

## THE NEW ERA OF DIGITAL MARKETING WITH ARTIFICIAL INTELLIGENCE

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### ABSTRACT

*Artificial intelligence (AI) is a Growing technology, industry, and field of in depth study. Rapid technology advances, the usage of digital marketing, social network ads, web browser marketing are also on the rise. Digital marketing is utilized for advertisers to promote goods & services on the market. Digital marketing has an imperative part to escalating the distribution of goods and services. As such, AI in marketing is a crucial topic to research. AI holds tremendous potential for vastly altering how marketing is done. While interest levels regarding its applications in marketing have not yet translated into widespread adoption, New marketing tools like biometrics, voice, and conversational user interfaces offer novel ways to add value for brands and consumers alike. These innovations all carry similar characteristics of hyper-personalization, efficient spending, scalable experiences, and deep insights. Artificial Intelligence has become an emerging trend in different fields like business, medicine, marketing, education and automotive. It is a human intelligence expressed through machines. The long-term implications of vast implementation are crucial to consider, as an AI-powered industry entails fundamental changes to the skill-sets required to thrive, the way marketers and brands work, and consumer expectations. The recent progression of AI in marketing is indicative that it will be adopted by a majority of companies soon. There are important issues that need to be addressed before AI is extensively implemented, including the potential for it to be used maliciously, its effects on job displacement, and the technology itself. Artificial intelligence offers net-positive benefits to marketers, consumers, and society as a whole through its ability to improve the creation, optimization, and distribution of value.*

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**Keywords:** Artificial Intelligence, Digital Marketing, Biometrics, Interface, Hyper Personalization.

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### Introduction

The world is full of intelligence. Any living organism whether it's of human, animal or even plants is having intelligence by its nature. Out of all these, in human being we believe to have high intelligence than others. This intelligence creates many innovations in the society like computers, Internet, cell phones/smart phones, economic systems and many more. All such innovations work on intelligence which is designed by a human. The one intelligence which is designed by humans works on its own way just like a mother bird gives knowledge and kick to its baby birds to fly, later on baby birds starts their flying mode with its own intelligence i.e. artificial intelligence. It's a machine intelligence used to describe machines and computers that imitate cognitive functions that humans associated with his minds like learning and problem solving. It's a computer science that attempts to understand and perform various tasks that what we humans do based on the input data. Ex. A self driving car by Tesla.

### Definitions of Artificial Intelligence

Artificial intelligence is the "science of making machines smart"

- Demis Hassabis, founder, and CEO of Google's

AI company Deep Mind, Artificial Intelligence is defined as computerized systems that intake data to perform tasks of intelligent beings in a way that maximizes its chances of success.

- Guruduth Banavar, overseer of IBM's research

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Digital marketing is related with targeted, measurable and interactive marketing for products / services using digital technologies to reach the prospects and transform them to customers and retains them. In digital marketing there is two way communications through e-mail, websites and chats so customers can also give their suggestions and feedback regarding products and services. It's a fastest way to reach global audience and easy to measure the effectiveness of campaigning through web analytics. In short we can say that digital marketing means any marketing efforts that takes place on internet or any digital devices. There are many ways through which marketer can do digital marketing like

- Search engine optimization - SEO
- Search engine marketing- SEM
- Social media marketing - SMM
- Content marketing
- Viral marketing
- E-mail
- Online ad banners
- Mobile marketing

#### **Definitions of Digital Marketing**

"The internet has upended how consumers engage with brands. It is transforming the economics of marketing and making obsolete many of the function's traditional strategies and structures. For marketers, the old way of doing business is unsustainable (Edelman, 2010)."

Digital marketing is a form of direct marketing which links consumers with sellers electronically using interactive technologies like emails, websites, online forums and newsgroups, interactive television, mobile communications etcetera (Kotler and Armstrong, 2009).

Initially, people were hesitating to apply the concepts of artificial intelligence in marketing strategies. But from production to finance and up to HR everything is transformed to the higher version so definitely why there is changes not accept in digital marketing? Today, many brands like amazon, spotify, etc. have already connected with their audience through digital marketing. Now, what you want to purchase that can be known by AI. It is a best combination of artificial intelligence with digital marketing. It enhances the live touch and personalized experience in customer facing services. Continuously, AI improves the outcome of digital marketing. Ex. Chatbots – consumer can ask their questions about products or services and also directed towards the main site for solution of the queries. A one research shows that chatbots are used by around 70% users on website to solve their queries. The AI gets tremendous response in digital marketing with immense popularity with customer interaction. The data analysis will also useful for forecasting consumer behaviour. Followings are some of the ways of AI in digital marketing strategies

- **Content Generation:** Generally, it is used by reporters and journalist to produce posts by analyzing past data and information to generate new articles to be develop and then published.
- **Curation of Data:** It is widely used techniques for customized product suggestions that might be useful for the consumer like " People who buy purse may be belt as well" just we see in many of the ecommerce platforms like Amazon. The recommendation features also be provided in many of OTT platforms like SONY live, ZEE5, Amazon prime, Netflix, etc. for web series, movies and TV shows in which you may be interested.
- **E – Mail Marketing:** A kind of machine learning will evaluate the contents of product data that use to determine the optimal time to send, including the optimal frequency, best suited content for individual prospects and kind of titles / subjects that prospects wants to read.
- **Digital Advertising:** It is used to know about the preferences of people to take the required actions, evaluate the prospect's background, demographics, etc. for identifying the best target market for the products. Used by social networking sites like Facebook.
- **Web Search:** The search engine platform Google's machine learning algorithm Rank Brain interprets the voice searches of the user and provides best solutions depends on its learning from vocabulary and meaning of the user using the AI.
- **Chatbots:** It is the process of atomized answers to FAQ's ( Frequently asked questions ) from the prospect with much simple way to offer them product or service which they are searching.
- **Predictive Analysis:** It is used for possibility of a prospect to become customer by predicting certain factors like quoted price, need to make a transaction or consumers most likely interest in multiple orders.

### Literature Review

**Zhihui ruan and Keng siau (2019)** They have studied that digitalization, artificial intelligence, robotics, information and communication are making noticeable impacts in the living standards of people today. Traditional retailers now also switch over to digital marketing. Consumption behavior of people also changed from traditional store to online shopping.

**Keng Siau and Yin Yang (2017)** They explored that in future modern and advanced technologies will definitely makes impact. Artificial intelligence and robotics makes powerful impact in digital marketing. In future robots may replace salesmen and marketer. In addition with this websites and mobile applications will automatically upgrade based on the eye tracking data. A situation will come where man and machines are becoming complementary to each other. Marketing experts should do new innovation and becomes more better than machines and robots. The future market challenges are creativity and design.

**Keerthi Krishna M et al. (2018)** Digital marketing is just a way of communication channel for the development of web based goods. In India, digital marketing techniques are spread across all industrial sectors. The rapid growth of digital ads makes disappearance of geographical boundaries available for both future consumers and suppliers of Earth burst. It is quite beneficial for such capacity to make the business to be spread and exchange wherever and whatever it occurs. In addition with this, the other points are the impact of customer's psychology on their buying decision. The objective of this research is to acknowledge the feasibility and impact of digital media on the buying behavior of consumers in the chengannur district of Pathanamthitta. The structured questionnaire is design to collect the data from the 50 sample size. The findings shows that consumers are quite conscious about the new network and also all applications of the internet medium for the buying of goods.

**Simran Kaur et al. (2018)** Today, market competition becomes too bad. With the growth of internet usage and high level of creativity on it, makes shift of traditional companies to digital marketing. This emerging technology makes huge expansion of the market with the new course of actions that also reduces the price level and improves sales across worldwide in this bad competitiveness. Digital marketing today works on more substantial degree of getting business success in future become consumers becomes more comfort with digital shopping as they found it more easy and efficient then conventional marketing. Digital marketing gives more flexibility to the consumers about evaluation of various verities, clear and clean analysis, freedom to make decision, and running 24\*7. With such emerging developments in network dedication, the inter networking of customers become increasing. So, gradually a consequence of consumer's behavior has been changed in accordance with their behavior. This research analysis helps to study the impact of digital media on consumer buying behavior.

**Bughin, Hazan, Manyika & Woetzel (2017)** They studied that artificial intelligence helps to design and analyse customized campaigns. This will improve the customer service. Right now, it is helping tool and operations like website development, e-mail marketing, social media marketing, digital marketing and lead generation.

**Lakshmi. S (2016)** The working growth of digital marketing works with the rapid increase of internet education in the country. Crores of people are now surfing on internet becomes prospects to buyers. Because there are wide range of verities provided by many vendors and the most critical aspects for such partnerships is to consider what are the needs and wants of the consumers at present. Consumer buying behavior influence by many factors like history, social status, gender preferences, social and cultural aspects, and community comparisons makes unique consumer behaviors with online shopping.

**Andrew T. Stephen et al. (2015)** This report aims at late-divided customer studies in computerized and electronic life marketing environments. Five subjects are distinguished: (i) Computerized society of shoppers; (ii) Early advertising reactions; (iii) Effects of electronic circumstances on the behavior of purchasers; (iv) Dynamic situations; and (v) Casual online (WOM). All things aside, these papers shed light from various perspectives about how customers view, influence and are influenced by the specialized circumstances under which they are structured as a significant feature of their day-to-day lives. Everything needs to be learned, so current knowledge would usually be excessively concentrated on WOM, which is only a bit of computerized customer experience. There are a few headings for potential work that allow experts to learn of a broader variety of wonders.

### Research Methodology

- **Type of Research Work:** Empirical and Analytical
- **Data Types:** Primary through survey and secondary for basic information

- **Research Design:** Descriptive and Diagnostics
- **Research Instrument:** Questionnaire.
- **Statistical Tools:** Frequency distribution and one sample t- test.
- **Software:** SPSS and Excel
- **Sampling:** Convenience
- **Sample Size:** 51
- **Contact Method:** Online.

### Analysis and Findings

It includes the results of statistical analysis to analyze the techniques of artificial intelligence and users awareness regarding the use of artificial intelligence in digital marketing.

### Research Questions

- **In Digital Marketing, which one of the following AI technique is mostly found?**  
 A. Content Generation      B. Curation of Data      C. E- mail marketing  
 D. Digital Advertising      E. Web search      F. Chatbots      G. Predictive analysis
- **What change can be experience by using AI in Digital Marketing?**  
 A. Automation of tasks      B. Optimization of tasks      C. Efficiency and Improvements  
 D. Ease of Use      E. privacy      F. possible downside or negative with the use of AI

### Analysis and Findings

This is a statistical inference to study the mostly found techniques of artificial intelligence and impact of artificial intelligence on digital marketing.

### Techniques of Artificial Intelligence

This is the first objective is to find out the mostly found techniques of artificial intelligence. To analyze this researcher takes Content Generation, Curation of Data, E- mail marketing, Digital Advertising, Web search, Chatbots and Predictive analysis

### Hypothesis

Hypothesis is the basic assumptions to get away the unrevealed facts. It is a statement showing dependent and independent variable. The following hypotheses are derived for the present study.

**H<sub>01</sub>:** There is no significant difference between in the use of artificial intelligence techniques in digital marketing.

It is analysed through one sample t test shows as follows:

<b>T- test - specified value (Average=3) of mostly found AI techniques in digital marketing</b>					
<b>Customer's find most usage of AI techniques</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation S.D.</b>	<b>t Value</b>	<b>Significant level 1%</b>
Content Generation	51	3.59	1.001	7.249	<0.001
Curation of data	51	3.81	0.890	9.901	<0.001
E- mail Marketing	51	4.00	0.885	11.884	<0.001
Digital advertising	51	4.06	1.015	10.162	<0.001
Web search	51	4.05	1.028	10.112	<0.001
Chatbots	51	3.81	0.958	9.388	<0.001
Predictive Analysis	51	3.84	0.921	10.320	<0.001

### Analysis

- As the p value is less than 0.001 so the null hypothesis is rejected at 1% level of significance with respect to mostly found AI techniques is artificial intelligence in digital marketing.
- From the study, it has been found that the respondents have in high opinion for popular techniques of artificial intelligence like Content Generation, Curation of Data, E- mail marketing, Digital Advertising, Web search, Chatbots and Predictive analysis.
- Based on the mean score it is inference that digital advertising with the highest mean value, followed by web search, E-mail marketing, predictive analysis, chatbots, curation of data and

content generation has lowest mean value. This implies that artificial intelligence in digital marketing has changed the way that the customers touch points. It helps in customers journey to easy move next and also become personalized experience for them in real time digital content.

### Impact of Artificial Intelligence in Digital Marketing

This is the second objective to find out the Impact of artificial intelligence in digital advertising. To analyze this researcher takes Automation of tasks, Optimization of tasks, Efficiency and Improvements, Ease of Use, Privacy and Possible downside or negative with the use of AI

#### Hypothesis

**H<sub>02</sub>:** There is no significant difference between in the level of user's awareness regarding the change experienced of artificial intelligence techniques in digital marketing.

It is analysed through one sample t test shows as follows:

T- test - specified value (Average=3) of impact of AI techniques in digital marketing					
Impact of AI in digital marketing.	N	Mean	Standard Deviation S.D.	t Value	Significant level 1%
Automation of tasks	51	3.91	1.008	7.153	< 0.001
Optimization of tasks	51	3.95	0.892	9.928	<0.001
Efficiency and Improvements	51	4.01	0.887	11.908	<0.001
Ease of Use	51	4.06	1.022	10.377	<0.001
Privacy	51	3.96	0.957	9.358	<0.001
possible downside or negative with the use of AI	51	3.71	0.939	10.332	<0.001

#### Analysis

- As the p value is less than 0.001, so the null hypothesis is rejected at 1% significance level with respect to impact of AI in digital marketing.
- From the survey, it has been found that respondents are aware about the impact of AI in digital marketing with respect to Atomization of tasks, optimization of tasks, efficiency and improvements, ease of use, privacy and possible negative outcomes.
- The mean score analysis

Highest values in Ease of use (4.06), efficiency and improvements (4.01), Privacy (3.96), Automization of tasks (3.95), optimization of tasks (3.91) and possible downside (3.71) has the lowest mean value.

It shows that artificial intelligence in digital marketing having a considerable impacts note by respondents and improves ease, efficiency, automization and privacy of data to saves the time of people.

#### Recommendation from the Study

Artificial intelligence is the future of the digital marketing and has modern age benefits. AI and Digital marketing both are complementary to each other and forms digitalized world. It is noticeable that at present the companies are using Artificial intelligence at data check points to get inside of the customer database. Now a day, personalized promotions, ads and digital experience is so work on customized basis.

#### Conclusion

The main objective of this research paper is to find out the most used techniques of AI and change experienced through Artificial intelligence in digital marketing. From the study, it has been found that the most used technique of Artificial intelligence is digital advertising. The highest impact of artificial intelligence that the customer feels is ease of use. The artificial intelligence is the future of digital marketing. Computers can perform sorting, storing and make simplified data but not becomes effective as human brain. Artificial intelligence make speedy process of data and that helps the marketer with highest intelligence to frame new strategies and takes prompt decision making. The future concern of the artificial intelligence may highly impacts on revenue generation, efficiency and productivity.

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