Will Artificial Intelligence Take Over the Digital Marketer's Job?

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ABSTRACT

This Research paper describes the relationship between digital marketing and artificial intelligence(AI), at the same time, ways of artificial intelligence (AI) used for app development. As a branch of Marketing, digital marketing managed to create value to the organizations and increased the engagement with the customers withhelp of electronic services. Digital marketing has helped industries to monitor their procedures including branding, promotion, advertising, channel distribution etc. Based on data gathered, interactive consumer experience and a digital overview of sales and procedures, business managers could make more accurate and decisions. Due to the excessive amount of data which is generated daily by customers journey and experience turn to become more complicated. The large amount of data generated leads to a chaotic environment which marketer has to handle. User's data daily differentiate and decision makers must deal with this reality. The need of use smart and modern applications within organizations emerges to better analyzing, classifying, optimizing and targeted user. Based on a high complex data, marketers must identify their needs and search for advanced technological solutions. Intelligent data-based driven models could lead to consumer action predictions based on dependent variables of interest. Data mining, artificial intelligence (AI), machine learning, deep learning could add complementary to marketing science. User profiling, data classification, content optimization, optimized targeted audiences, predictive models, search engine ranking factors optimizations are benefits of using artificial intelligence (AI) and generate highly accurate results

KEYWORDS: Artificial Intelligence, Digital Marketing, Consumer, Decision Making, Humans

1. INTRODUCTION

In early 20th century following the steps of technological evolution, digital marketing had a major increase of value where the need of digital promotion, digital advertising, digital distribution and digital customer experience emerged. Since 1988 when the digital distribution and digital customer experience emerged. Since 1988 when the term "Digital Marketing" first originated there has been a expansion to business world starting from small scale to large scale businesses around the world. Due to the technological advancement in the scientific area of artificial intelligence (AI), data mining and computational analysis, digital marketing made transitional changes which led from an absolute data-based driven approach to a new approach of data and knowledge-based decision-making systems. To

make a qualitative marketing, user and data analysis the need of saving and analysis emerges. Targeted audiences are the key to success and profitable marketing campaigns. Marketing managers could use the technology for their benefit to define the factors that affect marketing share. Such technology could lead to effective and efficient decision making. Even though artificial intelligence (AI) is applied to a wide range of applications in different fields it shows that in Marketing Science struggles to apply. Due to qualitative, quantitative nature of the problems that may occur it seems that digital marketing decision makers need more efficient computational approach. Factors like knowledge that comes from experiences, field of expertise, judgment calls and multidimensional constantly changing and demanding environment make decision making very hard task. The large amount of data that is generated on daily basis give marketers the opportunity to analyze, to design and implement applications that combine scientific multifactor data aiming smart knowledge-based decision-making patterns development.

DIGITAL MARKETING

Digital marketing manages to create a market perception and a way of increasing sales through internet. Digital era has given the consumers the opportunity to express their thought and voice their opinion, giving them, at the same time, the power of choice and influence. Brands are able to interact with customers and users have the chance to search for information, product or services. Digital marketing gave the ability to the businesses to expand their reach. Digital marketing has created value for the customers and the businesses. Brands main goal is to build trust and friendliness among their consumers who buy their products or services. Due to its personalized use, people who work for digital marketing industry can personalize the content to be more humanistic and user friendly. Users can post comments and publish content in way that it can influence world and opinions for a brand. Content, time, comments, user interface, reviews, speed, image have a important role in digital era. Users tend to reply positively to brands when the later manages to create a warm and customer-oriented environment. User profile, targeted audiences and consumer behavior engage the e-user with the business

and create good quality services, high volume of revenues and great user experience satisfaction.

DIGITAL MARKETING CONSUMER LIFECYCLE

Digital marketing research is based on pRACE plan (Reach, Act, Convert and Engage). Plan: Analysis and planning are the first steps that an organization must make to identify any potential strength, weakness, opportunities in the market and identify the market share. Reach: Reach defines the start of the consumer's lifecycle. Primary goal is to attract more potential consumers providing an engagement experience that will drive them to purchase and eventually to create brand-products-services awareness. Act: This stage of the consumer journey is supposed to start drawing the potential consumers in and let them know about the product or service provided by the organization. It refers to potential client persuasion to visit company's website or social media pages, this is called lead generation. The company must carefully create the pathway that the visitors will follow and keep interacting with the company. Convert: Conversions or Conversion Optimization is a marketing strategy where any potential consumer is converted in an organization member or consumer and encouraged to take a specific action. Conversion also refers to the action that marketers have set as goal. Conversion refers to any action from a previews state to a new one like "Purchased", "Added to Basket", "Registered as a member" etc.. Engage: Once the desired conversion is made, it is important to make all the necessary actions to satisfy the consumer keep interacting with the organization through emailing, social media commenting or sharing, buying or reviewing. It is a post-sale behavior that builds awareness, trust and leads to potential new purchases or attract new consumers.

DIGITAL MARKETING PLATFORMS

Some of the most popular software applications were researched and presented. Plan Platforms: Google Analytics tracks website traffic, analyze advertisements data and tracks social media traffic, browser technologies, mobile website visits, user behavior, keyword searches, landing pages and many more. providing an overview of the website behavior help's marketers to identify potential opportunities and

strengths or threads and miscalculations. Salesforce CRM helps companies to manage their relationships and interactions with consumers and potential consumers. It maps business needs, solve problems, identifies opportunities allowing companies to remotely manage their work. Reach Platforms: Websites contains different web pages that can be used from a web browser. A webpage provides information depending upon various subject areas. Different subject areas are the key to reach internet users and potential consumers. Blogger enables even users to create blogs, allowing at the same time multi-user commenting and posting content simultaneously. Posts are displayed in a consecutive order, where the recent posts are displayed first. MailChimp helps industries find, reach and engage potential consumers through, product selling and surveys to share news and special offers, newsletter. SEMRush conducts SEO reviews search engines ranking factors to create the ideal content for high quality content and eventually high ranking in search engine results. Alexa provides technical support, problem checking and reports to monitor websites condition keep aligned with search engines ranking policy. Google Ads create advertisements for businesses, products, services, increase brand awareness, drive traffic and increase consumers engagement. Advertisements contains text, web links, landing page link, sitelinks. When the number of click increases the total budget, the Ads stop running. Act Platforms: Hootsuite monitors, manages and schedules posts to various social media profiles providing broadcast services like post scheduling, account monitoring, content management, social media insights, team management, security and post boosting. Convert Platforms: Crazy Egg records any user action and keeps visual records to understand consumer's behavior in a website. It conducts A/B testing, to justify the proper use of content, buttons, shapes, colors, fonts, images, etc. so eventually exceeds user experience and which will lead to potential conversions. Engage Platforms: Google AdWords marketing can engage the users of an organization through marketing and targeting tactics reaching potential consumers who have left the website without any purchase action.

ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) is the study that includes computational procedures to perform different actions that humans do and require a certain amount of intelligence. Communication and learning represent the ways that how humans show their intelligence. Both ways needs mental skills like synthesizing, analyzing, making decisions, giving judgment, organizing, reasoning, hypothesis etc. Artificial intelligence (AI) includes knowledge representation, search, perception and inference. To generate results, artificial intelligence (AI) must be defined and read the data in the forms which will allow to represent and process. The way to succeed that is search and inference. Referring to search there must high developed search algorithms to find the most favorable solutions. Then inferences are drawn for all situations. The way through which artificial intelligence (AI) helps for making decisions starting from selection of data process, continues pre-processing of data, to data transformation, data mining plays an important role to overall process, finally results evaluation will lead to decision making

ARTIFICIAL INTELLIGENCE RUNS THE 'RACE'

Artificial intelligence (AI) is the RACE providing data centered and intelligent decision making applications. Reach: the Content Curation identifies, classifies and suggests he content according to past purchased products. Programmatic Advertising defines the targeted consumers and applies advertisements to the most relevant consumers. Content Creation defines content writing applications that creates humanistic content based on optimized customized targeted words or phrases that target specific groups of consumers. Natural Language Processing increases consumers reach and applies to voice search and voice commands with help of PDAs (personal digital assistants). Act: Inclination Modeling gathers and processes huge datasets of previous consumer's actions to predict consumer's behavior. Ad Targeting makes predictions and defines which advertisements will perform good on different type of consumers, in what buying stages. Predictive Analytics predicts user behavior before the consumer has even started the purchasing process. Lead Scoring examines the value of a potential sales lead and if it worth the efforts, according to data prediction analysis. Convert: Dynamic Pricing identifies potential consumers

who require an extra motive to convert. It invests money reducing at the same time profit from single product but manages to increase consumers. Re-Targeting creates consumers profiling and identifies those who will visit again a website to make a purchase. Web & App customization personalizes the content and the GUI of a web page or app to increase conversion rates. Interactive agent answer like humans to consumer's questions, suggesting purchase, completing orders etc. Engage: Predictive Consumer Service specifies and engages the users by giving them offers, vouchers and suggested information after finishing their purchases to increase the engaging users and avoid churning. Marketing Automation classifies consumers and use the best content according to what time should contact them, what phrases would provoke them and what offers should they make the business needs to them. Dynamic Emailing makes sophisticated promotion of the products and services related to the users. According to surveys on internet about what the differences are between artificial intelligence (AI), predictive modeling and machine learning, revealed that marketers seem to not clearly understand. The problem lies at the point where instead of using the words 'machine learning', 'data mining', 'predictive modeling' in different conversations, they constantly use the word 'artificial intelligence'.

## ARTIFICIAL INTELLIGENCE CHANGING DIGITAL MARKETING INDUSTRY

According to internet, 3,500+ marketers use Artificial Intelligence and are expected to increase in number in coming years. There is no stopping in the use of artificial intelligence(AI) in digital marketing. In fact, it has been adopted by multiple organizations, businesses, and even professionals. AI only enhances the job of digital marketers and assists them with their day-to-day needs.**Improves Customer Services**: Chatbots are the most common AI used to communicate with consumers and provide them with 24/7 service. They can answer common questions and personalize the shopping experience of the consumers. Although chatbots cannot answer complicated questions, they can manage repetitive tasks that take up employee's time. **Personalized Digital Advertising**: Facebook, Google, and other big companies provide the best experience to their users. These companies use AI to create customized

advertisements. They gather information such as age, gender, location, interests, etc. Marketing professionals use this data to help them come up with an effective ads. **Voice Search is Becoming a Thing**: The number of AI-powered virtual assistants are growing. 58% of users use voice search to find out the information they need from a business. The growth in voice search is due to the advancement of machine learning (ML) and natural language processing (NLP) technology. Google has noticed the rise in voice searches conducted by consumers. Therefore, implementing it is one way to optimize a business web page to rank at the top of the search engine. **Augmented Reality and Virtual Reality**: Augmented Reality and Virtual Reality are the new and different way to experience the online shopping. Even before the pandemic, some businesses were incorporating augmented reality and virtual reality into operations. It's a powerful AI technology that marketing professionals should use as part of their strategy. **Artificial Intelligence Can Recommend Marketing Content**: Marketing professionals don't need to invest their time making content that won't appeal to their targeted users. With AI, it uses data collected to determine the content your users wants to consume. **Use in Predictive Analysis**: With the help of machine learning, evidence, and mathematical algorithms, digital marketing professionals can gather data and can be used as predictive models. It can be used to determine what to promote, which prospect can be a consumer, and set the price for possible consumers. AI technology helps professionals with their strategies and tactics.
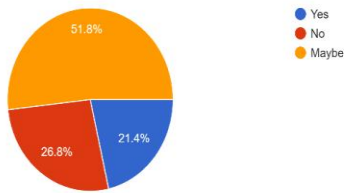
FIGURES AND SURVEY RESULTS

1) Are you aware of that AI(Artificial Intelligence) technology is being used in Digital Marketing?

Are you aware of that AI(Artificial Intelligence) technology is being used in Digital Marketing?
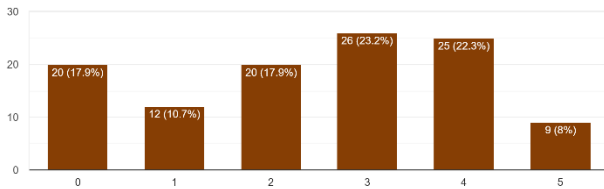112 responses
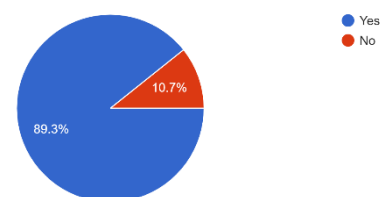
2) Will AI takeover Jobs forever?

Will AI takeover Jobs forever?
112 responses

- Yes
- No
- Maybe

51.8%
26.8%
21.4%

3) Artificial Intelligence superior than Human Intelligence

Artificial Intelligence superior than Human Intelligence.
112 responses

20 (17.9%) | 12 (10.7%) | 20 (17.9%) | 26 (23.2%) | 25 (22.3%) | 9 (8%)

4) Do you get product promotions on your social media, which you have search for recently?

Do you get product promotions on your social media, which you have search for recently?
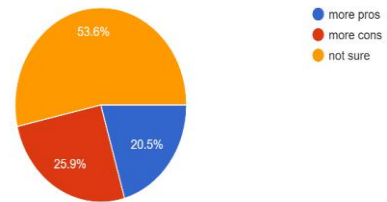112 responses

- Yes
- No

17%
83%
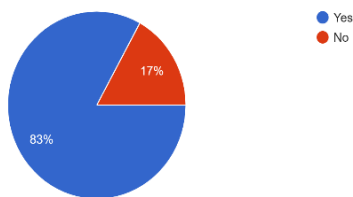
5) Can AI think and write content for Marking like humans do?

Can AI think and write content for Marking like humans do?
112 responses

- Yes
- No
- Maybe

49.1%
21.4%
29.5%
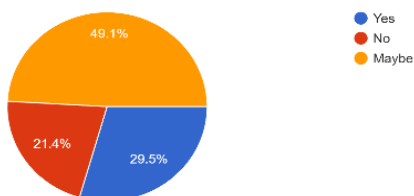
6) Do you Believe that there are more pros or cons associated with AI

Do you Believe that there are more pros or cons associated with AI
112 responses

- more pros
- more cons
- not sure

53.6%
25.9%
20.5%

7) So what do you think? Will Artificial Intelligence take over Digital Marketer's Job?

So what do you think? Will Artificial Intelligence take over Digital Marketer's Job?
112 responses

- Yes
- No
- Maybe

50.9%
17.9%
31.3%
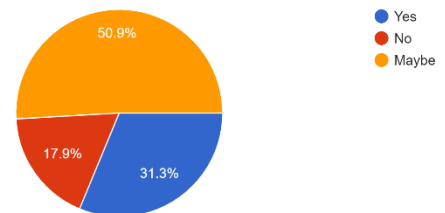
DESCRIPTIVE STATISTICS

Descriptive statistics is a means of describing features of a data set by generating summaries about data samples.

Are you aware of that AI(Artificial Intelligence) technology is being used in Digital Marketing?	
Mean	1.891891892
Standard Error	0.029606625
Median	2
Mode	2
Standard Deviation	0.311925147
Sample Variance	0.097297297
Kurtosis	4.630762261
Skewness	-2.558835494
Range	1
Minimum	1
Maximum	2
Sum	210
Count	111

Will AI takeover Jobs forever?	
Mean	2.261261261
Standard Error	0.080652247
Median	3
Mode	3
Standard Deviation	0.849724145
Sample Variance	0.722031122
Kurtosis	-1.41195478
Skewness	-0.531600933
Range	2
Minimum	1
Maximum	3
Sum	251
Count	111

Artificial Intelligence superior than Human Intelligence.	
Mean	2.477477477
Standard Error	0.148620105
Median	3
Mode	3
Standard Deviation	1.565809967
Sample Variance	2.451760852
Kurtosis	-1.047715766
Skewness	-0.225236631
Range	5
Minimum	0
Maximum	5
Sum	275
Count	111

Do you get product promotions on your social media, which you have search for recently?	
Mean	1.828828829
Standard Error	0.035912976
Median	2
Mode	2
Standard Deviation	0.378366678
Sample Variance	0.143161343
Kurtosis	1.153507022
Skewness	-1.770041627
Range	1
Minimum	1

Maximum	2
Sum	203
Count	111

Can AI think and write content for Marking like humans do?	
Mean	2.288288288
Standard Error	0.075051047
Median	2
Mode	3
Standard Deviation	0.790711847
Sample Variance	0.625225225
Kurtosis	-1.175425334
Skewness	-0.56441458
Range	2
Minimum	1
Maximum	3
Sum	254
Count	111

Do you Believe that there are more pros or cons associated with AI	
Mean	4.666666667
Standard Error	0.076076316
Median	4
Mode	4
Standard Deviation	0.801513719
Sample Variance	0.642424242
Kurtosis	-1.108870243
Skewness	0.679215083
Range	2
Minimum	4
Maximum	6
Sum	518
Count	111

So what do you think? Will Artificial Intelligence take over Digital Marketer's Job?	
Mean	2.342342342
Standard Error	0.071825952
Median	3
Mode	3
Standard Deviation	0.756733356
Sample Variance	0.572645373
Kurtosis	-0.951271794
Skewness	-0.665412835
Range	2
Minimum	1
Maximum	3
Sum	260
Count	111

CONCLUSION

The answer to the question that "Will Artificial Intelligence take over Digital Marketers Job", For the time being, AI cannot completely replace the digital marketer's jobs. In fact, the use of AI in the marketing department has gave more jobs than it used to be. AI produces new skills to master and new positions to be filled in. For instance, organizations would have to hire people to write code for AI or people who can maintain AI machines.The only time AI can replace a job or position in the marketing department is when someone refuses to adapt to new changes in the industry. Learning new skills paved by AI can improve a professional's knowledge and can quickly adapt to changes. Catching up with advancements in technology can bring you a long way. It keeps you prepared for changes and helps to improve the company's sales. "Why AI cannot replace marketing professionals?", The human brain is a complex thing and no machine can replicate it. So, all that professions that involve creativity and complex problem solving cannot be replaced by AI. AI isn't capable of creating music, painting landscapes, editing photos and videos using the best video editing softwarelike Pinnacle Studio, or inventing something. They are built for repetitive tasks. We can use AI to gather data and analyze it. However, developing plans and strategies or tasks that require critical thinking is not designed for AI. They can assist but not make the final decision. AI machines and robots do not operate on their own. It requires human knowledge and skills to program them for a specific task. Furthermore, humans are the ones who can update the AI's systems or replace them to help them function better according to the needs of the industry. Machines can take over the customer service department, but with limited skills. AI cannot form human connections because it lacks emotions. They may answer queries and give advice, but they are limited to what is programmed into them. Humans can relate and make people feel relaxed during a conversation. Sothe short answer for the question is no.

Conflict of interest statement

Authors declare that they do not have any conflict of interest.

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