

The impact and implications of Artificial Intelligent-Generated Content (AIGC) on marketing campaigns based on social media

Liguo Luo*

Macau University of Science and Technology, School of Business, Avenida WaiLong, Macau, China

Abstract. With the development of AIGC technology, more and more enterprises apply AIGC technology to marketing activities. Nowadays, with the gradual maturity of the Internet industry, marketing based on social media is more and more occupying the mainstream of marketing activities. Many enterprises and commercial influencers are beginning to use AIGC to empower their marketing operations in social media. However, the current technical level of AIGC only enables a part of the business, so it is very important to discuss what kind of scenarios AIGC is suitable for in the emerging stage, how different industries can make good use of AIGC in social media marketing, and the iterative direction of AIGC products with more development potential in the future. In this paper, the writer will use various indicators to judge video quality, compare the contents of influent accounts mainly operated by AI and those mainly operated by humans, and find out the advantages and disadvantages of AIGC technology in social media marketing. In addition, the writer will also provide advice to AIGC technology users and developers based on current AI trends.

1 Introduction

1.1 Research background

Since the release of ChatGPT 3.5 by OpenAI, the adoption of AIGC (Artificial Intelligent-Generated Content) has exploded and is becoming an innovative force in digital marketing, especially in social media marketing. Enterprises or individuals generate text, images, videos and other content through AI to improve content production efficiency and continue to attract user attention. Even advertising giant Ogilvy & Mather has admitted that many key functions of businesses, including creative functions such as advertising and marketing, can now be achieved with the help of AI [1]. However, now the AIGC industry is still in its infancy. Nvidia's possible break with Moore's Law tells us that AIGC technology will have even more power in the future. However, at present, the application potential and development direction of AIGC technology in marketing in different industries and fields still need to be deeply discussed in order to realize its optimal utilization in social media marketing.

*Corresponding author: 1210011503@student.must.edu.mo

1.2 The purpose and significance of the study

Nowadays, the application of AIGC technology in social media marketing has been a trend. But for companies or individuals involved in social media marketing, how to use AI to empower themselves is a problem. At present, many enterprises and individuals have learned that marketers in different industries have huge demand for AIGC products. However, due to different industries, the marketing departments in different industries need to equip themselves with different tools, and it is not possible to solve all the demands on a universal large language model alone. At the current level of technology, existing AIGC products cannot produce content that can satisfy customers in some environments, and the work efficiency improvement is equivalent to 0. As they learn the suitability of AIGC technology in different situations, marketers can determine whether they should increase the use of AIGC and help them decide when it is rational to use AIGC technology to help them in their work. For developers, after understanding the actual needs, they can develop or improve the functions that can meet the needs of customers according to the limits of existing technology in the subsequent development process.

1.3 Research method

This paper will use the control variable method, and the writer will compare an account currently operated with a high degree of AIGC technology with two other accounts mainly operated by humans with the same or similar number of followers, platforms, and published content labels. After controlling these variables, the writer will compare their indicators to get the advantages and disadvantages of the content generated by AIGC technology and the content generated by manual production.

1.4 The following research framework

In the Literature review section, this paper will first introduce the concept of AIGC and select criteria to judge the quality of content posted by Internet celebrity accounts. In the part of discussing the effectiveness of AIGC, this paper will draw the advantages and disadvantages of AIGC technology in social media marketing from micro and macro perspectives through the comparison of detailed cases and the news provided by various research reports. Finally, this article will put forward suggestions for different types of people from different perspectives.

2 Literature review

2.1 Concept of AIGC

Artificial Intelligence Generated Content (AIGC) refers to content generated by artificial intelligence technology, which includes, but is not limited to, text, images, video, audio, and code. AIGC is a new type of Content creation after Professional-generated Content (PGC) and User-generated content (UGC), which can be used in dialogue, image, story, video and music production. AIGC has a great contribution to the progress of social productivity and can greatly improve the efficiency of the execution of commercial and non-profit activities [2]. Nowadays, the use of social media for marketing campaigns is a trend, and the application of AIGC in this area is also making an important contribution to enterprises. Enterprises use AI large models to assist in the design of promotional posters and promotional

videos. Some companies even use large AI models to replace part of the customer service and respond to messages left by potential customers.

2.2 Criteria for judging the quality of a video

The writer will judge the quality of a video mainly by the following indicators: 1) number of fans; 2) the average number of views per post, average number of likes per post, views/followers, average interactions per post. Considering that the article mainly discusses the impact of AI-generated content on marketing, then the commercialization ability is also a link that the article needs to consider. Therefore, in this paper, the author will add indicators related to commercialization capability to the scope of investigation, and the specific indicators used are as follows: Revenue per year, CPM.

3 Explorations of the effectiveness of AIGC's marketing campaigns on social media

3.1 Selection of comparison objects

In discussing this issue, the writer will control for variables and compare accounts dominated by human-generated content with accounts dominated by AI-generated content to explore the impact of AI on social media marketing campaigns based on various metrics.

The writer selected Lu Do Magalu, the most popular virtual influencer in the world, as a model, and carried out maximum control variables on social media platforms, number of followers, and Posting topics, and matched a relatively high human influencer who was similar to him in these criteria for comparison (Table 1).

Table 1. The performance of three Instagram influencers on various metrics (SAP.com, Hootsuite, Inzpire.me, NoxInfluencer)

The name of influencer	Lu Do Magalu	MIRA FILZAH	NaOra Daishi
Number of fans (use Instagram as a guide)	7.06 million	7.26 million	7.413 million
Revenue per year in Instagram	£26,200 per post (from SAP.com) It publishes an average of 50 posts a month and makes about \$20.4 million a year	About \$5 million a year (combined with data and calculations from Hootsuite, Inzpire.me, and NoxInfluencer)	About \$4 million a year (combined with data and calculations from Hootsuite, Inzpire.me, and NoxInfluencer)
CPM	12.5	13	24
The average number of views per post	≈572,800	≈727,100	≈704,500
Average number of likes per post	7324	34.4k	9944
Views/followers	8.14%	10.01%	11.94%
Average number of posts per month	50	14	24
Average interactions per post	9386	≈38600	≈29800
Common labels	Fashion, lifestyle, food		

With the advancement of technology, Lu Do Magalu's daily operations are also heavily using AI technology. The content Lu Do Magalu posts on Instagram and other social media, including text, pictures, videos, live broadcasts, and interactions with viewers, all make heavy use of AI generation technology. Therefore, in this paper, Lu Do Magalu represents a comparison between an account with AI as the main operation driver and two other net celebrities who are similar in terms of control variables and whose content is produced by real people.

Using Lu Do Magalu's own data, the writer will compare it to other influencers on the same platform who have similar numbers of followers. Two Instagram influencers, MIRA FILZAH and NaOra Daishi, were selected for this article. These two Internet celebrities and Lu Do Magalu have a similar number of followers, and their fans are also very regional, and their fans are basically from their own countries. In addition, their content posted on Instagram has many similarities with Lu Do Magalu, such as fashion, lifestyle, food and so on.

The writer can find that accounts operated mainly by artificial intelligence have a huge advantage in the amount of content produced. This is not only reflected in its average number of monthly posts, but also in its revenue. Instagram influencers make most of their money by receiving promotions. For Internet celebrities at the level of 7 million fans, the brands they connect with are generally well-known brands, and the cooperation materials that are finally presented, such as text, video, live broadcast, stories, and subsequent customer service, such as after-sales operations, have to be carefully planned, which makes the cost of each cooperation relatively high. As two similar CPM accounts, this means that they bring similar benefits every time they publish a brand promotion video. In this case, the brand is obviously more inclined to cooperate with the production of more efficient accounts. After the development of artificial intelligence technology becomes more mature, there will be more large Internet celebrity accounts with lower CPM and offer brands to choose cooperation.

Collaboration between Internet celebrities and well-known brands is bound to bring a lot of exposure. When an account is frequently linked to well-known brands and posts content on social media, the account is more visible. Lu Do Magalu illustrates this very well. Compared with NaOra Daishi, its average video playback, average interaction rate, Views/followers are not as good as the latter, but its CPM is nearly \$10 lower than the latter. Lu Do Magalu, which is the main force of AI to generate content, can quickly prepare the corresponding resources and undertake the activities of brand docking with high intensity, so that the heat brought by brand linkage will continue to gain on its own. In Lu Do Magalu's Instagram account, the phenomenon of multiple brand promotion posts appearing in succession is a frequent occurrence, and this situation does not have much impact on its update frequency, the average number of monthly posts of the account is still far ahead of the other two control accounts.

However, from the perspective of other indicators, there is still a certain distance between the content quality of manually produced accounts and that of purely manually operated accounts. Compared to the other two manually operated accounts, Lu Do Magalu showed obvious shortcomings in "The average number of views per post", "Views/followers" and "Average interactions per post". According to the author's observation of Lu Do Magalu's comment section, Lu Do Magalu's posts on brand cooperation are mostly about brand products and after-sales service, and there are few discussions about Lu Do Magalu itself. In contrast, MIRA FILZAH and NaOra Daishi's brand promotion posts have much more discussion about themselves in the comments section than Lu Do Magalu's post.

From the macro level, AIGC is also becoming more and more important for the empowerment of social media side marketing, which can greatly improve the work efficiency of practitioners. AI can help a marketer save 2.5 hours of work per day. In this way, a marketer can use AI to save 38 working days a year, and 38 working days are still working

24 hours a day. Advances in AI technology have brought about huge changes in the marketing industry. 82% of marketers say they believe AI has already impacted the marketing industry by 2023. 69% of marketers believe their business will be marketed by AI in 2023 [3]. With the further development of AI technology, video advertising will become the preferred choice of advertisers due to its more attractive and higher conversion rate, which will gradually drive advertising budgets to migrate and adjust to video advertising. AI technology can reduce the visual design cost of some e-commerce products by 50%, increase the click-to-reach rate by 35%, and reduce the cost per click by 45% [3]. Today, the B-end industry is also increasingly using social media for marketing. As an industry type that attaches great importance to customer customized marketing, B-end enterprises can use AI for personalized content output to support personalized customer journeys, which can reduce the cost of potential customer incubation content and improve the conversion rate. Taking China's B-end enterprises as an example, 51.22% of enterprises think that the lack of marketing automation system is the biggest challenge for potential customer incubation, followed by insufficient content, 31.71% choose. Both small and medium-sized enterprise(smes) and marketer, whose target customers are smes, believe that the challenge posed by the lack of marketing automation system is much higher than the challenge posed by the lack of content [4].

3.2 The Strengths and weaknesses of AIGC's marketing campaigns on social media

3.2.1 Strengths

The AI-generated content is suitable for application on the network celebrity account with a high degree of commercialization. Based on the case study of Lu Do Magalu in the previous stage, we can find that AI can produce more content in the same amount of time than humans. And AI-generated content is not less commercially capable than human-produced content. Even if the content quality of a single post is not as good as that of a manually produced post, from the point of view of advertising, CPM can still be lower than some manually operated accounts with the same level of followers. On Instagram, Lu Do Magalu has worked with many well-known brands, such as Lu Do Magalu, Dior, Samsung, Burger King, etc. Today, Lu Do Magalu's Instagram account is becoming increasingly commercial, with fewer posts for non-promotional content and more posts for promotional content. This allows Lu Do Magalu to earn \$20 million a year from Instagram alone (SAP.com estimates that Lu Do Magalu earns around £29,000 per video).

3.2.2 Weaknesses

The content generated by AI on social platforms is not yet very good at producing quality content. By quality content, we mean a post that performs well in terms of the number of plays, likes, and interactions. Although Lu Do Magalu has achieved great success in commercialization, Lu Do Magalu is essentially an Internet celebrity, rather than an official account of a profit-making organization. As an Internet celebrity, it's important to produce content that meets the needs of your fan base on a high frequency. From the analysis of Lu Do Magalu in the previous stage, we found that although the content generated by AI and posted on the social platform was much faster than that produced by humans, the quality of the content produced was far inferior to that produced by humans. A number of scientific studies have also explored the phenomenon. In terms of current technological development, AI-generated texts are difficult to integrate narrative elements in human texts, and there are huge differences in the lexical grammar level of AI-generated texts [5].

At present, artificial intelligence cannot independently create high-quality content, which makes it not very good for the commercialization of the account is not too high. Nowadays, brand marketing on social media is gradually focusing on topic marketing. When creating marketing communication content spread on social networks, attention should be paid to entertainment, interactivity, trend and content customization. These attributes will have a positive impact on the electronic word-of-mouth of social network users [6]. To meet these needs, many brands now include more than one story every time they use social media marketing and invite viewers to watch and encourage them to share similar stories of their own. This change in marketing trend is the weak point of AIGC at present. Moreover, as an Internet celebrity who does not exist in a physical sense, Lu Do Magalu is unable to provide emotional value to fans in some ways. However, due to the real existence of human influencers, their posts with emotional guidance purposes are often more acceptable to the audience. The effectiveness of social media content for user engagement is regulated by the content context [7]. Posts with the purpose of emotional guidance are often accompanied by a higher degree of discussion, and the bloggers themselves communicate with the audience, and the audience's communication with each other is increasing, thus promoting the interaction of the posts.

4 Suggestion

4.1 Service Suggestions on the C End

At present, brands and Internet celebrities want to use AI to empower their businesses on social media, and they can now apply the content generated by AI to tasks with lower emotional guidance purposes and lower description requirements. On emotional guidance, highly commercial accounts can introduce a large number of AI to output content. Meituan, as the largest takeout food platform in China, many of its merchants have adopted the form of AI digital human live broadcast, allowing AI to generate multiple videos, which are set up and played in the broadcast room. Virtual carrier hosting provides more value to merchants by reducing costs, improving efficiency, expanding coverage and providing personalized recommendations to help them succeed on e-commerce platforms. On Meituan, there is a large number of GMV in the direct broadcast rooms of many virtual anchors. This model, especially for the brand has a certain influence in the early stage, or the product has an advantage in price or quality is worth adopting. In addition, AI can also play a very good auxiliary role. When the net celebrity or brand official account posts daily, it can let AI refer to its own output content in the past, and let AI imitate the output content, and then it can be published after manual debugging.

4.2 Suggestions for service on end B

On the B side, AI-generated content can also reverse the development of enterprise management. For companies engaged in industries related to social platforms, the introduction of AI technology can not only improve the efficiency of business execution, but also bring reform to corporate management. In Deloitte's business report on generative AI, the majority of companies surveyed said that the cost savings from using generative AI will be channeled into improving business operations [8]. As the number of services in an enterprise increases and personnel adjustments become more frequent, the documents that record service information become more and more complex, and the information gap among employees becomes larger. The emergence of AIGC technology can solve the difficult problem of complex project management well. Collaborative office software has been

equipped with AI plug-ins, they can automatically classify the documents managed by different employees, and summarize. In addition, it helps technical teams write code and analyze data, saving them most of their time and synchronizing their work to other employees as quickly as possible. For any enterprise, especially in the business growth period, the use of AI powerful collaborative office software is a good choice. In addition, for the enterprise service module, the ability of artificial intelligence in data classification, anomaly detection, pattern recognition, etc., helps to strengthen data quality management and risk prevention and control [9].

4.3 Suggestions on AI product side

In this section, the writer will use the 4P to recommend the developed path of AI product.

Price: The cost of a large model varies by region, but in countries where AIGC is developing rapidly, such as the United States and China, the cost of a universal large model is generally within the range of 15-20 US dollars and RMB each month. If you want to grab the market in the short term, then developers can reduce the monthly fee to less than 15 US dollars or RMB

Production: AI large language model products should pay attention to these two points in future product iterations. Multimodal large language models and the development of affective value. For both C-side and B-side large language models, the development of single-function large language models to Multimodal large language models (MLLM) is the future development trend. Moreover, the ability of large language models to enhance emotional value will become increasingly important. Large language models that combine EQ and IQ will open the human-machine companion market in the next 2-3 years. Based on the latest AI models such as GPT-4o and Gemini 1.5 Pro, future AI companions will greatly enhance interactive experiences through technologies such as streaming speech recognition, multimodal AI and affective computing [10]. For social platforms, embedding multi-modal and large language models with emotional judgment ability is an important behavior to improve user experience and maintain competitiveness. There is no doubt that the multimodal large language model can improve the experience of human-computer interaction. Many professionals believe that the deep application of AI can greatly enhance the marketing potential of social platforms and those who use them [11].

Place: Social media is the best marketing channel for a general-purpose big language model on the C end, as these platforms have a large number of potential customers of their own. For vertical large language models oriented to the B side, it is also a good choice to spend more and more of the budget on social media marketing. In addition, a series of offline activities such as offline salons and business competitions are good choices for marketing

Promotion: For the general-purpose large language model at the C end, promotion through social media is the mainstream way. The specific way can be native advertising, patch advertising, etc. In addition, these large language model products can also hold various activities within their own apps, allowing users to participate in competitions for AI-generated content, such as AI drawings, AI-generated videos, etc.

5 Conclusion

According to the exploration of the article, the writer believes that AIGC technology has great potential to enable the application of social media. AIGC technology can not only greatly improve the efficiency of content production, but also the revenue-generating capacity of produced content is not weaker than that of man-made content. However, at present, the quality of the content created by AI can not be compared with the content created by humans, and in the comparison of various indicators to examine the quality of content, it

is weaker than the content produced by humans. Therefore, the writer recommends that AIGC be used for tasks with less emotional guidance and less descriptive requirements. In addition, AI technology can also reverse the improvement of enterprise management efficiency. For developers of AIGC products, the development of multimodal large language patterns and emotional value is the development focus of future product iterations.

There are also some limitations in this paper. Considering the difficulty of data collection, this paper cannot make a larger comparison of individual cases, so the comparison range can only be locked at 7 million followers, and it is limited to the platform of Instagram. In addition, CPM is not discussed too much in this paper, which makes it difficult for this paper to further disentangle why Lu Do Magalu can expect to earn more than them even though many indicators are worse than the other two. Since the content published by the current network celebrity account is in many forms, different content often has corresponding indicators. However, due to the large amount of data and the difficulty of retrieval, only general indicators are selected in this study, while indicators specifically aimed at video content and graphic content are not used in this study.

In future studies, this paper hopes to further explore the CPM index of accounts based on AI-generated content and accounts based on manually generated content, so as to find out why the former can still earn a high income despite the weak content quality, and further analyze the advantages and disadvantages of the two in terms of video content and graphic content.

References

1. Ogilvy & Mather China. The flashover Effect: Creativity, Business, and Society in the Age of Artificial Intelligence. (2023)
2. Amazon Web Services. What is AIGC? <https://aws.amazon.com/cn/campaigns/aigc/>
3. HubSpot. 2023 AI Trends for Marketers. (2023)
4. SalesDriver. AI+ sales lead marketing advanced. (2023)
https://www.djyanbao.com/report/detail?id=3866293&from=search_list&aiStatus=undefined
5. B, Sardinha. AI-Generated vs Human-Authored Texts: A Multidimensional Comparison. *Applied Corpus Linguistics*. 4(1). 100083 (2024)
6. Vo. The Impact of Marketing Communication Content Distributed on Social Networks on Electronic Word-of-Mouth. *Journal of distribution science*. 20(5). 65-74 (2022)
7. H, Shahbaznezhad. The Role of Social Media Content Format and Platform in Users' Engagement Behavior. *Journal of Interactive Marketing*, 53(1), 47-65 (2022)
8. Deloitte. Now decides next: Getting real about Generative AI. (2024)
9. Tencent Cloud. 2024 Large Language Model Ten Trends Handbook (2024)
<https://cloud.tencent.com/developer/news/1552248>
10. iResearch. China Business Services Research Report 2024 (2024)
11. Y, Dwivedi. Setting the future of digital and social media marketing research: Perspectives and research propositions. *International journal of information management*, 59, 102168 (2021)