Revolution of AI in Marketing

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Introduction

A set of instructions communicating valuable information about a product or service that has valuable offerings for customers, clients, partners, and society at large is defined as Marketing. Marketing has evolved a lot with the recent developments in technology(Mariani, Perez-Vega and Wirtz, 2022). We have been hearing a lot about the introduction of new technologies like Artificial Intelligence (AI), Blockchain, Metaverse, Big data analytics and what not. Among all these latest technologies, AI holds the disruptive transformation potential for many industries(Verma *et al.*, 2021). As we move forward, we will be discussing applications of AI in marketing industry highlighting the wave of opportunities and negative impacts of its implication with reference to society, politics, ethics, and legalities into the industry. I also plan to provide solution to the safety and security surrounding the development of these new technologies and highlight some policy to mitigate risk and safeguard public interest. At last, the conclusion will be focused on what I believe after all the readings and study.

AI is literally everywhere in today's world be it our phone, car, home we experience it everywhere. Entrepreneurs and business innovators believe AI in every product and service we buy and use. It's application to solve our day-to-day problems and business problems is increasing rapidly (Chui, Manyika and Miremadi, 2018). Cofounder and CEO of DeepMind, Demis Hassabis defines AI as "the science of making machines smart" and then these machines, in turn, enhance human capabilities and knowledge. Referring to Demis's statement, Marketing with AI is defined as science of making marketing smart (Anon., n.d.).

To give example of AI in our present lives:
- AI and Siri answering our questions.
- Recommendations of shows movies ad videos on Netflix, Amazon prime and YouTube.
- Microsoft word suggesting grammatical mistakes.
- Connection recommendation on LinkedIn.
- Amazon predicting our next purchase.
- Netflix transcribes movie from one language to another.

AI driving the customer journey

As we all know consumer behavior and choices are being influenced a lot by digital applications like Instagram, Facebook, and YouTube, and as a result data is being generated and available at a much faster rate (Arco *et al.*, 2019). After the covid-19 pandemic, a lot of people have shifted from traditional commerce to online or e-shopping platforms which leads to availability of more data to study about consumers behavior, intention to purchase or re-purchase because online shopping platforms have also influenced their usage behavior(Petcharat and Leelasantitham, 2021). Marketers and organizations believe using big data related techniques like prescriptive, descriptive and predictive analysis could help gather insights about the current and future customers such as purchase orders, transactions and consumer behaviour towards previous promotions or offers, and build models to predict future marketing trends, personalized marketing offers leading to reduction in customer churn(De Bruyn, 2023).

AI in personalization

According to oxford dictionary, term 'personalization' refers to "The action of making something personal or focused on or concerned with a certain individual or individuals"(*personalization, n.*, 2023). Based on consumer behaviour and demographics AI can customise messages targeting an individual or set of individuals. Tailored rewards and challenges to each consumer preferences AI also has the power to personalize gamified marketing experience leading to deeper engagement. With the presence of large amount of customer data it becomes easier for algorithms to analyse their preferences and behaviour which results to targeted advertising, and product recommendation for instance as can be seen in fig.1, third notification from 'Tinder' is with the user name and tinder often send these kind of personalised marketing messages to attract individuals to their platform and fig.2 notification from app 'TOPMAN' inviting Christian to check the latest styles on the app. AI powered Natural Language Processing tools analyse customer's review, social media interaction and other unstructured data which helps brand understand consumer sentiment, point of view (pov) and communication styles leading to optimal engagement(Odetunde Babatunde *et al.*, 2024). Personalization in marketing is much important and it's rising importance is backed with the fact that there has been an increase of 5%-15% in revenue and 10%-30% in marketing within

a single channel and it is just possible because of successful implementation of personalization(Chandra *et al.*, 2022).

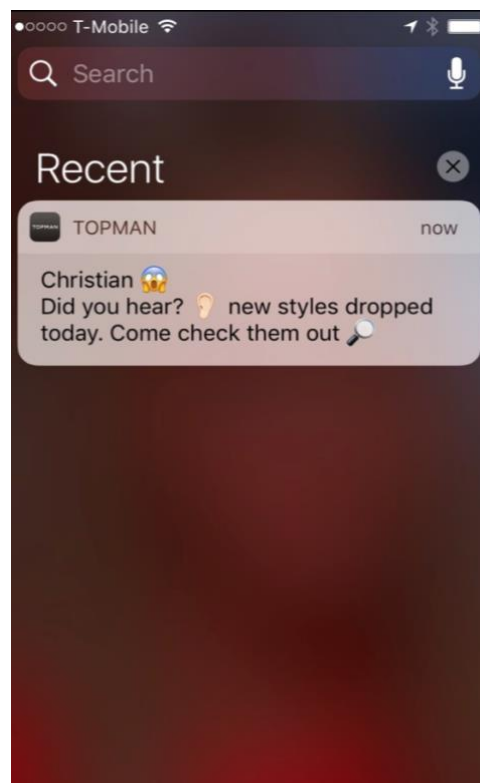*Figure 1 A screenshot of a phone with personalised notification from 'Tinder'*

https://shorturl.at/lnpsH

Figure 2 Personalised notification from 'TOPMAN'

https://shorturl.at/gmqC1

Applications of AI

Voice AI

Interaction of human with computer have evolved a lot since introduction of Virtual Assistants (VA) devices and technologies like Amazon Alexa, Siri from Apple, Google Home. Accessing product and service related information and interaction with brands by consumer has been changed dynamically. Though a customer's interaction with VA is totally dependent on their needs but a relationship developed with brand using a VA results in an intention of using the brand in future(McLean, Osei-Frimpong and Barhorst, 2021). It is reported over 35% of households in America with adults above 18 years of age has smart speakers. Not only this but also 38.2% of them have asked these smart speakers about a product information, 25.2% have ordered new products and 14.3% make their monthly purchases using these smart speakers and thus it is believed, that potential of a smart home speaker in advertisement market will increase. 38% of users found advertisements less intrusive through VA compared to television, social media, and 39% found these advertisements more interesting comparing to any other source. For instance in 2019, IKEA advertised and drew an active conversation with consumers, playing lullaby in front of their mattresses and recommended products to customers who were interested in lullaby, leading to an attractive engagement rate of 7.68 (Park *et al.*, 2022).

Vision AI

Since the covid-19, there has been an increase in number of people shopping online and also a rise number of first time users(Dinesh and Muniraju, 2021), even though customers are favouring e-commerce but still there are some purchases which cannot be completed without looking at the products and thus with help of Augmented Reality(AR) companies are able to provide a 3D model of product and users are able to experience the product in their surrounding to see how it will look if purchased. For instance, one of the major furniture retailer website named IKEA, allows customers to check if the furniture and décor goes hand-in-hand in a realistic view with the help of an amazing feature known as View-in-Room AR on their 3D e-commerce website(Kazi *et al.*, 2022). AR allow brands to put digital content into our life by overlaying it into the real world. A user can try on virtual clothing, rearrange furniture in their room which helps in deeper engagement and build a memorable brand interaction(Farooqui, Pawar and Singh, 2023)
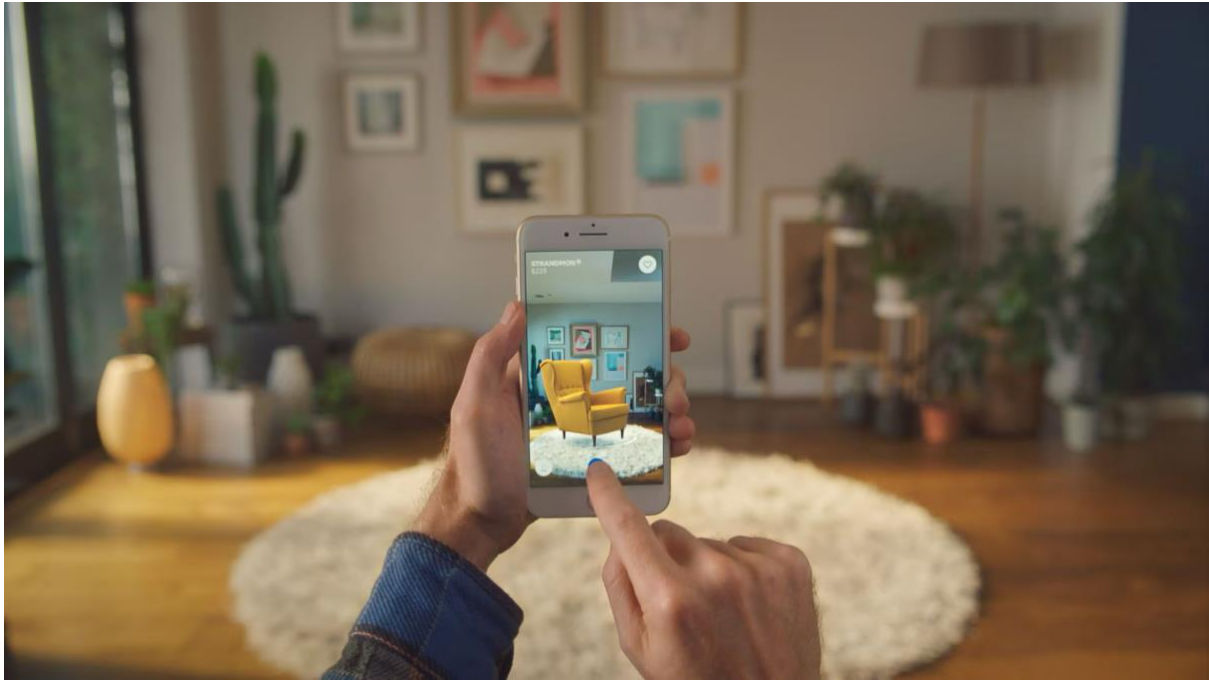
Figure 3 An image of IKEA app showcasing 3d display of furniture in their house before they make a purchase

*Source: (*Launch of new IKEA Place app – IKEA Global*, 2017)*

Language AI

Companies have been taking assistance by AI to handle simple customer queries about their order deliveries, appointment scheduling and sending more complex issues to human agents resulting in saving time and costs. All of this is possible due to AI-powered customer servicing firms like Amelia (formerly IPsoft) and Interactions who are their 24/7 to triage customers. Intelligence system like task automation tools have been designed to execute a repetitive, structured tasks, following a set of rules. For instance, welcome email to new members on their app or website (Davenport, Guha and Grewal, 2021). One of the European telecom company shifted from highly blunt customer outreach messages to gen-AI generated messages engage with specific set of individuals(customers). They built a gen-AI based engine to train on anonymous information to modify communication messages based on the behaviour, region, and other attributes of the target community. Following rules and regulations, these communications were sent to users and it resulted in 40% increase in response rate and 25% reduced deployment costs(Harkness *et al.*, 2023).

Positive impacts and opportunities

Customer behaviour

It is so much possible to generate a consumer profile based on the data they voluntarily leave in all of their online actions like website visits, social media operations etc and thus it enables marketers to understand consumer behaviour resulting in data driven marketing and decision making (Arco et al., 2019).

Decision making

Deployment of AI has been increased in operational areas of marketing to analyse which customers should be targeted, select the designs of advertisements according to the target segment of customers. It is to be believed that AI will be used in strategic decision making to decide marketing strategies based on the different segment of consumers and channels of communication(Stone et al., 2020).

Market Analysis

Large amount of data can be analysed through AI and forecast actions likely to be taken by consumer. It can process a lot search at time and suggest whether the consumer will make a purchase or not. It suggests businesses what is and isn't working right and suggest required actions to be taken by the business and improve their efficiency three time than usual(Haleem *et al.*, 2022a).

Product Development

With assistance of generative AI companies can analyse real time unstructured data on social media platforms or from other sources to have an understanding of flowing trend in the market. Then the creative team can get a skeleton of designs through generative AI and design new products based on the output infusing fashion house's signature on every product or new design. This can be useful for making signature or limited edition products. For instance in December 2022, a fashion was organised showcasing generative AI designs by a Honk Kong based fashion group(Harreis *et al.*, 2002).

Marketing Campaigns

AI has been assisting marketing firms since a long time now to customer experience. Processing large data sets i.e. consumer behaviour and outcome of previous marketing campaigns, marketers can create more optimised campaigns and predict their results as well. With the assistance of companies can understand what customers believe and feel about their brand, products or services and can use this data in real time to attain maximum efficiency on their branding campaigns (Haleem *et al.*, 2022b).

Limitations

Lack of emotions

Though AI has advanced a lot and operates without any human intervention but customers do look for empathy. It is essential to develop emotion AI so that consumers gain trust and are more inclined towards use of AI. For an illegal purpose or abusive way affective AI can be developed but is prohibited to be used by ethical guidelines. False sense of bonding or impression of human connection or interaction can be created using artificial emotions but could have unethical and harmful effects. New human rights are in talk to counter these threats(Pusztahelyi, 2020).

AI being controlled

As we know algorithms can override in real time and a same case happened on June 3rd, 2017 in London, England when a terrorist vehicle rammed and stabbed several. Due to this panic a lot of people tried to leave the place through various modes of transport one of which was Uber. As the demand increased for cabs in the specific area uber pricing algorithm changed the prices and charged double at that time leading to social outcry, a lot of statements were made against uber leading to negative publicity of brand. This action was not a result of decision made by anyone at uber but the result of pricing algorithm adopted by uber. Due to this incident, it is believed that a good AI is controllable (De Bruyn *et al.*, 2022).

Deepfake

It refers to real video and fake content which is being created using AI technologies. Deepfakes will change the world of advertising as they are believable, powerful, and more than fake videos as they are convincingly real. For ones linked to advertising, the major threat associated with

deepfakes is fake news. For instance, a statement by President Obama in public service announcement calling Trump "total and complete dip$!&t" (Kietzmann, Mills and Plangger, 2021). According to Siwei Lyu, "it only takes about 500 images or 10 seconds of video to create a realistic deepfake" which tells that all the social media posts or YouTube videos shared by company could be used to create negative PR for your brand (Roetzer and Kaput, 2022).

Poor data and inefficient training

To attain effective technology solutions it is important for businesses to have a good blend of data quality and management of the company. High quality data results in effective technology usage and real-time decision making. Inaccuracy in results can be attained due to poor data quality. Therefore to get optimal results in technology driven business, it is essential to secure good quality. Only good quality data doesn't play the role it is also essential that firms start investing in employee training. If trained properly more efficient and appropriate use of technology can be seen resulting in growth of the company (Rana *et al.*, 2022).

Data Sharing and privacy concerns

Many big corporations have access to vast amount data, which is used by them to increase their profits through practices like data analytics to improve or create new products or service. For instance, famous and renowned beverage company Coca cola collects data from self-service vending machine and monitoring social media platforms to develop new products and enhance existing products, but they also share all of this data with their third party providers who support its services. Though data sharing activities can create great benefits to digital ecosystem, but it also leads to privacy tensions to consumers. These days consumers do not have control over who has their personal information and thus this information can be manipulated for commercial purpose. Due to smart home devices and Internet of things it is believed that spam emails and retargeting activities are on the rise. It also has a negative effect on the intention of consumer to purchase from a brand due to trust issues linked to privacy and security of their brand engagement via the voice assistant (Quach *et al.*, 2022), (McLean, Osei-Frimpong and Barhorst, 2021).

Suggestions and Conclusion

Marketers now have access to most powerful tool "AI" to market products and services offered by them. IT helps them in certain ways to use insights from data analysed and personalize customer experience, marketing campaigns for target audience and reach out to customers through Vision, Voice, Language AI. It helps save them a lot of cost due to informed decision making, and automate some of the tasks resulting human resource to focus more on strategic development and give touch of brand to the ideas generated through AI. When market research is carried forward, AI turns down theory based approach and thus lead to a result in debate regarding to theory or data driven decision making. Organisations should have a understanding on how consumers feel about the services and products offered by them to develop sustainable competitive advantage[1]. However, companies and policy makers should have a lookout on the vast implications of this technology and I believe it should be addressed effectively. Issues like deepfakes it could not only lead negative public relations of companies but could also create big problems in life of a common man or political representative. Biasness in algorithm can be created for personal gains as well, thus marketers should ensure unbiased, and transparent AI practices are being followed. Not only this to get efficient and effective results organisations should ensure to invest in good quality data, and efficient training of human personnel. Companies should be bit careful on while exchanging data with third parties or other companies and try not disclose personal information about their users. Further research could taken forward on issues discussed above.

Though AI has been quite promising and it is evident with its growth and adoption around the globe, but is unbelievable that a lot of countries has little or no law surrounding usage of AI. Even where the law exists, it only focuses on data privacy and protection, however no light has been shed on important issues like deepfake, malpractices using AI, false sense of bonding with human. Stakeholders should focus a little on setting up ethical rules for marketing practices followed with the help of AI. Marketers should invest a bit towards development of bias detection tools and stakeholders and policy makers should shed some light on to safeguard consumer privacy(Kumar and Suthar, 2024).
Government should also contribute towards the development of technologies like these as these applications have potential to change our society but they should also focus on developing laws around appropriate implication of technologies like these.

To conclude, I would like address us individuals as well to make effective and correct use of these technologies as we have a lot to gain but also be a little aware of what information we share and how we can prevent ourselves from unnecessary attention to marketing and contributing to the profit maximisation of companies. Services like this could help us a lot. It is just the beginning of new technological era where machine learning, big data analytics, and Artificial Intelligence are just the starters as we look forward to the future there is lot yet to be seen in the field of technology.

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