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Analysis of Market Obligation Using AI: A Survey

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Abstract*— In the future, artificial intelligence is expected to have a significant influence on marketing practises and customer behavior. The authors offer a comprehensive method for evaluating AI's efficiency, which incorporates intelligence levels, task types, and whether AI is implanted in a device and is based on both existing and new research. considerable exposure to reality Prior study has mostly concentrated on a subset of these qualities; however, more research is needed. All three are integrated into this study in a prescribed way. The authors then create a study agenda that looks at how marketing methods and customers are changing now, as well as how they will change in the future. However, it raises important policy challenges such as confidentiality, bias, and morality. Finally, writers believe that machine learning will become more popular. It will be more efficient (rather than replacing) human supervisors whether it supports people.

I. INTRODUCTION

Machine learning is believed to have a major effect on future marketing practices, involving computer systems, marketing operations, customer service choices, and consumer characteristics.

Because autonomous vehicles can travel at higher speeds, they can reduce commuting times and improve traffic flow for passengers, who can comfortably work while being driven to their destinations, driverless vehicles may have an impact on real estate market since they allow people to work while being driven to their destinations. As a result, rural areas may become more attractive than they are now.

AI has an effect on the market activities among many companies. Even the majority of salesmen regard the phone conversation (or something similar) to be a significant part of the sales process.. In the future, salespeople will be assisted by an AI assistant who watches videoconferences within live time. By using advanced noise skill sets, the Patient's voice can be detected and provide a real time feedback which is used to assist salespersons next move with the help of AI. Therefore, it shows that with the help of AI we can improve the efficiency of a salesperson but the main drawback of this method is that it makes virtual relationships with the customers that causes an improper mode of communication.

Many experts have analyzed the drawbacks of AI, that is problems related to data security, statistical flaws and can cause problems to morality of human interaction.

II. A TECHNIQUE FOR EVALUATING AI

Based on behavioral science and digital technology a new methodology was introduced to solve problems related to evolution of AI. The main elements of AI deal with IQ levels, types of challenges and check whether AI is integrated in robotics. Task mechanization and functionality are distinct, according to Davenport and Kirby. The process are consistent and logical which meet the standards or the rules of AI applications.. Deep Blue, for example, overcame the best human chess player using existing rules and "brute- force attack" algorithms.

Context awareness, on the other arm, was already being established, with data scientists attempting to advance AI abilities from automating manual to considering awareness. There are algorithms that are used in AI to "Learn how to Learn" called Context Awareness which are used to make machines think beyond pre-programmed programs by analyzing the situation. AI is developing its skills in a number of areas, including work automation & context- awareness. These machines have special algorithms to improve learning that helps to analyze the situations and make decisions these algorithms are called Context- awareness.

III. HOW DO ROBOTS AND AI INTERACT?

An answer is simple to follow. Artificial Intelligence gives robotics computer vision, allowing them to navigate, sense, and compute their responses. Machine learning, which seems to be a part of computer programs and AI, is just how machines learned to do tasks from humans.

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1. WEAK AI:

Artificial intelligence of this t y p e is used to a n a l y z e the human thoughts and interaction based on the behavior of other individuals. Preprogrammed commands are used to analyze the commands and responses for the robots. Although commands given to the robots are not understandable to the robots they just observe the responses of the users and make decisions based on it. There are many voice assisted devices like Alexa, Siri that retrieve commands from the owners.

2. STRONG AI:

These kinds of robots uses AI to take decisions and solve challenges independently. These robots don't require any external supervisions to control the robots. This type of robots implement AI which are used in automated cars and other latest technology. Humanoid Robots use this kind of AI technology to analyze the situation and make appropriate decisions by understanding their environment which helps them interact with surrounding.

3. SPECIALIZED AI:

When a robot must execute only a few specific jobs, this type of AI is used. It can only be used for specific tasks. This primarily refers to industrial robots that execute predetermined and repetitive duties such as painting, tightening, and so on.

IV. AI AND MARKET STRATEGY

Price variations is common in the market, AI can be used to analyze the market price variations. This helps for customers to make decisions on what to buy, what is the value of product in the current market.

This helps in forecasting the prices of future market, to make decisions on whether or not prices should be changed which helps customers as well as the sellers to set a price to earn good profits.

BENEFITS OF AI MARKETING STRATEGY:

1. Automation:

One of the primary benefits of AI marketing is automation. It improves the intelligence of the strategies. Businesses can use automation to convert data into meaningful interactions and decisions, which will have a positive impact on theresults.

When everything is data-driven, AI marketing ensures that the data is accurately and quickly converted into business-relevant insights.

2. Minimal errors:

When we say that AI is a replacement for humans, we also mean that AI is a step ahead in terms of error reduction. Most importantly, it safeguards the data.

Today, when cyber security is a major concern, Artificial Intelligence aids in the protection of critical business data by learning, reacting, and adapting to a company's cybersecurity requirements.

AI AND CUSTOMER BEHAVIOR:

Artificial intelligence is already widely used in business, whether we realize it or not.

There are many concerns about how it will affect the workforce, but have we considered how it will affect our customers' behavior? The customer experience has so many variables between initial expressions ofinterest and final purchase that it's critical to know if AI can make a difference along the way.

1. AI Can Increase Sales:

Artificial intelligence can understand consumer habits, needs, and preferences in a way that transforms the business-consumer relationship. Withthis information, AI can direct the consumer into a funnel that will elicit a more positive response from the customer. They will not only have a better overall experience, but this experience may even compel them to make a purchase.

AI can also predict when a customer is most likely tobuy by targeting them at specific times of day to increase sales.

2. AI Can Increase Loyalty:

Those same insights that generate a rise in sales mayalso encourage customer loyalty. Businesses everywhere are attempting to extend loyalty within their customer base, and AI can build that bridge between customers and businesses. By using these insights, predictive technology can make recommendations that support customer habits and behavior. If AI can make a recommendation that the customer is happy, why would they choose a special product in the future? Keep your customers returning by offering a wonderful solution to their problems. With AI on your side, you'll be able to lock customers down left and right.

3. AI Can Provide Convenience:

Convenience compensates for a large portion of customer decisions. The next step in that progression is artificial intelligence. Customers will be able to make purchases more quickly and communicate with digital assistants to find exactly what they are looking for, all from the comfort of their own homeor office. Online shopping has already provided an extremely convenient way to shop without leaving the house, and AI will only make this even more convenient.

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4. AI Can Increase Trust:

Customers need to know that you can not only keep their financial information secure but that you can also deliver a great product every time. Offering something valuable to your audience is a great way to establish a line of trust while maintaining a reputation for transparency, honesty, and security.

V. AI AND POLICY ISSUES

Finally, policymakers are interested in AI. We identified three main areas where governments attempt to make sure that firms find a healthy relations between their business interests and the environment and customer's best interests: Biasing, ethics & data privacy are the main concerns that are need tobe addressed.

Data privacy:

Companies today know a lot about their customers because of the union of big data & AI. As an outcome, two issues need to be investigated further. Consumers are worried about data privacy, for starters. Tucker points out that privacy is challenging for three reasons: (1) Data may persist for much longer than was intended due to low storage costs, (2) Data may be processed and used for reasons other than those for which it was originally collected, and

(3) information for one person may include data about other people.

Secondly, whether data-protection management activities should be guided by legal regulations orself- regulation is a key study subject. as "it is not clear yet if market-driven incentives will be sufficient for firms to adopt policies that favor consumers or whether regulatory oversight is required to ensure a fair outcome for consumers," as "it is not clear yet if market-driven incentives will be sufficient for firms to adopt policies that favor consumers or whether regulatory oversight is required to ensure a fair the outcome for consumers."

Thirdly, we must understand how to identify and manage privacy threats as immediately as data is collected, and then how to respond to data protection failures (such as data theft). Amazon currently sells buzzers with cameras (with Ring gadget), but it's possible that it's experimenting with integrating face recognition AI into them.

As a consequence, customers may well be worried if Amazon gets access to Ring data, which may well use or sell. Neighbors could object if Ring cameras record family front yard activity without their consent. Moreover, law enforcement officials may subpoena Ring data, or hackers may steal it illegally. These are concerns that need to be looked at more.

Bias:

A multitude of factors, including the sets of data used to feed AI, could contribute to computational bias in AI technologies. Amazon, in the example, aced a project that employed artificial intelligence to rate job applications, ostensibly as it was unfair against women. This bias arose because the datasets used to construct the algorithms were based on information from past candidates, the majority of which were men. To make matters worse, many Ai systems are opaque black containers, making it hard to figure out the specific parameters they evaluate. The question of how to tell if AI applications are biased, is a popular topic.

Ethics:

Eventually, Application developers must care approximately morals; we'll concentrate on two topics. Next, privacy protection measures would influence a vision and strategy (for example, if it wants to be perceived as trustworthy; Martin and Murphy 2017; see Goldfarb and Tucker 2013), yet those who may also be determined for ethical concerns. Next, companies set whether or not it will apply AI by resolving the causes it'll still resolve. Deep neural networks have been used by two University researchers to determine people’s choices of sexual orientation only based on face pictures. Deep learning model techniques outperform individual experts in differentiating between homosexual and heterosexual men.

VI. CONCLUSION

This paper establishes a framework for evaluating whether artificial intelligence will shape the growth of marketing, with an emphasis on how AI will impact market research. Purchase behavior and marketing techniques may be impacted. Researchers based these results on previous research or significant discussions with professionals. Moreover, researchers propose a comprehensive paradigm for AI advancement, stressing the importance of Test scores, activity types, and other parameters independently of where the AI is integrated inside a robotic platform. In a conclusion, users present the whole first method that incorporates all three aspects. a unified frame, They further make two remarks. Users presented three research agendas.

For research the full extent of AI's impact, three categories have been used: (1) why enterprises' promotional strategies would improve, (2) whether consumers' behavior can adjust, & (3) privacy laws, bias, and ethics issues. Such field of research must be evaluated between university, enterprises, & policymakers, with both the understanding because, whereas AI seems to have some effects on marketing, it'll have a much bigger influence on the environment, but so still have so much to discover. Designers assume that somehow this proposed research will lead the userto and reference for

future AI research.

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