Artificial Intelligence Marketing

T.Thiraviyam [1]

[1] Department of Business Administration, V.O.Chidambaram College, Thoothukudi

Abstract- **It cannot be denied that the world is rapidly shifted to a digital era. People are consuming more digital content on a daily basis by spending more time online. The digital tools and sites they use play an ever growing role in their lives. Smart marketing companies recognize this and adapt the concept of artificial intelligence in their marketing strategies.**

Artificial intelligence is revolutionizing the marketing world presently. Big data and an exponential growth in computing power have opened the doors for artificial intelligence to take off. With advancements being made in machine learning, neural networks, and deep learning technology, more companies are looking in to artificial intelligence to make their operations smarter and more efficient. Increasingly, the world of marketing is embracing these resources to make sense of data, learn more about customers, and streamline operations.

This paper begins with an introduction about Artificial Intelligence marketing and it further explores how marketers are utilizing the power of Artificial Intelligence and discusses the necessity of using this strategy for the marketing of product and services.

INTRODUCTION

Artificial intelligence (AI) marketing is a method of leveraging customer data to anticipate the customer's next move and improve the customer journey. AI offers the way to bridge the gap between data science and execution by sifting through and analyzing huge dumps of data which was once an insurmountable process.

The creation and storage of data is already happening at a tremendous rate, and it's growing exponentially every day. By 2020, it is expected that the world will have created over 40 zettabytes of data (1 zettabyte = 1 trillion terabytes), with 80-90% of it being unstructured. The evolution of big data and advanced analytic solutions has made it possible for marketers to build a clear picture of their target audiences than ever before.

Artificial intelligence can process both structured and unstructured data with exponentially more speed and accuracy than any human could. It is a key point of interest for companies struggling to organize their consumer data in a simple way. Marketers are leveraging the ability of machine learning to make connections between data points in order to gain insights into their customer base. These systems can analyze speech to determine emotion from spoken language, create visual renderings to show social media trends, and crunch data to make predictions.

LITERATURE REVIEW:

The core of marketing hasn't changed, but the way we communicate has changed marketing. It is morphing every day. That's where the big shift has happened. The art of storytelling is very much there but how we tell the story and the medium through which we tell the story is the key. The big changes that will happen in marketing, just as in business, is artificial intelligence and machine learning. – Sanjiv Mehta, CEO & MD of Hindustan Unilever Ltd. (Corporate citizen, February 16-28, 2018, Page 20 to 25)

It's not that difficult to argue that marketing in the future will make increasing use of AI. Even today, the components of an AI – based approach are largely in place. Contemporary marketing is increasingly quantitative, targeted, and tied to business outcomes. Ads and promotions are increasingly customized to individual consumers in real time. Companies employ multiple channels to get to customers, but all of them increasingly employ digital content. Company marketers still work with agencies, many of which have developed analytical capabilities of their own. - Thomas H. Davenport (Artificial Intelligence for Marketing by Jim Sterne, Page 18)

In the 21st century artificial intelligence (AI) has become an important area of research in virtually all fields: engineering, science, education, medicine, business, accounting, finance, marketing, economics, stock market and law, among others (Halal (2003),Masnikosa (1998), Metaxiotis et al. (2003), Raynor (2000), Stefanuk and Zhozhikashvili (2002), Tay and Ho (1992) and Wongpinunwatana et al. (2000)). The field of AI has grown enormously to the extent that tracking proliferation of studies becomes a difficult task (Ambite and Knoblock (2001), Balazinski et al. (2002), Cristani (1999) and Goyache (2003)). – S.A.Oke (International Journal of Information and Management Sciences Volume 19, Number 4, Page 535, 2008)

For over two thousand years philosophers have been trying to understand and resolve two big questions of the universe: how

does a human mind work, and can non-humans have minds? However, these questions are still unanswered. Some philosophers have picked up the computational approach known as artificial intelligence and hence according to the father of Artificial Intelligence John McCarthy, it is "The science and engineering of making intelligent machines, especially intelligent computer programs" that is a branch of computer science concerned with the study and the design of the Artificial Intelligence is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think.

However there has been a lot of myths, and also criticisms by other scientist claiming that such highly sophisticated behavior as love, creative discovery and moral choice will always be beyond the scope of any machine. Some even believed the AI was the way to a rule by machines. Some say AI is nothing but nonsense cladded in technical terms but today it is an essential base for modern technology and solves many difficult problems in computer science. While AI will be accomplished by studying how human brain thinks, and how human learn, decide, and work while trying to solve a problem, and then using the outcomes of the study as a basis of developing intelligent software and systems. – Maria Johnsen (The future of Artificial Intelligence in Digital Marketing, Page 13)

RESEARCH METHODOLOGY:

The paper searches the various dimensions attached to the concept of artificial intelligence marketing. This paper is a conceptual study, where examples are cited based on the references from some secondary material available and some from the personal experiences of the author.

RESEARCH OBJECTIVE:

The primary objective of taking up this study is to analyze various aspects of artificial intelligence, and to reveal the necessity of adapting it as a marketing strategy by the marketers for the marketing of their product and services.

Artificial Intelligence, Machine Learning and Deep Learning:
Artificial intelligence is a branch of computer science that deals with building intelligent machines that can think and responds like humans. The Turing test, proposed by English Mathematician Alan M. Turing in 1950, was a test that determined the intelligence of computers and was taken in order to identify whether the computer could achieve human level performance in all cognitive tasks

Machine learning is a subset of AI that enables machines to automatically learn and improve from experience. Specialized systems are created for this purpose and no explicit programming is needed to add new definitions to the database. Deep learning is a subset of machine learning comprised of extremely large neural networks and a massive collection of algorithms that can mimic human intelligence.

The return of the direct answer by Google is powered by machine learning and the return of the "people also ask" section is powered by deep learning. Google is constantly learning and mimicking human intelligence without the need for humans to feed all the answers into its massive database.

How Artificial Intelligence works? :
Artificial intelligence systems work on the basis of algorithms which are a set of rules followed in problem-solving operations, especially by a computer. When digital marketers come across the word "artificial intelligence", they immediately think of the "Rank Brain" algorithm. Rank Brain is a machine learning system rolled out by Google in 2015 which is capable of returning answers to users. It uses the power of artificial intelligence to understand and respond to user queries in the same manner as a human would. Moreover, it also returns a set of similar questions that people often type into Google. The accurate returns of the answer along with a similar set of questions are all powered by artificial intelligence.

MARKETING STRATEGIES IN DIGITAL ERA:

In this modern era, there are many businesses that grow rapidly because of the availability of assistive technologies. The most popular use of technology in marketing is social media. Social media has been a very important asset in marketing development and is necessary in business growth. Not only because today is digital era, but also because it is easy. With all these new technologies, there are some new marketing strategies for business people to promote their product. Some of them are discusses below.

Content Marketing – Content marketing is now a major focus for many brands because of its important role in social media, multimedia, and mobile search. Many companies still don't understand the importance of trend and how content marketing underlies almost all digital marketing. It is actually very important to create brand awareness.

Mobile Marketing – A lot of people now use smart phones and tablets because it is easy and time productive because they can bring it everywhere and access it anytime they want. The continuously increase of smart phones and tablet users make the availability of marketing content for mobile platform because a necessity. Companies should redesign their website to make it responsive to mobile devices.

Integrated digital marketing – Integrated marketing is important to ensure that all messaging and communications strategies that used in marketing are unified across and centered around customer. For eg: Google has invented Google + with many reasons, but one of them is to able to see and catch social signal and pattern.

Continuous Marketing – Actively and continuously reminding the customer about the product is one of the popular marketing strategies right now. But it is also important to balance the promotion of the product in offline mode.

Personalized Marketing – The marketing approach through traditional media such as television becomes less effective because of media saturation. Now there is a new marketing strategy called personalized marketing. Using computer software to read and craft individual messages. Computer will read customer's behavior and provide them with relevant information.

Visual Marketing – Instagram, Pintrest slideshare and much more can be used for this strategy. It is necessary to be able to put marketing message and signal in an object or image. This new marketing trend is used to raise the involvement of digital marketing.

Ways to pump up digital marketing efforts using AI:
Propensity modeling and Predictive analytics to predict the behavior of customers:
Propensity models are statistical score cards that are built to identify prospects who are more likely to respond to an offer. It correlates customer characteristics with anticipated behaviors. In this, the target audience and the campaign objectives are defined and the tool automatically recommends strategies to achieve the desired goals.
Predictive analytics allows marketers to extract information from data and uses it to predict purchase trends and user behavior patterns. This tool analyzes large volumes of data and helps to uncover the most impactful insights. It works via the following steps:
Identifying the objectives and analyzing the data extracted to determine patterns or models that match our needs.
Creation of models and their validation. In this step, data mining is used to refine and select a final model. The models are validated based in the set goals.
Application of the model results in to business decisions and constantly refining the models for better outcomes.

Accelerated Mobile Pages to reduce load time:
Accelerated Mobile Pages is an open source initiative that makes it easy for publishers to create mobile-friendly content once and have it load instantly everywhere. Google announced AMP web pages which are a lighter version of the traditional web pages and aim to drastically improve the performance of the mobile web, such as reducing page load time to improve the user experience. AMP pages increase the chances of ranking on the top three search results of Google.

Using AI-powered chatbots to improve user experience:
Most businesses are already aware of and using live chatbots, or AI systems where we chat with an instant messaging format. This makes our website unique, valuable, or engaging and stands apart from others.
Advantages in adapting Artificial Intelligence systems:
To customers:
AI systems can assist customers 24x7.
Search sessions get easier as AI easily tracks user behavior and predicts their future web behavior and decisions, which would lead to better keywords and even, increases use of semantic keywords. .

They can retain customer data and they don't have to repeat with every interaction.
They are friendly and always treat customers politely and with patience.
They can handle several customer requests simultaneously, so that the waiting time is reduced to nil.
To Marketers:
AI is the base for digital help. Armed with big data insights, digital marketers can greatly boost their campaign's performance and return on investment.
Minimal manual work and accounts for lesser errors.
It ensures the right message is being delivered to the right person at the right time, via the channel of choice.
It promotes brand image of the company and builds more prospective customers which increases the sale of goods and services.
Personalized advertisements can be created for the users to boost up sales.
They have the power to track customer purchase patterns which allows the business to revamp existing marketing strategy and increase sales.
It acts as a effective way to create a relationship with the consumer that has depth and relevance.
Risks and Limitations in Artificial Intelligence Marketing:
AI is limited only by the availability of data.
Recurring tasks can easily be shifted over to AI systems but tasks that need human intervention will still rest on the shoulders of people.
Like any form of new technology, there can be a significant cost of purchase and maintenance. The return on investment needs to be carefully considered by our company before an AI system is implemented.
Implementation of AI systems is time consuming.
Algorithms can be wrong as computers cannot do it without humans.
Customer privacy is not considered.

Necessity of adapting AI as a marketing strategy:
Effective marketing strategy will take the right decisions to make a company successful online. To achieve a successful marketing strategy, it is necessary to follow up on new social trends and to keep interacting with the customer. Thus the power of artificial intelligence systems in digital marketing strategies enables a marketer to market his products or services and succeed in his business operations.

CONCLUSION:

We have to develop one-on-one relationships with the consumer. That's the need of the hour; that's what will make us survive in the new world. Marketing as its core is about the mind and heart. It is about intelligence and emotion. Though we have to provide the functional benefits, we also have to occupy the emotional space in the minds of the consumers.
The way we communicate with consumers has changed marketing. It is morphing every day and that's where the big shift has happened. The big change that is happening in marketing, are artificial intelligence and machine learning. It creates new opportunities for storytelling and marketing. It will change how people interact with information,

technology, brands and services. Thus marketers must adapt artificial intelligence systems in their marketing strategies to succeed in the present era of digital marketing. It saves both time and money for the marketers, customers, prospects; and occupies the minds of customers without human intervention.

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