The Role of Big Data Generation in Developing Online Marketing

Yiduo (Shirley) Peng
Olney Friends School, Ohio, The United States

Abstract: With the continuous development of Internet technology, people's life has gradually entered the age of data, from physical sales and face-to-face communication to Internet marketing. The application of this Internet technology is expanding progressively, reflected in the marketing of all walks of life. Compared with the traditional sales model, the advantage of Internet consumption lies in high efficiency and precision. An efficient and accurate delivery depends on the era of big data and consumer information flow to achieve effectiveness. The Internet has gradually broadened the channels to obtain people's information and changed consumers' consumption habits and cognition. Big data accurately analyze consumer psychology and implements data classification to deliver content.
Keywords: big data generation, online marketing, social media, artificial intelligence

1. The current background of the online marketing

The advent of the Internet marketing era has significantly influenced both enterprises and individuals. In the age of big data, network marketing has become an indispensable part of people's life. It can make the marketing products more acceptable and enable the entire enterprise to develop and progress better. With the continuous advancement of world science and technology, the rapid popularisation of information technology not only rapid the development of all walks of life but also has brought us great convenience, providing excellent comfort for Internet shopping. Most of us are beneficiaries of the Internet marketing model. Exploring the Internet Society, we could found that shopping, video, and social software can accurately push us into what we are interested in. They even send us products at the right price for my age group — the significantly improved internet information flow benefits my shopping experience and my quality of leisure and entertainment. There is plenty of room for the value of big data itself. The deep integration of big data and the Internet of Things can be used to complete product design and innovation and even to spread goods. The era of big data is becoming a necessary driving force for the development of Internet technology. Big data generation will infer the most humane shopping experience through data. In addition, school enrollment, company employment, and business cooperation can enjoy the convenience of the era of big data. Big data applications have thus penetrated into social applications step by step.

2. The benefits of online marketing and the comparison to the traditional marketing

Internet marketing has affected customers' purchase behavior and achieved more diversified sales methods through user communication. The main difference between online marketing and traditional marketing is that they communicate through multimedia information rather than words. For an enterprise, customers only purchase the product by upgrading the marketing pattern from the selling. From the business level to the enterprise level should be taking customer needs as the core and orientation of the service. It can bring added value to customers and enhance corporate influence and brand power. With the arrival of 2023, the consumption level of consumers will continue to increase. And it is accompanied by the increase in consumers' consumption requirements, especially the additional added value of the product itself. High-quality products are becoming more common in the market, and consumers hope to experience better services. Therefore, the role of information and big data is reflected in the innovation of products and strategies. In the era of big data, services can be provided more efficiently, detailed, and personalized. This advantage of online marketing will lead to a more diverse experience for consumers and corporate employees. The era of big data has become the fundamental force behind service innovation and an indispensable means of modern marketing and consumption.

Being an online shopping enthusiast, many people use the internet for shopping because of my laziness. And this feature is precisely the way to highlight the advantages of Internet marketing. Because marketing a product includes not only the intermediate process of marketing but also the distribution service is an essential link and factor affecting consumer satisfaction. We can get information directly from buyers to sellers through shopping software and websites. Traditional marketing requires consumers to bring their needs to physical stores for consumption. The Internet eliminates many

intermediate links; consumers can directly contact merchants to respond to their essential needs. In traditional marketing, consumers get dealers in the middle, which wastes time and labor costs. Traditional marketing is limited to the exchange process for market research and product development, so it is difficult to identify more market needs. A critical reason Internet marketing has gradually replaced traditional marketing and become mainstream is the more accurate target markets and personalized services. Even though the essence of the Internet and traditional marketing is the same, they both maximize their interests by understanding consumer needs. With the support of big data, Internet marketing can conduct market research on the entire network and "track" according to user preferences to provide products that better meet consumer needs and occupy the target market faster.

Regarding information transmission, marketing under the traditional model mainly obtains relevant demand information through communication with consumers. To collect a more comprehensive report that covers users of different social classes and age groups, a lot of human resources and costs need to be invested in researching and analyzing. The Internet can efficiently achieve information acquisition and analysis that traditional marketing cannot. Even the specificity of the study can be disseminated through text, pictures, multimedia, etc. Therefore, the scalability of the Internet can extend continuously, saving costs and spreading efficiently. There will even be new approaches in the future. The status of customers in the Internet age will be improved to a greater extent because there are many channels for customers to obtain information, they are highly independent, and they will not listen to your one-sided words. Hence, the difficulty of acquiring customers is also significantly increased. Therefore, "emphasizing customer experience" and "satisfying customer value" will be a sharp weapon for all industries to win in the fierce market competition. In the future, the information on goods and services will become more and more transparent, and the competition for goods and services among enterprises will become more and more intense. In the future, where market competition is increasingly fierce, whoever can capture customers, meet customer needs, and realize customer value will survive in the highly transparent Internet era.

Internet marketing is a consumer-oriented transaction method, so consumers can rationally choose the products they want and avoid forced sales. The user experience brought by this free consumption method can significantly increase the user's choice range and the uniqueness of the user's self-guided entire transaction. Philip Kotler, the father of modern marketing, once talked about this idea in an interview. He mentioned that he hopes to satisfy customers successfully and let them participate in the entire marketing process as much as possible. The ultimate sign of success is that a company doesn't have to advertise. It's all done by their clients. There is nothing more powerful than word-of-mouth advertising. Internet marketing is a consumer-oriented transaction method, so consumers can rationally choose the products they want and avoid forced sales. The user experience brought by this free consumption method can significantly increase the user's choice range and the uniqueness of the user's self-guided entire transaction. Therefore, the Internet can meet customers' needs efficiently and promptly; even the publicity channels have this advanced marketing capability. And this way of dissemination is also very conducive to businesses to grasp market information on time. The Internet can display information in a more three-dimensional image with rich media resources. These rich media resources can make marketing more attractive.

3. The differential use of big data in specific cases

For example, the most common shopping app many people use is Taobao from Alibaba. According to Ou Wenwu's research on Taobao mobile, the artificial intelligence-driven system enables Taobao to take the initiative in the new retail era by knowing itself better than customers. Taobao mobile's recommendation system is one of Taobao's largest traffic portals and transaction channels, and it is also one of the most advanced systems of its kind. A glance at Taobao is not difficult to see that this system involves some of the most complex business formats and scene-oriented technologies in e-commerce. And the principal value of the Taobao mobile recommendation system is that it can identify the potential needs of users and help them make purchase decisions, even before they know what they want. Taobao mobile uses multiple types of recommendation data, including descriptive data such as user portraits, relational data such as bipartite graphs or sparse matrices, behavior sequences, and graph data. The recommendation model based on user behavior sequence is the most widely used model for product recommendation in mobile shopping. There are many user behaviors on Taobao mobile, such as video browsing, keyword searching, etc. Therefore, we can use graph embeddings to align heterogeneous graph data or merge features.

Similar AI-powered systems are used in other applications like the current most popular app, TikTok. This app is so famous and widely circulated because of its personalized delivery. When one is interested in or likes a video, TikTok will analyze the interest and start putting more similar content videos to this person. In the Chinese version of TikTok, there is still a marketing method of live streaming. Because TikTok can attract the fanaticism of most young people, a large part of the reason is the entertainment of the software and the weakening of advertisements. The advertisements of ordinary video

software can make users feel bored in just a few seconds. Still, the hours-based advertisements of TikTok Live Selling are convincing and generate the idea of wanting to consume. Live marketing is a new marketing model that has emerged with the rapid development of network technology in recent years. In the live broadcast state, users are more likely to be attracted to a fixed scene. Compared with other methods, the product presents an instant auction model. While introducing products, they are humorous and integrate the art of talk shows into product introduction and purchase behavior organization. Make buyers interested in buying products with great attention to the host. Live streaming, on the other hand, makes use of people's enthusiasm for communication on the Internet. Through emotional interaction, groups with the same interests are brought together in one place. The anchor focuses on a particular product, and through the mutual feeling and driving of each other's emotions, it becomes a high-level moment in the emotional atmosphere.

If the product properly promotes the flames in this atmosphere. The reason lies in the spread and influence of the Internet. Using an influential self-media to promote products with rich language actions will make the audience willing to place an order for this "trend" even if they are not very interested in the products. The film and television drama market competition has been fierce in recent years. Many producers have also participated in online marketing to find a way out. With the emergence of new media and users, today's film and television drama marketing has gradually improved into a complete integrated marketing chain of data, consulting, advertising, public relations, media, technology, and word of mouth. Film and television drama marketing can fully use resources and allow consumers to understand and recognize them quickly. Not only that, film and television drama marketing can also accurately position the value culture of products so that products can carry fans' emotions and impressions of film and television characters associated. The cleverness of live streaming is that it uses incredibly affordable discounts to attract customers. Products that take time, energy, and more money to purchase in physical stores can be consumed while lying on the sofa on TikTok, even at a more favorable price.

4. The safety issue under the current Internet

With the networking and digitization of social resources and entertainment activities, the value of the era of big data is constantly improving. We can deeply appreciate the convenience of the Internet and the satisfaction. When we use social media, video, and shopping apps, big data analyses our preferences to "guess what I like." Big data appliers analyze individuals, such as searching terms and video viewing patterns of one. Those are ways for the big data era to win hearts and minds, including gauging users' interests before targeting ads and shopping links. This accurate personal data can improve personal life and enable consumers to optimize resource allocation. Even the content sent to us was something we just mentioned in a conversation with a friend. This fearsome accuracy is more of a privacy concern than a practical one. Security issue on the internet is an enormous topics. Online marketing uses the trick of crossing site tracking. According to Andrew Lewis, Cross-website tracking refers to the practice of advertisers, businesses, and other digital agencies and entities tracking your online activity to monitor your browsing habits. The website the user visits primarily does the tracking, but third-party apps can also gather and access this data. There are multiple reasons to justify this practice, such as product improvement, personalized user experience, and targeted advertising. Cross-website tracking eases your experience by remembering basic information, like your language preferences. It also makes browsing easier and publisher service better. However, as a kind of circulation, big data is a more valuable existence closed data environment, which wastes resources. Using data as a cost, benefit, or profit is using that data.

5. The prediction of the artificial intelligence

On the other hand, big data has laid a solid foundation for the development of AI. The era of big data promotes the development of artificial intelligence technology through each user's Internet records. Additionally, it improves the current application of synthetic intelligence products: the following describes the specific operation of artificial intelligence and the application of marketing in the market. Tim Cook, the CEO of Apple, said that AI is so unique that it is not just a gimmick. It has countless use cases, all of which could prove valuable if a company monetizes it. Microsoft is a significant investor in Open AI, and Apple might be looking to start something of its own. Apple might also keep its AI innovations in-house, following how it has historically preferred to do business. Specifically, he said it would be wrong for technology companies to harvest people's personal profiles in order to enhance their AI platforms. He did not mention any names, but he was likely talking about firms like Facebook and Google. Advancing AI by collecting tremendous personal profiles is laziness, not efficiency. Artificial intelligence must respect human values, including privacy. If we get this wrong, the dangers are profound. Cook also said that AI has great potential to improve our world. At its core, this technology promises to learn from people individually to benefit us all, and he said that we could achieve both great artificial intelligence and excellent privacy standards. It is not only a possibility, and it is a responsibility. In pursuing artificial intelligence, we should not sacrifice

the humanity, creativity, and ingenuity that define our human intelligence. Integrating human imagination and emotion into the technology developed by artificial intelligence is necessary because human emotions that machines cannot possess are valuable to developing artificial intelligence. Such as the current popular super dialogue model ChatGPT. As a strategic emerging technology, artificial intelligence has increasingly become an important driving force for technological innovation, industrial upgrading and productivity improvement. Human-computer dialogue based on natural language understanding is an essential direction for the development of artificial intelligence. ChatGPT has recently formed a phenomenon-level application, showing a high level of human-computer interaction. Some characteristics of artificial intelligence have broad application potential in many industries.

Chatgpt's OpenAI API is powered by GPT-3 language models, which the model can guide to perform natural language tasks using carefully crafted text prompts. But these models can also produce unreal, toxic output or reflect harmful emotions. This is partly because GPT-3 was trained to predict the next word on large internet text datasets rather than safely performing the language tasks users intended. To prepare the InstructGPT model, technicians rely on reinforcement learning from human feedback at their core. It's an approach they helped pioneer in earlier alignment studies. Such techniques use human preferences as reward signals to fine-tune our models. This is important because the security and alignment problems they aim to address are complex and subjective and cannot be fully captured by simple automated metrics. We were terrified and nervous about it. According to the current speed of artificial intelligence development, we can not see through the near future.

6. Conclusion

Traditional enterprises must embrace the Internet. No matter how traditional your industry is, whether manufacturing or service industry, it is necessary to strive to integrate into the Internet in all business links. Because of the information flow in the current era, more information can be delivered. To serve customers and consumers effectively, you must use Internet marketing for your business promotion. The times are changing rapidly, leaving more and more employment options for the next generation, but also fewer and fewer. It may not be possible to reach a deeper level of AI intelligence in a short period, but with the development of technology, many occupations will be replaced by AI. This is also a choice that needs attention. To further realize higher-tech research or to effectively manage human resources to do work that cannot be done by intelligence.

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