

Impact of artificial intelligence on digital marketing

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**University of Zagreb
Faculty of Economics and Business
Bachelor Degree in Business**

IMPACT OF ARTIFICIAL INTELLIGENCE ON DIGITAL MARKETING

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Abstract

The purpose of this study was to perform research in the sector of digital marketing to determine the influence that AI has on this industry and what it would entail in the future. There are five main components in the structure: the introduction, theoretical framework, methodology, survey about attitudes toward AI and the conclusion. The fundamentals of AI are covered in the introduction and theoretical framework of the study. The theoretical part was created from a variety of scientific articles, books and websites. Theoretical framework delves further into the various types of AI and how they operate. It also describes in detail the fundamentals of digital marketing and how various types of AI may be used to it. The interview information is recorded and discussed around the subjects listed below in the results section and includes how digital marketing and AI are utilized together. Semi-structured interviews were used to collect the information. Six participants who work in the marketing sector in companies of different fields and often use AI in their job were interviewed. After the interviews were analysed, it was attempted to connect the dots between the data to determine how AI has affected the digital marketing sector. The main outcomes were automating repetitive processes, improving optimization, and increasing efficiency; if done properly, these results save time and money after an initial expenditure. The conclusion points out that although AI may significantly advance the area of digital marketing, human touch and involvement will be needed in the future and marketers must be flexible and keen to pick up new skills and educate about the topic to reach full potential.

Key words: Artificial Intelligence, Digital Marketing, Automatization, Impact, Personalization, Benefits, Challenges

1. Introduction

1.1. Subject and aim of the paper

The subject of this paper is impact of Artificial Intelligence on Digital Marketing. Artificial intelligence has had a significant impact on the world we live in, especially on data collection and content creation. The aim of this paper is to determine the impact of Artificial Intelligence on Digital marketing, its impact on consumer decision making, data collection and predictions it can make and whether Marketing experts think that AI could potentially replace humans. The goal is to investigate how much has the AI helped businesses create selected and meaningful campaigns that directly target personalized needs and wants of the customers and how businesses utilize it to improve their performance. The paper will also be explaining the basics of digital marketing and the AI tools that are used in order to achieve the wanted results. AI changed the way the marketing was done by allowing marketers to obtain large amount of high-quality data in a very short period, previously impossible by humans in such timeframe. This allows marketing campaigns to be more precise and accurate, while saving significant amounts of money. AI results in a more effective processes, easier and better targeting that leads to greater efficiency, optimization of costs and improved ROR. The goal is to investigate benefits and possible concerns regarding the consequences of the use of AI in rapidly changing digital environment. Overall, the paper seeks to provide balanced and objective overview of benefits and drawbacks concerning the impact of AI on digital marketing.

1.2. Background information about the topic

Today, majority is unaware to what extent AI is incorporated in our lives and in business activity in general. To start with, Artificial Intelligence or AI was first defined by Stanford professor, John McCarty in 1956 as the ability of computer programs to mimic human intelligence in order to solve problems. It all first started with analyzing human process of thinking and self-reflection and trying to recreate those processes into machines. Kurzweil stated 'Until we don't fully understand human brain, we wouldn't be able to reach full capacity of Artificial Intelligence (Kurzweil R., 2013). A survey from 2017 interviewed 1500 marketing experts in the U.S. and only 17% said that they are familiar with the concept of Artificial

Intelligence (Davenport T., Loucks J., Schatsky D., 2017). In only six years the understanding and the use of it changed completely where today working in marketing is unimaginable without the inclusion of AI tools that are crucial for success. In 2023, a survey of 3,812 digital marketers by Mark Webster showed that 75,7% of marketers use AI in their work which is 58,7% increase compared to the survey done six years ago. Already 68,5% of participants think that AI generated content is better than human, 85% are using AI for writing articles which just shows how evolved and popular AI is today for content creation. 98% are of the opinion that understanding how AI works and its maximum utilization is crucial for their job. Figure 1 shows for what is AI mostly used, with article writing at a high 85%, followed by copywriting and search for keywords. Figure 2 portraits ten most used AI tools in businesses and the far biggest percentage goes to ChatGPT with almost 90% participants using it. On the second place is Midjourney with drastically lower use at 23% followed by other tools with similar percentages (Webster, 2023).

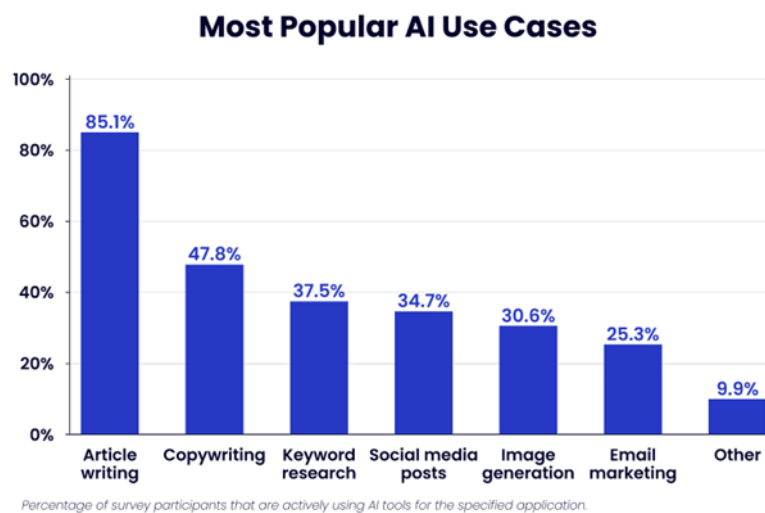


Figure 1. Most Popular AI use cases (Statista, 2023.)

Top 10 Most Popular AI Tools

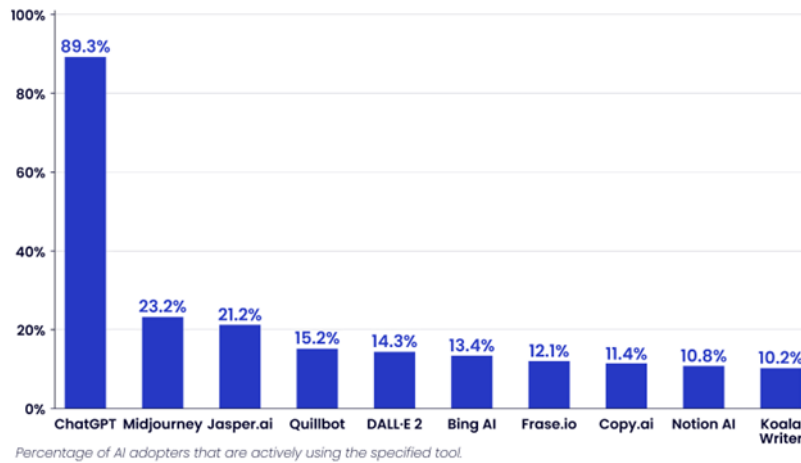


Figure 2 Most Popular AI tools (Statista, 2023.)

The market for artificial intelligence is currently worth close to 100 million dollars and is projected to increase to almost 2 trillion dollars by 2030 as seen from the figure 3. Compared to its adoption rate in 2017, it increased by over 2.5 times in 2022. More than 80% of industry professionals use AI technology in some capacity for digital marketing. In a recent poll, almost 50% of participants from the United States, Canada, the United Kingdom, and India highlighted ad targeting when asked about the key application areas of AI for marketers. (Taylor T., 2023). Machine learning systems frequently make outstanding learners. In a variety of tasks, they can perform at superhuman levels. Excellent digital learners are being used throughout the economy, and they are having a significant influence. Even though AI is already utilized by thousands of businesses worldwide, many significant opportunities remain untapped. (Harvard Business Review, 2017). Based on how well AI can copy human behavior it is divided into three stages: narrow intelligence (ANI), general intelligence (AGI) and superintelligence (ASI). The first stage ANI is the one used most where machines can only do actions that are inscribed in their algorithm. Examples of it are chatbots like Siri or Alexa. Second stage is AGI, where machines can learn, understand, think and adapt to new situations, they have human like intelligence. AGI is still in the process of developing and it is not nearly as used as the ANI. The last, third stage, ASI, is the most controversial and theoretical one because in this stage machines are capable of understanding and solving complex problems that are beyond human understanding (Hussain K., 2018). Of course, the last one comes with highest risk, and it is topic for further discussion. In a recent poll conducted in 2020 which included global

marketers, 41% stated that implementing AI in their work resulted in increased revenue and overall better business activity (Statista, 2020). Since 2000s there has been enormous progress in marketing and other industries as medicine, engineering, finance, education, etc. because of AI and that is why there is more and more investment in that field (Huang & Rust, 2018). Examples of AI advancement of machine learning algorithms and models in marketing are Amazon and Domino's pizza, both using drones for faster deliveries, while Macy's and Lexus are using tools that mimic emotional support to customers (Davenport et al 2020). Although there is no denying advantages of AI in digital marketing, there are also worries about its propensity for bias and possible effects on employment. Others are concerned that if the data sets used to train AI systems are not diverse or representative, they may reinforce current prejudices and inequalities. Despite this, it is anticipated that AI application in digital marketing will increase even more over the next years. The capacity to use AI for data analysis, automation, and personalization will be essential as firms try to maintain their competitiveness in an increasingly crowded market. It is unknown what the future of marketing holds, but there is certainty that AI is a vital part of it (Galstyan et al, 2021).

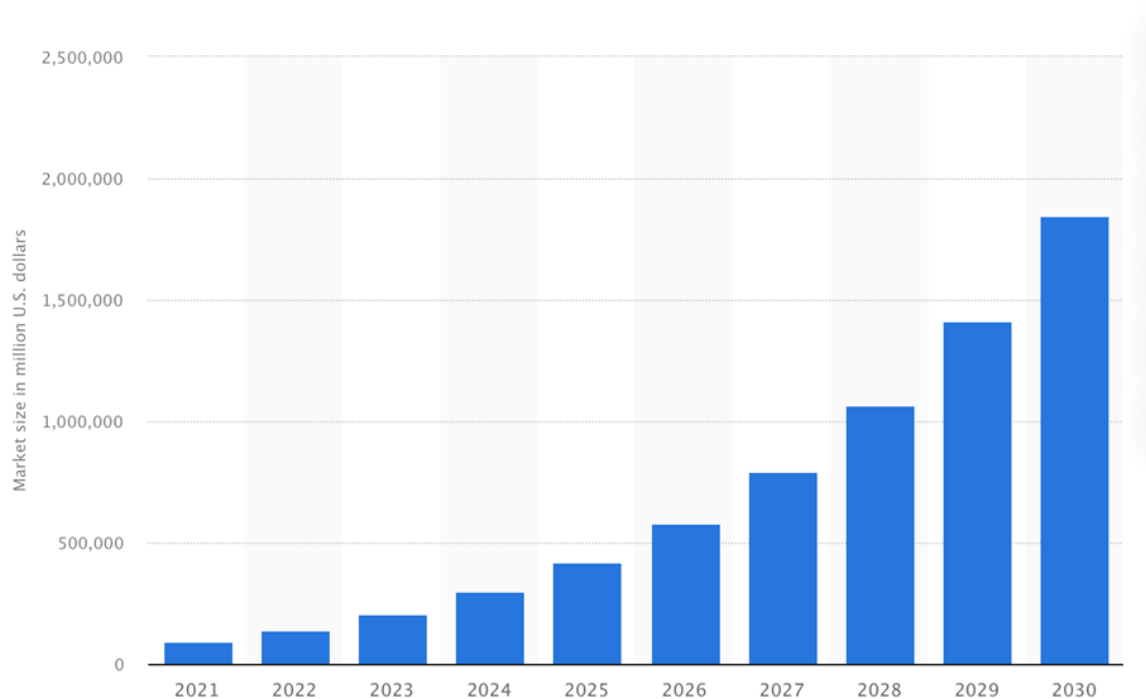


Figure 3 Market value of AI in U.S. dollars (Statista, 2023.)

1.3. Research questions and objective of the study

Objective of this study is to conduct survey of three questions among six marketing experts in different firms on how AI helps them in working environment. Artificial intelligence is collecting enormous amount of data for personalization which allows businesses to better address customers preferences and buying habits for the goal of profit maximization and retention of customers. Participants are from companies in different fields to measure implementation of AI tools in their work and what are the benefits and possible risks of it. The goal is to investigate whether they think if it is possible that their jobs would be replaced by robots in the near future and highlighting benefits and downsides of AI technology to show ethical and social aspect of it from professional point of view. Questions are the following:

1. Can AI completely replace Marketing agencies?
2. Which jobs could AI substitute in the near future?
3. What is the impact of AI in Digital Marketing and what tools are used to what extent?

1.4. Limitations of research

When conducting a survey there are possible limitations that should be addressed. One of such limitations is timeframe limitation where validity of data collected may become outdated very quickly because fields of AI and digital marketing are continuously changing. Due to that the applicability and accuracy of the findings may be impacted by recent technological advancements. Other limitations could be subjectivity of interviewed candidates and biased answers. Since they are asked about their own experiences and may end up in conflicting results.

2. Theoretical framework

Data, especially Big Data, is a key component of AI, according to Chaffey, D. & Ellis-Chadwick, F (2019). Big Data is a technical phrase used to describe analytical methods and systems that make use of the enormous amounts of data that businesses are currently gathering. There are two main aspects of big data.

Big Data has two primary advantages for marketing. Using extensive and sophisticated data sets to analyze observations such as trends and patterns that might guide new concepts and

tactics and identifying success elements to increase the value of encounters through messaging optimization, such as choosing the optimum timing, copying, or offering. AI relies on two types sets of data, structured and unstructured data. Structured data is easily arranged, and its examples include invoicing, census data, medical data, and more. Unstructured data is much more complex, and it requires governance and control of information obtained before it can give wanted results (Botelho B. 2022). Big Data has its benefits and difficulties, and they can be better understood if dimensions of Big Data are elaborated.

Volume: The term "big data" describes very vast and complicated data collections that frequently approach terabyte or petabyte sizes. Such enormous data volumes demand a strong infrastructure, storage systems, and computing power to manage and store.

Velocity: Data streams from several sources, including social media, sensors, and online transactions, pour in quickly when big data is created. To extract value and insights from the data before its relevance wanes, real-time or almost real-time processing becomes necessary.

Variety: Big data includes a range of data kinds and forms, including unstructured (such as text, photos, and videos), semi-structured (such as XML, and JSON), and structured (such as databases). It might be difficult to manage the range of data sources and integrate various data types.

Veracity: The quality and accuracy of large data are referred to as veracity. To enable proper evaluation and choice-making, data from various sources may contain flaws, inconsistencies, or biases that need to be sorted out.

Value: Big data demands sophisticated analytics methods in order to find valuable information. It might take a lot of time and computing to analyze and interpret huge and complicated data collections.

(Botelho B. 2022)

Privacy and security: Sensitive and private information is frequently found in big data. In the context of big data, ensuring data privacy, safeguarding against unwanted access, and compliance with laws (like GDPR) are significant difficulties.

Skills and expertise: People with capabilities, such as data scientists, analysts, and engineers skilled in processing and understanding large-scale data sets, are needed to deal with big data effectively. Having a lack of qualified workers in the sector might be quite difficult.

Scalability: essential to meet the rising needs for storage, processing power, and analytical capabilities as data volumes continue to increase. It can be challenging and resource-intensive to scale up current systems and infrastructure to handle big data effectively.

Data Integration: Big data frequently comes from a variety of sources, both inside and outside the company. It might be difficult to integrate data from many systems and sources, guarantee data accuracy and consistency, and produce a single perspective (Botelho B. 2022).

Meeting these challenges requires a combination of technology solutions, data management strategies, talent acquisition and development, and compliance with ethics policies and regulations. Businesses must invest in infrastructure, analytical tools, and human resources to effectively harness the potential of big data while mitigating its difficulties (Botelho B. 2022).

2.2. Rise & development of AI

Among the ongoing transformation of our lifestyle, Artificial Intelligence (AI) plays an indispensable role. AI, with its ever-increasing development, has not only brought advancements in efficiency and accuracy but also raised crucial ethical matters relating to the loss of employment and privacy issues. Despite these concerns, the potential that AI holds is exciting, and investment in AI research and development is needed with equal concern for its ethical ramifications (Roser M., 2022). It cannot be talked about AI without mentioning invention of the Internet and its success was one of the key factors behind the success of digital marketing and AI. As the dynamics in doing business is changing. So does the dynamics of digital marketing especially after the introduction of AI. Traditional economy changed by undergoing digital transformation together with the transformation of consumer behavior. AI is developing as the time goes by and is storing data endlessly and that enormous pool of data is constantly processing. In this era of globalization AI went from small software branch to multibillion dollar industry and it is growing at the unprecedented speed. In a short amount of time, computers have evolved so quickly that it is easy to forget how recent this technology is. The first digital computers were invented only around 80 years ago as shown in figure 4 along with other inventions that gradually led to where the world is today (Roser M, 2022).



Figure 4 Timeline of AI (Our world in data, 2023)

The term artificial intelligence was first introduced in 1950s. The year 1956 is taken as birth year of AI as a field of study. The field of artificial intelligence faces a period of reduced interest in 1980s and 1990s known as the "AI winter" where there was a lack of high expectations and progress stalled. The limitations of existing AI technologies and the lack of practical applications lead to a decline in investment and interest. After that short period of downfall, the field of AI skyrocketed and has made great progress ever since (Roser M, 2022).

The computer systems, that are part of the AI system, have the capacity to recognize language and images very quickly. Just 10 years ago no machine could have achieve the same level of language or visual recognition as a human. AI systems have advanced significantly and are already superior to humans in many aspects. Now AI systems can create pictures, marketing campaigns within few minutes that are exactly the same as real life photos and animations and are of very high quality. The speedy evolution of AI that can generate images is as impressive as the development of AI that can understand and respond to human language. E-mails are automatically filled out, a large volume of internet content is automatically translated, films are automatically transcribed, reports are automatically created, and media organizations broadcast content produced by AI. Companies that use AI the most are tech giants such as Apple, Google, Facebook, Amazon. Today, check in at airports is done by AI, buying things online, airplanes fly by autopilot, self-driving cars, chat GPT, Siri, Alexa, facial detection and recognition (iPhone), text Editors or autocorrect, search and recommendation algorithms, chatbots, digital assistants, social media, E-Payments are only some of the examples of AI in our everyday life that we consider totally normal and do not even register as something that is artificial intelligence (Roser M, 2022).

2.3. How to measure succes of AI

A few important measures may be used by enterprises to evaluate the effectiveness of AI systems and efforts. These metrics are KPI's, and they are used for success measurement of companies who engaged with AI tools. KPI stands for key performance indicator, and it is a quantifiable statistic that shows how successfully and efficiently a company is achieving its main business goals. Corporate executives and other managers use these metrics to track and assess variables they believe to be essential to an organization's success. KPIs vary from company to company and are often based on business goals. Majority of these metrics are quantitative, while some AI KPIs are qualitative. Traditional AI implementation uses machine

learning to create fundamental models and algorithms before designing training strategies. Following the training phase, developers compare their training data to their anticipated outcomes in order to make adjustments and gradually lower mistakes. Mean squared error (MSE) is a crucial measure in machine learning. Two main indicators of success for AI are Mean time to repair (MTTR), which measures how long it takes to correct a problem, and first contact resolution rate (FCRR), which measures the proportion of issues that can be handled by level 1 IT assistance (basic support) without requiring additional assistance. Other indirect metrics are customer satisfaction, total cost of ownership and net promoter scores. Even though these metrics are very important they are derived from direct ones, and they are the ones that should be defined and measured first. KPI's measure AI success by showcasing a measurable return on investment (ROI). ROI can be stated in terms of labor, money, or time. ROI is measured as the length of time it would take to earn the same amount of money invested in an AI (Murphy 2023).

2.4. Benefits and challenges of implementing AI in Digital Marketing

Benefits of AI in Digital Marketing are personalized customer experience, customer behavior is more predictable, better analysis of customer engagements, ads target specific potential customers and not just anybody, businesses care about customer relationships now more than ever because the right support group may be automatically assigned to issues by AI, which can then utilize statistical models to identify the best course of action. Customer care is increased due to chatbots that are accessible 24/7, which decreases response times, boosts customer satisfaction, and frees up human resources for more difficult jobs. And lastly social media management with AI-powered social listening solutions enhances brand reputation and engagement (Morris O. 2023). Algorithms are very powerful tools when it comes to prediction, but they can be completely useful if there are no managers to guide them. As people become more and more comfortable with AI tools in everyday life, people start treating them like humans with the assumption they think like us. This is where majority of problems arises from. AI obviously works in a very different way compared to human brain, but still even though people are fully aware of the fact, they are trying to get it work like humans (Luca M. et al 2016). AI system can do only the things that are explicitly told and ignore every other consideration. algorithms need to be managed carefully to avoid getting in trouble. Another

challenge is that they will predict something with a very high certainty but there will be no explanation what led to the consequences of some change in the business activity. Data management is another big challenge in using AI in marketing because of the poor data quality. AI needs high quality data for precise predictions and obtaining such data is very expensive. Many businesses still have outdated computer software's and hardware's that are not designed to work with new technology and those legacy system should be updated to integrate with AI technology. The obvious difference between humans and AI is that people can feel, be vulnerable, people are emotional and feel attachment to the group they belong. Because of the things mentioned people would not trust AI when their life is at stake, they would much rather have confidence in someone they know, have emotional connection and trust completely. And even when there are no lives at risk, this lack of confidence creates significant barriers to the complete adoption of AI in the workplace. In some work situations irrational decisions made by human turn out to be better than ones generated by AI (Gray K., 2017).

Main concern is job loss due to AI technology. As in any other field, people are afraid of change, they are afraid of losing jobs with AI implementation, so it is necessary that companies educate, support and train their employees about the benefits this brings for everybody. Remarkable amounts of money are invested to ensure sustainable and responsible approach to AI. To upskill their current personnel and attract new talent with the appropriate skills and knowledge, firms should engage in training and development programs. And the biggest challenge of all are ethical considerations and issues of privacy and data protection (Bedoya I. 2023).

2.5. Artificial Intelligence

Artificial intelligence (AI) refers to a computer or a robot controlled by a computer's capacity to carry out activities that are typically performed by people since they call for human intellect and judgment. AI is part of computer science whose primary goal is to create intelligent machines who work and react as people (Encyclopedia Britannica, 2023). Main characteristics of computers with implemented artificial intelligence are speech recognition, learning, planning and problem solving. Companies use AI in order to create useful models of prediction based on behavior of their customers. They use algorithms of machine learning to obtain such data. Wichert (2020) examines the use of artificial intelligence to machine learning and quantum computing. Data volume and complexity are growing faster than humans can

successfully handle. People frequently struggle or are unable to quickly tackle related difficulties, but machine learning has made this possible and quicker. Due to the speed at which quantum computing can solve problems, labor is simplified. This type of management is not only reserved for big corporations but also fits smaller business, but it depends on their willingness to invest in this costly technology. According to Chaffey (2023) there are fifteen AI techniques that businesses of all sizes can implement. These techniques are shown on the figure 5.

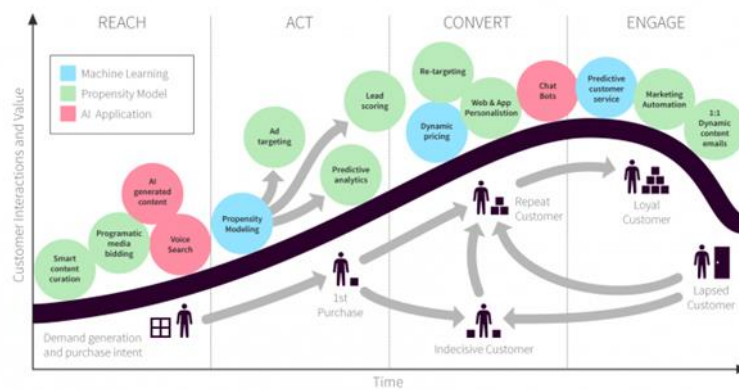


Figure 5 Techniques of AI through lifecycle of consumers (Chaffey, 2023)

For every life cycle phase of consumer there are particular AI techniques that effect on his/her behavior. These techniques are divided into three categories: techniques of Machine Learning, Applied Propensity Models and AI applications. These techniques learn based on historical data sets and based on those they make propensity models. AI applications reply to questions of the consumers or write short reports, etc. From image 5 we can see that the first phase is the reach phase, here potential consumer is attracted to web page with goal to start their consumer journey. Some of the techniques characteristic for first phase are Search Engine Optimization (SEO) and content. Second phase is a phase of act in which the main task is to evoke awareness about existing products/services. In the third converting phase interested consumers should become buyers and in the last engaging phase is to retain already existing buyers (Chaffey, 2023).

2.5.1. Machine Learning

The study of algorithms and statistical models that computer systems employ to carry out a particular task without being explicitly taught is known as machine learning (ML). Machine Learning is used when we want to make a meaning of abundance of datasets obtained by machines. There are several daily-used programs that incorporate learning algorithms. One of the reasons an online search engine like Google works so well every time it is used to search the internet is because of a learning algorithm that has mastered the art of ranking web sites. These algorithms are utilized for many different things, including data mining, image processing, predictive analytics, etc. The major benefit of machine learning is that once an algorithm understands how to use data, it can carry out its task autonomously. It is divided into three basic algorithms: Supervised Learning, Unsupervised Learning and Reinforcement Learning (Mahesh B., 2020). ML helps marketers gather data and then use it in order to design strategy to access consumers. The “knowledge” computer gathers is transferred to data base from which computer learns based on previous interactions in order to come up with the best solution for consumer. As the amount of data and queries grows, the better and more efficient the program will become. There are two branches of Machine Learning, strong and weak artificial intelligence. In strong artificial intelligence machine learning compares collected data and it can apply them in different ways. In that ways strong AI mimics complex human process of learning and its goal is to be equal or better then human. Weak AI refers to much simpler operations as sending the e-mail in the right moment or use of GPS, and it is focused on just one field and exerts this intelligence in just that area and does not corelate the different areas (Mahesh B., 2020). The biggest flaw of ML is at the same time its biggest advantage and that is abundance of data (Sterne J., 2017).

2.5.2. Deep Learning

Deep learning is a branch of ML, which teaches computers to think similarly to humans. The term "deep" learning refers to the usage of artificial neural networks, which are algorithms that employ several layers of decision-making units (Copeland M. 2016). NLP , chatbots, visual recognition, audio recognition, virtual assistants, etc. are some of the deep learning

applications. Deep learning has had a significant influence in several industries, including cybersecurity, banking, digital marketing, and many more. Deep learning is a game-changer that unites several scientific disciplines. It is set apart from traditional machine learning by the kind of data it uses and the learning strategies it uses. Without being explicitly coded, deep learning models have the capacity to develop assumptions, test them, and learn on their own. They are already employed in applications including image identification, virtual assistants, and self-driving automobiles. Large volumes of structured and unstructured data can be managed using this technology, and it can be used to learn from it. With more data, the model learns better, producing results that are more accurate. Deep learning algorithms can produce specific results based on the inputs they are given. Since the neurons can modify their own connections in response to learning, they are able to predict client behavior. Deep learning processes save enormous amount of time by for example translating websites into different languages, writing captions on photos because of image recognition processes which allows marketers to deal with emotional interactions which machines still lack. (Lin P., 2022). Some of the following items are ways in which marketing departments help with customer retention and revenue increases:

Segmentation at scale tells them to target the best social media platform for highest engagement, it can also predict which customers are on the verge of abandoning the brand.

Hyper personalization: everyone loves to feel special and customers in particular like when they receive emails addressed to their first name and with recommendations based on their previous purchases. 71% expect personalized interactions while 76% are upset if they do not receive it. It is proven through McKinsey survey from 2021 that performance and superior customer outcomes are driven by personalization. Personalization generates 40% more revenue for companies with rapid growth than for those with slower growth (Arora N., et al, 2021).

Increased engagement: nowadays it is all about the right moment and the right time. DL can detect whether someone has been online, at what time, for how many hours, basically it can track digital footprint and based on that it will send ads when online.

Predicting consumer behavior: Businesses forecast what their clients will do next. The AI algorithms can learn and correctly infer inferences from the data, from tracking how visitors move across website to how frequently they make purchases (Lin P., 2022).

2.6. Digital Marketing

The correct message being delivered at exactly the right time to its intended audience is what Digital Marketing is (Hemann C., Burbary K. 2013).

Digital Marketing is a way of connecting with consumers online and trying to sell a product or service via emails, social media, mobile marketing, banner advertisements. Because of digital marketing companies can reach out to a greater number of potential customers and target only those who are interested and likely to purchase product/service they offer. As technology evolves digital marketing is becoming more and more complex due to increased number of platforms and outlets for ads. On the other hand, digital marketing is flexible in terms of easily switching from one platform to another due to the shift of customers. There are several different types of marketing techniques and business often combine a mix of few (Chaffey D, Ellis-Chadwick F., 2019). Inbound marketing focuses on creating Internet content to attract potential customers, it uses a strategy that allows consumers to come to the company, instead of marketers competing for their attention. Examples of inbound marketing are blog posts, videos, podcasts, presentations, e-newsletter, some very famous and well-established companies using this strategy are Casio, TUI Travels, Suzuki, GoPro, etc. Though it has the potential to reach a wider audience, outbound marketing runs the risk of overwhelming consumers who aren't interested. On the other hand, inbound marketing is intended to target interested parties via audience segmentation and even though it reaches lower number of people it reaches the right ones. This digital marketing strategy is very good for retention of already existing consumers because it involves regular communication and feedback, and it helps keep customer attention. Other popular techniques of digital marketing are B2B and B2C, whose characteristics and differences are portrayed in figure 6. The first one stands for business to business and the second for business to customer. The latter as the name says refers to attracting people in and convert them into clients. B2C, simply requires their own opinions and may base their selections on mood. B2C consumers may also react favorably to social media marketing or to discounts and promotions that are featured in email digital marketing. B2B is when one business is offering services/products to other businesses, it involves greater decision-making process because of the input of several parties (Gillis A., Horwitz L., 2022).

B2B vs. B2C marketing

B2B	B2C
Larger purchase sizes and higher dollar amounts.	Smaller purchase size and lower dollar amounts.
Many people are involved in the buying decisions and they can be from multiple departments in an organization.	Purchases are made for individuals or households. Buying decisions may include influencers or other users.
Relationship-driven sales process.	The sales process tends to be more product- or service-driven and less relationship-driven—excluding service providers.
Highly calculated, rational buying decisions.	Frequent impulse buys and emotional buying decisions can be made.
Longer, more complex sales cycle.	The sales cycle is much shorter; the buying process is often a single step.
Purchases are based on long-term goals.	Purchases revolve around immediate results and gratification.
Brand identity less emphasized.	Brand identity is emphasized.
Marketing departments take up a small percentage of the overall expense.	Marketing departments frequently take a larger percentage of the overall expense.

Figure 6 B2B versus B2C (TechTarget)

The goal of personalized marketing in today's business world is to increase customer acquisition, retention, growth, and advocacy. The objective is to prioritize the consumer and utilize AI to improve how they interact with the company. Marketing managers have a tool to help them plan and build their AI marketing strategy in the form of the five-step roadmap. Foundation, experimentation, expansion, transformation, and monetization are the five phases that make up this process. The goal of foundation is to gather first-party data, which is a necessary component of any AI system. A company experiments with personalizing a particular component of client connection. Aspects of consumer connection are personalized by the company in more than one way throughout the expansion stage, and throughout the transformation stage. In the monetization stage, the company employs all the AI skills it has created to create a software or service platform that offers on-demand services to other businesses, creating a new source of income. AI in marketing requires high quality first party data (Venkatesan R.& Lecinski J., 2021). Benefits of digital marketing include global and local reach, targeting specific audiences, cost-effectiveness and customization and some challenges are competitiveness meaning that ads can overwhelm consumer, data privacy, time

consumption from the side of a business because content must be created all the time and they must update their pages and check in with costumers regularly but thanks to AI this is now reduced to a minimum (Gillis A. & Horwitz L.,2022). As for the future of Digital Marketing, there is inevitable integration of DM in Metaverse. In December 2021 Facebook changed its name to Meta and since then there have been huge capital investments in the industry by private investors. The metaverse includes realistic settings that frequently make use of virtual or augmented reality. Real-time events occur in the metaverse. Real and digital worlds, as well as other platforms, are all included in the metaverse. A fully operational virtual economy, frequently based on cryptocurrencies and digital commodities and assets, or NFTs, powers the metaverse. People can have virtual identities, presences, and interactions thanks to the metaverse. Metaverse is already incorporated in Zara's campaigns, so the future is here. The metaverse offers marketers the chance to interact with customers in completely new ways while also advancing internal capabilities and brand creativity. The moment is favorable to try new things, to move rapidly beyond setbacks, and to build on successes (Hazan E. et al, 2022).

2.6.1. Social Media marketing

In order to develop a company's brand, boost sales, and enhance website traffic, social media marketing, makes use of social media platforms where users may create social networks and exchange information. Social media marketing gives businesses a method to interact with current consumers and attract new ones. It also contains data analytics features that are specifically designed to help marketers monitor the effectiveness of their campaigns and find new opportunities for interaction. According to recent survey (Statista, 2023) 89% of Americans checks their phone first thing in the morning, this just shows the power of social media on our lives. The unrivaled ability of social media in the three key marketing areas of connection, engagement, and consumer data is the driving force behind social media marketing. Younger generations that grew up with Internet are considered Digital natives and they cannot imagine their life without such technology and they are the main initiators of this type of marketing (Solomon M. R. & Tuten L. T., 2018). There are many advantages of using social media marketing such as easy, simple communication, cost effectiveness, at the same time they can target broad audience that consists of targeted consumers. There are many more positives regarding social media than negatives, but one negative that stands out is neglecting people who are not on social media. Word to mouth is still the best way of advertising. With social

media marketing there is also uncertainty on how successful will campaign be due to unstable algorithms, will it have negative feedback, and what would the ROI be (Hayes A., 2023).

2.6.2. Mobile Marketing

Any form of advertising that uses mobile devices, such as tablets and smartphones, to advertise goods and services is known as mobile marketing (Mobile Marketing Association MMA, 2008). It uses characteristics of contemporary mobile technology, such as location services, to customize marketing campaigns according on a person's location. Mobile marketing is a type of advertising that makes advantage of mobile devices, such as push notifications and SMS promotions for applications, QR codes, game marketing. Instead of segmenting consumers for mobile marketing by demographics, it is done by behavior. Mobile marketing is easier to access then social media marketing and for businesses it's easier to measure success of it (Kenton W., 2023). Numerous chances for marketers have arisen as a result of the enormous development in the number of mobile users and smartphones. Marketers are investing a significant portion of their overall marketing expenditures on mobile-based marketing campaigns with creative campaign designs (Kumar V., Mittal S., 2020).

2.6.3. Search engine optimization

Search engine optimization or SEO is a process of classifying websites organically right below the paid ads on any search engine like Google, Yahoo, etc. Companies who use this tactic of advertisement are not paying to pop up first or second but are ranked based on intent searches. This is one of the reasons why companies decide to pursue it because it saves them money, but this type of digital marketing requires longer period of time, between 6 months and a year, so it is suitable long-term projects, permanent products and general brand awareness. Organic traffic generated by SEO is the highest quality traffic and companies want for their potential consumer to spend more time on their page since then there is a higher chance of purchasing (Chowdhury S. et al, 2023).

2.6.4. Email Marketing

Email Marketing is a way in reaching targeted consumers privately through email. It serves in promoting new product/services, special offers, discounts. Email marketing promotes brand awareness, consumer loyalty, and confidence in a business or product. Email marketing is a

powerful tool for growing your business and maintaining relationships with customers (Hartemo M.,2016). 79% of marketers said that email marketing is in top 3 methods of digital marketing. Even though first marketing email was sent 52 years ago it is still an excellent and commonly used tool for advertising. The biggest advantage for businesses when it comes to email marketing is that they own the channel, there is no external force that can affect how, when, or why they communicate with their subscribers outside of compliance laws (Perricone C., 2022).

2.6.5. Influencer marketing

Influencer marketing is a partnership between well-known social media influencers and companies to sell their goods or services. This type of marketing exists since the time social media was born, but in the last five years it grew by more than 50%. In 2023 influencer market was said to be worth 16 billion U.S. dollars (McKinsey, 2023). Some 6,7 years ago the more following the influencer had the better, but in the last 2,3 years tables have turned. Now there is a rise of micro influencers as people identify more with more 'normal' and relatable content creators. Analysis of influencer marketing done by McKinsey in 2022 showed that collaborations really yield positive ROI for businesses. Social media accounts are not reserved for humans only, we have animal and AI influencers as well. The most famous AI influencer has 3 million followers. Social media marketing is still a hot market even though every year article about end of influencers gets published by Forbes or The Times so we will see when it will become oversaturated and when it will start declining. Maybe we are witnessing evolution of social media marketing into Metaverse one. In the metaverse, there seems to be endless possibilities how brands and influencers may work together (McKinsey, 2023).

2.7.6. Paid advertising

Pay per click advertising is a type of digital marketing advertising where businesses display ads on websites, and they pay for those ads only when someone clicks on them as the name suggests. Famous PPC platforms are Google, Facebook, LinkedIn, YouTube. PPC is relatively economical marketing strategy that often provides a healthy return on investment. Google Ads and Google Analytics both allow tracking and measurement of PPC ad outcomes. These tools offer a summary of clicks, conversions, and impressions in real-time. Google Ads give feedback in terms of grades based on the click-through rate and ad relevance and this is a

good guide for businesses to understand whether they are on a right path with their key words (Danao M., Main K., 2022).

2.6.7. Content Marketing

According to Content Marketing Institute, content marketing is a technique to attract, acquire, and engage audience by using relevant, well thought, consistent content and eventually increase profit (Content Marketing Institute, 2012). Content writers are afraid that AI could take away jobs from them, but experts point out that they should utilize AI to achieve better results. AI tools still have not reached the level where they program themselves so content marketers should use that to their advantage and make most out of it and look at it as additional help. Businesses may enhance brand awareness and position themselves higher in the industry through content marketing. Companies may develop trust, credibility, and brand authority among their target audience by regularly offering high-quality content (Taborek T., 2023)

2.7. Examples of the use of AI in digital marketing

Carter (2018) points out that keeping up with technological advancements is crucial for every profession and organization. IT, together with AI, is becoming omni present in business activities where it affects relationships between the business and the client. Businesses all over the world are implementing AI on their transformation journey of going digital not only because they can, but because they need to be agile, flexible, innovative and scalable. The usage of artificial intelligence is expanding globally, according to International Data Corporation (2020) poll of more than 2,000 IT professionals and decision makers more than a third of AI projects are in advanced development phases, and more than a quarter are now in production. Additionally, businesses said they are spending more on AI this year. (Framingham, 2020). Most often tasks performed by AI in digital marketing include application logins, copying of data, sending automated email, filling in of forms in the same way they would be done by human but in a cheaper and faster way (Ribeiro et al. (2021). Most common example of the use of AI in Digital Marketing are Chatbots (Zečević P., Hunjet A., Vuković D. 2020).

Chatbots - In order to comprehend and reply to consumer inquiries, chatbots employ natural language processing. This improves customer experience overall and speeds up response times.

They are available 24/7, consumers perceive that business is available to them and that they are given service at the correct moment. With the use of chatbots businesses reduce costs. From client's point of view, they get a one on one communication through personal device from the comfort of their home and avoid talking to someone and wasting time (Zečević P., Hunjet A., Vuković D. 2020).

Image and Speech recognition – examples that are well known to everybody are Siri, Alexa, Google Home. Today you can basically set your car, computer, washing machine on settings and speak to them. Face recognition on smartphones, image recognition on google are only some of the examples how AI is collecting information about our human features which helps boosting user experiences, enhancing targeting capabilities, and allowing new kinds of contact. AI generated photos look exactly the same as real ones, we cannot see the difference. AI 'models' which mimic human speech and looks are already here incorporated in some fashion campaigns, AI movie production is possible by image scanning and generating new ones. AI clones are here. Many startups are offering creation of clones, some for higher, some for lower prices, where they scan person's body and do voice recordings. They still have a way to go but Mets is investing billions in this field (Tobaccowala R., 2023).

Content creation and optimization- AI can assist in generating ideas, editing, writing articles, creating ads, blog posts, campaigns, relevant content that will not go unnoticed because NLP analyses consumer data and makes these ads tailor made for particular consumer groups.

Virtual reality – Virtual and augmented reality, the most current advancements in digital marketing, concentrate not only on a product or service but also on the entire experience designed for the customer. Additionally, both technologies enable customers to visualize the experience they can expect. Both technologies enable the creation of interactive experiences (Kozinets R.,2023). VR integration into workflow has the potential to significantly enhance teamwork, training, and overall performance. VR is expected to be the biggest trend in the next five years according to Forbes Magazine (Forbes 2020). Market value increased from 829 million in 2018 to 31 billion \$ in 2023 (Statista, 2023).

Clustering - By utilizing unsupervised algorithms, clustering models create new groups based on already segmented groups by assessing the degree of similarity between clients to group them in the same cluster when applicable. Clustering is used every day in marketing as it collects information for example on household income, size of the household, occupation and based on that concludes who is a greater spender. This saves money and time for marketers as they do not need offer another type of products to clustered groups. Their precision, velocity and efficiency makes them essential models - a crucial tool for virtually any company today (Killeen E., 2022).

ChatGPT – Indispensable AI tool that was launched in the late 2022 by Open AI based on Generative Pre-Trained Technology, plays a major role in businesses, academic environment and it brought disruption in IT industry by achieving something that was previously considered possible solely by human creativity and reasoning (Rahman M, WatanobE Y.,2023). It is extremally easy to use and while using it people have a feeling of communicating with real human. It gives you answers to every topic imaginable (Liu et al., 2021). There is a question whether this new technology will increase already existing differences between rich and the poor because experts are not sure how ChatGPT can increase overall economic productivity. Businesses are investing billions of dollars in this new technology, and it is inevitable that it will revolutionize economy. Studies have shown that ChatGPT will help less skilled workforce compete with university graduates (Rotman D., 2023). Chat GPT showcased that creativity and storytelling is not reserved for humans. Apple introduced a service where audio books are narrated by AI generated voice, scripts of huge series are written with the help of ChatGPT (Tobaccowala R. 2023).

AI is already everywhere around us and it is expanding at a tremendous speed through industries and we can only imagine what will be it impact on our lives in the near future.

3. Methodology

3.1. Approach

In this paper qualitative research method is used with one-on-one structured interviews. Qualitative interview, part of Qualitative studies, is research approach conducted in more personal and detailed way through conversational manner in order to gather accurate data from the participant. Unlike quantitative method that is focused on numbers and statistics, qualitative is focused on opinions, attitudes which includes getting to know the participant allowing them to open up and provide detailed feedback. Although though there are often fewer replies in a qualitative approach, the insights it offers about a particular topic are deeper (Bryman & Bell, 2015). Thematic analysis will be used to analyse this work since it is the approach that produces the most cohesive results when examining qualitative data (Saunders et al., 2019). Thematic content analysis is a technique for analysing qualitative data across a wide range of disciplines and domains, and it may be used in a different contexts, on a variety of different datasets, and to answer different research questions and it is a process of analysing collection of data and searching for patterns to make sense of data and to identify themes. The researcher carefully examines the data to seek for recurring ideas, subjects, or ways of connecting things. (Braun et al, 2019). An analysis will be conducted linking the ideas provided in the paper and the information gathered from interviews in order to arrive at a satisfied response about the research topic.

3.2. Data collection

By speaking with marketing professionals from the six Croatian companies, paper explores the influence of AI on digital marketing. The paper conducts interviews to ascertain what information might improve marketers' automation skills, as well as what applications of AI can be used in marketing operations. Goal is to see how AI is helping marketers in practice and in real life situations and what is their perspective. Interviewees are questioned to find out how they are using AI and what they think about the future of marketers and to what extent will AI replace humans in this field.

3.2.1. Primary data

Instead of performing a survey, interviewers can gain a more thorough insight by employing qualitative interviews (Bryman & Bell, 2015). A brief survey feels less significant than getting picked for an interview, according to Saunders et al. (2019). The informant has some flexibility in how they respond because the interview is based on pre-structured questions via Zoom call because this was more convenient to both parties. Interviews provide author access to firsthand information and give her a chance to hear the participants' own ideas and opinions. This strategy will show thorough information which is important to assess the influence of AI on digital marketing currently and in the future. During organized interviews, Saunders et al. (2016) suggested making audio recordings or taking notes, so audio recording of the interviews was necessary to ensure that all information obtained from the participants was kept and that no significant details were missed. Based on what worked best for each interviewee, the sessions varied from one another, but they approximately lasted 30 minutes, depending on how much each person was ready to open up and how much more they wanted to talk about the topic.

3.2.2. Secondary data

Secondary data is data that has already been collected by others, such as agencies, websites, journalists, firms, various organizations and it is publicly available to everyone. This is an advantageous for the researcher in the sense that all data is already collected, it only needs to be organized in the wanted manner. The biggest advantage when it comes to secondary data are savings in time and money (Ghauri P, Grønhaug K, Strange R, 2020). In this paper secondary data was mostly obtained from portal slike Scribd, Emerald Insight, Hrčak and articles in Economic Unit, Forbes, Harvard Business Review, etc.

3.3. Ethical aspect of AI integration in marketing

Rapid development of AI led to many amazing things that changed the world forever from various fields and industries. Information about anything is just one click away from us and people more and more consider AI as a working collogue, as greater progress occurs in the field, without whom many including marketers could not even work. Biggest ethical concern people have regarding AI is that it will rule the world and that machines will develop consciousness. This may sound farfetched and as scene from a sci-fi movie, but continuous

progress in technology has already given some AI tools ability to communicate and tell jokes in 2023 so we can only imagine where will AI be in ten years. Some of the biggest ethical concerns of today are job losses, entire professions have been erased since the first introduction of AI (Bossman J., 2016). Automotive tasks in factories or on highways are not performed by human anymore. There are numerous examples of that kind of substitution happening all over the world, but experts continue to reassure those new jobs will come out of this situation that this is inevitable part of any kind of revolution, in our case IT revolution. The World Economic Forum estimates that by 2025, technology and automation would eliminate 85 million employments while also creating 97 million new positions (World economic forum, 2023). Second concern is increased inequality, leading countries in the world will benefit most from the rise of AI technology and will generate highest profit from it while developing ones will be left far behind. This is going to only deepen already existing inequalities and division between rich and poor. AI plays a role in expanding gender gaps; it is not a coincidence that virtual assistants Alexa and Siri are female. They serve as an illustration of how AI might promote gender prejudice in communities by displaying obedience and submissiveness. Processing vast amount of data on daily basis consumes 10% of global energy so addressing AI's high energy usage and its resulting effect on carbon emissions is crucial (UNESCO, 2023). Big problem of AI is its influence on human behavior and brain chemistry. Usage of technology since early days in children is changing the age when children start communicating. Young children have more and more problems with interactions so that should also be regulated and dealt with on a more serious level. AI is biased and this is dangerous since AI's algorithms are programmed by humans who are judgmental so by evolution of self-learning AI robots could be racists, and unfair. The more powerful technology is the more it is subject to fall in the wrong hands and be used for no good (World Economic Forum, 2016). Primary benefit of AI in Digital Marketing is personalization, which is enabled by storing information about customers, this raises questions whether this information remains private. Businesses should provide customers the choice to opt out of data gathering if necessary and be open about how they gather and utilize that data (Zats M., 2023). Because of this there is a need for regulations and protections and one of them is GDPR. General Data Protection is a European Union directive about protection of data and it represents some obstacles to marketers in the sense how to incorporate AI to be in line with GDPR rules. Despite the fact that laws require concepts and analyses, many digital marketing operations are carried out illegally. The challenge of regulating emerging technology is challenging. Although the GDPR simply controls data

processing, it raises the question of who will really assess and audit compliance (Bošković Batarelo M., 2021). This regulation is very important because there was a scandal where one company was selling private data obtained from Facebook to U.S. for presidential elections and this caused mistrust in the use of information obtained from people on online platforms (BBC, 2019).

4. Results about attitudes toward AI

The aim of this research is to interview five Marketing director and experts working with Artificial Intelligence in well-known Croatian companies and to hear their insights, believes, opinions and predictions of AI in Digital Marketing. Interviews were conducted in Croatian language and were held via Zoom meetings in the mornings which lasted around 30 minutes each. The interview consisted of three questions that were following:

1. Can AI completely replace Marketing agencies?
2. Which jobs could AI substitute in the near future?
3. What is the impact of AI in Digital Marketing and what tools are used to what extent?

Four respondents are female and two are male. Digital Media Director Maja Šplajt from Real grupa, Nikolina Kisić Mamić, CEO and founder of Flora Lab Paris, Marketing Director Danijela Vinceković from Blitz film, Product Manager & E-commerce Key Accountant Manager Martina Nola Sau from OktalPharma, Senior Consultant Joco Glavaš from Millenium promotion and Marketing Director Hrvoje Hrvatin from Electrocoin.

4.1. Impact of formed attitudes towards AI

Attitudes are defined as believes, opinions and combination of feelings towards certain phenomena, item, individual or experience ranging from negative to positive according to American Psychological Association. They are usually a consequence of upbringing or an experience. They can have a significant impact on how people behave and react under different circumstances. Although attitudes are persistent, they are also adjustable and do change over time with educating about the related topic. Explicit and implicit attitudes are subgroup of attitudes. With explicit attitudes person is fully aware of them and they clearly influence its behavior, but implicit ones are hidden in persons conscious, and people are not aware that they

manage their behavior (Haggard P. & Eitam B., 2015). Current attitudes of population towards AI according to Anderson and Rainie (2018) are mixed. They conducted interviews with 979 people and even though majority of them said that the future will be easier with the use of AI, most of them have fears that AI could lead to loss of control, ethical issues, impact on job losses. Carrasco, Mills, Whybrew and Jura's (2019) BCG Digital Government Benchmarking survey showed very similar results like the previous survey where people are more comfortable with AI in some aspect like traffic regulations, predictive maintenance of public infrastructure and customer service activities compared to high degree AI implementation in justice system. Those who worry, have the same concerns that AI will exacerbate income inequality, lose human intelligence, create social isolation, and pose a threat of power abuse by malicious actors. The extent to which interviewed marketing experts are implementing AI in their everyday work depends on whether their attitudes are positive or negative. They will decide based on their attitudes, consciously or unconsciously, if they are even going to implement AI in their business and if so to what extent. It is already said that small portion of overall population is against AI interference in business due to opinion that human touch and emotional aspect is completely irreplicable, while majority appreciates the help of AI but at the same time does not share the opinion of minority that AI will replace marketing agencies or marketing related jobs in the future. In general, views about AI are a major factor in determining how AI technology will affect society. To enable responsible and inclusive AI development and deployment, it is critical to promote educated and balanced views that take into account both the possible advantages and threats as well as ethical issues.

4.2. Research results

The first interview was conducted on the 26th of May via Zoom, it started at 10 am and it lasted for approximately 30 minutes. The participant in the interview was the Digital Media Director Maja Šplajt from Real grupa, leading independent marketing services company, from Zagreb, Croatia. To the first question Ms. Šplajt answered that the key question is whether AI could, if ever replace humans, giving example of slogan made by their agency 'Žuja je zakon!' that is both clever and specific to Croatian mindset and it is a way of identifying with Croatian drinking culture. That type of intuition and creativity is still so complex and it is not available to machines and algorithms. She stated that certain dose of arrogance and bravery in creative individuals is needed in order to create best concepts advertising campaigns and that is

something that AI could never possess according to Ms. Šplajt. She is of the opinion that AI will not make marketing agencies nor creative individuals unnecessary, AI is just a tool that needs to be used to its full potential and those who can use its power and immerse it in different aspects of agencies business will dominate the market. This answer partially answered to the second question of this research where the first participant thinks how despite the fact that AI is a powerful tool that can help us to get to the wanted results, nothing can replace any person in the agency in everyday workflow where relying on AI's creativity is not that advanced that we could put machines in charge without control. It is the individual that generated content gives personality. She thinks that for real creativity warm-blooded beings with brain, heart and empathy are crucial. But she also thinks that those individuals need to educate and learn how to use AI as their ally. Lastly, to third question Ms. Šplajt answered that Real grupa agency is mostly using Midjourney and Stable diffusion, text to image models which create images and photography based on the given text. They are primarily used for presentation ideas for campaigns. Chat GPT is used periodically for inspiration due to its lack of concreteness. According to her words use of AI programs drastically accelerates and facilitates workflow. Delivery of hyper personalized experiences, insights in real time through predictive marketing intelligence, as well as models of machine learning are ways in which AI complemented their work.

In the second interview the participant was Nikolina Kisić Mamić, CEO and founder of Flora Lab Paris - molecular skin therapy for hair company based in Paris, France. The interview took place on 31st of May at 8:30 in the morning and lasted around 15 minutes. Their branding is about high end, luxurious marketing that involves very little of AI. Ms. Kisić Mamić said that in her opinion AI can never replace humans in Digital Marketing because customers of luxurious, expensive brands will demand outstanding customer service, emphasizing on the creation of memorable experiences that transcend beyond the purely transactional nature of product purchases. Customers place a great value on the personal and emotional touch in premium branding because they feel acknowledged, valued, and understood. According Ms. Kisić Mamić trust and confidence are fostered by the knowledge, and great service offered by skilled personnel and that raises the total experience by creating a strong bond between the customer and the brand. She thinks that in the near future there will be a big delayering in the society where as she said mainstream brands will use AI as their workforce to some extent while luxury brands, restaurants and hotels will look for human touch and warmth. She thinks

that extensive use of artificial intelligence will lead to stultification of intellects and warns that this is not the path that she wants for her company.

Third interview was conducted on 2nd of June at 9:30 in the morning via Zoom with Danijela Vinceković Marketing Director at Blitz Film. According to Mrs. Vinceković Artificial Intelligence, already has a significant and advantageous impact on the advertising industry. Despite AI's increasing capacity and usage, she believes that AI will not completely replace marketing agencies or marketing experts—all of them will need to re-evaluate how they conduct business.

'I don't think that AI can currently "think" or "feel" like humans. Similarly, I don't think AI can now think "differently" or comprehend human emotions, experiences, or motivations.' However, she emphasized that this does not preclude the possibility of it happening in the future by making deeper, emotional connection with the customers through evolution of AI'S algorithms. To second research question she provided that E commerce jobs, sales, media planning and marketing management, will be significantly automated in the near future. Some present employers will have to evolve into a new position. Marketing managers and other marketing personnel that oversee day-to-day marketing initiatives, for example, will be severely reduced. Instead, companies will invest in AI and appoint a manager to oversee and integrate all marketing AI solutions. Regarding the use of AI tools in everyday work she stated that they are using it for all key advertising metrics such as reach, frequency, delivered impressions and inventory capacity. Adobe Photoshop and Photoshop Generative are tools most used by Blitz for their marketing campaigns.

On 7th of June fourth interview was conducted with Mrs. Nola Sau from pharmaceutical company OktalPharma. To first question she gave an answer that she doesn't see AI replacing Marketing departments in companies because as she believes that emotions could never be mimicked by machine, that this will be something AI would never be able to learn and fully master which is crucial for behavioural marketing management. Mrs. Nola Sau said that AI is unable to think out of the box which is nowadays more and more important and needed in marketing world. She said that analytical jobs will be replaced by machines as they can do those tasks on their own. In OktalPharma the highest need is for tool like ChatGPT and

marketing team within a company is using it for making presentations, plans and proposal for campaigns where later those suggestions need to be further developed by marketers.

Fifth interview was done with Mr. Joco Glavaš who is a Senior Consultant at Millenium promotion on 2nd of June at 11 o'clock. According to him AI is evolving at a higher speed from day to day and he thinks it is possible that AI will replace marketing agencies completely but not in the near future. He is also of the opinion that AI should become ally to marketers so that it allows them to be more creative and more productive. He thinks that copywriters, graphical designers and translator are the first occupations that could be replaced very soon as AI is doing their jobs effectively already. There is a huge AI impact seen in branch because of the new tools that save time, process huge amount of data and make ad targeting more sophisticated by day allowing his marketing agency, but to others as well, precise launch of relevant ads at the right time to the right audience.

The last, sixth interview was conducted with Mr. Hrvoje Hrvatin, Marketing Director of Electrocoin on 5th of June at 10 am and it lasted for 35 minutes. His view of AI is that it's extremely helpful but that currently cannot replace humans because it did not reach such level of development, but he thinks it is on a good path to do so in the future. His opinion is that repetitive, simple tasks done by humans can be replaced by AI already but not complex ones. His company is most using ChatGPT, tools for generating processing documents, graphic and audio generators.

4.3. Discussion of the findings

Five separate themes were formed from the data, which were then analyzed in relation to the study topics. Efficiency, automation, and optimization have been separated into their own areas so that particular enhancements are better comprehended and what modifications of AI can make to digital marketing.

1. Theme 1: Automation of tasks - Automation of time-consuming or repetitive digital marketing operations and initiatives

2. Theme 2: Task optimization in projects and duties connected to digital marketing,

strengthening the manual labor base previously established and generating profitability.

3. Theme 3: Efficiency - several types of AI-related efficiency gains and features.

4. Theme 4: Utilization of AI - the software's simplicity and flexibility, and more.

5. Theme 5: AI skepticism - undesirable effects that could result from the use AI.

1. The issue of automation was mentioned in the interviews by every single interviewee. Automation was one of the most commonly stated items when talking about the various advantages that AI tools have brought. It included nearly total automation of tedious activities, and insights that you could use to work with and enhance the existing condition of various marketing initiatives. It is utilized to process large data sets that would have taken much longer to process manually. The capacity to guarantee repetition and ongoing optimization in the background, so that when the manual labour would finish for the day, the machine would continue to operate 24 hours a day, 7 day a week, was a feature that repeatedly came up in the interviews. The current state of SEO is that a substantial portion is carried out entirely by machines or with very minimal human assistance. The ML and marketing specialists are collaborating.

2. Several major issues that were discussed during multiple interviews related to the optimization of data. Some of the participants discussed how AI assists in producing more reliable and superior outcomes. It is used by various businesses to increase sales and profit while achieving more optimized target groups. The main term participants used to describe the levels of efficiency was speed. Naturally, it decreases the amount of human labour and labour force needed to improve the campaigns, making it a constant, automated process. ML and its capacity for AI to understand customer behaviour patterns in order to make better recommendations and increase sales were topics of discussion during interviews.

3. The capacity to save time was the main aspect of efficiency that was noticed. Participants brought up this in various interviews when they spoke about the decreased need for physical labor and the software's capacity to do certain activities more efficiently than humans could ever hope to. It accomplished this in a number of ways, including speeding up the task's

completion. The AI was also able to produce quicker scaling based on data, which allowed time savings and increased financial gain. One of the participants mentioned utilizing Google to look for new phrases that automatically attempt to broaden the real keywords that marketers are using. When looking for anything, it appears like individuals are beginning to input longer and longer phrases, and new keywords are always emerging. To complete it on your own, identify all essential keywords, and maintain continual updating would be almost impossible. The AI will automatically choose what the consumer is most likely to be interested in based on its reasoning after we have deployed the product.

4. This section's discussion focused on how digital marketing will fundamentally alter as more and more duties are turned over to artificial intelligence. Participants undoubtedly agreed that humans should continue to make the ultimate choice while AI does the tedious chores. Different types of work that were formerly manual have now been automated by AI. One participant said that AI fosters a more intelligent method of working, reduces overall control over broad data, and increases control over the results' specific details. All participants claimed that major changes would be made to how digital marketers operate in the future because machines will do monotonous activities, and marketers' everyday duties will be drastically altered but not eliminated. When the topic of losing employment came up, some participants claimed that the shift was for the better and that AI will generate additional jobs as the old ones will disappear. All but one agreed that AI had a bright future overall, especially in the field of digital marketing, where there are many opportunities for it to expand beyond its current scope.

5. As they debated whether AI can ever be completely trusted, participants brought up the subject of uncertainty. In the viewpoint of the customer, AI was not as capable of producing the most personalized content as humans are. Artificial intelligence typically follows instructions and is not always able to modify them accordingly. One of the pitfalls is placing too much trust in the AI. The major advantage are time savings, since the creative aspect is yet not sophisticated enough. The participants point out that even if jobs are becoming increasingly automated, the greatest outcomes are still obtained by carefully monitoring and adjusting the human effort that is necessary to ensure the consistency of the automations. Many applications

that people use on a daily basis manages their data through AI, yet a large section of the public is unaware of this. Also majority thinks that extensive use of AI can potentially lead to lack of activity and productivity from humans which leads to negative impact on society.

5. Conclusion

In digital world in which we are living today, Artificial Intelligence appeared as transformative force that keeps bringing change into businesses all over the world. AI is irreplaceable tool that can bring companies huge success if used appropriately. The key is not only in understanding AI's capabilities, but also in knowledge how to use its full potential as a powerful business ally. As has been outlined in this paper AI transformed our lives and most recent progresses indicate further improvement in the field. AI is already everywhere around us, in our everyday life and it will continue to influence our lives more rapidly. Marketing is undoubtedly one of the industries that are becoming more dependent upon AI. At the moment, with all AI tools accessible, marketing gurus may considerably increase their targeting, planning and optimizing campaigns. They can have stronger engagement with their targeted audience, develop personalized campaigns and messaging, collect data effectively, and as a result, they can analyse this data and predict trends with much more precision. Furthermore, the fusion of big data and academic study of smart applications has led to innovations in digital marketing. As a result, information about each person and their preferences is kept on file for use during marketing activities. According to the research, market automation and improved technology have a favorable effect on digital marketing. AI improves purchasing process, it allows better results and personalized experience, which makes the whole process easier and more tempting for the buyers. Communication between an entity and a buyer has become faster, more efficient and more relevant. AI tools do tasks for which people neither have time nor capabilities and can give their attention to creative side. Today's marketers are willing to acquire new techniques for digital marketing that will better reach every client and convey their needs. On the other hand, every participant pointed out that making a deeper, emotional connection with the audience is a crucial component of a successful advertising campaign. Main marketers' goal is to arouse proper emotions, serve as an effective motivator, and highlight the proper solutions to a particular issue. Every one of the participants has the

same opinion whether AI will replace Marketing agencies and that is no, at least not in the foreseeable future. Humans are emotional beings of flesh and blood that seek emotional connection, which is why participants think that even if AI expands and becomes more sophisticated it will not be more important than human. According to six participants Artificial Intelligence is tool that saves time, accelerates tasks, can help generate ideas, but it does not offer that creative spark. Marketers still have their hands full of work and mostly they are using AI tools for photoshop, as a virtual assistant to their clients, for collecting and organizing data. Four out of six said that analysts jobs, copywriters, graphical designers and translator are jobs first to disappear but that new ones that still do not exist will emerge as a result of AI evolution. What was discussed earlier in the paper is clearly more theoretical and this engagement of AI is still not feasible at least not in Croatia. It would take huge monetary investments for a person to be replaced by machine and few companies would be able to afford it. Participants point out that marketing industry is going through a transformation with evolution of machine learning and that education is necessary if one wants to stay relevant. The AI technology is expected to boost economy by increasing productivity growth by 1.5 percentage points and contribute to a 7% rise in global GDP over the next ten years. According to Stanford's AI Index Report, investments in AI have reached a total of about \$94 billion since 2021 (Stanford University, 2023). The technology is slowly replacing human functions of marketing such as communication, making it easier to perform and improve on other tasks. While this progress should be monitored closely, it is clear that digital marketing is gradually advancing for the better. Overall five out of six participants have positive attitudes towards impact of AI on Digital Marketing and consider Artificial Intelligence as tool that takes the burden of marketers and helps increase profit of the company.

In conclusion AI transformed Marketing world, bringing leverage to companies through hyper personalization, transformed data analysis, enabling marketers to find insightful information, forecast trends, and make data-driven choices. The power of AI has increased efficiency across numerous marketing channels, from chatbots offering immediate customer help to AI-generated content and targeted advertising campaigns. However, it is important to address that AI is just a tool that helps marketers a lot, but human insights, navigation, understanding, creativity, and ethical considerations are crucial for overall business success. In order to create long lasting connections with customers, human touch is necessary. This technology is changing the world for a better,

but in my opinion human-centered approach should be the one that businesses prioritize. I would like to see real people working in all the branches that were discussed in the paper as people are losing touch with reality and each other more and more and it is in our nature to have emotional connections with one another. Some of the predictions addressed in the paper, such as the assumption that soon there would be no marketing agencies or that there would be no drivers in public transportation, scares me as I trust people more than I do machines. Also, excessive use of filters on social media distorts the way people see themselves and others and it's slowly getting out of hand, together with artificial friends on different apps like Snapchat. Furthermore, it is important to consider how AI will affect ethics in digital marketing. Marketing professionals have a responsibility to protect user privacy, ensure fair and transparent data processes, and reduce biases in AI algorithms. Businesses should give ethical concerns and human touch top priority.

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STATEMENT ON THE ACADEMIC INTEGRITY

I hereby declare and confirm by my signature that the case study is the sole result of my own work based on my research and relies on the published literature, as shown in the listed notes and bibliography.

I declare that no part of the work has been written in an unauthorized manner, i.e., it is not transcribed from the non-cited work, and that no part of the work infringes any of the copyrights.

I also declare that no part of the work has been used for any other work in any other higher education, scientific or educational institution.

Zagreb, June 2023.

(Place and date)

(Signature of a student)