imperative to acknowledge the significant influence of digital technology on the field of graphic design. The present study encompasses an examination of the implications and obstacles faced by graphic designers in the context of the digital age. The integration of digital technology, encompassing artificial intelligence (AI), has revolutionized the graphic design sector, necessitating designers to acclimate themselves to novel tools and methodologies.

Graphic designers encounter difficulties when it comes to establishing effective brand communication within the domain of artificial intelligence (AI). The problems
encompass several areas of concern, namely the dearth of scholarly inquiry into the intelligent identification of graphic design language, the ramifications of AI on branding and marketing communication, the transformations in the production of creative digital content, and the adjustment to digital technology. Nevertheless, the field of artificial intelligence (AI) also offers potential for designers to augment their work and expand their reach to a broader demographic. Through the utilization of artificial intelligence (AI) technology, designers have the capacity to enhance the precision of customer targeting and generate brand marketing materials of superior quality. Staying abreast of the newest breakthroughs in artificial intelligence (AI) and digital technology is crucial for designers to proficiently handle the associated hurdles and properly capitalize on the opportunities they offer.

In general, the incorporation of artificial intelligence (AI) into the realm of graphic design for the purpose of brand communication gives rise to a range of obstacles and prospects. Graphic designers must consider the perceptions held by consumers towards artificial intelligence (AI), the progression of brand voice across multimedia platforms, and the significance of AI-powered chatbots in fostering customer-brand interactions. Through a comprehensive understanding of these aspects, graphic designers could strategically utilize artificial intelligence (AI) to optimize brand communication and establish significant relationships with consumers.

References