ARTIFICIAL INTELLIGENCE IN MARKETING: A COMPREHENSIVE ANALYSIS AND CASE STUDY ON NETFLIX'S SUCCESS

The evolution of Artificial Intelligence (AI) has revolutionized industries, with significant implications for marketing and streaming services like Netflix. AI's transformative impact on marketing is evident in its ability to analyze vast datasets, predict consumer behaviors, and enhance personalized marketing efforts through algorithms. The synergy of AI, Machine Learning (ML), and Deep Learning (DL) has elevated marketing strategies, enabling data-driven insights, precise targeting, and personalized customer experiences.

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In the case of Netflix, a prime example of a network business model, its success from 2015 to 2020 is attributed to key factors such as widespread accessibility, affordability, an excellent user interface, and efficient streaming technology. The technological edge lies in its advanced AI-driven recommendation system, CineMatch, and the uncanny ability to extract and apply insights about customer behavior. The diverse content library, global expansion, and strategic focus on customer metrics, including acquisition, retention, and lifetime value, further contribute to Netflix's sustained growth.

As part of the MAANG (Microsoft, Apple, Amazon, Netflix, Google) companies, Netflix exemplifies how AI is harnessed by tech giants to drive innovation and user satisfaction. The case study of Netflix underscores the pivotal role of AI in reshaping the digital entertainment landscape and serves as a benchmark for companies navigating the dynamic intersection of technology, customer-centricity, and global expansion.

AI, short for artificial intelligence, denotes the advancement of computer systems capable of executing tasks traditionally associated with human intellect. These tasks encompass learning, logical thinking, problem-solving, perception, and comprehension of language. One common way to elucidate artificial intelligence is through the "Turing Test," introduced by Alan Turing in 1950 (French, 2000). This test was considered instrumental in conducting the assessment of the ability of a machine in terms of exhibiting intelligent behavior akin to a human. In other words, Turin test is instrumental in terms of demonstrating human intelligence (Smith et al. 2006).

The Core Components of AI in Marketing

In the realm of marketing, the emergence and advancement in artificial intelligence technology is considered a revolutionary phenomenon. With the help of utilising machine learning, natural language processing and other artificial intelligence tools, marketeers are enabled to ensure that extensive datasets are scrutinized and actions of consumers are forecasted as a result of which numerous operations are streamlined (Davenport et al. 2020). In the context of personal marketing efforts, the role of artificial intelligence cannot be ignored. Personalised marketing efforts are facilitated using artificial intelligence tools through which algorithms are utilised for customising content suggestions

and advertisements. User interactions (in accordance with individual preferences and activities) become easier using artificial intelligence tools (Jarek & Mazurek, 2019). This not only assist in boosting customer interaction but also in enhancing the marketing approaches' effectiveness and in this process, more precise and pertinent communications are provided. Essentially, AI assists marketers in comprehending, connecting with, and involving their audiences in conceivable ways which is indicative of the paradigm shift in successful marketing efforts (Venkatesan, Craddock & Nagji, 2018).

Layers in AI

The revolutionary effect of artificial intelligence on marketing is attributed to three essential elements: Artificial Intelligence (AI), Machine Learning (ML), and Deep Learning (DL). AI encompasses the broader concept of creating intelligent systems that are capable of mimicking decision-making endeavours by humans. Machine Learning is considered a subset of artificial intelligence. It enables systems to learn from data so that performance can be improved without instructions explicitly

given by users. Deep Learning, in turn, is a specialized approach within ML, leveraging deep neural networks to process complex data and make sophisticated predictions. These technologies synergize to elevate marketing strategies, enabling data-driven insights, precise targeting, and personalized customer experiences, ultimately driving innovation and efficiency in the dynamic landscape of marketing (Bell, 2016)
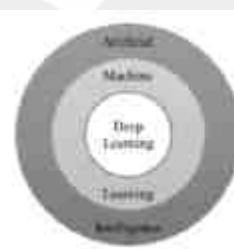
AI - In *Jeopardy!* example, basic idea a computer could beat a human is challenge AI sought to solve.
ML - Equipped computer with ability to understand question language and search for possible answers.
DL - Equipped computer with second set of algorithms that ranked possible answers.

Figure 1. Categories within AI
(Source: Venkatesan, Craddock & Nagji, 2018)

The Main Forces

Three pivotal forces play a central role in shaping strategies: algorithms, networks, and data. These elements collectively drive the intelligence, scalability, and adaptability of AI systems, revolutionizing the landscape and empowering marketers with personalized insights and data-driven innovations.

Rise of MAANG Companies

The fastest growing companies in the world, MAANG companies, encompassing Microsoft, Apple, Amazon, Netflix, and Google, leverage AI in diverse ways to

enhance their services and products (Turktarhan, Aleong & Aleong, 2022). Microsoft integrates AI into its software and cloud services, enhancing productivity and user experiences. Apple employs AI for facial recognition, Siri's natural language processing, and improving device performance. Amazon utilizes AI for recommendation algorithms, logistics optimization, and voice-powered services like Alexa. Netflix employs AI to analyse viewing patterns and suggest personalized content. Google, a pioneer in AI, integrates machine learning into search algorithms, advertising, and various applications, showcasing the immense impact of AI across the MAANG tech giants, driving innovation and user satisfaction (Jadhav *et al.* 2021, April).

Case Study: Netflix's Success through Customer-Centric Innovation

In the dynamic landscape of streaming services, Netflix stands out as a prime example of a network business model that has not only captivated audiences worldwide but has

also demonstrated exceptional financial performance. From 2015 to 2023, Netflix's stock price soared from under $100 to almost $500, a testament to its sustained success (Venkatesan, Craddock & Nagji, 2018)..
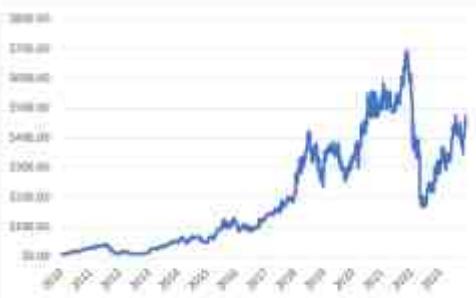

Figure 2: Stock Price rise of Netflix since 2010
(Source: Macrotrends, 2024)

Key Success Factors

Netflix's triumph can be attributed to several key factors. Firstly, its widespread availability across devices ensures accessibility, allowing users to enjoy content seamlessly on phones, TVs, Roku players, and more (Mier & Kohli, 2021). The affordability of its subscription plans makes it an attractive option for a diverse audience. An excellent user interface, coupled with efficient streaming technology, enhances the overall user experience, making content discovery easy and enjoyable (Molla, 2019).

Technological Edge

The backbone of Netflix's success lies in its advanced technology. The platform's uncanny ability to extract and apply insights about customer behavior has led to the development of innovative features like binge-watching and a highly effective recommendation engine. This algorithmic recommendation system, known as CineMatch, was introduced in January 2000 (Paterek, 2007, August). It prompts users to rate genres and specific movies, leveraging this data to predict preferences accurately and offer personalized content suggestions (Fulzele *et al.* 2023; Biddle, 2023; Wilson & Crawford, 2024).

Content Variety and Global Expansion

Netflix's diverse content library, spanning genres from documentaries to comedy to action, caters to a broad audience, contributing significantly to its popularity. Moreover, the company's strategic decision to go global and produce content worldwide has further expanded its reach and relevance (Molla, 2019).

Customer Metrics

For Netflix, tracking customer metrics is paramount to maintaining its success. The company focuses on customer acquisition, measuring how many new users join the platform each month. Equally crucial is customer retention, ensuring that once acquired, users continue to engage with the platform. These metrics collectively contribute to the calculation of the high customer lifetime value that is integral to Netflix's sustained growth (Venkatesan *et al.* 2018).

In essence, Netflix's success is a result of its relentless commitment to technological innovation, a deep understanding of customer behaviour, a diverse and engaging content library, and a global expansion strategy. The case of Netflix serves as a benchmark for companies seeking to thrive in the competitive landscape of digital entertainment.

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